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EBASCO

REM III PROGRAM

REMEDIAL PLANNING ACTIVITIES AT SELECTED UNCONTROLLED HAZARDOUS SUBSTANCE DISPOSAL SITES

FINAL DESIGN REPORT
REMEDIAL DESIGN
WIDE BEACH DEVELOPMENT SITE
WIDE BEACH, NEW YORK
TOWN OF BRANT
ERIE COUNTY, NEW YORK

FEBRUARY 1989

APPENDIX A SITE DATA

EPA CONTRACT 68-01-7250

EBASCO SERVICES INCORPORATED

EPA WORK ASSIGNMENT NUMBER: 86-2L46
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EBASCO SERVICES INCORPORATED

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NOTICE

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APPENDIX A

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SECTION I

SUMMARY OF EXISTING DATA

PREFACE

Site data provided in Appendix A contains the results of the supplemental site investigations conducted by Ebasco subsequent to the Record of Decision (ROD) for the Wide Beach Development site. Additional site data can be found in the Remedial Investigation (RI) report for the Wide Beach Development site by EA Engineering, Science and Technology, August 1985.

1.0 SUMMARY OF EXISTING DATA

1.1 SITE FEATURES

1.1.1 Population and Land Use

As stated in the ROD (Reference 1), there are 60 residences in the Wide Beach community which accommodate approximately 120 people in the summer months. Approximately 45 people reside at Wide Beach year-round. Along the Lake Erie shoreline, west of Lakeshore Road in the site vicinity, the population is largely seasonal. North of the site, from Lotus Bay to Evangola State Park, there are approximately 60 private housing units. The Synder Beach Community, at the southern border of Wide Beach, includes approximately 150 housing units. An Indian reservation community at the mouth of Cattaraugus Creek has 50-60 housing units. In addition, there are approximately 14 housing units on both sides of Lake Shore Road, just east and south of the Wide Beach Development.

Land use in Wide Beach is residential. Regional land use is primarily agricultural and rural residential. Undeveloped acreage is largely forest and may be utilized for hunting. The nearest year-round population center with respect to Wide Beach is the Village of Farnham which is located 1.25 miles east of the site and has a population of 404.

1.1.2 Topography

Wide Beach lies within the Erie-Niagara Basin in the Central Lowlands Physiographic Province, characterized by flat terrain of low relief. The topography of the Wide Beach site is flat with surface elevations on the order of 587 ft above mean sea level (MSL) along Fox Street and at the Oval. The land slopes gently southward to the wetland bordering the site at about 579 ft MSL. Along the lake shore, relief is on the order of 11 ft where the site drops sharply to the beach.

1.1.3 Hydrogeology

Based on boring data obtained during the RI (Reference 2), the overburden at the site, averaging 11 ft. in thickness, is predominantly till and glacial lake deposits. The till is composed of dark gray and brown silty clay with some rounded rock fragments.

The surficial soil near the lake edge and immediately next to the wetland area is a silty sand with a thickness of 2-4 ft. This soil horizon was not found elsewhere on-site. In the remaining areas of the development, the surficial 0.0-6.0 ft of soil is composed of dark brown silty clay, with large amounts of varying grain sizes of sand and some gravel.

The surficial soils are underlain by a brown, clayey, fine-grained sand. This sand layer is found throughout the site except for the boring locations near the wetlands. The thickness of this layer varies up to 3 ft. In some locations, thin lenses of this soil alternate with layers of a brown silty clay. This brown silty clay (classified as till) is the next significant soil horizon. It contains some small rounded rock fragments, and its consistency is from stiff to very stiff.

The weathered bedrock consists of a decomposing shale and angular shale fragments. This layer is generally only a few inches in thickness on the site, but locally it is as much as 3 ft thick. These thicker zones of weathered bedrock are found in the eastern portion of the site.

A water table was seldom encountered during the RI (Reference 2).

The aquifer of concern at the site is the shallow bedrock aquifer confined by the overlying till and includes mainly the weathered bedrock and zones of shallow tension cracks, open joints, and fractures. Recharge to the on-site wells occurs predominantly through these aquifers.

Figure 3-3 of the RI report (Reference 2) illustrates the potentiometric surface of the shallow bedrock aquifer in December 1984 when water levels were highest during the RI. Figure 6-1 of the RI report shows the hydraulic profile of the perched water in the sanitary sewer trench. The perched water condition is caused by a section of sanitary sewer trench, located to the west of the Oval, that cuts into the bedrock aquifer and induces an artesian upflow of confined groundwater. The perched water level in the sewer trench observed during the RI ranged from the lowest elevation of approximately 581 ft MSL near the southwest section of the Oval to the highest elevation of approximately 585 ft MSL along Fox Street.

The wetlands at the south of the site appear to constitute a groundwater discharge divide between the site and the land to the south of the wetlands. Based on the December 1983 contours, roughly 80 percent of the site's groundwater discharge is via the stream and wetlands with the remaining 20 percent discharging directly to Lake Erie.

1.1.4 Precipitation

The average annual snowfall depth in the Erie-Niagara Basin ranges from 70 in. in the north to 150 in. in the south. Most of the snowpack accumulation (70 percent) occurs from December through February. Annual precipitation is 44 in. in the south of the basin, which is the general area in which the Wide Beach site is located.

Rainfall intensity/duration-frequency curves for Buffalo obtained from the RI report (Figure 3-6, Reference 2) are provided in Figure 1-1.

1.1.5 Drainage and Runoff

As stated in the RI report (Reference 2), Wide Beach falls within Hydrologic Unit 04120103 which is part of what is commonly referred to as "the Erie-Niagara Basin". Stream discharge from the Erie-Niagara Basin is approximately one-half of the precipitation input with streamflow averaging 18 in./year. Precipitation averages 38 in./year and therefore 20 in./year is discharged almost entirely by evapotranspiration (USGS 1968). There is apparently a "negligible" amount of subsurface discharge to Lake Erie and the Niagara River due to the low permeability of rocks on the area (USGS 1968).

The flat topography of the Wide Beach site makes it difficult to define drainage patterns and divide the site into subbasins. Nevertheless, the topographic surveys and knowledge of existing drainage ditch patterns were used in the RI to delineate one subbasin which contributes drainage to Lake Erie, nine which drain to the wetlands area at the south of Wide Beach Development and one which appears to drain to the north. These subbasins, which include 55 acres are shown in Figure 3-7 of the RI Report (Reference 2).

1.1.6 Water Supply and Sewerage System

Residences in Wide Beach are served by individual private wells.

A sanitary sewer system was installed in Wide Beach in 1980. The system is owned by the Town of Brant's Lotus Bay Sewer District. Wide Beach residences are required to hook up to the system. The sanitary sewer system consists of 8-in. diameter PVC collector pipes that are gravity fed to the Wide Beach pump station at the north end of Oval Road. Sewage is discharged from the pump station to a 4-in. diameter force main and ultimately to the Big Sister Sewage Treatment Plant at Angola, New York located approximately eight miles north of Wide Beach.

The location and details of the sanitary sewer are provided in the drawings prepared by Edwards & Moonreiff, P.C., Engineers and Surveyors Springville, New York, for Erie County Sewer District No. 2 Erie County, New York, Lotus Bay Sewer District of the Town of Brant (Reference 5). Sewer lines are laid on top of a 1-2 ft bed of pea gravel. Approximately 1-2 ft of additional pea gravel surrounds the sewer line. The total depth of pea gravel in the trench is never less than 3 ft. Excavation trench material is present above the pea gravel and varies in depth from approximately 3 to 11 ft. The total trench depth varies from 6 to 14 ft. Sewer lines located directly underneath roadways and driveways are encased in concrete.

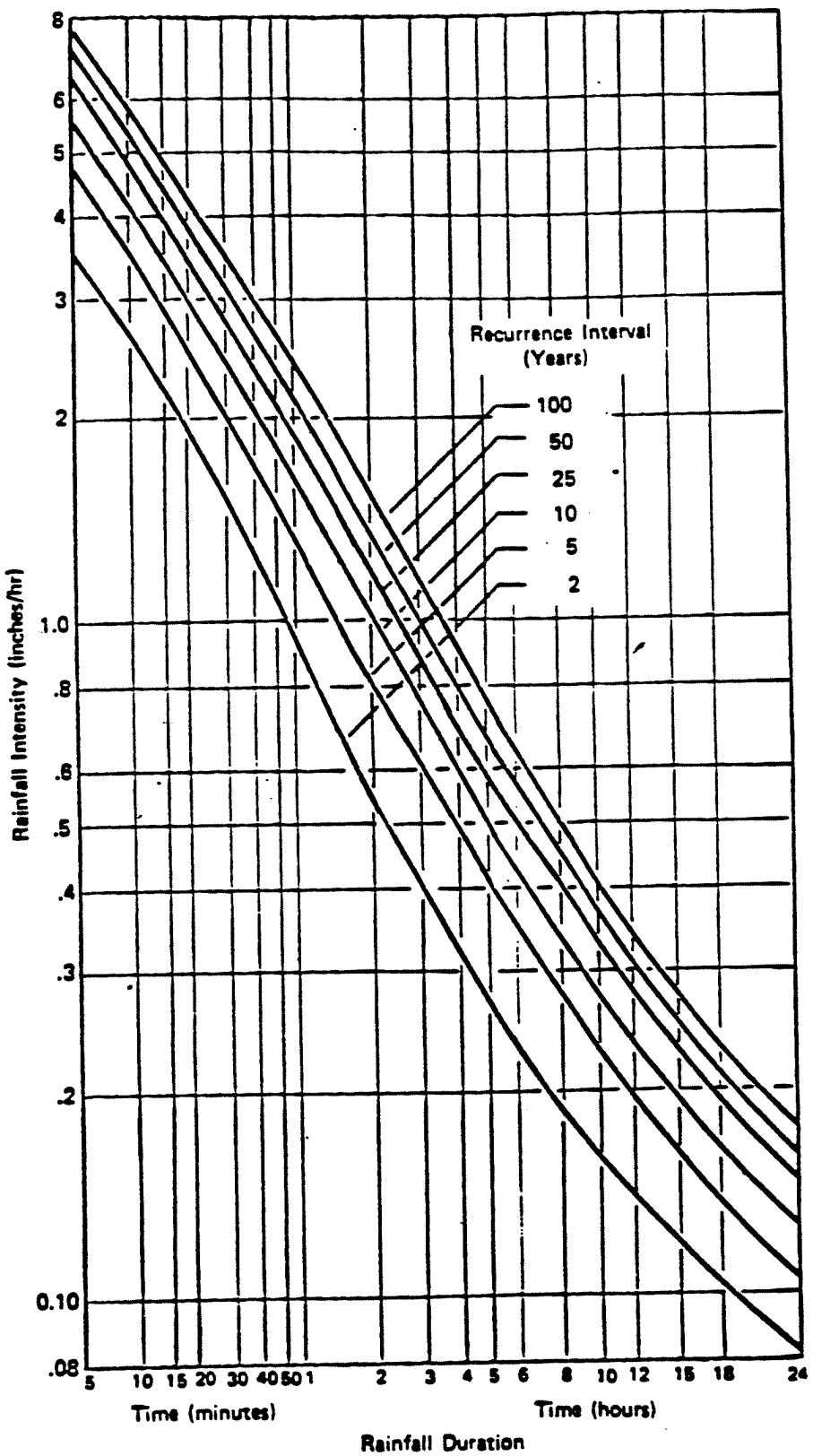


FIGURE 1–1

RAINFALL INTENSITY DURATION–FREQUENCY CURVES, (REFERENCE 2)

1.1.7 Ecological Setting

Natural forest, shrub, and wetland areas are predominant along the low lake plain where the site is situated. Portions of each habitat have been modified by the Wide Beach Development where natural vegetative communities have been cleared to make way for roads and house lots. In addition, there are now relatively open areas around buildings and along roads that are groomed seasonally to suit the tastes of property owners.

The roadside shrub community is composed mainly of dogwood, southern arrowwood and common elderberry. This growth is so dense that it is almost impenetrable, and there is no significant ground cover beneath the closed shrub canopy. The wetland area along the small stream to the south of the site features a dense ground cover of long-bristled smartweed. This species grows so thickly that few other species penetrate the wetland.

1.2 EXTENT OF CONTAMINATION

1.2.1 Overview of Existing Data Base

1.2.1.1 Remedial Investigations Prior to the ROD

Initial sampling was performed jointly by the Erie County Department of Environment and Planning (ECDEP) and Erie County Department of Health (ECDH) from August 1981 through October 1982. In April 1983, EPA Region II Field Investigation Team (FIT) personnel collected ground water and roadway surficial soils samples. From August through December 1984, the New York State Department of Environmental Conservation (NYSDEC) contractor, EA Engineering, Science and Technology (EA) performed RI sampling at the site including collection of: air; residential dust; drinking water, ground and surface waters; yard, driveway, open lot, catch basin, sewer trench and storm water outfall and wetlands soil/ sediments; well cores and soil borings; and biological specimens. Table 1-1 presents a summary of the PCB concentrations in various media at the site.

1.2.1.2 Supplemental Investigations by Ebasco

Ebasco performed supplemental investigations based on the following specific recommendations presented in the ROD.

- Sampling and analysis of residential back yards since only limited data were available for these areas.

TABLE 1-1

SUMMARY OF PCB CONCENTRATIONS
IN VARIOUS MEDIA AT WIDE BEACH SITE

	PCB CONCENTRATIONS
Driveways	0.18 - 390 mg/kg
Yards	0.05 - 600 mg/kg
Roadways	1.0 - 226 mg/kg
Drainage ditches	0.2 - 1026 mg/kg
Vacuum cleaner dust	0.25 - 770 mg/kg
Potable Wells	ND - 0.16 ug/l
Perched Water in Sewer Trench	1.4 - 5.7 ug/l
Surface Water in Marsh	0.2 - 2.9 ug/l
Surface Water Sediment	ND - 126 mg/kg
Stormwater Runoff	4.0 - 93 ug/l
Air Particulates	0.04 - 0.307 mg/m^3

ND - Not Detectable

Data from Reference 2

- Two 24-hour composite samples were to be taken from the sewage lift station to determine whether laundry, bathing, and house cleaning, as well as infiltration, contaminated the sanitary sewer system.

- The community was required to connect to a sanitary sewer system in 1980. Because the septic tanks may have received PCB-contamination prior to that from laundry, bathing, and house cleaning activities, any overflow or releases from the septic systems may pose a threat to the aquifer. Tank sediments from 20 of these septic tanks were to be sampled for PCBs.

The details of the sampling and analysis procedures are described in the Field Sampling and Analysis Plan (FSAP) which is contained in the Field Operations Plan (FOP) (Reference 6).

In order to develop a cost-effective removal strategy such that all and only contaminated material are removed, several additional site investigations were recommended by Ebasco at the initial kickoff meeting with the EPA and USACOE. As a result, the following additional investigations were performed:

- Roadway and driveway asphalt sampling;

- Sampling of front yards, wetlands, and open fields;

- Sampling of sewer trench bedding and surrounding soil;

- Characterization and bench-scale treatability tests of perched water in the sewer trench.

1.2.2 Remedial Investigations Prior to the ROD

1.2.2.1 Roadways, Ditches and Driveways

a) Roadways

Sampling of roadways was conducted by ECDEP in May 1982 and EPA Region II FIT in April 1983. Tables 4-20 and 4-21 of the RI report (Reference 2) summarize results of PCB determinations conducted on roadway soil samples collected in 1982 and 1983 respectively. Contamination was found to an approximate depth of 18 inches.

b) Ditches

Drainage ditches run parallel to the roadways on the sides of the roads. ECDEP conducted soil sampling of drainage ditches in 1981 and 1982. Table 4-19 of the RI report (Reference 2) provides a summary of results of PCB concentrations on surficial and deep soil samples. Contamination was found to an approximate depth of 36 inches.

c) Driveways

Sampling of driveways were performed to a depth of 4 in during the RI (Reference 2) in 53 residential driveways. Table 4-26 of the RI report summarizes results of PCB determinations. Contamination was found to an approximate depth of 12 inches.

1.2.2.2 Front Yards

PCB measurements from front yard samples collected by ECDEP in 1982 and EA in 1984 are presented in EA's August 1985 report (Reference 2, Tables 4-23 and 4-22, respectively). ECDEP collected one isolated grab sample of each yard from the surface soil at 0-6" depth. EA collected composite samples at 0-4" depth based on grabs taken 5', 15' and 25' from the roadway in the front yard. Neither sampling method was felt to be adequate to define the extent of contamination in the front yards.

1.2.2.3 Backyards, Open Fields, and Wetlands

PCB concentrations in soils were investigated in eight back yards, four of which have associated front yard samples. The results were as follows:

a) no back yard sample exceeds 10 mg/kg, and

b) front yards of the houses where backyards were sampled do not exhibit substantial PCB contamination (within the range of all front yards sampled) and only one associated front yard sample exceeds the 10 mg/kg criterion.

Data on back yards were extremely limited. No relationship or correlation was evident between front and back yard concentrations based on the available data. The information on variation in PCB contamination by depth was minimal.

1.2.3 <u>Supplemental Investigations by Ebasco</u>

1.2.3.1 Front Yards

Soil samples were collected to a depth of six (6) inches at five (5) to seven (7) locations from each front yard. Additional

samples were taken at a depth of 6 to 12 inches at approximately 10% of the sampling locations.

The investigation determined that contamination does not extend over the entire front yard and is confined to a smaller area near the road. Table 1-2 summarizes soil PCB concentrations from front yards. It should be noted that soil samples were also collected under four houses supported on cinder blocks (i.e. House 11,32,38 & 46). PCB concentration in the soil under the houses was less than 10 mg/kg except for House 32 which showed a PCB level of 14.8 mg/kg.

1.2.3.2 Backyards, Open Fields, Vacant Lots and Wetlands

a) Backyards

Soil samples were collected to a depth of six (6) inches typically at four (4) locations from each backyard. Additional samples were taken at a depth of 6 to 12 inches at approximately 10% of the sampling locations. Table 1-3 summarizes soil PCB concentrations from backyards.

b) Open Fields, Vacant Lots and Wetlands

Soil samples were collected to a depth of six (6) inches from the open fields and vacant lots and eight (8) inches from the wetlands at the locations shown on Figure 1-2. Additional three (3) samples were collected at depths of 6 to 12 inches at one open field (Lot #1) and 8 to 16 inches for the wetlands.

Tables 1-4 (A and B) and 1-5 sumarize soil PCB concentrations in open fields and wetlands respectively.

1.2.3.3 Sewage Lift Station

Two (2) 24-hour composite samples of the wastewater and two (2) additional samples during low sanitary sewage flow at night were collected from the sewage lift station. The location of the sewage lift station is shown on Figure 1-3.

PCB concentrations in the sewage lift station are provided in Table 1-6. Since PCB was not detected in the sewage samples, it is concluded that there is no off-site migration of PCB through the sanitary sewer system.

1.2.3.4 Septic Tanks

Based on discussions with local homeowners and a septage hauler who worked at the site prior to construction of the sanitary sewer, most of the septic tanks have been abandoned and filled in. Only five (5) septic tanks could be located and only three of them were accessible for sampling of sludge from the tank

TABLE 1-2

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM FRONT YARDS

PCB Concentration (mg/kg)
Soil Sample Location

House No.	01	02	03	04	05	06	07
01	1	1.2	51.2 (18.3)	1.5	1	1	-
02	6.3	5.8	5.7	1.1	2.6	1	-
03	37.9 (1.25)	19.7 (11.3)	1	1.4	1	5.5	-
04	1.4	1.5	1	1	1	1	5.3
05	1.6 (1.3)	43.9 (3.0)	3.5	1	5.2	1.1	-
06	2.5	11.8	1.5	4.3	1.4	1	-
07	2.0	2.8	1.5	1	2.1	1.1	-
08	4.3	2.9	1	1	1	1	-
09	3.2	4.8	1	1	1	1.5	-
10	1	2.1	1	1	1	3.2	-
11(3)	1	26.5 (9.0)	1	2.1	1	1.0	-
12	1	1	1.0	1.5	1	1	-

NOTES:

1. Figures shown in parenthesis indicate PCB concentrations from soil samples collected at depths of 6 to 12 inches

2. Soil sample location coordinates are identified in the Survey (Ref. 8) with the designation F xx xx where the first 2 digits after the letter indicate house numbers and last two digits indicate the sample number

3. Soil sample also taken under these houses which are supported on cinder blocks. PCB concentrations measured in soil under Houses 11, 32, 38 and 46 wee respectively less than 1.0, 14.8, 1.05 and less than 1.0 mg/kg.

TABLE 1-2 (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM FRONT YARDS

PCB Concentration (mg/kg)
Soil Sample Location

House No.	01	02	03	04	05	06	07
13	74.6 (2.61)	3.4	2.8	1	1	1	4.9
14	3.9	1	1.8	1	1	1	-
15	14.9	3.9	4.9	4.7	7.5	11.9	-
16	396.0 (228.0)	1	1	1	1	1	-
17	2.3	16.3 (1.7)	2.4	7.5	1	1	-
18	13.6	2.3	3.8	1	1.6	1	-
19	1.2	2.5	1	1	1	1	-
20	3.2	20.5 (1)	5.5	10.7 (5.8)	2.2	8.1	-
21	1	3.8	6.7	1.2	1	5.4	-
22	16.0	4.1	26.7 (1)	3.1	4.3	1	-
23	7.3 (6.4)	7.9	7.3	32.0 (2.1)	9.5	7.3	-
24	5.9	1.0	1.9	1	1	1	-
25	3.7	1.3	1	1.6 (1)	56.6 (2.3)	10.6 (2.6)	-
26	1.4	1	4.6	1	4.2	1	-
27	2.0	12.6 (2.9)	1	1	11.3 (1)	1	-
28	21.6 (1.1)	1	5.6	1	1	1	-
29	1	1	1	1	1	1	-
30	4.2	5.1	1	1	13.3	1	-

TABLE 1-2 (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM FRONT YARDS

PCB Concentration (mg/kg)
Soil Sample Location

House No.	01	02	03	04	05	06	07
31	1	8.8	1	1.4	59.3 (13.3)	196.8	-
32(3)	4.8	149.0 (36.2)	113.0 (12.1)	39.7 (1)	38.0	1	-
33	283.0 (12.4)	77.2 (30.6)	82.0 (175.1)	5.2	9.0	1	-
34	6.7	10.1	3.5	1	1	1	-
35	7.9	3.0	11.6	1.1	1	1	
36	721.0 (11.4)	15.7	288.0 (23.1)	1.4	1.9	193.0	1.9
37	21.3 (12.4)	7.4	14.0	1	6.1	4.0	-
38(3)	194.1 (12.27)	7.5	71.2 (1.9)	11.3	1.4	1	-
39	5.4	1.7	1.6	1	1	1	-
40	1	1	31.9 (4.0)	1	1	1	-
41	3.9	1	1	1	1	1	-
42	1	1	1	1	1	1.3	-
43	66.0 (33.0)	1	8.6	1	1	1	7.8
44	6.6	1.3	3.9	5.5	1	1.8	5.1
45	1	3.1	1	1	1	1	-
46(3)	3.7	3.9	9.0	1	1	1	-
47	4.4	2.5	4.0	7.2	1	1	-
48	1	1	1	1	1	1	3.5
49	1	1	1	1.6	1	1	-

TABLE 1-2 (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM FRONT YARDS

PCB Concentration (mg/kg)
Soil Sample Location

House No.	01	02	03	04	05	06	07
50	1.8 (1)	16.2 (9.7)	1.3	6.5	2.7	2.8	-
51	2.1	1.5	6.3	2.2	1.4	1.2	-
52	1.8	4.9	1.6	2.6	1.9	1	-
53	1.8	1.4	6.9	1	1	1	-
54	7.4	23.2	11.7	1.0	2.0	1	21.1
55	-	-	-	-	-	-	-
56	4.4	1.7	2.9	1	1	1	-
57	3.9	1	1.2	1	1	1	-
58	9.0	1	3.4	1	1	1	-
59	2.0	66.3 (8.6)	1.8	1.0	3.9	1.7	154.0
60	4.5	1	1	1	1	1	3.3

TABLE 1-3

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM BACKYARDS

	PCB Concentration (mg/kg) Soil Sample Location			
House No.	1	2	3	4
1	1	1	1	1
2	1	1	1	1
3	1	1	2.8	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1.3	1
7	1	1.2	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1.55	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1.33	1.90	1	1
16	1	1	1	1
17	1	1	1	1

NOTES

1. Figures in parenthesis indicate PCB concentrations from soil samples collected at depths of 6 to 12 inches.

2. Soil sample location coordinates are identified in the Survey (Reference 8) with the designation B xx xx where the first 2 digits after the letter indicate house number and the last two digits indicate sample number.

TABLE 1-3 (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM BACKYARDS

	PCB Concentration (mg/kg) Soil Sample Location			
House No.	1	2	3	4
18	1	1	1	1
19	1	1	1	1
20	1	1	2.3	1
21	1	1	1	1
22	2.4	2.4	1	1.1
23	1	1	1	1.2
24	1	1	1	1
25	1	1	1	1
26	1	1	1	4.9
27	1	1	1	1
28	1	1.2	1	1
29	1	1	1	1
30	1	1	1	1
31	1	1.2	1	1
32	1	1	1	1
33	1	1	3.4	1
34	1.2	1	1	1
35	1	1	1	1
36	-	-	-	-
37	1.3	1.7	5.7	4.0

TABLE 1-3 (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM BACKYARDS

	PCB Concentration (mg/kg) Soil Sample Location						
House No.	1	2	3	4	5	6	7
38	1	1	1	1	-	-	-
39	1	1	1	1	-	-	-
40	1	1	1	1	-	-	-
41	1	1	1	1.6	-	-	-
42	1	1	1	1	-	-	-
43	1.2	1	1	1	-	-	-
44	39.2	1	-	-	-	-	-
45	1	1	2.8	1	-	-	-
46	1	1	1	1	-	-	-
47	1	1	1	1	-	-	-
48	1	1	1	1	-	-	-
49	1	1	1	1	1	-	-
50	17.0 (10.7)	14.4 (1.4)	6.4	3.4	19.2 (28.2)	1 (1.2)	1 (1)
51	25.7	1	1	1	-	-	-
52	1	1	1	1	-	-	-
53	1	1	1	1	-	-	-
54	1	1	1	1	-	-	-
55	-	-	-	-	-	-	-
56	9.6 (3.9)	1.9	5.1	5.2	-	-	-
57	1	1	1	1	-	-	-
58	1	1.8	1.0	3.3	-	-	-
59	1	1	1	3.6	-	-	-
60	1	2.5	1	1	-	-	-

TABLE 1-4A

SUMMARY OF PCB CONCENTRATIONS
IN SURFACE SOIL (0-6") FROM OPEN LOTS

	PCB Concentration (mg/kg) Soil Sample Locations				
Lot No.	01	02	03	04	05
V-01	19.4	2.4	1	2.1	-
V-02	53.8	3.1	-	-	-
V-03	42.9	2.8	2.8	1.7	-
V-04	15.5	1.1	-	-	-
V-05	222.0	991.0	232.4	2.3	-
V-06	102.0	10.7	3.3	2.1	-
V-07	20.8	4.0	-	-	-
V-08	29.4	54.0	7.6	2.8	1.4
V-09	33.9	16.7	5.9	4.1	2.2
V-10	1	3.1	1	1	1
V-11	5.4	1	1	1	1
V-12	16.3	25.4	-	-	-
V-13	1.9	1	-	-	-
V-14	1.2	1	-	-	-
V-15	187.0	9.3	-	-	-

NOTES

1. Soil sample location coordinates are identified in the Survey (Ref. 8)with the designation V xx xx where the first 2 digits after the letter indicate the lot number and the last two digits indicate the sample number.

TABLE 1-4A (Cont'd)

SUMMARY OF PCB CONCENTRATIONS
IN SURFACE SOIL (0-6") FROM OPEN LOTS

	PCB Concentration (mg/kg) Soil Sample Locations				
Lot No.	01	02	03	04	05
V-16	162.0	15.2	-	-	-
V-17	371.0	3.5	-	-	-
V-18	13.5	5.2	-	-	-
V-19	147.0	9.0	-	-	-
V-20	12.5	89.5	-	-	-
V-21	154.2	126.0	-	-	-

TABLE 1-4B

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM OPEN LOTS SHOWN
ON FIGURE 1-2

Lot #	Location	PCB Concentration (mg/kg) (0-6")	(6-12")
1	S0-01-A	6.6	5.2
1	S0-01-B	5.9	8.2
1	S0-01-C	13.7	58.6
2	S0-02-A	2.1	-
2	S0-02-B	1.5	-
2	S0-02-C	4.6	-
2	S0-02-D	8.5	-
2	S0-02-E	3.2	-
2	S0-02-F	4.7	-
2	S0-02-G	4.0	-
2	S0-02-H	4.2	-
2	S0-02-I	1.0	-
2	S0-02-J	3.2	-

NOTES

1. Soil sample location coordinates are identified in the survey (Ref. 8) with the designation 0 x for Lot #1 and O 02 x for Lot #2 where x indicates the letter assigned to the sample location.

TABLE 1-5

SUMMARY OF PCB CONCENTRATIONS
IN SOIL FROM WETLANDS

Location	PCB Concentration (mg/kg) (0-8")	(8-16")
SW-01	11.0	1
SW-02	26.5	1.9
SW-03	24.6	1
SW-04	26.7	12.7
SW-05	5.5	2.2
SW-06	1	5.8

NOTES

1. Soil sample location coordinates are identified in the Survey (Ref. 8) with the designation W ox where x indicates the sample number.

TABLE 1-6

SUMMARY OF PCB CONCENTRATIONS IN
SEWAGE LIFT STATION

DATE	TIME	PCB CONCENTRATION, ug/l
11-17-86	0800-0800	1
	0000-0400	1
11-19-86	0800-0800	1
	0000-0400	1

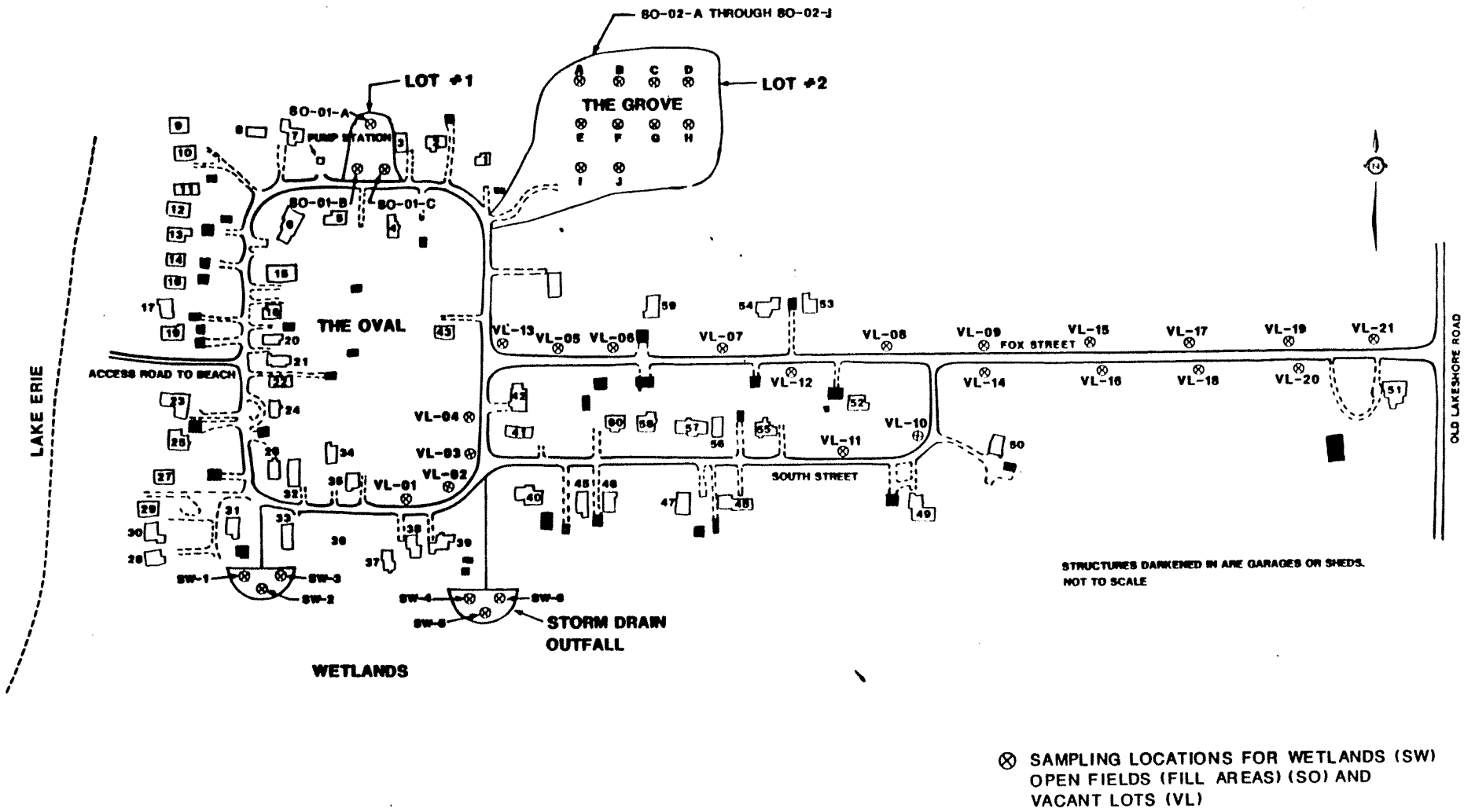


FIGURE 1–2

SAMPLING LOCATIONS
FOR WETLANDS, OPEN FIELDS AND VACANT LOTS

(i.e. Houses 26, 31 and 46). PCB concentrations in the septic tanks are provided in Table 1-7. The PCB concentration were less than 10 mg/kg. Based on the sample data and fact that the old tanks have been abandoned, there is no need for any remediation of septic tanks at the Wide Beach Site.

1.2.3.5 Sewer Trench Bedding and Surrounding Soil

Soil boring and sampling was conducted at five (5) sewer trench locations as shown in Figure 1-3. Two (2) to three (3) borings were made at each location and one (1) to three (3) soil samples were collected from each boring to a depth as shown in Figure 1-4.

PCB concentrations in the sewer trench bedding material and surrounding soil are provided in Table 1-8. Based on the minimal concentration levels indicated, it can be concluded that no remediation of the sewer trench soil is necessary.

1.2.3.6 Perched Water in Sanitary Sewer Trench

Figure 1-5 shows the hydraulic profile of the perched water and the sanitary sewer trench and the location of the sewer monitoring wells along the trench. A section of the sewer trench between monitoring wells SW-4 and SW-5 was installed in the bedrock which consists of a fractured shale. The bedrock is saturated with groundwater, and it is believed that the excavation into bedrock has caused an artesian upflow which forms a perched water condition in the trench resulting in water levels higher than the normal water table outside the sewer trench. The perched water accumulates and is confined in the trench between SW-4 and SW-5 and between SW-1 and SW-5. The sewer trench is surrounded by low permeable clay soil with hydraulic conductivity in the range of 3.4×10^{-4} to 8×10^{-6} cm/sec (Appendix B, Hydrogeology of Sewer Trench). The movement of the perched water is very slow since the hydraulic gradient is less than 0.002 from SW-5 towards SW-4. Off-site migration of PCBs via the sewer trench is judged to be minimal since the perched water is essentially stagnated in an equilibrium condition and any flow in the trench is directed to the low point at SW-4. Any withdrawal of perched water would be recharged by an upward flow from the bedrock under the sewer trench between SW-4 and SW-5. The estimated volume of water in the sewer trench including the perched water is approximately 80,000 gallons.

The following summarizes the site conditions:

1. The perched water condition in the sewer trench is caused by a section of sanitary sewer trench that cuts into the bedrock aquifer at the site.

TABLE 1-7

SUMMARY OF PCB CONCENTRATIONS FROM SEPTIC TANKS

House No.	PCB Concentration, ug/kg
31	400
26	300
46	390

TABLE 1-8

SUMMARY OF PCB CONCENTRATIONS FROM SEWER TRENCH BEDDING MATERIAL

Location	Depth (ft)	PCB Concentration (mg/kg)
ST-1A	0.5 - 2.5	7.85
	2.5 - 4.5	<1
ST-1B	4.5 - 6.5	<1
	6.5 - 8.5	<1
ST-1C	4.5 - 6.5	<1
	6.5 - 8.5	<1
ST-2A	0.5 - 2.0	<1
	2.0 - 4.0	<1
	4.0 - 6.0	<1
ST-2B	6.0 - 8.0	<1
	8.0 - 10.0	<1
ST-2C	6.0 - 8.0	<1
	8.0 - 10.0	<1
ST-4A	0.5 - 2.5	<1
	2.5 - 4.5	5.9
	4.6 - 6.5	<1
ST-4B	10.0 - 12.0	<1
ST-4C	6.0 - 8.0	<1
	8.0 - 10.0	<1
	10.0 - 12.0	<1
ST-5A	0.5 - 2.5	7.4
	2.5 - 4.5	1.7
	4.5 - 6.5	1.0
	6.5 - 8.5	2.0
ST-5C	1.00 - 11.3	<1
ST-7A	0.5 - 2.0	4.8
	2.0 - 4.0	<1
	4.0 - 6.0	2.2
ST-7B	6.0 - 8.0	<1
	8.0 - 10.0	<1
ST-7C	6.0 - 8.0	<1
	8.0 - 10.0	<1

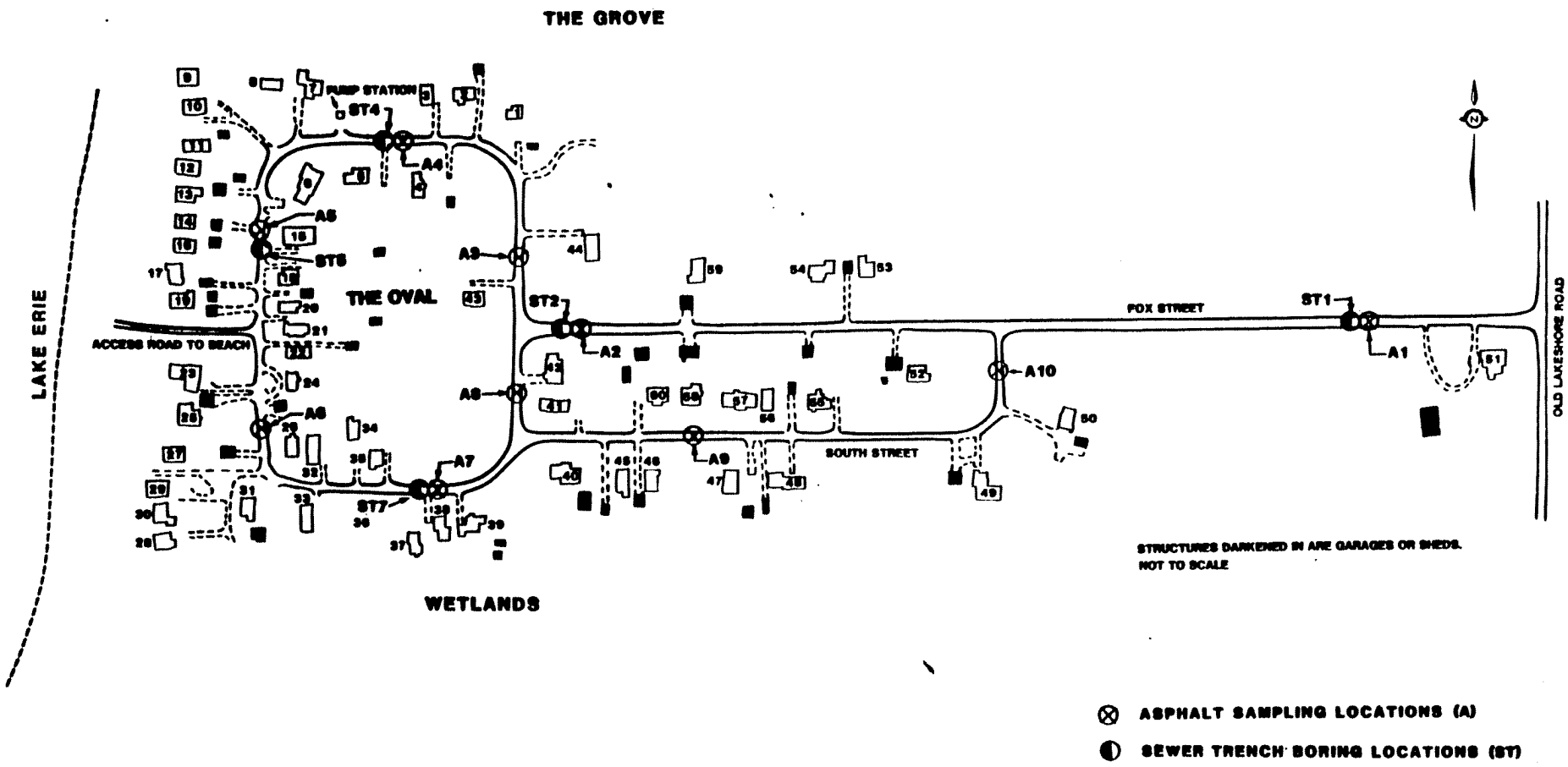


FIGURE 1–3

ASPHALT SAMPLING LOCATIONS
AND SEWER TRENCH BORING LOCATIONS

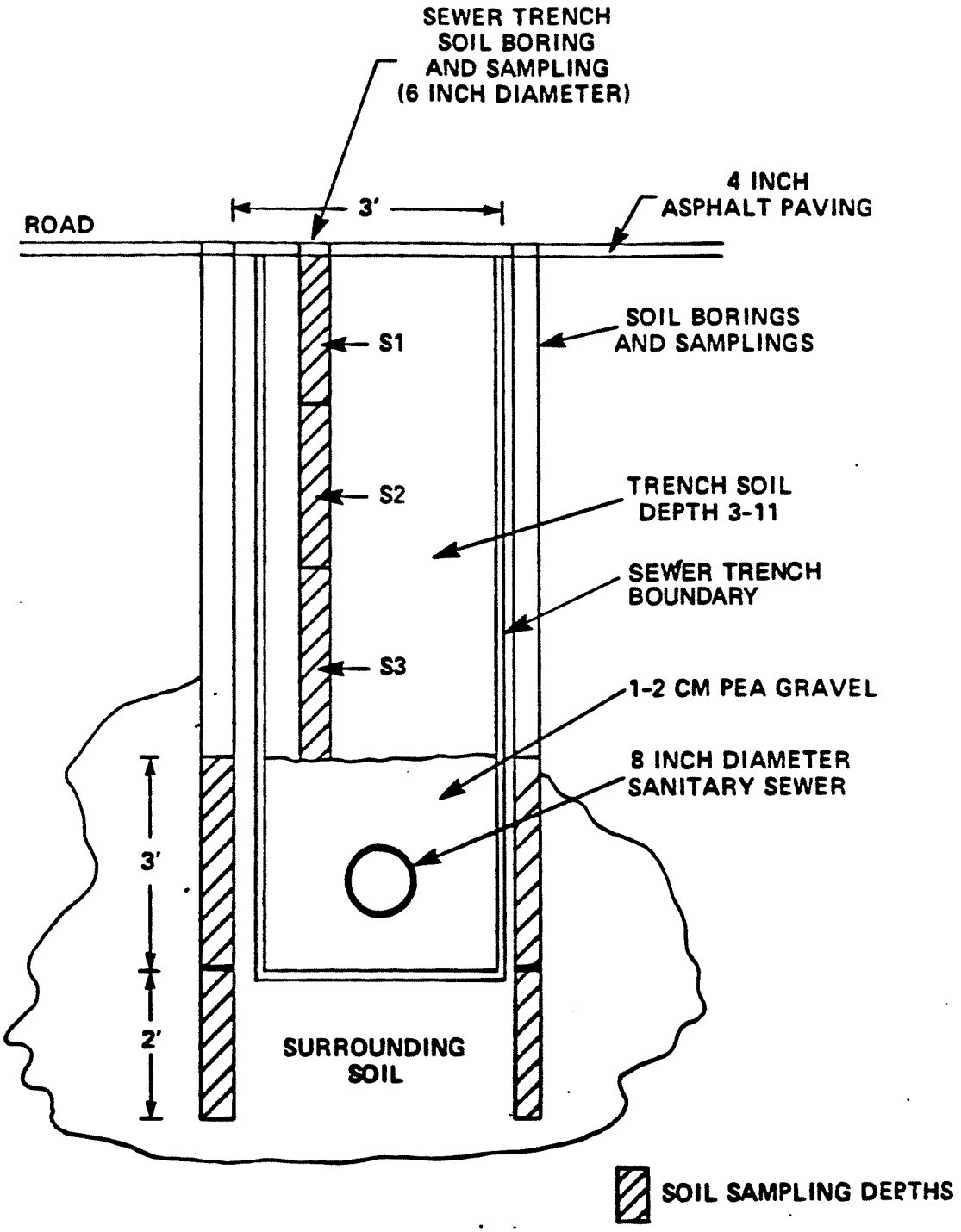


FIGURE 1-4
SEWER TRENCH BORINGS AND SOIL SAMPLING

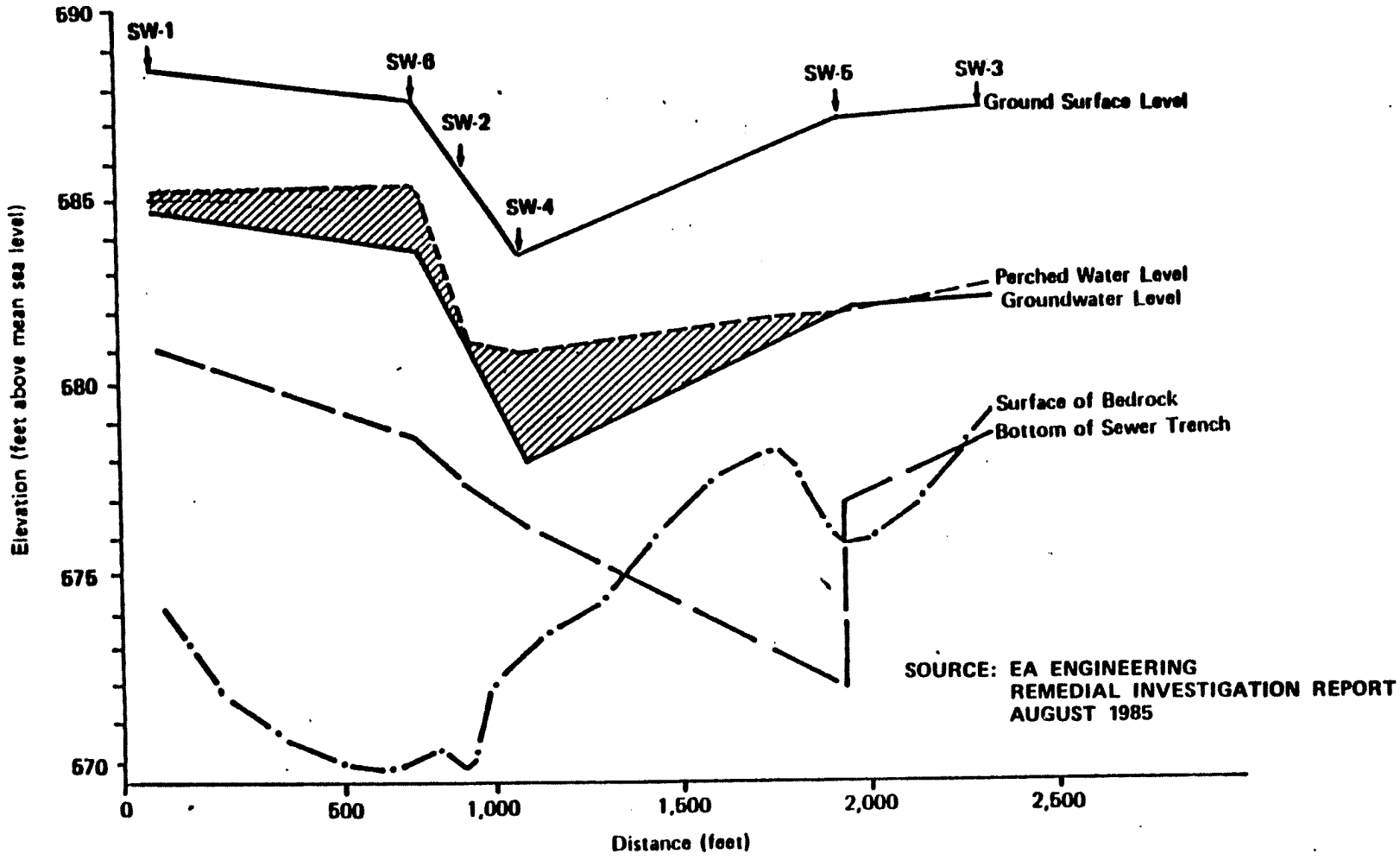


FIGURE 1–5 Topographic profile along the sewer trench

2. There is negligible off-site migration of PCB via the sewer trench due to the following:

   - Hydraulic gradient is in direction of SW-4 and not off-site to the north near the sewage pumping station

   - Perched water is stagnated in an equilibrium condition

Samples were collected from the sewer trench wells in December, 1986. Only four wells (SW-3, SW-4, SW-5 and SW-6) could be sampled to obtain perched water. SW-1 and SW-2 had been removed. Samples from SW-6 were excluded from treatability tests due to the very slow recovery after purging, which makes future pumping of well water for treatment impracticable. Well water samples were visually inspected in the field. SW-4 sample had high turbidity and some noticeable oil. SW-3 and SW-5 samples contained lower turbidity and suspended solids and no visible oil. Ebasco was concerned that higher concentrations of suspended solids would contain higher concentrations of PCBs and therefore selected two samples, instead of the one composite sample as originally planned for treatability testing. Both samples were sent to Ebasco's laboratory in Columbia, MD for treatability tests. The two samples were the SW-4 well water and a composite of the SW-3 and SW-5 well waters.

Table 1-9 presents the results of chemical analysis of the two perched water samples analyzed. It should be noted that Well SW-4 had a high concentration of suspended solids at 3856 mg/l and PCB of 68 ug/l while the composite of the other two wells had a TSS of 228 ug/l and PCB of 4.3. Historic data for PCB concentrations were below 10 ug/l.

Due to the unexpected high levels of suspended solids and PCBs in the sewer trench wells, a second round of samples were collected in January 1987 to determine if the initial samples were representative. The well water samples were composited. The results of the second-round samples showed lower concentrations of suspended solids and PCBs of less than 1 ug/l. It was suspected that the SW-4 sample collected in December 1986 was contaminated by surface water runoff as a result of EPA's cleanup of accumulated water in a drainage ditch. These cleanup activities occurred a week or so prior to the sampling.

TABLE 1-9

ANALYSES OF SEWER TRENCH PERCHED WATER

	Well SW-4 Sampled 12/86	Composite of Wells SW-3 & 5 Sampled 12/86 (Comp -1)	Composite of Wells SW-3,4&5 Sampled 1/87 (Comp -2)
Total PCB (mg/l)	68	4.3	1.0
TOC (mg/l)	59	39	-
TSS (mg/l)	3856	228	159
COD (mg/l)	506	41	-
Alkalinity (mg/l)	272	204	-
Iron (mg/l)	60.2	11.9	0.26
Oil and Grease (mg/l)	-	-	3.0
BOD_5 (mg/l)	7	7	-
TDS (mg/l)	460	-	520

PCB = Polychlorinated biphenyl (Aroclor 1254)
TOC = Total organic carbon
TSS = Total suspended solids
COD = Chemical oxygen demand
BOD-5 = Biochemical oxygen demand (5-day)
TDS = Total dissolved solids

The results of the Perched Water Treatability Study (Reference 7) concluded that the PCBs in the perched water samples were adsorbed to the suspended solids in the water samples taken from the sewer trench wells. PCBs were reduced to less than 1 ug/l when the sample was treated to remove the suspended solids. The suspended solids were removed from the water by chemical coagulation, flocculation, sedimentation and by centrifugation. A second round of sampling of the sewer trench wells showed lower suspended solids levels and PCB concentration less than 1 ug/l without any treatment of the water samples.

The Perched Water Treatability Study Results provided in Appendix B indicate that there is negligible off-site migration of PCB via the sewer trench due to the following:

- Hydraulic gradient is in the direction of SW-4 and not off-site to the north near the sewage pumping station.
- The perched water is stagnated in an equilibrium condition.
- The PCBs are adsorbed to the soil and not leaching to the groundwater.

Based on the treatability results and perched water hydrogeologic conditions, it was concluded that remediation or draining of the perched water is not required. As discussed in Section 1.2.3.5 above no treatment of the sewer trench soil is required.

1.2.3.7 Asphalt Pavement

Core samples of the 4-inch asphalt pavement were obtained for PCB analysis from ten (10) locations as shown in Figure 1-3. Selected core sampes were segmented into one to two-inch layers and analyzed for PCB concentration depthwise.

Results of PCB concentrations in the asphalt samples are provided in Table 1-10. Based on the minimal concentration levels indicated, it can be concluded that decontamination of asphaltic material is not required.

1.3 GEOTECHNICAL SOIL BORINGS AND SURVEY

1.3.1 Geotechnical Soil Borings

A total of ten (10) geotechnical soil borings were made at the site by Ebasco as shown on Figure 1-6 to develop engineering design data. The results of laboratory tests for moisture content and Atterberg limits are provided in Table 1-11. Soil boring logs are given in Section III.

2.3.2 Survey

Site surveys were performed to establish the vertical and horizontal controls at the site, to provide the existing conditions of the roadways, ditches, and driveways, and to identify the locations of the geotechnical soil borings and PCB sampling stations.

The field data for these surveys are provided in Section II .

TABLE 1-10

SUMMARY OF PCB CONCENTRATIONS FROM ASPHALT PAVEMENT SAMPLING LOCATIONS SHOWN ON FIGURE 1-3

Location	Depth (in)	PCB Concentration (mg/kg)
A1	0 - 2	1
	2 - 4	1
A2	0 - 2	1
	2 - 4	1.1
A3	0 - 2	1.2
	2 - 4	1
A4	0 - 1	1.3
	1 - 2	1
	2 - 3	1
	3 - 4	1
A5	0 - 1.5	1.2
	1.5 - 3	1
A6	0 - 1	1
	1 - 2	1
	2 - 3	1
	3 - 4	1
A7	0 - 1	1
	1 - 2	1
	2 - 3	1
A8	0 - 2	1
	2 - 5	1
A9	0 - 2	1
	2 - 4	1
A10	0 - 3	1.5
	3 - 4	1

TABLE 1-11

SUMMARY OF TEST RESULTS OF GEOTECHNICAL BORING
SOIL SAMPLES FROM LOCATIONS SHOWN ON FIGURE 1-6

A. Atterberg limits and Moisture Content

LOCATION	DEPTH (ft)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	MOISTURE CONTENT (%)
EN-01	5-7	28	20	8	19.0
EN-02	0-2	27	22	5	24.1
EN-03	0.5-2.5	29	23	6	22.7
EN-04	0.5-2.5	32	26	6	22.5
EN-05	5-5.5	31	21	10	9.1
EN-06	5-6	29	22	7	9.0
EN-07	5-5.5	29	21	8	18.0
EN-08	0.5-2.5	30	23	7	29.7
EM-09	5-7	31	22	9	20.9
EN-10	0-2	31	23	8	23.5

TABLE 1-11 (Cont'd)

SUMMARY OF TEST RESULTS OF GEOTECHNICAL BORING SOIL SAMPLES FROM LOCATIONS SHOWN ON FIGURE 1-6

B. PCB Concentration

LOCATION	DEPTH (ft)	PCB CONCENTRATION (mg/kg)
EN-01	0 - 6	1
EN-02	0 - 6	1
EN-03	0 - 6	1
EN-04	0 - 6	1
EN-05	0 - 6	1
EN-06	0 - 6	1
EN-07	0 - 6	122.0
EN-08	0 - 6	1.0
EN-09	0 - 6	2.4
EN-10	0 - 6	4.1

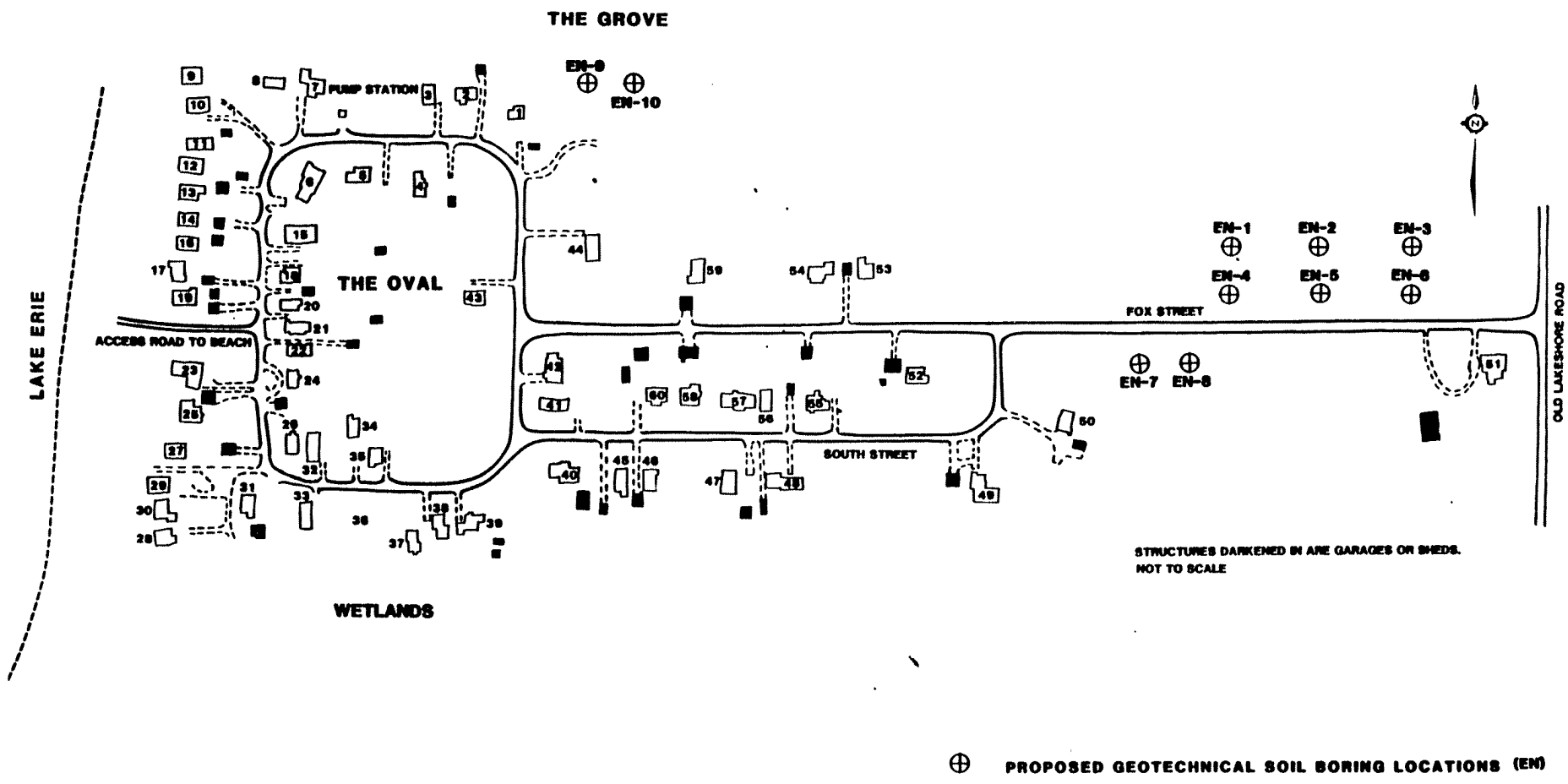


FIGURE 1–6

LOCATIONS FOR GEOTECHNICAL BORINGS

2.0 REFERENCES

1) Record of Decision, Wide Beach Development Site, USEPA, Region II, September 30, 1985.

2) Remedial Investigation Report for Wide Beach Development Site, Town of Brant, Erie County, New York, by EA Engineering, Science and Technology, August 1985.

3) Engineering Feasibility Study for Remedial Action at Wide Beach Development Site, Brant, New York, By EA Engineering, Science, and Technology, August, 1985.

4) Work Plan For Remedial Design, Wide Beach Site, Wide Beach, Town of Brant, Erie County, New York, By Ebasco Services Incorporated, April 1988.

5) Sanitary Sewer Plans for Erie County Sewer District No.2 Erie County, New York, Lotus Bay Sewer District of the Town of Brant, By Edwards and Moonreiff, P.C. Engineers and Surveyors, Springville, New York.

6) Draft Field Operations Plan, Remedial design, Wide Beach Site, Wide Beach, Town of Brant, Erie County, New York, By Ebasco Services Incorporated, September 1986.

7) Draft Perched Water Treatability Study Results, Wide Beach Site, Wide Beach, Town of Brant, Erie County, New York, By Ebasco Services Incorporated, March 1988.

8) Field Data From Wide Beach Development Site Survey, Wendel Survey, February 1987.

SECTION II

WIDE BEACH DEVELOPMENT SITE

SURVEY

BY

WENDEL ENGINEERS, P.C.

(Feb. 1987)

9256b

WIDE BEACH DEVELOPMENT SITE
TOWN OF BRANT
ERIE COUNTY, NEW YORK

FEBRUARY, 1987

WENDEL ENGINEERS, P.C.

FIELD CREW (3-MAN)

PARTY CHIEF	RONALD H. BICKLE
INSTRUMENT MAN	KEVIN BEITER

FIELD EQUIPMENT:

WILD T-1000 THEODOLITE
WILD DI-1000 DISTANCE METER
MAPTECH DATA COLLECTOR (HP 71B)
ZEISS NI 2 LEVEL

CONTROL TRAVERSE

A traverse was required to bring the State Plane Coordinate System on site. The closest horizontal control monument was utilized; being located in the Village of Farnham.

The angles of the traverse were measured 2 direct and 2 reverse. The average of the angles at each set up were used for computations.

Distances were measured in both directions with the average being used for computations.

A raw closure was determined to be 1:39,593

Following pages are:

- Description of N.G.S. monument and azimuth mark.
- Field Notes
- Traverse plotted on U.S.G.S. quadrangle map
- Adjustments to compute grid distances
- Computer print out of traverse closure and least squares adjustment
- Rubbings of N.G.S. monument used and monument set on site

AUG 1970
U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY • NATIONAL GEODETIC SURVEY

HORIZONTAL CONTROL DATA

by the
National Ocean Survey
NORTH AMERICAN 1927 DATUM

QUAD 420791 STATION 1011
NY
LATITUDE 42° 30' TO 43° 00'
LONGITUDE 79° 00' TO 79° 30'
DIAGRAM NK 17-6 BUFFALO

NOAA FORM 76-29
(12-70)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL GEODETIC SURVEY

TRAVERSE
DESCRIPTION OF ~~XXXXXXXXXXXX~~ STATION

NAME OF STATION: BRA-DOM 2 STATE: New York COUNTY: Erie
NEAREST TOWN: Village of Farnham QUADRANGLE NO.: 420791
CHIEF OF PARTY: T. Arnold YEAR: 1973 DESCRIBED BY: WH

NOTE: * HEIGHT OF TELESCOPE ABOVE STATION MARK METERS; † HEIGHT OF LIGHT ABOVE STATION MARK METERS.

SURFACE-STATION MARK, UNDERGROUND-STATION MARK — DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE FEET	DISTANCE METERS	DIRECTION ° ' "
DOMIN 1973				0 00 00.0
Azimuth A	SW	(0.1 mile, approx)		108 51 52.4
Farnham village municipal tank (ball)(NGS No. 139)	NW	(0.3 mile, approx)		198 06 56.4

Detailed description

Station is located in the Town of Brant in the Village of Farnham on Railroad Street. It is about 0.3 mile southeast of NY Rte 5.

To reach from the junction of NY Rte 249 and NY Rte 5 in the Village of Farnham go southeast and then east for 0.35 mile to junction with Railroad Street. Turn sharp right and go southwest on Railroad Street for 0.19 mile to station on the left on southeast side of street just beyond old store.

Station mark is a standard Erie County survey disk set in the top of a round concrete post 1 inch below the ground. The disk is stamped BRA-DOM 2 1973. An underground disk was established and stamped the same.

Azimuth mark sighted to the NW was the center of the ball on top of the Farnham village municipal water tank. It is a 6 legged steel tank about 120 feet high and is painted silver with the word Farnham painted in black on the north and south sides. It is located on the northwest sides of NY Rte 5 at its junction with Lotus Point Road in the Village of Farnham. It is NGS No. 139 intersection station.

		Distance and direction from station
RP-1	Near edge of concrete sidewalk	----- 0.7 feet SE
RP-2	Near edge of 36" horse chestnut tree	----- 5.2 feet SE
RP-3	Centerline of Railroad Street	-----14.0 feet NW
RP-4	Center of grate inlet	-----10.9 feet SW
RP-5	Near edge of 24" maple tree	-----27.3 feet S
RP-6	Centerline of driveway southeast side of street beside old store	-----81.0 feet NE
RP-7	Southwest corner of old cinderblock storefront adjoining house No. 713	----114.8 feet NE

(Continued on next page)

ADJUSTED HORIZONTAL CONTROL DATA
ADJUSTMENT BY NGS

NAME OF STATION: BRA-DOM 2 OBS BY NGS
STATE: NEW YORK YEAR: 1973 SECOND ORDER
SOURCE: G-15766

GEODETIC LATITUDE:	42° 35' 27.47166"	ELEVATION	194 METERS
GEODETIC LONGITUDE:	79 05 13.02162	NO CHECK	FEET

STATE COORDINATES (Feet)				
STATE & ZONE	CODE	X	Y	φ (OR Δ) PLANE ANGLE*
NY W	3103	364,385.47	944,355.00	- 0 20 27

* PLANE AZIMUTH HAS BEEN COMPUTED BY THE φ (OR Δ) PI FORMULA NEGLECTING THE SECOND TERM.

TO STATION OR OBJECT	GEODETIC AZIMUTH (From south)	PLANE AZIMUTH* (From south)	CODE
BRA-DOM 2 AZ A	46° 36' 08.47"	46° 56' 35"	3103
FARNHAM VIL MUN TANK	137 51 12.47	138 11 39	3103

THESE DATA ARE OBTAINED FROM ADJUSTMENT OF 1976

UH 084

AUG 1978

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY National Geodetic Survey

HORIZONTAL CONTROL DATA

by the
NATIONAL GEODETIC SURVEY
NORTH AMERICAN 1927 DATUM

QUAD 420791 STATION 1011

LATITUDE ° ' TO ° '
LONGITUDE ° ' TO ° '
DIAGRAM

BRA-DOM 2 (Continued)

Azimuth mark is a standard Erie County survey disk set in top of a round concrete post 2 inches below the ground. The disk is stamped BRA-DOM 2 AZ. A 1973.

To reach from BRA-DOM 2, go southwest on Railroad Street for 0.10 mile to station on the right on curve to the left. It is on the west side of the street at the junction with a dirt road southwest and just beyond house No. 765 on left. It is 0.28 mile southwest of junction with Commercial Street.

		Distance and direction from station
RP-1	Near edge of power pole No. NM 12/NYT 12	2.8 feet W
RP-2	Centerline of Railroad Street	29.0 feet E
RP-3	Near edge of 18" horse chestnut tree on east side of road	51.2 feet SE
RP-4	Northwest end of metal fence, near edge of end post, east side of road	58.4 feet E
RP-5	Near edge of 18" weeping willow tree east of road	76.5 feet SE
RP-6	Southwest corner of foundation of porch to house No. 765 east of road	93.8 feet NE

.OTE: DISTANCES ARE SLOPE
All ANGLES TURNED RIGHT
2DR

WIDE BEACH
86E-011
— TRAVERSE —

RHB, KJB 1/4
1-9-87
25°

	DIST	V∡	H∡		
		∧ @ BRA-DOM 2			
S ℄ BALL ON UTR TUR.			00°-00'-00"		
S 1	815.945'	90°-11'-20"	① 74°-49'-55"	③ 224°-29'-20"	
			② 149°-39'-40"	④ 299°-19-00"	
		$\bar{x}$ HORZ DIST: 815.941		$\bar{x}$ = 74°-49'-45"	
		∧ @ STA 1			
S BRA-DOM 2	815.945	89°-49'-00"	00°-00'-00"		
STA 2	1012.225'	90°-03'-10"	① 60°-18'-20"	③ 180°-55'-25"	
			② 120°-37'-20"	④ 241°-14'-10"	
		$\bar{x}$ HORZ DIST = 1012.232		$\bar{x}$ = 60°-18'-32"	
		∧ @ STA 2			
S STA 1	1012.24	89°-57'-40"	00°-00'-00"		
STA 3	977.365	89°-46'-50"	① 215°-00'-55"	③ 285°-02'-35"	
			② 70°-01'-50	④ 140°-03'-45"	
		$\bar{x}$ HORZ DIST = 977.357		$\bar{x}$ = 215°-00'-56"	
		∧ @ STA 3			
S STA 2	977.365	90°-15'-20"	00°-00'-00"		
STA 4	4545.595	90°-06'-30"	① 142°-01'-45"	③ 66°-05'-20"	
			② 284°-03'-40"	④ 208-07-30"	
		$\bar{x}$ HORZ DIST = 4545.588		$\bar{x}$ = 142°-01'-52"	
		∧ @ STA 4			
S STA 3	4545.60	89°-52'-30"	00°-00'-00"		
STA 5	2280.82	90°-10'-40"	① 179°-25'-10"	③ 178°-15'-00"	
			② 358°-50'-20"	④ 357°-40'-05"	
		$\bar{x}$ HORZ DIST = 2280.808		$\bar{x}$ = 179°-25'-01"	
		∧ @ STA 5			
S STA 4	2280.82	89°-49'-00"	00°-00'-00"		
STA 6	867.07	89°-36'-20"	① 135°-54'-30"	③ 47°-43'-15"	
			② 271°-48'-50"	④ 183°-37'-50"	
		$\bar{x}$ HORZ DIST = 867.048		$\bar{x}$ = 135°-54'-27"	

1

OTE: ALL DISTANCES ARE SLOPE
ALL HORIZ. ∡'S TURNED RT.
ZDR

WIDE BEACH
86E-011

RHB, KJB 7/4
1-12-87
25°
1/* *

—TRAVERSE—

ESC.		DIST	V∡	H∡	
			π @ STA 6		
BS	STA 5	867.07	90°-25'-30"	00°-00'-00"	
	STA 7	813.485	90°-40'-30"	① 157°-59'-05"	③ 113°-57'-15"
				② 315°-58'-15"	④ 271°-56'-50"
		x̄ HORZ DIST: 813.421			x̄ = 157°-59'-12"
			π @ STA 7		
BS	STA 6	813.465	89°-21'-20"	00°-00'-00"	
	STA 8 (PI FOX ST)	1531.75	90°-54'-00"	① 155°-47'-25"	③ 107°-21'-40"
				② 311°-34'-40	④ 203°-09'-00"
		x̄ HORZ DIST 1531.551			x̄ = 155°-47'-15"
			π @ STA 8 (PI FOX ST)		
BS	STA 7	1531.725	89°-06'-40"	00°-00'-00"	
	STA 9 (CONC. MON)	2025.125	90°-13'-40"	① 270°-34'-40"	③ 91°-43'-45"
				② 181°-09'-20"	④ 02°-18'-00"
		x̄ HORZ DIST 2025.109			x̄ = 270°-34'-30"
			π @ STA 9 (CONC MON)		
BS	STA 8	2025.125	89°-46'-30"	00°-00'-00"	
	STA 10	2033.965	89°-47'-10"	① 359°-47'-35"	③ 359°-22'-10"
				② 359°-35'-05"	④ 359°-09'-40"
		x̄ HORZ DIST = 2033.955			x̄ = 359°-47'-25"
				x̄ HORIZ DIST	
			π @ STA 10		
BS	STA 9	2033.975	90°-13'-20"	00°-00'-00"	
	STA 11	1539.000	89°-07'-10"	① 89°-27'-15"	③ 268°-21'-20"
				② 178°-54'-30"	④ 357°-48'-36"
		x̄ HORZ DIST = 1538.827			x̄ = 89°-27'-09"
			π @ STA 11		
BS	STA 10	1539.030	90°-54'-30"	00°-00'-00"	
	STA 12	936.505	89°-24'-00"	① 207°-21'-00"	③ 262°-02'-30"
				② 54°-42'-10"	④ 109°-24'-00"
		x̄ HORZ DIST 936.466			x̄ = 207°-21'-00"

WIDE BEACH
86E-011
— TRAVERSE —

RHB, KJB 3/4
1-12-87
25°

DESC.		DIST	V∡	H∡
			∡ @ STA 12	
BS	STA 11	936.535	90°-37-30"	00°-00'-00"
	STA 13	1140.620	90°-44'-30"	① 217°-18'-10" ③ 291°-53'-55"
				② 74°-36'-15" ④ 149°-11'-10"
		$\bar{X}$ HORZ DIST = 1140.518		$\bar{X}$ = 217°-17'-55"
			∡ @ STA 13	
BS	STA 12	1140.600	89°-17'-00"	00°-00'-00"
	STA 14	1812.475	89-31-00	① 205°-57'-05" ③ 257°-51'-05"
				② 51°-54'-10" ④ 103°-48'-15"
		$\bar{X}$ HORZ DIST = 1812.432		$\bar{X}$ = 205°-57-03"

RHB, KJB
1-13-87
30°

			∡ @ STA 14	
BS	STA 13	1812.520	90°-29'-20"	00°-00'-00"
	STA 15	4508.300	89°-52'-00"	① 180°-28'-10" ③ 181°-24'-20"
				② 00°-56'-20" ④ 01°-52'-40"
		$\bar{X}$ HORZ DIST = 4508.290		$\bar{X}$ = 180°-28'-10"
			∡ @ STA 15	
BS	STA 14	4508.300	90°-06'-30"	00°-00'-00"
	STA 16	1002.935	90°-11'-10"	① 217°-20'-45" ③ 292°-01'-40"
				② 74°-41'-30" ④ 149°-22'-20"
		$\bar{X}$ HORZ DIST 1002.928		$\bar{X}$ = 217°-20'-35"
			∡ @ STA 16	
BS	STA 15	1002.930	89°-50'-30"	00°-00'-00"
	STA 17	991.660	90°-01'-00"	① 145°-10'-15" ③ 75°-31'-10"
				② 290°-20'-50" ④ 220°-41'-50"
		$\bar{X}$ HORZ DIST = 991.665		$\bar{X}$ = 145°-10'-27"
			∡ @ STA 17	
BS	STA 16	991.670	90°-01'-00"	00°-00'-00"
	BRA-DOM 2	818.750	89°-52'-20"	① 300°-13'-25" ③ 180°-40'-40"
				② 240°-27'-10" ④ 120°-54'-25"
		$\bar{X}$ HORZ DIST = 818.730		$\bar{X}$ = 300°-13'-30"

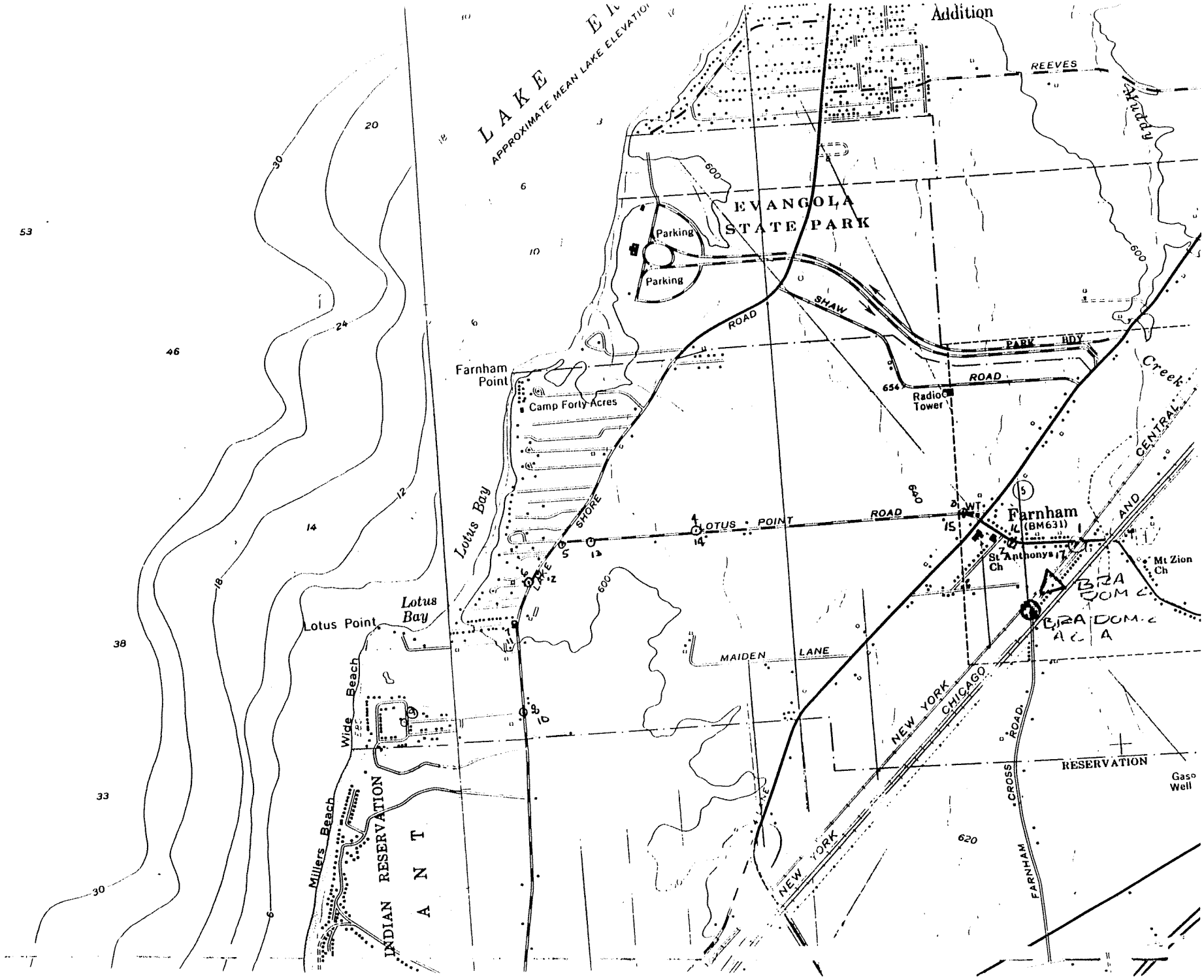
NOTE: DISTANCES ARE SLOPE
ALL Horz ∡'s TURNED RT
ZDR.

WIDE BEACH
86E-011

RHB.KJB
1-13-87
30°

3 STA 17 818 716
BALL ON WTR TWR
2 FARNHAM

∡ @ BRADOM-2
90°-10'-20" 00°-00'-00"
① 285°-05'-55" ③ 135°-17'-55"
② 210°-12'-10" ④ 60°-24'-15"
$\bar{X}$ = 285°-06'-04"


LAKE
APPROXIMATE MEAN LAKE ELEVATION
Addition
REEVES
EVANGOLA
STATE PARK
Parking
Parking
SHAW
ROAD
PARK BDY
ROAD
Radio Tower
654
Farnham
Point
Camp Forty Acres
Lotus Bay
LAKE SHORE
LOTUS POINT ROAD
Farnham
(BM631)
St Anthonys Ch
Mt Zion Ch
CENTRAL
AND
Lotus Bay
Lotus Point
Wide Beach
Millers Beach
INDIAN RESERVATION
MAIDEN LANE
NEW YORK CHICAGO
NEW YORK
CROSS ROAD
FARNHAM
RESERVATION
Gas Well
600
620

WIDE BEACH
86E-011

1-19-87
RHB

STA	$\bar{x}$ H. ANGLE	$\bar{x}$ H. DIST.	S.L. CORR.	SCALE. CORR.	ADJ. DIST.
WATER TOWER	——	——			
BRA-DOM 2 (1)	74°-49'-45"	815.941	0.9999703	0.9999583	815.879
STA 1 (2)	60°-18'-32"	1012.232		0.9999583	1012.160
STA 2 (3)	215°-00'-56"	977.357		0.9999586	977.288
STA 3 (4)	142°-01'-52"	4545.588		0.9999603	4545.272
STA 4 (5)	179°-25'-01"	2280.808		0.9999611	2280.652
STA 5 (6)	135°-54'-27"	867.048		0.9999613	866.989
BRA C (7)	157°-59'-12"	813.421		0.9999614	813.365
STA 7 (8)	155-47°-15"	1531.551		0.9999614	1531.446
STA 8 (9)	270°-34'-30"	2025.109		0.9999620	2024.972
STA 9 (10)	359°-47'-25"	2033.955		0.9999614	2033.816
STA 10 (11)	89°-27'-09"	1538.827		0.9999614	1538.722
STA 11 (12)	207°-21'-00"	936.466		0.9999612	936.402
STA 12 (13)	217°-17'-55"	1140.518		0.9999609	1140.439
STA 13 (14)	205°-57'-03"	1812.432		0.9999603	1812.306
STA 14 (15)	180°-28'-10"	4508.290		0.9999589	4507.971
STA 15 (16)	217°-20'-35"	1002.928		0.9999586	1002.857
STA 16 (17)	145°-10'-27"	991.665		0.9999583	991.594
STA 17 (18)	300°-13'-36"	818.730		0.9999584	818.672
BRA-DOM 2 (19)	285°-06'-04"	——			
WATER TWR.	——	——			

====== PROCESS TRAVERSE ======
Coordinate File Name: COWBA Lowest point #: 1 Highest point #: 1
Job # : 86e-011 NOTE: ELEV'S ONLY APROXIMATE.
Description: coordinates of [redacted]adjusted traverse

FROM	BEARING	TO	NORTHING	EASTING	ELEV	DESI
	STARTING POINT:	1	944395.000	364385.470	630.500	bradom2
REFERENCE BEARING	N 41-48-21 W					
1	N 33-01-24 E		HD= 815.879	VD= 0.014		
		2	945079.073	364830.108	630.514	@bradom2
2	N 86-40-04 W		HD= 1012.160	VD= 0.021		
		3	945137.905	363819.659	630.535	@sta 1
3	N 51-39-08 W		HD= 977.288	VD= 0.020		
		4	945744.247	363053.212	630.554	@sta 2
4	N 89-37-16 W		HD= 4545.272	VD= 0.424		
		5	945774.304	358508.040	630.978	@ sta 3
5	S 89-47-45 W		HD= 2280.652	VD= 0.107		
		6	945766.177	356227.402	631.085	@sta 4
6	S 45-42-12 W		HD= 866.989	VD= 0.015		
		7	945160.695	355606.869	631.100	@sta 5
7	S 23-41-24 W		HD= 813.365	VD= 0.014		
		8	944415.870	355280.069	631.114	@sta6
8	S 0-31-21 E		HD= 1531.446	VD= 0.048		PI FOX'S LAKE SHORE
		9	942884.488	355294.035	~~631.162~~	~~@sta 7~~
9	N 89-56-51 W		HD= 2024.972	VD= 0.084		CONC. MON
		10	942886.343	353269.063	~~631.246~~	~~@sta 8~~
10	N 89-50-34 E		HD= 2033.186	VD= 0.085		
		11	942891.922	355302.242	631.331	@sta 9
11	N 0-42-17 W		HD= 1538.827	VD= 0.049		
		12	944430.633	355283.315	631.380	@sta 10
12	N 26-38-43 E		HD= 936.466	VD= 0.018		
		13	945267.646	355703.288	631.398	@sta 11
13	N 63-56-38 E		HD= 1140.518	VD= 0.027		
		14	945768.620	356727.888	631.424	@sta 12
14	N 89-53-41 E		HD= 1812.432	VD= 0.067		
		15	945771.950	358540.317	631.492	@sta 13
15	S 89-38-09 E		HD= 4508.290	VD= 0.417		
		16	945743.296	363048.516	631.909	@sta 14
16	S 52-17-34 E		HD= 1002.857	VD= 0.021		
		17	945129.922	363841.923	631.929	@sta 15
17	S 87-07-07 E		HD= 991.665	VD= 0.020		
		18	945080.072	364832.334	631.950	@sta 16
18	S 33-06-29 W		HD= 818.672	VD= 0.014		
		19	944394.318	364385.160	631.963	@sta 17

19	N 41-47-27 W		HD= 0.000	VD= 0.000		
		20	944394.318	364385.160	631.963	@bradom2
	CLOSING POINT:	1	944395.000	364385.470	630.500	bradom2

REFERENCE BEARING
N 41-48-21 W

ANGULAR ERROR
0-00-54

CLOSING LINE
N 24-29-32 E 0.749

DISTANCE TRAVERSED 29,650.936

PRECISION RATIO 1: 39,593

CORRECTION PER ANGLE
0-00-00

LEAST SQUARES ADJUSTMENT

FROM	BEARING	TO	NORTHING	EASTING	ELEV	DES
		1	944395.000	364385.470	630.500	bradom2
1	N 33-01-19 E		HD= 815.878	VD= 0.014		
		2	945079.083	364830.091	630.514	@bradom2
2	N 86-40-15 W		HD= 1012.158	VD= 0.021		
		3	945137.863	363819.641	630.535	@sta 1
3	N 51-39-24 W		HD= 977.286	VD= 0.020		
		4	945744.144	363053.148	630.554	@sta 2
4	N 89-37-37 W		HD= 4545.240	VD= 0.424		
		5	945773.738	358508.005	630.978	@ sta 3
5	S 89-47-21 W		HD= 2280.644	VD= 0.107		
		6	945765.345	356227.377	631.085	@sta 4
6	S 45-41-46 W		HD= 866.989	VD= 0.015		
		7	945159.784	355606.920	631.100	@sta 5
7	S 23-40-56 W		HD= 813.366	VD= 0.014		
		8	944414.915	355280.219	631.114	@sta6
8	S 0-31-50 E		HD= 1531.451	VD= 0.048		DI FCR & LAKE SHORE
		9	942883.529	355294.399	631.162	~~@sta 7~~
9	N 89-57-21 W		HD= 2024.966	VD= 0.084		CONC. MON
		10	942885.095	353269.434	631.246	~~@sta 8~~
10	N 89-50-05 E		HD= 2033.192	VD= 0.085		
		11	942890.963	355302.618	631.331	@sta 9
11	N 0-42-47 W		HD= 1538.822	VD= 0.049		
		12	944429.666	355283.467	631.380	@sta 10
12	N 26-38-12 E		HD= 936.465	VD= 0.018		
		13	945266.742	355703.313	631.398	@sta 11
13	N 63-56-05 E		HD= 1140.519	VD= 0.027		
		14	945767.879	356727.834	631.424	@sta 12
14	N 89-53-06 E		HD= 1812.437	VD= 0.067		
		15	945771.519	358540.268	631.492	@sta 13

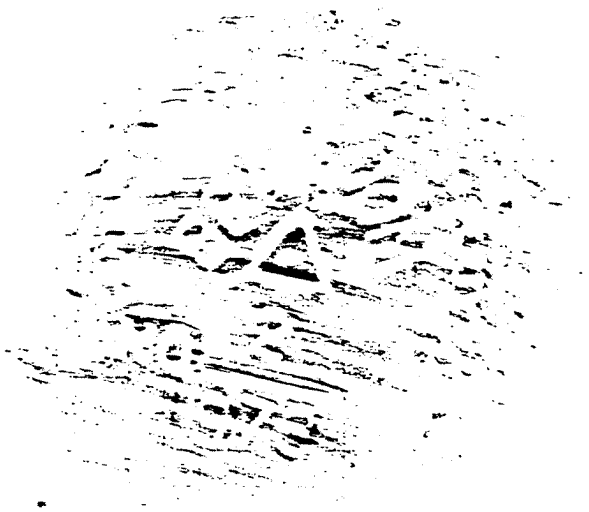
14	N 89-53-06 E		HD= 1812.437	VD= 0.067		
		15	945771.518	358540.268	631.492	@sta 13
15	S 89-38-47 E		HD= 4508.322	VD= 0.417		
		16	945743.698	363048.504	631.909	@sta 14
16	S 52-18-17 E		HD= 1002.860	VD= 0.021		
		17	945130.489	363842.041	631.929	@sta 15
17	S 87-07-55 E		HD= 991.667	VD= 0.020		
		18	945080.872	364832.466	631.950	@sta 16
18	S 33-05-35 W		HD= 818.673	VD= 0.014		
		19	944395.000	364385.470	631.963	@sta 17
19	N 0-00-00 E		HD= 0.000	VD= 0.000		
		20	944395.000	364385.470	631.963	@bradom2

STANDARD DEVIATION OF UNIT WEIGHT 0.090335

Coordinates stored Monday January 19, 1987 1:44 PM

WIDE BEACH
86E-011
RUBBING OF
EXISTING HORIZ CONTROL MONUMENT

RHB
1-10-87
25°



WIDE BEACH
86E-011

ROBBING OF MONUMENT SET
2/9/87

WIDE BEACH CONTROL

Baselines were established on approximate centerlines and marked in the field with PK nails at every 100 foot station. Points of Intersection (PI's) were determined and linear ties were taken to four (4) or more permenant points.

A traverse was run through all PI's to determine coordinate values on each PI.

A level run was run through all PI's to establish elevations on all PI's.

The PI's were then used as a foundation for both vertical and horizontal control on site.

*NOTE: Vertical control had been previously determined on site as noted on:

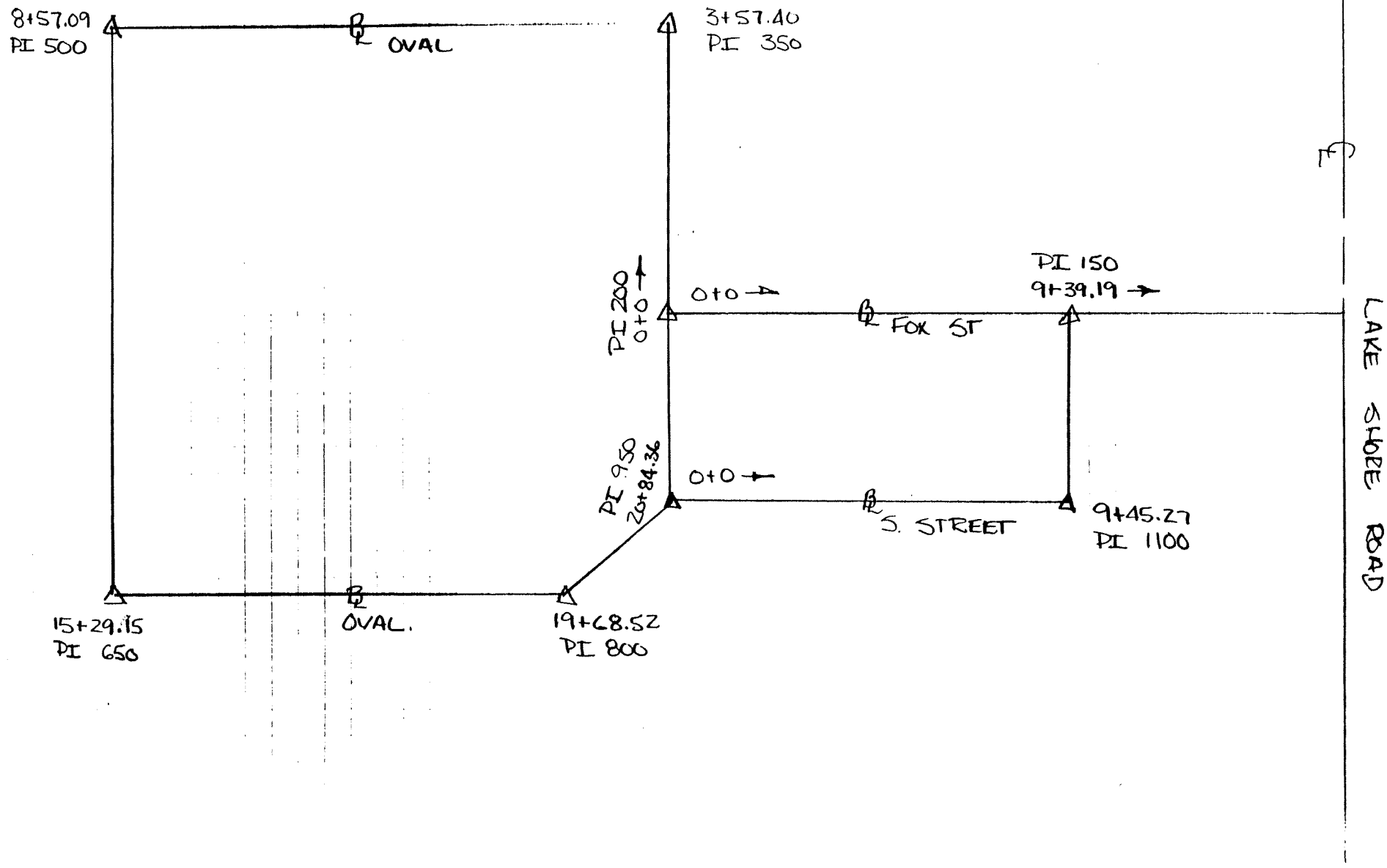
Wide Beach Plot Plan
Remedial Investigation
March 6, 198[illegible]
By
EA Engineering, Science and
Technology, Inc.
15 Loveton Circle
Sparks, Maryland
21152

Existing Bench Mark Description:

BM #8 NE Cor. of conc. stoop. on N. side of house
#4 sta. 35+55 55' rt. el.= 588.99

The datum used to establish this bench mark is unknown.

W.JE JEF...
86E-011
BASELINE LOCATION



====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:27 AM

Field Data File Name: WB1 Book: Page:
Description:
traverse pi's ~~se cor south st~~

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.44	0-00-00					
		359-59-58	90-04-49	939.191	4.85	PI 150	-150
2	5.44	0-00-00					
		270-39-47	89-59-27	357.400	4.85	PI 350	350
3	5.29	0-00-00					
		91-00-59	90-14-33	499.690	4.85	PI 500	500
4	5.35	0-00-00					
		89-04-14	90-22-22	672.065	4.35	PI 650	650
5	5.27	0-00-00					
		89-16-05	89-45-41	439.375	4.85	PI 800	800
6	5.17	0-00-00					
		122-35-11	89-37-12	115.836	4.85	PI 950	950
7	5.45	0-00-00					
		148-03-38	89-56-04	202.617	4.85	SEE PI200	-951
8	5.45	0-00-00					
		238-02-30	89-58-31	945.273	4.85	PI 1100	1100
9	4.80	0-00-00					
		88-21-39	90-14-51	213.264	4.85	SEE PI150	-1101
10	4.80	0-00-00					
		88-24-20	90-22-30	227.798	4.85	EP	-1102

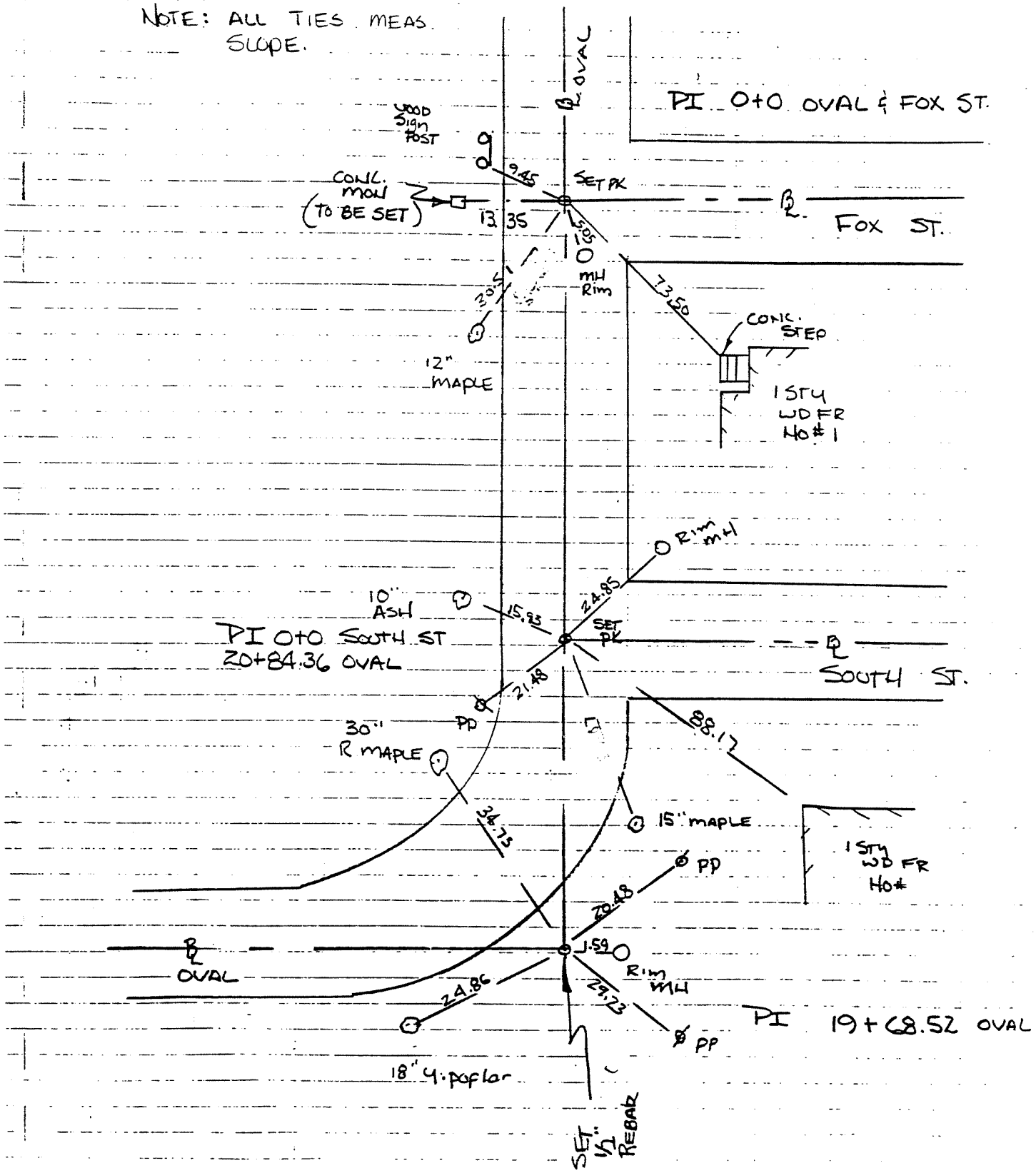
Field data stored

WIDE BEACH

PI TIES

12-17-86
40°
RHB, KJB

NOTE: ALL TIES MEAS. SLOPE.

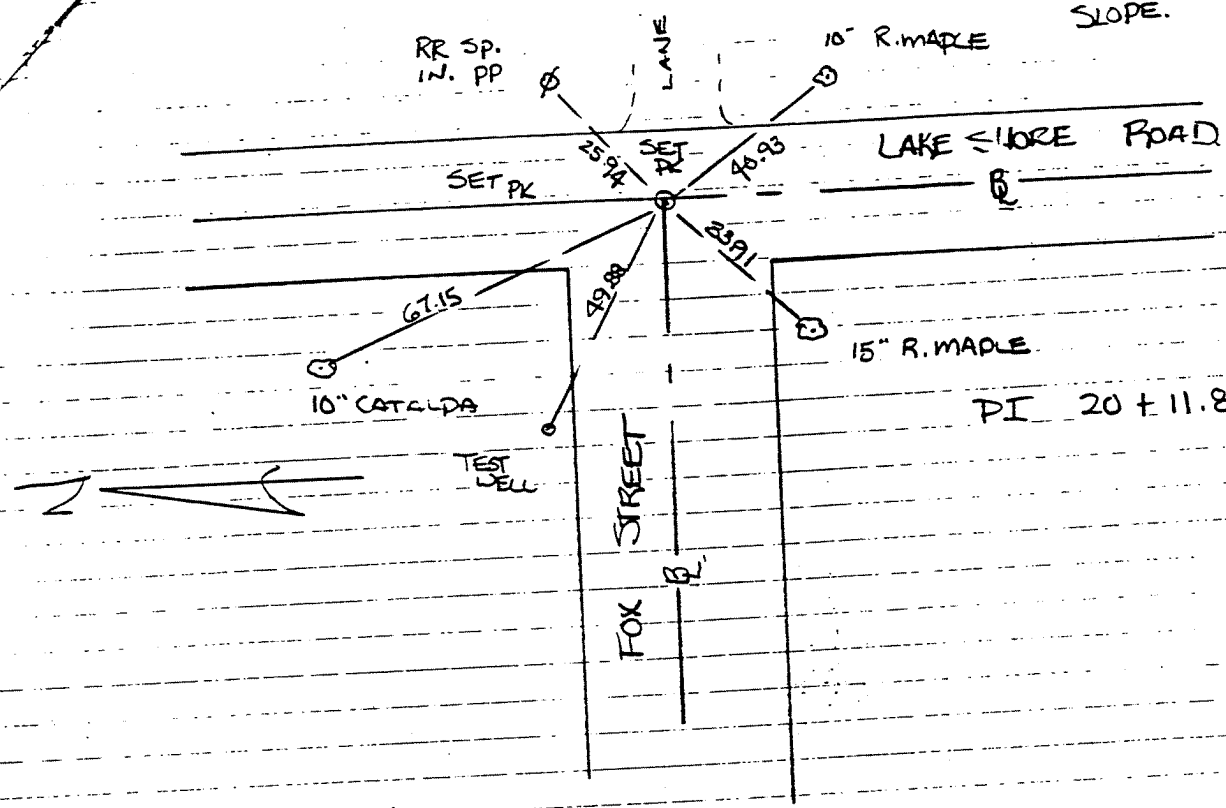


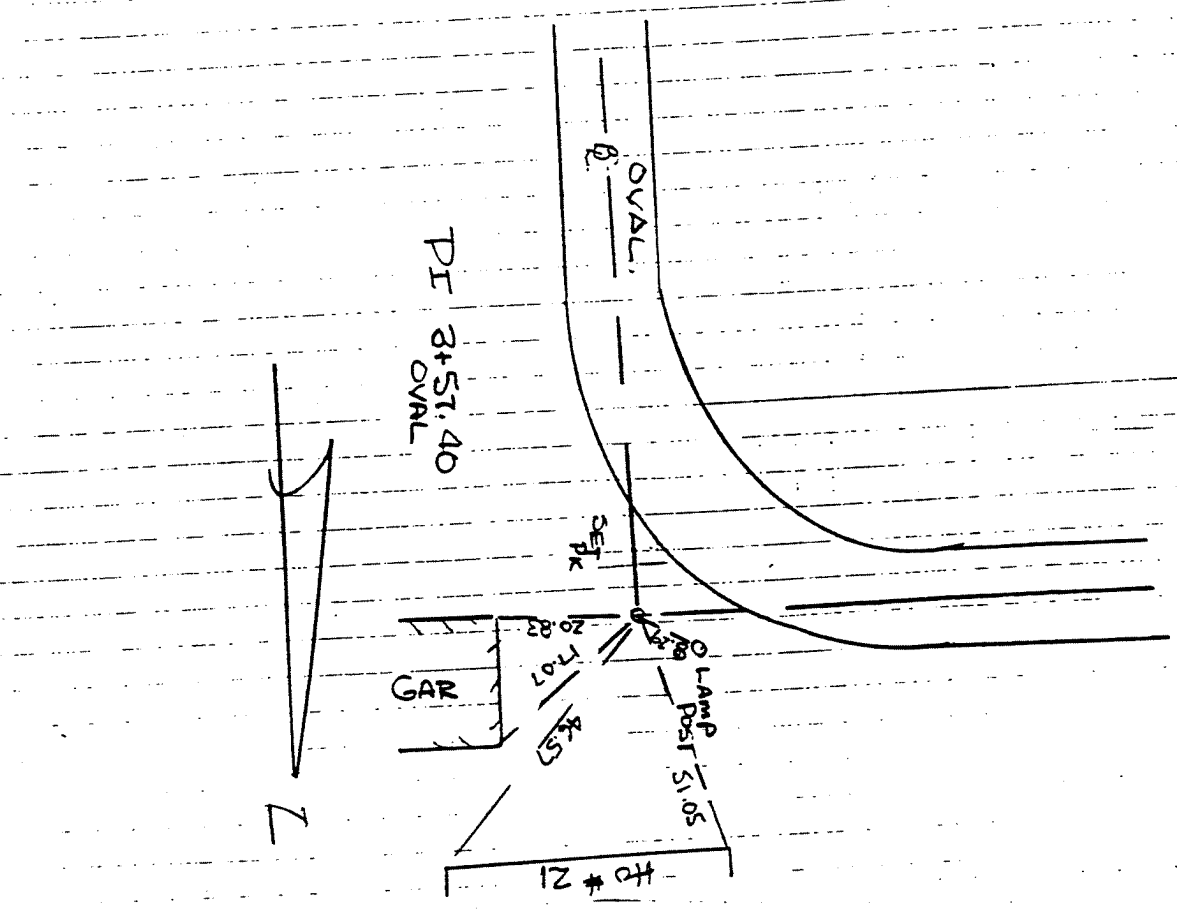
WIDE BEACH

40° ☁
RHB, KJB

PI TIE DOWN.

NOTE: ALL TIE'S MEAS SLOPE.

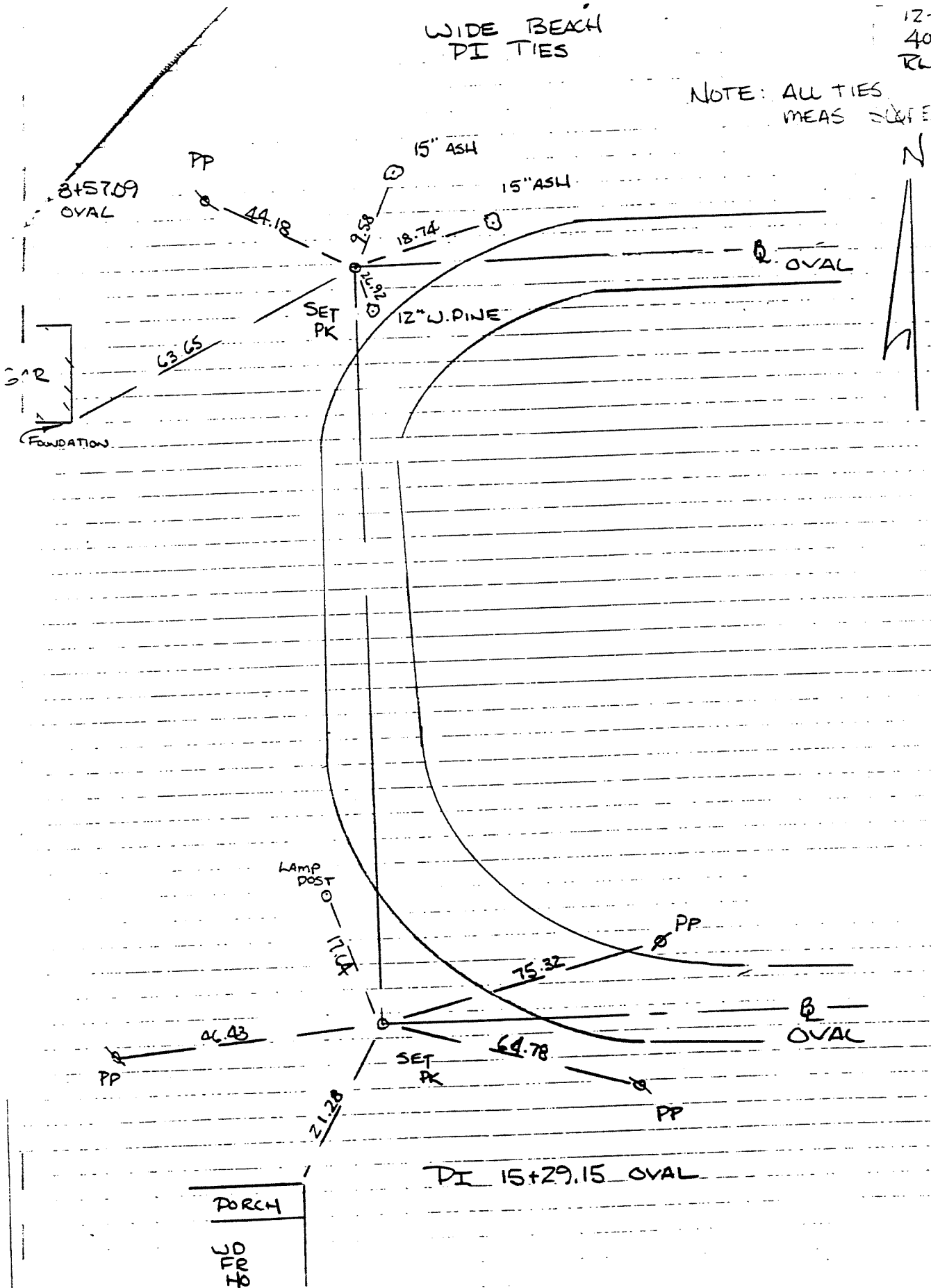




WIDE BEACH
PI TIES

12-17-86
40° ⬭
RWB, KJB

NOTE: ALL TIES
MEAS SCALE

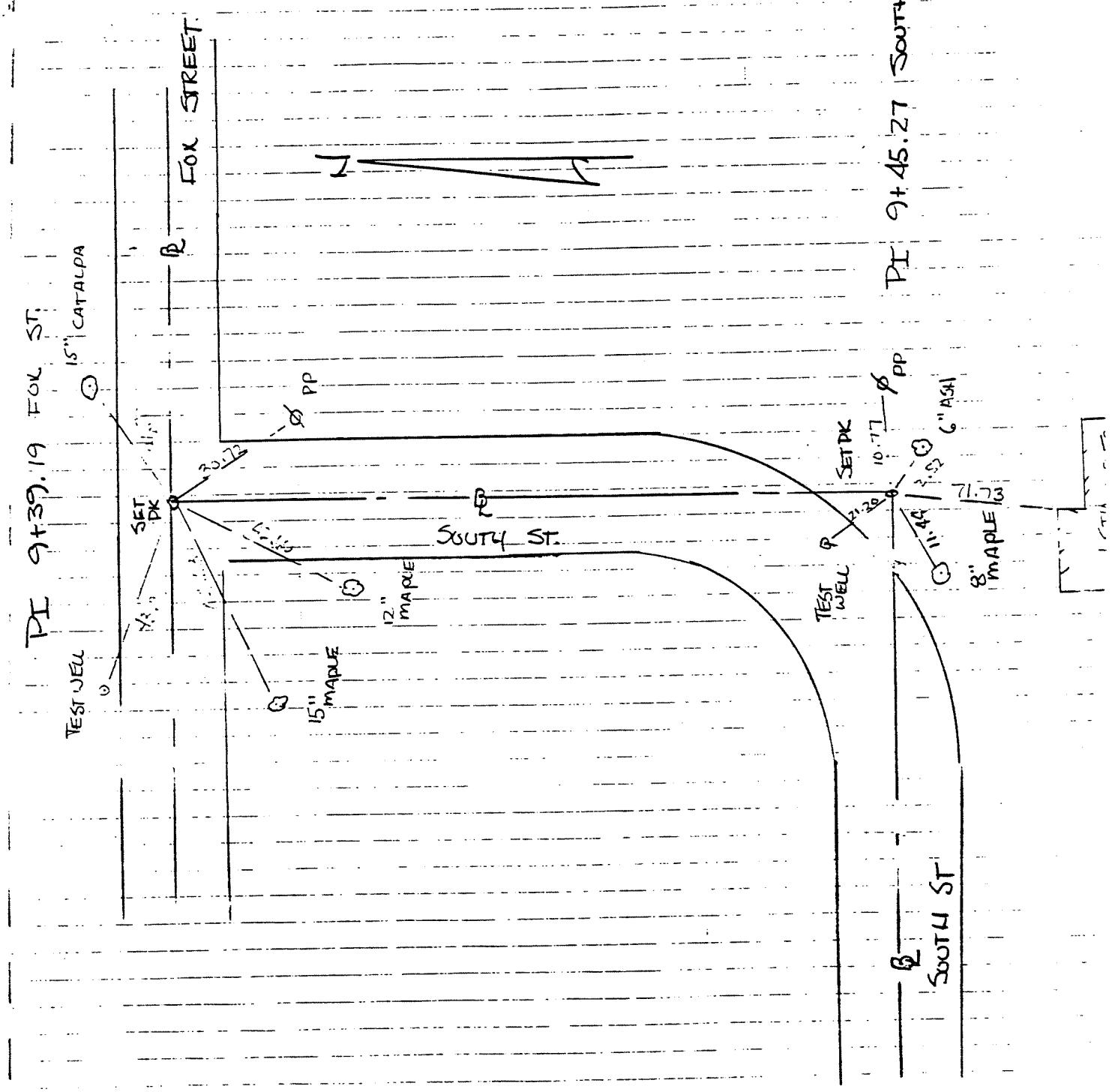


WIDE BEACH

PI TIE DOWN.

12-18-86
35°
RHB, KJB, KEH

NOTE: ALL TIES MEAS. SLOPE.



WIDE BEACH
86E-011

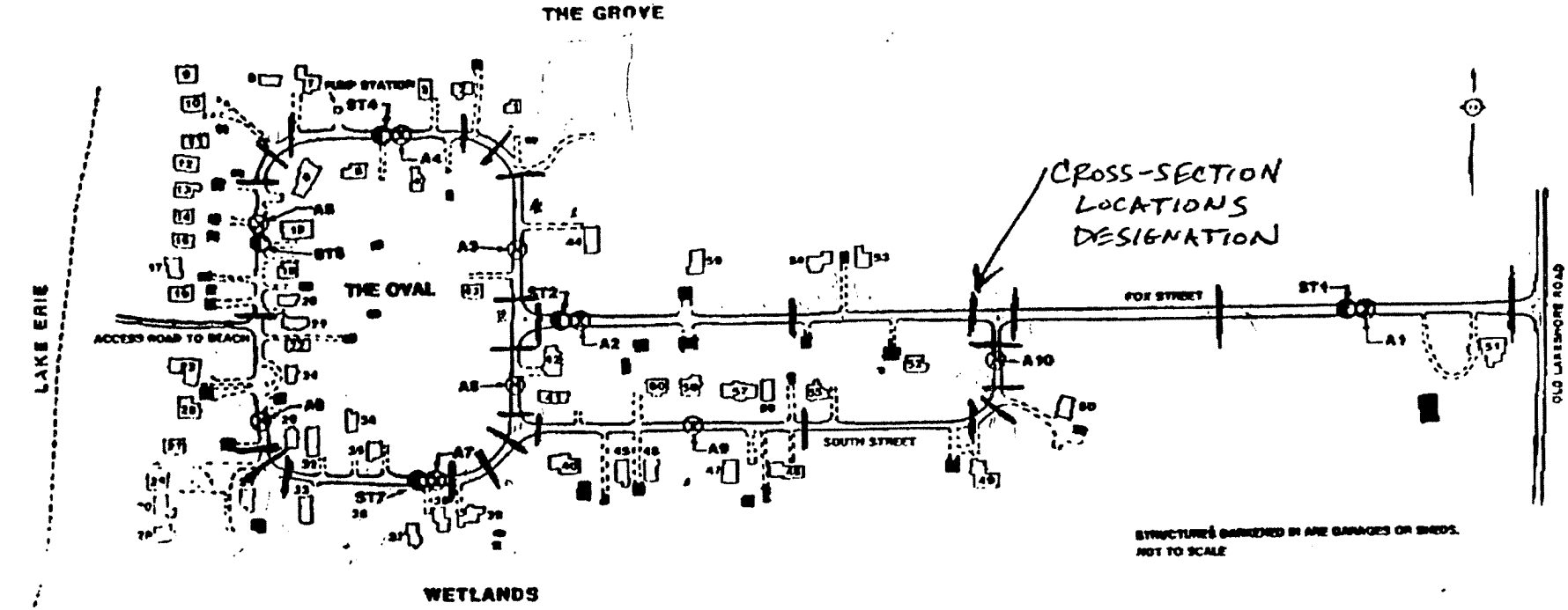
RHB, KJE
12-23-86
30°

— BENCH RUN —

ESC	BS	HI	FS	ELEV.
COR STOOP #38 (#4 ON SITE PLAN)	3.48	592.47		588.99
PI: 3+57.40 (OVAL)			3.75	588.72
PT: 8+57.09 (OVAL)			5.25	587.22
	4.94	592.16		
TP#1 (12+12)			4.48	586.68
	2.83	590.51		
PI: 15+29.15 (OVAL)			6.93	583.58
	5.67	589.25		
TP#2			3.79	585.46
	6.28	591.74		
PI 19+68.52 (OVAL)			5.80	585.94
PT 20+84.36 & 0+0 (OVAL & S.ST.)			4.71	587.03
PI: 0+0 (FOK & OVAL)			3.81	587.93
TP#3 (2+0 FOK ST)			3.98	587.76
	5.98	593.74		
TP#4			4.51	589.23
	4.53	593.76		
PI: 9+45.27 (S.ST)			5.33	588.43
PT: 9+39.19 (FOK ST)			6.21	587.55
	6.31	593.86		
TP#5 4+0 (FOK ST.)			5.15	588.71
	3.55	592.26		
TP#6 0+0 (FOK & OVAL)			4.33	587.93
	5.40	593.33		
JE COR STOOP. #38 (#4 ON SITE PLAN)			4.34	588.99
0+0 FOK & OVAL	5.28	593.21		587.93
CONC MON.			5.94	587.27

CROSS SECTIONS

Cross sections were obtained at all 28 locations as designated by EBASCO. (See following page) A PK nail was set on the baseline at each section and the extremities of each section were marked with 1/2" diam. X 18" rebar. All sections are located perpendicular to the baseline with the exception of those located at the PI's. They bisect the PI angle.



⊗ ASPHALT SAMPLING LOCATIONS (A)

◐ SEWER TRENCH BORING LOCATIONS (ST)

LOCATION OF CROSS-SECTIONS (28)

U.S. ENVIRONMENTAL PROTECTION AGENCY

WIDE BEACH DEVELOPMENT SITE

PROPOSED ASPHALT SAMPLING LOCATIONS AND SEWER TRENCH BORING LOCATIONS

FIGURE 5

ERASCO SERVICES INCORPORATED

RHB, KB
12-23-86
30°

NOTE: ALL SECTIONS ARE ⊥ TO ℄ EXCEPT @ PI'S (THEY BISECT THE PI ANGLE)

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 2 of 10

Punched
Verified

Preliminary ☐
Preconstruction ☐
Final ☐

Name of Road: FOX STREET
Dist. & No. of Road:
Co. ERIE

Date 1-7-87 30° ☁ 17/1/1

Party BHB, KJB

Stations — Read up the Sheet

Station	+	H. I.	−	Elev.											
0+0 FOX	3.98	591.91		587.93											
0+55 OVAL					40'L 4.78 R 587.13	20'L 4.67 R 587.28	15'L 4.55 EP 587.36	14.5'L 4.56 TS 587.35	12'L 4.79 ℄DIT 587.12	0' 4.52 BL 587.38	10'R 4.74 R 587.17	12'R 4.69 TS 587.22	14'R 5.83 ℄DIT 586.08	15.5'R 4.73 TS 587.18	16.3'R 4.74 R 587.17
											21.3'R 5.05 R 586.86				
TP#1	6.22	594.33	3.80												
5+55 FOX					40'L 5.74 R 588.59	16'L 5.50 R 588.83	12.3'L 5.40 EP 588.93	12.0'L 4.95 TS 589.38	10.5'L 4.95 R 589.38	0' 4.76 BL 589.57	9'R 4.97 R 589.36	REMAINDER OF THIS SECTION NOT AVAILABLE (HO# 55)			
TP#2	4.05	597.69	5.69												
9+00 FOX					17.5'L 5.82 ℄DIT 586.87	15.5'L 5.47 EP 587.22	14.5'L 5.09 TS 587.60	12'L 5.17 R 587.52	25'L 4.83 ℄ 587.86	0' 4.88 BL 587.81	9'R 5.31 BS 587.38	10.5'R 4.99 EP 587.70	15.5'R 4.74 R 587.95		
								45'L 5.76 R 586.93	19.5'L 5.61 TS 587.08						
9+39.19 FOX	4.01	591.56	5.14	587.55 ✓											

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 3 of 10

Punched
Verified

Preliminary ☐
Preconstruction ☐
Final ☐

Name of Road: FOX ST.
Dist. & No. of Road:
Co. ERIE

Date 1-7-87 30°

Party RHB, KJB

Stations — Read up the Sheet

Station	+	H. I.	−	Elev.											
9+39.19 FOX	4.01	591.56		587.55											
9+80 FOX					18.5L 5.53 ℄ DIT 586.03	15.5L 4.94 EP 586.62	15.2L 4.80 TS 586.76	12'L 5.16 R 586.40	2'L 4.58 ℄ 586.98	0' 4.60 BL 586.96	9.2R 5.07 TS 586.49	11'R 5.74 BS 585.82	11.8R 5.88 ℄ 585.68	12.7R 5.71 BS 585.85	15.3R 4.21 TS 587.35
							45'L 6.25 R 585.31	28'L 5.75 R 585.81	24'L 4.86 TS 586.70		16.5R 4.22 EP 587.34	21.5R 4.27 R 587.29			
TP #3	7.23	594.67	4.12	587.44											
15+0 FOX						20.5L 4.40 R 590.27	15.5L 5.16 EP 589.51	15.1L 4.93 TS 589.74	11'L 5.13 R 589.54	0' 4.92 BL 589.75	10.5R 5.29 R 589.38	12.1R 5.10 TS 589.57	12.5R 5.2L EP 589.41	13'R 5.55 ℄ DIT 589.12	17.5R 4.67 R 590.00
TP #4	7.03	599.25	2.45	592.22											
19+67						19.3L 4.75 R 594.50	14.3L 4.94 EP 594.31	14.0L 4.64 TS 594.61	11.6L 4.63 R 594.62	0' 4.60 BL 594.65	8'R 4.45 R 594.80	10.5R 4.33 EP 594.92	13.5R 4.81 R 594.44	15.5R 4.79 R 594.46	
PI INT FOX & LAKE SHORE			4.28	594.97											
TP #5			8.10												
11+39.19 FOX	1.02	592.17	4.68	587.49											

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 4 of 10

Date 1-8-87 25°

Party BHB, KJB

Preliminary ☐ Name of Road: OVAL

Preconstruction ☐ Dist. & No. of Road:

Final ☐ Co. ERIE

Punched

Verified

Station	+	H. I.	-	Elev.											
0+0 OVAL	4.98	592.91		587.93			PI	INT	FOY	℄ OVAL					
0+50 OVAL						14.5'L 5.50 R 587.41	10.5'L 5.53 BS 587.38	9.5'L 4.74 EP 588.17	7.7'L 4.84 R 588.07	0' 4.88 ℄ 588.03	6.7'R 5.13 R 587.78	11'R 5.12 EP 587.79	12'R 6.13 BS 586.78	15'R 5.97 BS 586.94	16'R 5.07 R 587.84
3+57.40 OVAL	5.38	594.10		588.72											
2+75 OVAL						15.6'L 5.51 R 588.59	11.5'L 5.74 BS 588.36	10.6'L 5.13 EP 588.97	8.4'L 5.27 R 588.83	0' 5.10 ℄ 589.00	11'R 5.29 EP 588.81	16'R 5.15 R 588.95			
3+57.40 OVAL					36.5'L 5.03 R 588.67	32.7'L 4.79 EP 588.91	25'L 5.45 R 588.65	13'L 5.62 R 588.48	9.8'L 5.22 EP 588.38	0' 5.38 ℄ 588.72	2.5'R 5.42 EP 588.68	7.5 5.87 R 588.23			
						55'L 5.03 R 589.07	52'L 5.20 EP 588.90	48.5'L 5.27 R 588.83	42'L 4.97 ℄ 589.13						
4+50 OVAL						18.6'L 5.82 R 588.78	13.6'L 5.83 EP 588.77	11.7'L 6.01 R 588.59	2'L 5.42 ℄ 588.68	0' 5.38 ℄ 588.72	4.5'R 5.43 R 588.67	8.5'R 5.20 EP 588.90	9.5'R 5.66 R 588.44	13.5'R 5.64 R 588.46	

~~Stations Read up the Sheet~~

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 5 of 10

Date 1-8-87 25°

Party RHB, KJB

Preliminary ☐ Preconstruction ☐ Final ☐

Name of Road: OVAL

Dist. & No. of Road:

Co. ERIE

Punched

Verified

Station	+	H. I.	−	Elev.											
8+57.09	4.70	591.92		587.22			PI	OVAL							
8+0 OVAL					21'L 5.12 R 586.80	17'L 4.86 ℄ 587.06	6.5'L 5.02 R 586.90	3.5 4.98 TS 586.94	3'L 5.29 EP 586.63	0' 5.29 ℄ 586.63	2'R 5.37 R 586.55				
								34'L 5.09 R 586.83	29'L 5.09 EP 586.83						
8+57.09 OVAL					63'L 5.01 R 586.91	58'L 4.95 EP 586.97	53'L 4.95 R 586.97	47.5'L 4.69 ℄ 587.23	35.5'L 4.89 R 587.03	0' 4.70 ℄ 587.22	21'R 4.43 R 587.49	36.7'R 4.62 EP 587.30	41.7'R 4.79 R 587.13		
9+28 OVAL						26.5'L 4.98 R 586.94	21.5'L 4.86 EP 587.06	15.5'L 4.84 R 587.08	10'L 4.55 ℄ 587.37	0' 4.54 ℄ 587.38	15'R 4.60 R 587.32	28.2' 4.57 EP 587.35	23.2'R 4.49 R 587.43		
12+12 OVAL	4.55	591.23		586.68	15.5'L 4.17 R 587.06	10.5'L 4.19 EP 587.04	9'L 4.97 ℄ DIT 586.26	8.0'L 4.77 TS 586.46	5.7'L 4.78 R 586.45	0' 4.55 ℄ 586.68	6'R 4.64 R 586.59	9.5'R 4.25 EP 586.98	14.5'R 4.20 R 587.03		

~~Stations - Read up the Sheet~~

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 6 of 10

Date 1-8-87 25°

Punched
Verified

Preliminary ☐
Preconstruction ☐
Final ☐

Name of Road: OVAL
Dist. & No. of Road:
Co. ERIE

Party RLB, KJB

~~Stations Read up the Sheet~~

Station	+	H. I.	−	Elev.																				
15+29.15 OVAL	5.74	589.32		583.58																				
14+69 OVAL					28.3'L 4.36 R	584.96	23.5'L 4.86 BS	584.46	23.3'L 4.70 EP	584.62	18.5'L 4.94 R	584.38	12'L 4.42 ℄	584.90	0' 4.31 ℄	585.01	3'R 4.39 EP	584.93	4'R 4.71 BS	584.61	8'R 4.58 R	584.74		
15+29.15 OVAL					54.2'L 5.28 TS	584.04	50'L 5.21 R	584.11	43'L 4.77 ℄	584.55	33'L 4.85 R	584.47	20'L 5.12 R	584.20	0' 5.74 ℄	583.58	3.5'R 5.90 TS	583.42	3.8'R 6.07 EP	583.25	8.8'R 6.23 R	583.09		
											59.5'L 4.99 R	584.33	54.5'L 5.48 EP	583.84										
16+0 OVAL					23.2'L 5.44 R	583.88	18.7'L 5.70 BS	583.62	18.2'L 5.38 EP	583.94	14'L 5.41 R	583.91	7.2'L 5.15 ℄	584.17	0' 5.33 ℄	583.99	0.8'R 5.36 TS	583.96	1.5'R 5.67 EP	583.65	3.5'R 5.99 BS	583.33	6.5'R 6.61 R	583.31
19+68.52 OVAL	3.90	589.84		585.94																				
19+0 OVAL							14.1'L 5.18 R	584.66	10'L 5.15 BS	584.69	7.1'L 4.62 EP	585.22	5.1'L 4.74 R	585.10	0' 4.65 ℄	585.19	6.5'R 4.92 R	584.92	11'R 4.78 TS	585.06	11.5'R 5.13 EP	584.71	16.5'R 5.35 R	584.49
19+68.52 OVAL					22'L 5.86 R		16'L 5.[illegible] ℄	585.98	10.5'L 5.60 R	586.24	3.5'L 3.45 EP	586.39	2.7'L 3.98 BS	585.86	0' 3.90 ℄	585.94	1.5'R 3.90 R	585.94						

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 7 of 10

Preliminary ☐ Preconstruction ☐ Final ☐

Name of Road: OVAL
Dist. & No. of Road:
Co. ERIE

Date 1-8-86 25°
Party RHB, KJB

Punched
Verified

Station	+	H. I.	-	Elev.											
(CONT) 19+68.52 OVAL							31.8L / 3.58 / R / 586.26	26.8L / 3.79 / EP / 586.05	26.4L / 3.33 / TS / 586.51						
20+36 OVAL						10'L / 3.77 / R / 585.87	6.2'L / 3.91 / BS / 585.93	5'L / 3.23 / EP / 586.61	0.9'L / 3.54 / R / 586.30	0' / 3.50 / B / 586.34	3.5'R / 3.34 / G / 586.50	13.9'R / 3.17 / EP / 586.67	18.1'R / 3.43 / R / 586.41		
0+0 S.ST. 20+31.36 OVAL	4.03	591.06		587.03											
21+12 OVAL						14'L / 3.95 / R / 587.11	13.1'L / 4.97 / R / 586.09	9'L / 5.01 / BS / 586.05	8.1'L / 4.19 / EP / 586.87	0' / 4.11 / B / 586.95	[illegible] / 4.33 / TS / 586.73	13.9'R / 6.00 / BS / 585.06	14.8'R / 6.03 / BS / 585.03	11.1'R / 4.39 / [illegible] / 586.67	11.2'R / [illegible] / EP / 586.46
											4.2'[illegible] / 4.52 / [illegible] / 586.54				
[illegible]							9'L / 3.72 / EP / 587.34	8.0'L / 3.28 / TS / 587.78	5.5'L / 3.44 / R / 587.62	0' / 3.41 / B / 587.65	10.4'R / 3.63 / TS / 587.43	13.7'R / 5.20 / BS / 585.86	15.4'R / 5.24 / BS / 585.82	16.1'R / 4.53 / TS / 586.53	16.5'R / 4.55 / EP / 586.51
										1.5'R					

~~Stations Read up the Sheet~~

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 8 of 10

Punched
Verified

Preliminary ☐
Preconstruction ☐
Final ☐

Name of Road: SOUTH STREET
Dist. & No. of Road:
Co. ERIE

Date 1-8-87 25°
Party RHB, KJB

Station	+	H. I.	−	Elev.																				
0+0 S.ST. = 20+84.36 OVAL	6.01	593.04		587.03																				
0+40 S.ST.							13.5'L 6.45 R	586.59	8.9'L 6.53 BS	586.51	8.5'L 6.15 EP	586.89	5.5'L 6.25 R	586.79	0' 6.02 B	587.02	.7'R 6.18 R	586.86	10.5'R 6.16 EP	586.88	15.5'R 6.25 R	586.79		
5+25 S.ST.							16.5'L 3.92 R	589.12	13'L 4.21 BS	588.83	11.5'L 3.86 EP	589.18	7.4'L 4.02 R	589.02	0' 3.75 B	589.29	4.4'R 3.82 R	589.22	7.0'R 3.69 TS	589.35	7.2'R 3.97 EP	589.07	12.2'R 4.15 R	588.89
9+45.27 S.ST.	5.33	593.76		588.43																				
8+88 S.ST.					23'L 5.07 R	588.69	19.5 5.59 BS	588.17	18'L 5.22 EP	588.54	13.2'L 5.27 R	588.49	8'L 4.95 ℄	588.81	0' 4.78 B	588.98	1.5'R 4.75 EP	589.01	3.0'R 5.18 BS	588.58	6.5'R 4.90 R	588.86		
9+45.27 S.ST					46'L 5.76 BS	588.08	45'L 5.20 EP	588.56	40.8'L 5.29 R	588.47	33.6'L 5.00 ℄	588.76	20'L 5.02 R	588.74	0' 5.33 B,EP	588.43	3'R 6.28 BS	587.48	5'R 6.27 R	587.49				
													50'L 5.47 R	588.29										
10+20 S.ST.							16.1'L 6.15 R	587.61	12'L 6.65 BS	587.11	11.1'L 6.21 EP	587.55	6.7'L 6.28 R	587.48	0' 6.44 B	587.62	5.5'R 6.38 R	587.48	7.5'R 6.13 EP	587.63	11'R 6.72 BS	586.84	14.5'R 6.76 R	587.00

Stations Read up the Sheet

Form CEO 60-7a

SURVEY DATA FOR EARTHWORK COMPUTATION

Sheet 9 of 10

Preliminary ☐
Preconstruction ☐
Final ☐

Name of Road: SOUTH STREET
Dist. & No. of Road:
Co. ERIE

Date 1-28-? 25° [illegible]
Party SHB, KJB

Punched
Verified

Station	+	H. I.	-	Elev.											
9+39.19 FOX	4.57	592.12		587.55											
11+25 S.ST					17.7L / 1.89 / R / 587.23	15'L / 1.11 / [illegible] / 587.01	10.6 / 1.82 / BS / 587.30	10.4L / 4.67 / TS / 587.45	6.3L / 1.80 / R / 587.32	0' / 4.69 / B / 587.43	8.4R / 5.09 / TS / 587.03	15R / 6.56 / BS / 586.56	10.3 / 5.67 / [illegible] / 586.45	11'R / 5.58 / BS / 586.54	17.6R / 1.91 / TS / 587.21
								23.5L / 4.55 / R / 587.57	18.5 / 4.84 / EP / 587.28		14.5R / 4.96 / EP / 587.16	17.5 / 4.80 / R / 587.32			

Stations - Read up the Sheet

WIDE BEACH
86E-011

RHB, KJE
12-23-86
30°

SH 10 OF

— BENCH RUN —

DESC	BS	HI	FS	ELEV.
NE COR STOOP				
HO# 38 (#4 ON SITE PLAN)	3.48	592.47		588.99
TI 3+57.40 (OVAL)			3.75	588.72
PI 8+57.09 (OVAL)			5.25	587.22
TP#1 (12+12)	4.94	592.16		
			4.48	586.68
TI 15+29.15 (OVAL)	2.83	590.51		
			6.93	583.58
TP#2	5.67	589.25		
			3.79	585.46
PI 19+68.52 (OVAL)	6.28	591.74		
PI 20+84.36 & 0+0 (OVAL & S.ST.)			5.80	585.94
PI 0+0 (FOK & OVAL)			4.71	587.03
TP#3 (2+0 FOK ST)			3.81	587.93
			3.98	587.76
TP#4	5.98	593.74		
			4.51	589.23
PI 9+45.27 (S.ST)	4.53	593.76		
PI 9+39.19 (FOK ST)			5.33	588.43
			6.21	587.55
TP#5 4+0 (FOK ST.)	6.31	593.86		
			5.15	588.71
TP#6 0+0 (FOK & OVAL)	3.55	592.26		
			4.33	587.93
NE COR STOOP.	5.40	593.33		
HO# 38 (#4 ON SITE PLAN)			4.34	588.99
0+0 FOK & OVAL	5.28	593.21		587.93
CONC. MON.			5.94	587.27

LOCATIONS & ELEVATIONS

The vertical and horizontal location of all sampling points, asphalt, baseline stations and utilities were obtained with a total station.

This concept combines in the field both the horizontal and vertical locations of any point and is stored in an electronic data collector. This information is in a raw form that can be easily processed with our micro computer into usable coordinates and elevations. (A further discussion of this two (2) stage data interpretation will follow in the next section)

Once the data is processed, we now have numerous possibilities through our coordinate geometry and graphics software.

We have choosen to separate this processed data into three (3) categories:

1. Soil Sample Locations
2. Pavement Perimeter Location
3. Baseline and Misc. Information

Computer printouts of the field data (unprocessed) and the breakdown of the processed data have been included. Also included are invert elevations and point plots of Items 2 and 3 at a scale of 1"=50' and blow ups of the west side of the oval at a scale of 1"=20' for Item 2. PI's have been included on all plots for match points.

STANDARD ABBREVIATIONS

TC	TOP OF CURB
BC	BOTTOM OF CUB
MH	MANHOLE
PC	POINT OF CURVATURE
POC	POINT ON CURVE
PT	POINT OF TANGENCY
CB	CATCH BASIN
WV	WATER VALVE
HYD	HYDRAM
N	NORTH
W	WEST
E	EAST
S	SOUTH
CO	CORNER
HO	HOUSE
EG	EDGE
CON	CONCRETE
DR	DRIVE
AP	APRON
*	AND
STR	STREET
LMP	LAMP
HDG	HEDGE
SAN	SANITARY
ST	STORM
WLK	WALK
CL	CENTERLINE
'	FOOT
"	INCH
PP	POWER POLE
FP	FLAG POLE
CV	CULVER
END	END
GV	GAS VALVE
GSB	GAS SERVICE BOX
WSB	WATER SERVICE BOX
BIT	BITUMINOUS
STN	STONE
R	RANDOM
C	CURB
HDW	HEADWALL
HO	HOUSE
T	TREE
F	FENCE
CHL	CHAIN LINK
WD	WOOD
P	POST
IP	IRON PIN
M	METAL
CI	CAST IRON
WR	WIRE
WMP	WATER METER PIT
SV	SEWER VENT
SI	SIGN
INTER	INTERSECTION
ANY #	ASSIGNED STATION

EP	EDGE PAVEMENT
IV = INV =	INVERT
MW = TW =	MONITORING OR TEST WELL
GLM =	GAS LINE MARKER
CIP	CAST IRON PIPE
CMP	CORREGATED METAL PIPE
DI	DROP INLET
GM =	GAS METER

====== COGO ====== Tuesday February 3, 1987 1:05 PM

Coordinate File Name: WBP Lowest pt #: 1 Highest pt #: 1956
Job # : 86e-11
Description: pavement file

FROM	TYPE	BEARING	DISTANCE	TO	NORTHING	EASTING

LIST POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCR
9	942883.529	355294.399	595.748	PIFXLS
10	942885.095	353269.434	587.270	CONC MON
28	942875.493	353565.430	587.756	EP
29	942872.286	353565.858	587.556	EP
37	942850.319	353626.649	588.901	EP
38	942875.426	353628.162	588.366	EP
39	942875.802	353629.231	588.480	EP
40	942869.665	353629.748	588.461	EP
42	942871.854	353601.369	588.069	EP
43	942850.331	353602.769	588.706	EP
48	942871.392	353658.734	588.412	EP
49	942875.759	353661.528	588.623	EP
50	942875.601	353671.722	588.598	EP
51	942870.323	353672.770	588.643	EP
56	942872.704	353733.768	589.197	EP
59	942876.128	353753.666	589.097	EP
60	942875.758	353758.239	588.976	EP
61	942872.121	353759.063	588.754	EP
65	942782.641	353814.140	589.759	EP
66	942782.041	353824.462	589.781	EP
67	942856.136	353817.084	588.381	EP
68	942872.062	353810.185	589.470	EP
73	942852.512	353828.028	584.814	EP
77	942875.448	354012.711	588.626	EP
78	942877.263	354013.537	588.680	EP
79	942877.413	354015.916	588.750	EP
80	942874.509	354030.060	588.697	EP
83	942873.581	354047.493	588.341	EP
84	942878.557	354047.054	588.800	EP
86	942897.165	353933.187	589.112	EP
87	942903.983	353929.789	589.176	EP
88	942900.095	353918.267	589.221	EP
89	942897.280	353916.125	589.339	EP
90	942897.124	353912.857	589.240	EP
91	942897.189	353884.411	589.415	EP
98	942922.742	353625.593	588.375	EP
99	942896.387	353627.460	588.313	EP
100	942921.545	353602.057	588.594	EP
101	942903.722	353602.796	588.466	EP
102	942896.346	353600.894	588.323	EP
131	942854.315	353849.629	589.645	EP
132	942850.773	353849.885	589.625	EP
133	942850.925	353857.765	589.888	EP
134	942870.581	353859.622	589.463	EP
141	942975.609	353881.144	589.179	EP
142	942977.947	353880.937	589.245	EP
143	942978.409	353884.870	589.198	EP
144	942987.853	353886.075	589.243	EP
145	942988.378	353903.995	589.242	EP
148	942906.244	353891.970	589.333	EP
149	942907.688	353904.728	589.205	EP
150	942884.370	354221.974	588.430	PI 150
157	942984.964	353931.274	589.023	EP
158	942984.709	353919.807	588.988	EP
164	942825.735	354003.661	589.553	EP
165	942824.975	354033.641	589.498	EP
166	942871.132	354029.235	588.772	EP
167	942868.426	354016.349	588.957	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
9	942883.529	355294.399	595.748	PIFXLS
10	942885.095	353269.434	587.270	CONC MON
28	942875.493	353565.430	587.756	EP
29	942872.286	353565.858	587.556	EP
37	942850.319	353626.649	588.901	EP
38	942875.426	353628.162	588.366	EP
39	942875.802	353629.231	588.480	EP
40	942869.665	353629.748	588.461	EP
42	942871.854	353601.369	588.069	EP
43	942850.331	353602.769	588.706	EP
48	942871.392	353658.734	588.412	EP
49	942875.759	353661.528	588.623	EP
50	942875.601	353671.722	588.598	EP
51	942870.323	353672.770	588.643	EP
56	942872.704	353733.768	589.197	EP
59	942876.128	353753.666	589.097	EP
60	942875.758	353758.239	588.976	EP
61	942872.121	353759.063	588.754	EP
65	942782.641	353814.140	589.759	EP
66	942782.041	353824.462	589.781	EP
67	942856.136	353817.084	588.381	EP
68	942872.062	353810.185	589.470	EP
73	942852.512	353828.028	584.814	EP
77	942875.448	354012.711	588.626	EP
78	942877.263	354013.537	588.680	EP
79	942877.413	354015.916	588.750	EP
80	942874.509	354030.060	588.697	EP
83	942873.581	354047.493	588.341	EP
84	942878.557	354047.054	588.800	EP
86	942897.165	353933.187	589.112	EP
87	942903.983	353929.789	589.176	EP
88	942900.095	353918.267	589.221	EP
89	942897.280	353916.125	589.339	EP
90	942897.124	353912.857	589.240	EP
91	942897.189	353884.411	589.415	EP
98	942922.742	353625.593	588.375	EP
99	942896.387	353627.460	588.313	EP
100	942921.545	353602.057	588.594	EP
101	942903.722	353602.796	588.466	EP
102	942896.346	353600.894	588.323	EP
131	942854.315	353849.629	589.645	EP
132	942850.773	353849.885	589.625	EP
133	942850.925	353857.765	589.888	EP
134	942870.581	353859.622	589.463	EP
141	942975.609	353881.144	589.179	EP
142	942977.947	353880.937	589.245	EP
143	942978.409	353884.870	589.198	EP
144	942987.853	353886.075	589.243	EP
145	942988.378	353903.995	589.242	EP
148	942906.244	353891.970	589.333	EP
149	942907.688	353904.728	589.205	EP
150	942884.370	354221.974	588.430	PI 150
157	942984.964	353931.274	589.023	EP
158	942984.709	353919.807	588.988	EP
164	942825.735	354003.661	589.553	EP
165	942824.975	354033.641	589.498	EP
166	942871.132	354029.235	588.772	EP
167	942868.426	354016.349	588.957	EP

====== COGO ====== Tuesday February 3, 1987 1:13 PM

Coordinate File Name: WBP Lowest pt #: 1 Highest pt #: 1956
Job # : 86e-11
Description: pavement file

FROM	TYPE	BEARING	DISTANCE	TO	NORTHING	EASTING
ENTER POINTS						
9		942883.529	355294.399	PIFXLS		
10		942885.095	353269.434	CONC MON		
LIST POINTS						

POINT	NORTHING	EASTING	ELEVATION	DESCR
1949	943165.671	353019.763	587.581	EP
1951	942660.089	352778.194	584.922	EP
1955	942668.960	353776.357	588.380	EP
1956	942668.957	353767.157	588.340	EP

Coordinates stored Tuesday February 3, 1987 1:13 PM

POINT	NORTHING	EASTING	ELEVATION	DESCR
1718	942572.179	353112.952	584.591	EP
1719	942571.963	353100.944	584.460	EP
1722	942573.029	353087.324	584.258	EP
1723	942574.568	353069.886	584.115	EP
1729	942576.026	352996.275	583.847	EP
1732	942575.835	352909.723	583.626	EP
1733	942574.938	352900.547	583.420	EP
1735	942661.137	353024.293	585.421	EP
1736	942661.710	353033.577	584.969	EP
1744	942594.187	353159.909	585.501	EP
1745	942607.612	353204.023	586.518	EP
1786	942513.919	353100.568	581.934	EP
1787	942514.113	353113.324	583.038	EP
1812	942872.802	354199.229	588.052	EP
1815	942866.689	354247.218	587.896	EP
1817	942854.874	354237.164	588.299	EP
1821	942868.504	354319.793	587.300	EP
1822	942862.684	354323.124	587.278	EP
1823	942862.084	354335.247	587.365	EP
1824	942871.969	354336.024	587.240	EP
1839	942872.169	354516.737	587.414	EP
1842	942897.672	354526.014	587.727	EP
1851	942898.459	354764.022	590.035	EP
1852	942904.603	354766.122	590.535	EP
1853	942898.113	354782.549	590.433	EP
1854	942909.115	354777.306	591.902	EP
1855	942919.735	354775.273	591.498	EP
1856	942918.179	354767.464	591.296	EP
1878	942874.845	355055.641	594.133	EP
1879	942875.285	355068.135	594.301	EP
1881	942835.939	355069.209	594.526	EP
1882	942831.547	355059.897	594.544	EP
1884	942777.148	355092.032	595.046	EP
1885	942768.681	355086.239	595.115	EP
1886	942761.127	355117.877	595.129	EP
1887	942750.486	355118.288	595.255	EP
1888	942780.673	355158.743	595.167	EP
1889	942785.048	355149.232	595.312	EP
1890	942809.472	355146.274	595.478	EP
1891	942808.302	355169.672	595.586	EP
1892	942807.085	355174.220	595.529	EP
1893	942808.713	355173.828	595.596	EP
1894	942810.565	355169.956	595.622	EP
1895	942831.195	355165.716	595.473	EP
1896	942826.301	355147.246	595.188	EP
1897	942843.858	355151.733	595.151	EP
1900	942875.655	355153.820	594.985	EP
1901	942875.877	355168.222	595.270	EP
1902	942897.255	355144.521	594.848	PP
1906	942870.052	355276.433	595.341	EP
1907	942874.497	355228.583	595.830	EP
1916	942897.728	355261.983	595.389	EP
1917	942915.875	355283.728	595.560	EP
1921	942856.220	355276.564	594.856	EP
1941	943259.212	353121.799	587.862 EP	
1946	943142.406	353147.871	588.243 EP	
1947	943142.436	353157.904	588.331 EP	
1948	943165.626	353029.901	587.400 EP	

POINT	NORTHING	EASTING	ELEVATION	DESCR
1566	942601.267	353032.133	584.538	EP
1567	942600.577	353019.621	584.639	EP
1568	942595.409	353016.820	584.540	EP
1572	942595.125	352977.137	584.285	EP
1573	942601.108	352974.024	584.625	EP
1574	942652.488	352972.574	584.856	EP
1575	942652.788	352964.524	584.861	EP
1576	942649.744	352964.240	584.786	EP
1577	942649.604	352962.782	584.659	EP
1578	942648.329	352962.403	584.579	EP
1579	942647.504	352959.496	584.338	EP
1581	942600.546	352964.117	584.364	EP
1582	942594.864	352960.692	584.266	EP
1587	942594.560	352910.830	584.326	EP
1588	942594.898	352900.276	584.259	EP
1595	942598.472	352870.328	584.228	EP
1600	942623.548	352817.176	584.032	EP
1607	942761.614	352810.328	586.211	EP
1608	942772.641	352808.582	586.550	EP
1609	942785.079	352825.875	586.712	EP
1610	942788.451	352814.959	586.700	EP
1611	942812.463	352810.798	586.660	EP
1612	942804.994	352804.295	586.714	EP
1622	942744.108	352691.207	585.953	EP
1623	942744.040	352697.957	585.953	EP
1624	942746.296	352699.951	586.126	EP
1625	942767.459	352692.040	586.086	EP
1626	942755.474	352724.041	586.064	EP
1628	942756.599	352765.336	585.455	EP
1629	942754.301	352773.275	585.609	EP
1630	942767.998	352763.139	585.665	EP
1631	942770.708	352772.738	585.930	EP
1632	942773.619	352772.570	586.044	EP
1633	942775.347	352660.693	586.414	EP
1634	942789.362	352661.592	586.515	EP
1635	942788.700	352668.240	586.358	EP
1636	942793.411	352668.842	586.342	EP
1650	942522.780	352698.151	581.473	EP
1651	942522.027	352708.674	581.571	EP
1652	942525.723	352709.575	581.695	EP
1653	942525.451	352711.877	581.600	EP
1654	942515.326	352711.668	581.211	EP
1655	942508.493	352704.496	580.961	EP
1656	942505.830	352696.790	580.993	EP
1659	942504.630	352674.179	580.870	EP
1660	942494.575	352674.155	580.555	EP
1661	942492.945	352713.112	580.548	EP
1662	942485.730	352715.549	580.311	EP
1664	942486.104	352725.135	580.270	EP
1665	942489.262	352726.953	580.241	EP
1666	942493.342	352726.691	580.124	EP
1667	942495.469	352724.256	580.318	EP
1701	942575.177	353172.132	585.717	EP
1702	942517.031	353174.169	584.931	EP
1703	942515.136	353164.902	584.900	EP
1707	942574.228	353161.969	585.400	EP
1711	942513.518	353086.327	581.927	EP
1712	942513.834	353075.189	581.725	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
1389	942687.854	353510.450	586.962	EP
1390	942729.972	353527.254	587.157	EP
1391	942731.320	353532.912	586.928	EP
1392	942732.741	353532.708	586.992	EP
1393	942733.121	353527.291	587.212	EP
1394	942752.264	353528.390	587.398	EP
1395	942753.161	353514.017	587.120	EP
1406	942549.498	353456.828	585.444	EP
1407	942549.530	353447.855	585.560	EP
1408	942663.819	353447.635	586.346	EP
1409	942670.095	353442.983	586.776	EP
1410	942669.903	353458.978	586.806	EP
1450	942853.848	352793.248	586.519	EP
1451	942834.063	352790.573	586.004	EP
1452	942824.011	352793.029	586.358	EP
1453	942823.438	352789.594	586.292	EP
1456	942810.575	352793.136	586.554	EP
1457	942764.519	352793.725	585.836	EP
1458	942751.135	352790.947	585.560	EP
1459	942751.241	352809.591	586.210	
1460	942741.121	352810.148	586.222	EP
1461	942741.116	352808.954	586.168	EP
1462	942732.097	352809.172	585.912	EP
1463	942732.279	352820.221	585.710	EP
1464	942721.969	352820.341	585.654	EP
1470	942719.889	352791.803	585.095	EP
1471	942713.872	352792.119	584.955	EP
1472	942713.578	352795.173	584.980	EP
1474	942685.580	352796.270	584.932	EP
1475	942682.559	352795.229	584.811	EP
1477	942644.957	352802.499	584.597	EP
1481	942792.576	352771.835	586.596	EP
1486	942688.976	352776.250	585.365	EP
1492	942659.818	352730.804	584.799	EP
1493	942647.995	352731.709	584.876	EP
1494	942645.041	352780.422	585.032	EP
1495	942625.378	352783.316	584.843	EP
1496	942621.012	352779.428	584.611	EP
1498	942608.612	352778.938	584.360	EP
1505	942619.090	352720.840	584.335	EP
1507	942610.113	352719.847	584.342	EP
1508	942603.616	352713.685	584.378	EP
1510	942601.651	352684.168	584.622	EP
1517	942563.833	352681.427	583.037	EP
1518	942563.925	352712.880	582.935	EP
1519	942558.634	352712.655	582.583	EP
1520	942548.737	352700.286	581.737	EP
1528	942595.463	352728.922	584.085	EP
1529	942605.008	352737.408	584.226	EP
1530	942608.045	352743.344	584.393	EP
1531	942608.704	352778.991	584.427	EP
1532	942579.228	352776.026	583.301	EP
1545	942574.470	352820.199	583.273	EP
1546	942578.993	352825.446	583.429	EP
1547	942585.297	352845.717	583.868	EP
1553	942549.768	352900.075	582.075	EP
1554	942549.639	352908.537	582.100	EP
1565	942595.594	353035.117	584.456	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
1154	942664.377	354126.646	588.208	EP
1155	942665.611	354146.331	588.093	EP
1156	942634.073	354148.244	588.115	EP
1157	942632.953	354150.514	588.139	EP
1158	942637.620	354172.840	588.168	EP
1159	942639.456	354175.479	588.248	EP
1160	942663.040	354176.968	588.258	EP
1161	942670.670	354169.172	588.246	EP
1233	942734.236	354211.158	586.981	EP
1234	942720.451	354206.718	587.215	EP
1235	942693.669	354180.476	587.960	EP
1236	942686.723	354156.956	587.793	EP
1237	942683.515	354119.866	587.924	EP
1238	942665.839	354057.799	588.394	EP
1260	942680.354	354365.960	582.523	EP
1261	942680.958	354360.919	582.322	EP
1262	942683.459	354361.337	582.034	EP
1280	942559.834	353770.119	588.331	EP
1281	942560.485	353761.125	588.223	EP
1294	942668.805	353829.218	588.543	EP
1295	942661.873	353825.262	588.338	EP
1296	942605.894	353824.686	588.357	EP
1297	942606.112	353815.964	588.284	EP
1298	942663.562	353815.365	588.380	EP
1299	942668.974	353813.057	588.414	EP
1300	942687.186	353821.584	588.300	EP
1301	942687.835	353809.949	588.282	EP
1302	942751.727	353811.859	588.392	EP
1303	942751.918	353807.640	588.021	EP
1304	942755.331	353807.717	588.014	EP
1305	942755.089	353812.063	588.387	EP
1306	942762.027	353813.321	588.313	EP
1307	942761.247	353822.763	588.465	EP
1314	942737.447	353750.305	588.409	EP
1315	942731.967	353745.537	588.578	EP
1316	942736.912	353745.689	588.498	EP
1317	942731.568	353731.049	588.591	EP
1318	942688.278	353729.339	588.114	EP
1324	942545.227	353726.860	587.225	EP
1325	942544.923	353739.275	587.295	EP
1326	942565.878	353744.278	587.192	EP
1327	942570.776	353748.016	587.380	EP
1328	942628.902	353751.746	588.472	EP
1329	942657.185	353743.841	588.275	EP
1330	942668.948	353746.417	588.409	EP
1331	942670.096	353726.955	588.034	EP
1332	942664.659	353730.598	588.113	EP
1378	942569.117	353523.553	585.406	EP
1379	942568.294	353514.145	585.584	EP
1380	942620.353	353522.579	586.430	EP
1381	942620.815	353526.032	585.989	EP
1382	942622.901	353525.798	585.995	EP
1383	942623.455	353522.522	586.438	EP
1384	942662.495	353522.375	586.505	EP
1385	942670.714	353526.824	587.011	EP
1386	942669.659	353509.365	586.874	EP
1387	942665.264	353511.669	586.547	EP
1388	942688.085	353525.232	587.192	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
1004	942864.271	353300.435	587.440	EP
1005	942841.132	353290.805	587.179	EGPVDDIT
1014	942900.282	353320.369	587.294	EP
1015	942904.922	353304.093	587.475	EP
1016	942918.672	353297.048	587.623	EP
1017	942932.129	353293.929	587.700	EP
1020	942829.805	353272.428	587.598	EP
1030	942687.603	353271.689	587.082	EP
1032	942670.255	353262.841	586.372	PP
1033	942637.417	353244.380	586.558	EP
1034	942620.135	353224.372	586.548	EP
1036	942583.425	353198.955	586.278	EP
1037	942590.156	353223.087	586.197	EP
1038	942632.537	353265.484	586.707	EP
1039	942653.268	353283.250	586.837	EP
1040	942668.283	353307.475	586.855	EP
1041	942672.690	353331.490	587.017	EP
1100	942671.167	354225.487	588.430	PI 1100
1102	942898.931	354221.892	586.375	EP
1103	942872.964	354197.022	586.751	EP
1104	942869.883	354201.379	586.840	EP
1105	942854.116	354236.867	586.837	EP
1110	942796.546	354209.471	586.342	EP
1111	942789.017	354212.761	586.499	EP
1113	942731.299	354232.603	587.061	EP
1114	942728.088	354236.082	586.772	EP
1116	942715.593	354273.786	585.649	EP
1118	942694.448	354292.217	584.453	EP
1119	942709.516	354261.633	586.020	EP
1120	942713.532	354235.214	586.979	EP
1121	942711.651	354232.579	587.283	EP
1125	942686.753	354321.979	583.151	EP
1126	942681.325	354310.992	583.323	EP
1127	942658.675	354328.555	582.591	EP
1128	942632.365	354331.860	582.375	EP
1129	942631.968	354348.348	582.220	EP
1130	942637.582	354366.298	582.378	EP
1131	942632.615	354387.636	582.629	EP
1132	942651.302	354389.857	582.872	EP
1133	942657.723	354364.585	582.990	EP
1134	942684.690	354361.401	582.156	EP
1135	942686.601	354352.160	582.189	EP
1136	942682.023	354349.281	586.506	EP
1137	942680.861	354335.308	586.915	EP
1138	942675.367	354232.428	587.647	EP
1139	942669.260	354216.516	588.030	EP
1140	942673.439	354208.791	587.985	EP
1141	942678.153	354196.261	588.440	EP
1142	942675.696	354189.696	588.508	EP
1143	942672.620	354187.697	588.395	EP
1146	942614.429	354185.765	588.615	EP
1147	942616.119	354174.413	588.447	EP
1148	942623.520	354175.398	588.402	EP
1149	942622.613	354159.652	588.130	EP
1150	942617.341	354150.485	588.330	EP
1151	942614.560	354149.581	588.319	EP
1152	942606.039	354149.491	588.081	EP
1153	942608.788	354126.809	588.244	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
862	943051.558	352834.410	587.724	EP
863	943051.461	352831.085	587.617	EP
864	943047.030	352830.356	587.742	EP
865	943047.212	352797.816	587.371	EP
866	943051.487	352794.222	587.143	EP
867	943050.912	352798.119	587.150	EP
868	943115.232	352798.248	586.777	EP
869	943122.846	352802.705	587.286	EP
870	943122.161	352828.587	588.150	EP
871	943132.400	352832.570	588.181	EP
872	943134.241	352828.747	588.218	EP
873	943145.573	352833.523	588.152	EP
874	943153.443	352817.613	587.863	EP
875	943157.464	352816.623	587.966	EP
876	943159.379	352819.170	587.690	EP
877	943154.287	352829.004	588.095	EP
878	943164.812	352834.951	588.033	EP
879	943179.354	352806.983	586.797	EP
880	943196.373	352812.310	586.882	EP
881	943220.982	352833.968	586.848	EP
882	943235.241	352867.513	586.614	EP
908	942965.645	352843.121	587.382	EP
909	942958.255	352843.458	587.402	EP
911	942917.768	352853.093	587.650	EP
912	942909.437	352853.471	587.517	EP
913	942868.558	352885.032	587.079	EP
914	942865.540	352889.969	586.989	EP
915	942859.069	352889.523	586.930	EP
929	942681.582	352902.445	584.465	EP
930	942681.493	352911.001	584.563	EP
950	942682.555	353280.282	587.030	PI 950
951	942670.496	353425.174	587.321	EP
952	942666.332	353423.859	586.978	EP
953	942666.313	353410.521	586.875	EP
954	942670.965	353407.741	587.090	EP
955	942672.362	353402.387	587.427	EP
965	942689.734	353406.344	587.468	EP
966	942693.109	353403.588	587.461	EP
967	942723.719	353403.705	588.197	EP
968	942723.489	353392.306	588.363	EP
970	942694.400	353392.519	587.589	EP
971	942690.185	353391.066	587.358	EP
973	942690.859	353310.779	586.879	EP
974	942696.140	353297.347	586.828	EP
975	942708.305	353290.728	586.809	EP
978	942700.010	353294.254	586.977	EGPVDDIT
979	942706.336	353300.484	586.419	"
980	942773.535	353298.840	586.425	"
981	942775.361	353291.136	586.851	"
991	942784.596	353292.467	586.868	EP
992	942785.307	353328.943	587.186	EP
993	942801.206	353329.360	587.116	EP
994	942801.577	353292.962	586.980	EP
999	942840.658	353296.992	586.272	EGPVDDIT
1000	942841.001	353290.843	587.177	"
1001	942861.240	353306.766	586.640	"
1002	942868.206	353320.424	586.742	"
1003	942873.000	353319.971	587.387	"

POINT	NORTHING	EASTING	ELEVATION	DESCR
757	942874.291	352771.567	587.199	EP
758	942879.804	352766.438	587.185	EP
759	942881.283	352761.568	587.255	EP
765	943170.484	352717.184	587.274	EP
766	943148.129	352716.585	586.943	EP
774	943078.752	352712.333	587.054	EP
775	943098.437	352713.829	587.575	EP
777	943062.505	352713.485	587.314	EP
778	943048.696	352712.074	587.333	EP
779	943051.173	352720.636	587.403	EP
780	943059.861	352726.002	587.432	EP
781	943078.348	352725.890	587.137	EP
782	943060.602	352775.027	587.619	EP
783	943059.196	352769.263	587.486	EP
784	943047.981	352769.447	587.453	EP
785	943046.610	352774.519	587.636	EP
793	942984.376	352687.845	588.338	EP
794	942973.867	352687.902	588.450	EP
796	942978.919	352765.361	587.723	EP
797	942981.548	352774.733	587.897	EP
798	942969.144	352765.099	587.667	EP
799	942965.648	352774.221	587.730	EP
800	942585.024	353217.792	585.940	PI 800
801	942945.153	352774.342	587.822	EP
802	942942.059	352771.497	587.347	EP
803	942935.307	352726.736	587.218	EP
804	942936.329	352699.207	587.404	EP
805	942918.306	352700.008	587.409	EP
806	942926.957	352773.647	587.610	EP
809	942898.709	352773.777	587.729	EP
810	942894.484	352768.442	587.483	EP
811	942892.370	352758.114	587.319	EP
825	942905.915	352791.292	587.589	EP
826	942919.363	352791.436	587.620	EP
827	942917.240	352797.588	587.744	EP
828	942921.979	352791.762	587.419	EP
829	942922.000	352795.025	587.321	EP
834	942946.849	352796.458	587.239	EP
835	942947.302	352792.359	587.342	EP
836	942954.801	352792.484	587.330	EP
837	942956.529	352797.492	587.328	EP
840	942965.054	352808.383	583.367	EP
841	942965.859	352797.654	583.394	EP
842	942967.747	352792.485	583.512	EP
843	942970.052	352793.151	583.478	EP
844	942969.685	352798.127	583.416	EP
848	943002.342	352794.938	586.816	EP
849	943002.605	352798.544	587.312	EP
850	943008.307	352794.393	587.376	EP
851	943018.267	352794.635	587.351	EP
852	943021.304	352797.548	587.065	EP
855	943030.158	352798.637	587.219	EP
856	943027.081	352806.147	587.461	EP
857	943009.421	352865.106	587.625	EP
858	943018.787	352865.099	588.025	EP
859	943027.427	352858.905	587.783	EP
860	943050.325	352858.518	587.839	EP
861	943049.909	352834.866	587.785	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
619	943252.389	352844.797	586.864	EP
620	943243.138	352827.276	587.124	EP
621	943243.352	352823.565	586.928	EP
622	943289.658	352827.647	586.825	EP
623	943290.613	352817.684	586.977	EP
624	943239.572	352812.986	586.956	EP
625	943244.776	352801.481	587.069	EP
626	943251.065	352794.969	587.215	EP
627	943271.839	352775.693	587.492	EP
628	943285.665	352772.405	587.477	EP
629	943388.814	352775.377	586.912	EP
630	943387.238	352746.093	586.867	EP
631	943367.690	352745.342	587.178	EP
632	943366.550	352757.573	587.049	EP
633	943356.744	352763.626	587.114	EP
634	943339.186	352765.631	587.223	EP
635	943282.345	352762.695	587.348	EP
636	943290.743	352747.851	587.169	EP
637	943298.417	352738.749	587.075	EP
638	943304.503	352735.032	587.092	EP
639	943311.336	352734.967	587.094	EP
640	943311.635	352723.011	587.149	EP
641	943303.005	352721.808	586.971	EP
642	943296.533	352714.690	586.782	EP
643	943295.905	352693.377	586.308	EP
644	943286.454	352693.165	586.602	EP
645	943283.732	352737.461	587.141	EP
646	943276.145	352754.597	587.411	EP
647	943267.433	352764.496	587.231	EP
648	943265.876	352763.626	587.200	EP
649	943267.613	352724.198	587.013	EP
650	942585.501	352778.421	583.580	PI 650
651	943259.278	352724.502	586.841	EP
652	943257.611	352762.585	586.968	EP
653	943251.071	352779.715	587.146	EP
654	943235.481	352795.073	587.022	EP
655	943223.712	352800.246	587.183	EP
656	943206.618	352788.940	587.240	EP
657	943208.060	352742.996	587.432	EP
658	943191.458	352742.425	587.550	EP
659	943189.316	352758.912	587.331	EP
660	943177.764	352757.019	587.392	EP
661	943175.958	352780.691	587.494	EP
662	943172.972	352781.300	587.406	EP
663	943169.632	352780.838	587.258	EP
664	943147.752	352769.110	586.776	EP
665	943137.778	352772.332	586.991	EP
666	943136.741	352777.447	587.308	EP
667	943097.836	352775.874	587.613	EP
668	943092.445	352768.518	587.592	EP
669	943091.879	352754.687	587.355	EP
670	943097.891	352726.162	587.378	EP
671	943077.180	352727.571	587.169	EP
672	943081.542	352742.286	587.141	EP
673	943077.634	352766.537	587.495	EP
674	943073.237	352773.981	587.585	EP
739	942893.592	352600.171	588.281	EP
740	942886.523	352598.757	588.566	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
382	943238.351	353145.753	588.207	EP
383	943230.261	353157.728	588.170	EP
384	943236.201	353162.590	588.231	EP
385	943231.381	353194.669	588.258	EP
386	943228.848	353198.658	588.166	EP
387	943230.025	353203.790	588.149	EP
388	943220.351	353231.860	588.864	EP
389	943194.094	353260.331	588.987	EP
390	943175.443	353272.524	589.071	EP
391	943159.003	353275.642	588.925	EP
422	943263.508	352949.047	587.267	EP
423	943271.589	352950.235	587.662	EP
425	943278.716	352953.032	587.921	EP
426	943281.711	352953.243	587.670	EP
427	943282.123	352944.388	587.903	EP
428	943285.601	352947.728	587.915	EP
429	943285.427	352944.572	587.902	EP
430	943288.237	352943.257	587.912	EP
431	943288.583	352938.184	587.892	EP
432	943267.425	352930.562	587.199	EP
433	943264.228	352882.885	586.202	EP
434	943261.168	352882.648	586.502	EP
442	943239.238	352914.519	586.226	EP
453	943236.216	353019.285	587.545	EP
456	943236.450	353030.793	587.448	EP
473	943312.700	353127.694	587.695	EP
474	943312.459	353123.705	587.838	EP
481	943221.541	353352.274	589.119	EP
482	943251.117	353367.712	589.195	EP
483	943252.366	353380.923	589.340	EP
484	943250.192	353383.845	589.339	EP
485	943253.683	353387.296	589.258	EP
486	943246.601	353397.412	589.233	EP
487	943240.879	353402.530	589.073	EP
488	943229.406	353396.294	589.286	EP
489	943218.618	353401.021	589.472	EP
490	943218.362	353406.867	589.383	EP
491	943215.705	353408.455	589.559	EP
492	943216.552	353411.647	589.312	EP
493	943208.427	353413.611	589.224	EP
494	943200.334	353414.257	589.274	EP
495	943199.091	353422.687	589.083	EP
496	943191.382	353423.242	589.090	EP
497	943190.201	353416.032	589.225	EP
498	943181.900	353417.637	589.283	EP
499	943176.295	353379.679	589.278	EP
500	943257.487	352787.736	587.220	PI 500
517	943291.772	352947.758	588.132	EP
518	943293.604	352931.994	587.338	EP
610	943258.595	352864.324	586.894	EP
611	943263.922	352861.656	586.750	EP
612	943334.208	352868.647	586.807	EP
613	943334.742	352858.317	586.906	EP
614	943331.120	352858.015	586.963	EP
615	943331.310	352851.637	587.016	EP
616	943312.950	352849.671	586.950	EP
617	943302.980	352853.964	587.069	EP
618	943260.796	352849.214	586.681	EP

POINT	NORTHING	EASTING	ELEVATION	DESCR
200	942885.085	353282.784	587.930	0+0oval
202	942869.214	353334.882	587.307	"
211	942813.436	353489.496	587.299	EP
212	942813.485	353500.327	587.334	EP
213	942863.930	353501.843	587.218	EP
214	942872.409	353505.205	587.294	EGPVDDIT
215	942872.746	353511.228	587.457	"
216	942876.178	353511.499	587.337	"
217	942876.246	353506.707	587.228	"
218	942876.067	353487.437	587.171	"
219	942870.894	353490.206	587.374	"
220	942865.991	353491.005	587.402	EP
225	942848.199	353513.436	587.386	EP
226	942847.902	353530.618	587.508	EP
227	942851.728	353531.633	587.725	EP
228	942851.496	353537.132	587.560	EP
229	942864.980	353536.939	587.664	EP
230	942871.577	353534.023	587.675	EP
231	942876.028	353534.919	587.597	EP
246	942960.417	353272.644	587.883	EP
247	942962.228	353231.657	587.832	EP
248	942981.553	353231.228	587.605	EP
249	942979.880	353272.762	587.950	EP
262	943060.928	353295.749	588.326	EP
263	943072.827	353295.770	588.354	EP
276	943066.247	353418.204	589.325	EP
277	943076.530	353416.912	589.362	EP
350	943242.457	353287.195	588.720	PI 350
352	943158.237	353297.046	588.710	EP
353	943166.085	353305.666	588.874	EP
354	943176.985	353340.876	589.182	EP
355	943175.177	353342.359	589.119	EP
356	943176.434	353368.776	589.314	EP
357	943198.889	353336.394	588.872	EP
358	943189.930	353328.619	588.996	EP
359	943181.597	353304.610	589.092	EP
360	943183.610	353300.186	588.989	EP
361	943205.519	353302.564	588.860	EP
362	943209.943	353310.188	588.678	EP
363	943212.135	353320.507	588.609	EP
364	943221.646	353319.692	588.757	EP
365	943221.686	353302.832	588.956	EP
366	943243.606	353303.988	588.579	EP
367	943244.173	353280.874	588.627	EP
368	943202.769	353280.606	589.156	EP
369	943229.280	353251.412	589.307	EP
370	943248.159	353219.264	588.768	EP
371	943275.015	353223.911	588.291	EP
372	943277.311	353214.064	588.401	EP
373	943374.320	353218.814	586.745	EP
374	943374.127	353209.516	586.678	EP
375	943252.733	353202.226	588.644	EP
376	943257.351	353137.971	588.039	EP
377	943261.227	353134.899	587.865	EP
378	943338.372	353137.322	587.422	EP
379	943340.637	353129.050	587.170	EP
380	943236.180	353142.126	588.122	EP
381	943238.869	353142.097	588.065	EP

====== COGO ====== Tuesday February 3, 1987 1:27 PM

Coordinate File Name: WBSS Lowest pt #: 1 Highest pt #: 1942
Job # : 86E-011
Description: soil sample locations

POINT	NORTHING	EASTING	ELEVATION	DESCR
9	942883.529	355294.399	595.748	PIFXLS
10	942885.095	353269.434	587.270	CONC MON
30	942867.804	353565.191	587.360	B6002
33	942808.069	353574.677	587.644	B6004
5 34	942813.141	353603.505	588.369	B5801
35	942787.594	353602.460	588.336	B5803
36	942831.408	353661.459	588.532	B5802
53	942842.478	353688.048	588.752	B5701
54	942793.346	353713.247	589.135	B5704
10 55	942848.070	353716.140	588.885	B5702
62	942854.850	353763.649	589.267	B5601
63	942795.458	353762.435	588.844	B5603
64	942795.330	353781.773	588.927	B5604
69	942856.219	353781.591	589.194	B5602
15 85	942908.863	353992.677	588.858	F5301
92	942900.997	353795.777	588.843	V0701
93	942908.937	353795.984	589.066	V0702
94	942904.838	353666.252	588.020	F5901
95	942928.915	353653.663	587.901	F5903
20 96	942964.636	353657.618	588.342	F5905
97	942936.963	353626.267	587.755	F5904
105	942898.444	353581.745	587.966	F5907
122	943033.248	353645.474	588.653	B5901
123	942972.124	353611.046	588.043	F5906
25 124	943097.688	353648.592	587.437	B5902
125	943099.101	353619.278	587.893	B5903
126	943101.295	353559.595	588.417	B5904
127	943059.259	353514.701	588.676	B4401
128	943059.820	353490.965	587.874	B4402
30 135	942899.953	353834.682	588.748	F5402
136	942938.765	353842.913	588.539	F5404
137	942981.561	353844.361	588.202	F5406
138	943028.861	353854.060	588.160	B5403
139	943078.657	353854.397	587.771	B5401
35 140	942968.928	353884.074	588.845	F5405
146	942940.423	353890.345	588.808	F5403
147	942907.732	353884.434	588.790	F5401
150	942884.370	354221.974	588.430	PI 150
151	942906.019	353909.543	588.677	F5407
40 152	942909.956	353934.703	588.483	F5303
153	942915.424	353966.034	588.669	F5302
154	942977.946	353991.253	588.966	F5304
155	942970.979	353963.154	589.685	F5305
156	942976.020	353939.138	588.884	F5306
45 159	942861.459	354008.471	589.372	F5201
160	942868.519	354048.516	588.635	F5202
161	942865.144	354100.537	588.181	F5203
176	943030.514	353883.905	588.332	B5404
177	943038.485	353949.678	588.079	B5303
50 178	943037.255	353980.523	587.947	B5304
179	943090.729	353979.218	587.275	B5302
180	943089.504	353949.014	587.597	B5301
181	943085.314	353882.059	587.608	B5402
200	942885.085	353282.784	587.930	0+0oval
55 204	942851.348	353345.933	586.681	F4205
205	942863.618	353370.233	586.591	F4206
206	942838.233	353394.325	586.651	B4203
207	942880.989	353369.079	587.185	ST2

POINT	NORTHING	EASTING	ELEVATION	DESCR
209	942884.372	353421.892	587.318	A2
60 210	942836.711	353449.351	586.702	B4201
233	942902.138	353502.337	587.542	V0601
234	942901.200	353397.372	587.540	V0501
235	942910.310	353396.497	587.362	V0502
236	942921.586	353395.751	586.962	V0503
65 237	942928.747	353400.052	586.994	V0504
238	942905.967	353313.989	586.716	V1301
239	942913.522	353319.597	586.708	V1302
240	942865.661	353216.989	586.718	F4305
241	942859.071	353182.613	586.471	F4306
70 242	942904.154	353217.347	587.161	F4304
243	942904.676	353252.595	586.801	F4303
244	942948.410	353234.657	587.128	F4302
245	942950.613	353269.497	587.308	F4301
250	942984.247	353265.956	587.518	F4307
75 252	942993.143	353302.528	587.914	F4401
253	942999.840	353358.769	589.077	F4403
254	943011.802	353419.020	589.469	F4405
255	943019.809	353305.055	587.791	F4407
256	943054.127	353300.296	587.932	F4402
80 257	943053.137	353354.712	588.377	F4404
259	943024.548	353280.394	588.227	A3
260	943059.637	353386.690	588.747	F4406
279	942996.787	353179.707	587.120	B4302
280	942933.487	353103.677	586.727	B4304
85 281	942956.493	353104.394	586.662	B4303
282	943068.974	353067.712	587.332	B0402
283	943067.341	353103.428	587.045	B0401
284	943117.323	353103.569	587.513	B0403
285	943119.133	353065.601	587.143	B0404
90 286	943157.057	352993.684	586.963	B0503
287	943135.101	352992.222	587.290	B0501
288	943190.996	353127.164	587.363	F0403
289	943220.873	353115.008	587.297	F0402
290	943178.558	353198.587	587.980	F0405
95 291	943178.304	353250.820	588.364	F0406
292	943141.991	353247.001	588.204	F0407
350	943242.457	353287.195	588.720	PI 350
393	943249.136	353291.150	588.035	F0101
394	943277.064	353287.202	587.952	F0104
100 395	943271.188	353268.173	588.233	F0105
396	943278.007	353246.467	588.336	F0106
397	943249.954	353235.519	588.360	F0103
398	943207.684	353180.286	587.926	F0404
399	943263.645	353200.666	588.204	F0201
105 400	943228.832	353264.805	588.833	F0102
402	943282.948	353197.463	587.886	F0203
403	943307.711	353206.891	587.701	F0205
404	943314.460	353162.199	587.531	F0206
405	943286.942	353164.725	587.694	F0204
110 406	943304.022	353117.013	587.554	F0305
407	943287.452	353111.870	587.752	F0303
408	943264.335	353111.766	587.476	F0301
409	943296.278	353095.596	587.215	F0304
410	943312.804	353091.543	587.039	F0306
115 411	943346.414	352998.285	586.850	O-A
412	943270.203	352971.222	587.473	O-B

POINT	NORTHING	EASTING	ELEVATION	DESCR
413	943275.569	353022.593	587.039	O-C
414	943252.685	353025.852	587.630	ST4
415	943250.345	353045.616	587.750	A4
120 435	943267.712	352898.994	586.124	F0701
436	943269.942	352866.361	586.292	F0702
437	943220.240	352893.989	587.618	F0605
438	943214.062	352918.352	587.200	F0606
443	943230.043	352932.489	586.610	F0501
125 444	943204.152	352937.087	587.022	F0504
445	943205.733	352972.084	587.237	F0505
446	943228.123	352983.617	586.840	F0502
447	943229.476	353007.438	586.917	F0503
448	943209.919	353005.415	587.099	F0506
130 449	943156.543	352947.588	586.857	B0504
450	943143.617	352886.959	587.984	B0604
451	943225.171	353052.627	586.824	F0401
461	943388.101	353191.730	586.522	B0202
466	943388.108	353093.107	585.630	B0301
467 135	943368.081	353125.049	586.706	B0304
468	943389.256	353124.730	585.984	B0302
469	943386.349	353162.972	586.506	B0201
470	943380.617	353182.286	586.949	B0203
471	943355.593	353195.848	586.995	B0204
472 140	943368.262	353093.147	585.962	B0303
475	943326.748	353265.528	587.146	B0103
477	943381.594	353269.116	586.854	B0101
478	943372.231	353294.149	586.862	B0102
479	943342.007	353294.911	586.968	B0104
500 145	943257.487	352787.736	587.220	PI 500
502	943189.943	353431.879	589.033	002I
503	943201.208	353501.862	588.935	002J
504	943288.824	353537.326	589.374	002G
505	943311.483	353599.884	588.541	002H
506 150	943374.411	353587.141	587.692	002D
508	943351.670	353507.071	589.182	002C
509	943325.491	353443.664	589.027	002B
510	943352.028	353428.317	587.924	EN10
511	943324.450	353392.096	587.515	EN9
512 155	943298.780	353378.784	588.296	002A
513	943248.188	353403.976	589.275	002E
515	943268.347	353154.477	587.539	F0202
516	943274.378	353089.983	587.362	F0302
520	943285.386	352899.232	586.422	F0703
521 160	943314.652	352902.414	586.825	F0705
522	943329.017	352873.518	586.801	F0706
523	943297.558	352869.716	586.799	F0704
524	943313.127	352835.697	586.683	F0805
525	943385.182	352858.131	586.371	B0701
526 165	943393.407	352861.662	586.175	B0702
527	943279.646	352834.372	586.464	F0803
528	943247.647	352831.343	586.640	F0801
529	943263.693	352798.238	586.885	F0802
530	943300.074	352798.407	586.889	F0804
531 170	943332.789	352800.739	586.910	F0806
532	943356.537	352761.663	586.836	F0902
533	943383.585	352743.409	586.846	F0901
534	943385.289	352713.009	587.033	F0903
535	943385.651	352679.466	587.220	F0905

POINT	NORTHING	EASTING	ELEVATION	DESCR
536175	943356.402	352695.555	587.615	F0906
537	943357.011	352729.649	587.391	F0904
539	943332.622	352728.292	587.429	F1003
540	943330.028	352756.001	586.860	F1001
542	943293.180	352755.809	587.005	F1002
543180	943282.435	352727.657	586.833	F1004
544	943297.058	352708.088	586.565	F1006
545	943247.599	352764.321	587.063	F1101
546	943250.551	352733.956	586.624	F1103
547	943244.953	352693.690	586.218	F1105
548185	943224.804	352692.647	586.095	F1106
549	943227.372	352724.914	586.093	F1104
550	943226.674	352780.059	586.395	F1102
553	943212.659	352754.378	586.908	F1201
554	943208.325	352713.332	587.770	F1203
555190	943211.077	352683.469	588.056	F1205
556	943182.329	352675.111	588.541	F1206
557	943177.649	352698.331	588.585	F1204
558	943185.222	352721.306	587.715	F1202
560	943174.079	352772.540	587.059	F1307
564195	943146.217	352758.719	586.548	F1301
566	943126.376	352763.811	587.065	F1302
568	943106.464	352765.445	588.153	F1401
570	943068.110	352714.764	588.535	F1603
571	943040.895	352709.957	587.719	F1604
573200	943040.446	352765.202	587.490	F1602
574	943046.893	352785.255	587.536	ST5
575	943056.790	352783.707	587.540	A5
577	943076.614	352755.806	587.445	F1402
578	943062.863	352766.775	587.347	F1601
581205	943008.694	352767.251	587.719	F1701
582	942981.666	352760.448	587.740	F1702
583	942955.319	352762.728	587.127	F1901
585	942923.251	352798.744	587.084	F2006
586	942941.130	352801.246	586.993	F2003
590210	942985.108	352802.167	587.157	F1802
591	942985.696	352816.561	588.391	F1805
592	942969.014	352829.593	586.852	F1804
593	943005.549	352798.005	587.092	F1803
594	943007.917	352829.816	587.464	F1806
595215	943062.270	352819.314	587.349	F1504
596	943055.210	352803.349	586.961	F1501
597	943081.045	352809.083	587.154	F1502
598	943090.866	352827.478	587.482	F1505
599	943114.368	352813.951	587.140	F1503
600220	943108.210	352836.010	587.440	F1506
603	943179.788	352836.750	588.197	F0601
604	943203.489	352824.891	586.834	F0602
605	943215.244	352853.101	587.571	F0603
606	943235.978	352889.473	586.818	F0604
607225	943186.077	352912.474	588.057	B0603
608	943181.405	352919.780	587.950	B0601
650	942585.501	352778.421	583.580	PI 650
683	943374.257	352826.475	586.358	B0804
684	943372.150	352796.428	586.259	B0803
685230	943385.842	352796.154	586.057	B0801
686	943391.270	352827.406	585.953	B0802
687	943390.124	352882.583	586.265	B0703

POINT	NORTHING	EASTING	ELEVATION	DESCR
688	943389.878	352908.389	585.875	B0704
690	943253.385	352614.537	588.140	B1104
691235	943230.625	352629.286	587.400	B1103
692	943214.947	352615.372	588.249	B1204
693	943230.954	352599.113	587.954	B1101
694	943253.396	352589.597	588.468	B1102
695	943215.754	352564.770	588.532	B1202
696240	943193.335	352577.912	588.201	B1201
697	943190.785	352603.075	588.219	B1203
698	943304.176	352626.464	586.972	B1003
699	943311.287	352602.064	587.344	B1001
700	943327.687	352601.506	587.066	B1002
701245	943327.154	352622.986	587.289	B1004
702	943352.035	352615.119	587.514	B0903
703	943352.077	352589.619	587.347	B0901
704	943381.837	352588.563	587.588	B0902
705	943381.294	352615.669	587.676	B0904
706250	943162.811	352610.565	587.717	B1304
707	943139.263	352605.906	587.756	B1303
708	943165.794	352560.946	588.003	B1302
709	943127.550	352575.388	587.889	B1301
710	943113.235	352590.760	587.747	B1404
711255	943111.798	352564.977	587.940	B1402
712	943084.751	352558.557	590.763	B1401
713	943086.726	352590.388	590.174	B1403
714	943064.111	352613.946	588.622	B1604
715	943063.750	352584.129	588.782	B1602
716260	943037.062	352543.464	589.405	B1601
717	943041.903	352603.682	590.069	B1603
721	942960.789	352597.147	589.192	B1904
722	942983.510	352599.971	590.208	B1703
723	943012.606	352593.584	590.161	B1704
724265	943012.325	352533.666	589.621	B1702
725	942984.230	352539.956	589.695	B1701
726	942961.018	352556.883	589.260	B1902
727	942934.931	352541.441	589.387	B1901
728	942936.314	352581.688	588.521	B1903
729270	942923.280	352671.726	587.344	F1906
730	942917.345	352721.121	587.382	F1904
731	942887.692	352798.022	588.060	F2102
732	942891.627	352822.873	587.633	F2105
733	942883.237	352814.256	587.621	F2104
734275	942878.535	352800.774	587.689	F2101
735	942868.177	352795.285	586.733	F2202
736	942870.140	352830.478	586.836	F2206
737	942855.824	352914.191	586.470	B2203
738	942849.535	352962.745	586.232	B2201
741280	942826.783	352595.634	587.102	B2304
742	942801.733	352593.114	586.809	B2303
743	942805.499	352554.087	588.261	B2302
744	942830.300	352556.477	588.759	B2301
745	942751.588	352545.368	590.373	B2502
746285	942750.308	352600.026	586.121	B2504
747	942710.005	352598.879	586.676	B2503
748	942663.805	352580.477	588.119	B2704
749	942663.190	352545.366	588.766	B2702
750	942643.031	352545.225	588.165	B2703
751290	942639.585	352580.543	587.853	B2701

POINT	NORTHING	EASTING	ELEVATION	DESCR
752	942602.231	352546.274	587.638	B2904
753	942601.293	352528.663	587.096	B2902
754	942573.896	352531.005	587.048	B2901
755	942573.434	352543.173	587.406	B2903
756295	942557.456	352543.493	585.424	B2802
767	943141.635	352720.635	586.888	F1303
768	943132.085	352697.011	586.862	F1304
769	943159.801	352681.475	587.397	F1305
770	943127.240	352655.147	587.206	F1306
771300	943111.613	352668.606	586.949	F1405
772	943082.877	352666.086	588.050	F1406
773	943088.477	352684.850	588.100	F1404
776	943108.552	352715.980	588.077	F1403
786	943059.131	352673.978	588.192	F1605
787305	943037.241	352677.578	587.994	F1606
788	943009.800	352645.473	589.501	F1705
789	942979.394	352649.857	589.476	F1706
790	942963.983	352675.091	587.267	F1905
791	942952.996	352713.644	587.058	F1903
792310	942971.704	352699.535	587.961	F1704
795	942996.731	352704.787	588.609	F1703
807	942913.032	352768.012	587.486	F1902
814	942849.201	352766.577	586.662	F2301
815	942840.259	352735.896	586.178	F2303
816315	942771.100	352803.438	586.077	F2403
817	942789.216	352805.081	586.158	F2402
818	942820.036	352800.385	586.297	F2401
819	942840.609	352812.509	586.202	F2203
820	942855.743	352812.243	586.544	F2204
821320	942839.528	352795.915	586.107	F2201
822	942902.085	352798.782	587.846	F2103
823	942920.601	352812.408	587.119	F2001
824	942907.971	352826.196	587.907	F2106
838	942950.907	352810.685	586.982	F2005
839325	942953.689	352842.261	587.311	F2006
891	942978.096	352897.684	587.040	B1804
892	942942.787	352909.135	587.089	B2002
893	942942.476	352885.258	587.105	B2001
894	942909.978	352904.851	587.042	B2103
895330	942903.884	352950.287	586.802	B2101
896	942878.214	352972.982	586.838	B2102
897	942878.009	352896.185	586.604	B2104
898	942944.251	352943.849	587.387	B2003
899	942945.230	352958.585	586.810	B2004
900335	942984.358	352956.637	587.373	B1802
901	943011.789	352955.768	586.948	B1801
902	943047.398	352971.573	587.687	B1502
903	943079.317	352921.593	587.940	B1503
904	943133.656	352947.637	587.199	B0502
905346	943134.647	352907.961	587.436	B0602
906	943048.012	352921.337	587.721	B1504
907	943013.031	352894.689	587.258	B1803
916	942836.842	352906.203	586.308	B2204
917	942833.570	352938.925	586.302	B2202
918345	942804.108	352885.950	586.724	B2403
919	942767.344	352877.393	586.281	B2404
920	942770.300	352974.788	585.776	B2402
921	942799.591	352980.451	585.889	B2401

POINT	NORTHING	EASTING	ELEVATION	DESCR
922	942745.234	352969.819	585.250	B3401
923350	942732.059	352969.740	585.056	B3404
924	942708.653	352993.462	584.926	B3501
925	942729.976	352950.601	585.237	B3403
926	942743.497	352951.555	585.290	B3402
927	942711.399	352896.742	585.072	B3202
928355	942695.825	352896.107	584.912	B3204
931	942696.859	352875.830	584.819	B3203
932	942711.798	352875.694	584.868	B3201
933	942733.446	352857.939	585.484	B2602
934	942690.158	352853.497	585.312	B2604
950360	942682.555	353280.282	587.030	PI 950
956	942664.642	353402.109	586.736	F4003
957	942638.074	353395.329	586.749	F4006
958	942657.162	353354.022	586.341	F4002
959	942634.175	353341.202	586.662	F4005
960365	942574.597	353345.876	586.379	B4004
962	942626.113	353295.987	585.933	F4004
963	942657.860	353313.213	586.179	F4001
969	942724.580	353390.920	588.200	F4102
972	942697.145	353377.051	586.562	F4101
983370	942705.330	353318.106	586.679	F4103
984	942729.002	353323.517	588.070	F4104
986	942757.637	353327.354	587.702	F4106
987	942773.278	353301.119	586.358	F4105
995	942808.197	353301.688	586.433	F4201
996375	942819.669	353326.207	586.899	F4202
997	942859.220	353327.999	586.606	F4204
998	942849.301	353311.355	586.609	F4203
1021	942830.953	353268.210	586.643	VL0401
1022	942830.975	353259.265	586.551	V0402
1024380	942746.016	353283.317	586.955	A8
1025	942729.004	353268.326	585.645	V0301
1026	942728.935	353257.679	585.561	V0302
1027	942728.370	353252.339	585.494	V0303
1028	942729.236	353247.567	585.247	V0304
1046385	942568.555	353201.637	585.792	F3902
1047	942571.373	353184.179	585.235	F3901
1048	942532.804	353181.218	585.325	F3904
1049	942529.326	353153.633	583.870	F3806
1100	942671.167	354225.487	588.430	PI 1100
1106390	942861.029	354195.343	586.932	F5205
1107	942863.024	354160.279	587.137	F5204
1108	942828.376	354181.814	586.905	B5201
1109	942785.651	354179.993	587.051	B5202
1112	942755.267	354244.385	585.901	F5002
1115395	942722.195	354258.997	586.041	F5001
1117	942713.135	354291.453	585.251	F5003
1122	942748.659	354284.604	585.016	F5004
1123	942744.143	354317.392	584.571	F5006
1124	942704.892	354323.146	586.880	F5005
1144400	942667.178	354198.036	587.700	F4905
1145	942625.907	354199.644	588.218	F4906
1162	942721.214	354168.451	587.319	VL1005
1163	942716.458	354169.634	587.589	VL1004
1164	942712.025	354171.282	587.503	VL1003
1165405	942707.091	354172.187	587.448	VL1002
1166	942697.615	354173.443	587.552	VL1001

POINT	NORTHING	EASTING	ELEVATION	DESCR
1201	942718.494	354395.355	585.802	B5003
1202	942678.603	354387.792	583.473	B5004
1203	942667.714	354436.710	585.205	B5002
1204410	942706.651	354444.213	584.714	B5001
1205	942725.697	354473.752	582.860	B5005
1206	942706.691	354480.911	582.599	B5006
1207	942692.880	354488.092	582.709	B5007
1217	942637.180	354103.630	586.283	F4903
1218415	942640.210	354077.669	586.529	F4902
1219	942549.829	354109.017	588.300	B4904
1220	942547.973	354134.891	585.693	B4903
1221	942551.482	354148.860	588.082	B4902
1222	942522.559	354177.977	587.417	B4901
1223420	942557.454	354039.620	587.604	B4905
1225	942644.050	354021.097	587.109	F4901
1226	942688.139	354081.871	587.549	VL1101
1227	942698.437	354080.135	587.133	VL1102
1228	942709.070	354080.132	587.257	VL1103
1229425	942717.456	354080.887	587.632	VL1104
1230	942724.862	354081.665	587.805	VL1105
1231	942826.931	354106.345	587.876	B5203
1232	942784.040	354106.688	588.224	B5204
1240	942680.004	353996.464	588.468	ST 1
1241430	942662.352	353955.617	587.701	VL1201
1242	942652.566	353956.738	587.734	VL1202
1263	942796.900	354223.400	586.452	A10
1276	942559.702	353848.214	587.685	B4803
1277	942530.438	353848.038	587.231	B4801
1278435	942529.728	353801.983	586.985	B4802
1279	942564.344	353802.084	588.108	B4804
1282	942503.796	353684.114	585.590	B4702
1283	942506.155	353713.723	586.000	B4701
1284	942612.321	353853.264	588.396	F4805
1285440	942645.906	353837.204	588.143	F4802
1286	942611.191	353885.945	588.280	F4806
1287	942650.797	353898.588	588.159	F4803
1308	942733.098	353800.863	588.166	F5604
1309	942720.849	353781.413	588.124	F5605
1310445	942692.887	353807.838	588.104	F5601
1311	942697.119	353783.494	587.761	F5602
1312	942696.884	353766.839	587.649	F5603
1313	942735.399	353753.750	587.748	F5606
1319	942661.151	353793.019	587.563	F4801
1320450	942665.297	353771.234	588.551	F4807
1321	942614.435	353773.906	588.839	F4804
1322	942546.992	353712.102	586.544	B4703
1323	942536.851	353686.655	586.074	B4704
1333	942610.736	353724.963	587.495	F4706
1334465	942625.592	353709.474	587.259	F4705
1335	942654.564	353696.473	587.174	F4702
1336	942660.578	353676.756	587.466	F4701
1337	942612.319	353672.135	587.243	F4704
1339	942699.251	353679.598	587.533	F5703
1340460	942701.552	353702.731	587.859	F5702
1341	942692.833	353720.146	587.941	F5701
1343	942727.488	353726.241	588.410	F5704
1344	942722.105	353699.678	588.457	F5705
1345	942737.291	353679.108	588.093	F5706

POINT	NORTHING	EASTING	ELEVATION	DESCR
1346 465	942725.619	353668.824	588.820	F5804
1347	942696.189	353666.500	587.513	F5801
1348	942701.492	353641.019	587.373	F5802
1349	942724.159	353641.373	589.078	F5805
1350	942737.746	353596.742	587.400	F5806
1351 470	942696.467	353600.746	587.211	F5803
1354	942679.578	353608.855	587.535	A9
1357	942661.885	353725.228	587.527	F4703
1363	942701.531	353583.293	586.977	F6001
1364	942739.701	353575.614	587.670	F6004
1365 475	942729.382	353553.859	587.517	F6005
1366	942704.693	353561.294	587.119	F6002
1371	942656.936	353594.971	586.496	F4603
1372	942615.580	353585.055	586.065	F4606
1373	942618.768	353561.832	585.960	F4605
1374 480	942653.714	353554.615	586.157	F4602
1375	942663.449	353529.544	586.360	F4601
1377	942614.854	353526.602	585.925	F4604
1396	942807.823	353523.193	586.406	B6001
1397	942780.662	353538.074	586.821	B6003
1398 485	942748.937	353531.792	587.236	F6006
1399	942700.308	353537.903	586.906	F6003
1400	942651.280	353503.093	586.577	F4503
1401	942616.200	353507.061	586.225	F4506
1402	942629.178	353488.623	586.163	F4505
1403 490	942661.667	353475.409	586.266	F4502
1404	942647.100	353438.272	585.594	F4501
1405	942613.477	353466.092	585.772	F4504
1411	942689.927	353478.276	586.501	F6007
1412	942706.217	353477.923	587.578	B4102
1413 495	942744.791	353471.064	587.425	B4101
1415	942747.669	353408.406	587.091	B4103
1416	942782.313	353392.338	585.760	B4204
1417	942784.280	353458.088	585.607	B4202
1418	942699.562	353423.624	586.497	B4104
1420 500	942564.045	353392.681	585.970	B4003
1427	942547.052	353567.632	584.623	B4603
1428	942547.188	353532.883	585.000	B4604
1429	942477.672	353533.590	583.782	B4602
1430	942477.303	353564.946	583.868	B4601
1431 505	942526.044	353496.976	584.515	B4503
1432	942525.525	353470.477	584.152	B4504
1433	942485.668	353468.802	583.129	B4502
1434	942487.123	353496.081	583.356	B4501
1435	942512.971	353392.671	585.210	B4001
1436 510	942523.675	353344.095	584.500	B4002
1437	942538.365	353244.331	584.330	F3906
1438	942543.238	353212.859	584.535	F3905
1439	942433.407	353276.280	580.099	W04
1441	942407.782	353280.981	579.223	W06
1442 515	942413.665	353296.029	579.589	W05
1465	942729.814	352832.749	585.587	B2601
1466	942714.453	352818.757	585.367	F2606
1467	942689.813	352831.652	585.165	B2603
1468	942704.661	352800.792	584.907	F2605
1473 520	942713.984	352787.397	585.169	A6
1478	942648.620	352803.865	584.567	F2602
1479	942651.461	352818.367	584.922	F2604

POINT	NORTHING	EASTING	ELEVATION	DESCR
1485	942709.983	352754.224	585.633	F2502
1491	942665.684	352750.488	584.545	F2701
1499 525	942633.239	352761.288	584.334	F2702
1500	942629.510	352708.921	584.367	F2704
1501	942656.450	352693.059	584.646	F2703
1502	942667.034	352650.183	585.514	F2705
1503	942710.146	352599.665	586.655	B2503
1504 530	942639.317	352644.977	585.680	F2706
1509	942605.982	352702.679	584.425	F2901
1511	942602.914	352651.474	586.700	F2903
1512	942601.637	352608.736	587.670	F2905
1513	942582.809	352615.340	587.666	F2906
1514 535	942579.793	352640.073	584.488	F2904
1515	942564.429	352670.694	583.693	F2902
1522	942558.913	352706.178	582.166	F3001
1523	942546.389	352659.674	582.628	F3003
1524	942527.720	352652.496	582.104	F3004
1525 540	942553.414	352614.941	584.239	F3005
1526	942531.578	352625.187	587.171	F3006
1533	942580.677	352770.329	582.993	F3104
1534	942582.236	352750.472	583.117	F3103
1535	942599.451	352748.470	583.471	F3101
1536 545	942600.646	352767.842	583.498	F3102
1538	942567.372	352786.398	582.323	F3105
1539	942516.602	352767.753	579.579	B3103
1540	942555.192	352818.675	581.712	F3106
1541	942489.433	352861.121	577.928	B3301
1542 550	942488.246	352880.901	578.014	B3302
1543	942556.240	352849.590	582.037	F3304
1549	942574.190	352857.758	582.828	F3306
1551	942566.525	352883.985	582.575	F3302
1552	942560.112	352896.420	582.336	F3305
1555 555	942545.562	352932.454	581.467	F3306
1558	942585.472	353069.762	584.463	ST7
1559	942581.368	353112.567	584.658	A7
1561	942606.451	353112.452	583.852	F3501
1563	942647.325	353144.109	584.537	F3504
1564 560	942604.306	353035.219	584.253	F3502
1569	942599.305	353004.448	584.422	F3503
1570	942620.712	352992.745	585.187	F3506
1571	942602.423	352977.106	584.387	F3401
1580	942628.157	352959.732	584.352	F3403
1583 565	942604.481	352933.787	583.978	F3402
1585	942613.501	352920.223	584.047	F3205
1586	942635.415	352921.339	584.295	F3206
1589	942604.430	352892.650	583.815	F3203
1590	942624.941	352889.054	584.112	F3204
1591 570	942624.247	352867.945	584.204	F3202
1592	942639.815	352853.697	584.540	F2602
1594	942608.860	352865.499	583.847	F3201
1597	942616.115	352847.383	584.158	F2601
1613	942833.276	352828.077	586.675	F2205
1614 575	942809.860	352826.805	586.609	F2404
1615	942792.295	352827.135	586.470	F2405
1616	942763.452	352833.918	586.151	F2406
1617	942745.024	352765.263	585.067	F2501
1618	942736.548	352732.568	585.963	F2503
1619 580	942684.978	352717.714	585.255	F2504

POINT	NORTHING	EASTING	ELEVATION	DESCR
1620	942714.424	352681.127	585.651	F2506
1621	942747.635	352707.696	585.923	F2505
1627	942770.578	352733.579	585.531	F2302
1637	942802.529	352671.566	586.229	F2306
1638 585	942796.428	352716.551	585.547	F2304
1639	942844.958	352686.908	586.507	F2305
1657	942508.767	352697.781	580.763	F2801
1658	942521.678	352681.739	581.251	F3002
1668	942511.126	352744.595	579.584	B3104
1670 590	942466.399	352768.196	578.774	B3101
1671	942466.478	352744.809	578.883	B3102
1672	942402.763	352780.202	576.501	SW03
1673	942419.313	352738.887	576.632	SW01
1675	942471.310	352709.489	579.408	F2802
1676 595	942505.731	352660.148	580.904	F2803
1677	942507.396	352628.496	582.868	F2805
1678	942459.119	352667.740	579.244	F2804
1679	942471.493	352631.849	581.984	F2806
1691	942470.209	352560.037	583.763	B3003
1692 600	942468.017	352541.399	584.353	B3001
1693	942495.480	352538.372	584.805	B3002
1694	942496.527	352558.062	584.467	B3004
1695	942523.369	352545.323	585.153	B2801
1696	942523.669	352560.332	584.915	B2803
1697 605	942558.313	352559.679	585.214	B2804
1700	942565.429	353233.422	586.030	F3903
1705	942542.500	353139.716	583.981	F3805
1706	942569.628	353160.921	585.143	F3803
1709	942561.279	353131.886	583.941	F3802
1710 610	942536.523	353117.762	583.393	F3804
1713	942510.384	353063.107	580.578	F3705
1714	942499.894	353042.043	579.889	B3704
1715	942485.415	353011.257	579.369	F3608
1716	942478.589	353025.057	579.230	F3809
1717 615	942566.979	353118.448	584.013	F3801
1721	942558.221	353089.960	583.403	F3702
1724	942567.493	353056.220	582.363	F3701
1725	942573.550	353025.988	582.739	F3603
1727	942569.190	353000.685	582.111	F3602
1728 620	942574.538	352975.957	583.316	F3601
1731	942567.257	352949.363	582.055	B3303
1734	942650.954	353039.709	584.794	F3505
1737	942667.343	353065.341	584.556	B3504
1738	942699.692	353065.678	585.039	B3502
1739 625	942667.720	352995.235	585.042	B3503
1740	942623.953	353162.561	584.750	V0104
1741	942614.549	353163.162	584.878	V0103
1742	942609.386	353163.477	585.009	V0102
1743	942599.836	353164.256	584.825	V0101
1746 630	942642.646	353243.013	585.661	V0201
1747	942647.732	353235.435	585.467	V0202
1751	942490.479	353205.089	583.167	B3903
1752	942466.883	353203.921	581.746	B3901
1753	942484.732	353162.898	581.965	B3904
1754 635	942464.722	353161.605	581.103	B3902
1755	942476.293	353146.743	581.449	B3803
1756	942456.548	353146.961	580.748	B3801
1757	942454.468	353120.639	580.338	B3802

POINT	NORTHING	EASTING	ELEVATION	DESCR
1758	942483.662	353118.893	581.054	B3804
1759640	942504.822	353092.374	580.524	F3706
1760	942447.088	353079.687	579.329	B3701
1761	942460.882	353054.316	579.120	B3702
1762	942462.554	353001.469	578.493	F3610
1776	942491.936	352935.695	578.977	B3303
1777645	942491.692	352960.534	579.337	B3304
1778	942631.789	352933.336	584.132	F3404
1779	942671.857	352934.079	584.823	F3406
1780	942671.851	352966.273	584.613	F3405
1781	942532.236	352980.567	580.636	F3604
1782650	942527.778	353012.672	580.734	F3605
1783	942521.487	353029.471	580.441	F3606
1784	942536.118	353068.695	581.563	F3703
1785	942533.388	353090.136	582.562	F3704
1788	942481.822	353045.354	579.682	B3703
1789655	942476.494	353026.097	579.172	F3609
1790	942495.157	352980.182	579.421	F3607
1803	942902.965	354120.746	587.967	V0801
1804	942911.743	354119.155	588.981	V0802
1805	942917.684	354118.001	587.854	V0803
1806660	942927.530	354117.162	587.605	V0804
1807	942935.949	354117.021	587.664	V0805
1825	942863.808	354321.229	586.940	V1401
1826	942854.090	354322.423	587.407	VL1402
1827	942902.802	354322.206	585.242	V0901
1828665	942911.711	354321.508	585.181	V0902
1829	942916.901	354320.549	585.263	V0903
1830	942922.818	354318.580	585.204	V0904
1831	942927.022	354321.810	585.284	V0905
1836	942902.164	354420.478	587.291	V1501
1837670	942911.376	354419.650	587.748	V1502
1840	942867.282	354518.863	585.786	V1601
1841	942858.525	354519.159	585.879	V1602
1845	942902.929	354621.150	587.953	V1701
1846	942912.763	354622.127	587.950	V1702
1848675	942866.310	354717.385	589.005	V1801
1849	942856.255	354719.127	589.035	V1802
1858	942901.624	354815.076	591.355	V1901
1859	942911.313	354814.486	590.929	V1902
1861	942869.230	354913.533	592.435	V2001
1862680	942859.749	354913.570	592.654	V2002
1880	942869.569	355069.538	594.137	B5105
1883	942779.283	355103.852	594.341	B5103
1898	942828.915	355101.310	594.273	B5102
1899	942868.990	355108.392	593.968	B5101
1903685	942731.787	355190.948	593.421	B517-04
1904	942816.535	355254.245	594.613	F5106
1905	942854.388	355269.949	594.705	F5103
1908	942854.472	355233.796	595.051	F5102
1909	942839.759	355222.247	595.084	F5105
1910690	942861.067	355193.575	594.899	F5101
1911	942840.628	355180.647	595.197	F5104
1913	942902.368	355185.850	594.514	V2101
1914	942912.361	355185.876	594.551	V2102
1926	942826.275	354584.615	584.881	EN7
1927695	942822.856	354640.062	585.555	EN8
1928	942951.584	354755.285	590.739	EN4

POINT	NORTHING	EASTING	ELEVATION	DESCR
1931	943051.602	354990.884	594.023	EN6
1932	942952.207	354997.499	593.708	EN3
1940	942995.630	353216.355	587.613	B4301
1942 700	943317.706	352708.432	586.816	F1005

Coordinates stored Tuesday February 3, 1987 1:04 PM

====== COGO ====== Tuesday February 3, 1987 1:20 PM

Coordinate File Name: WBBL Lowest pt #: 1 Highest pt #: 1929
Job # : 86E-011
Description: BASELINE AND MISC. INFO.

FROM	TYPE	BEARING	DISTANCE	TO	NORTHING	EASTING

LIST POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCR
9	942883.529	355294.399	595.748	PIFXLS
10	942885.095	353269.434	587.270	CONC MON
26	942884.868	353582.817	588.104	3+00
27	942874.654	353568.678	586.831	EIV6"CCP
41	942873.963	353596.897	587.388	WIV6"CIP
44	942880.389	353644.889	588.588	MH
45	942874.260	353634.986	587.298	EIV6"CIP
46	942874.123	353656.911	587.776	WIV8"CMP
47	942874.268	353673.538	587.599	E"
52	942884.817	353682.792	588.686	4+00
57	942874.626	353733.223	587.910	WIV8"CIP
58	942875.205	353753.929	588.401	E"
70	942884.710	353782.842	589.420	5+00
71	942875.108	353809.209	588.437	WIV6"CIP
72	942875.886	353863.996	588.058	E"
74	942884.653	353882.819	589.374	6+00
75	942884.602	353982.794	588.971	7+00
76	942877.093	354012.142	587.934	WIV10"CMP
81	942876.480	354033.138	587.812	EIV10"CMP
82	942880.078	354039.562	588.905	MH
103	942897.859	353630.281	587.284	EIV12"CMP
104	942897.227	353591.580	586.966	W"
106	942903.250	353548.290	587.668	MW
150	942884.370	354221.974	588.430	PI 150
162	942919.513	353906.917	588.700	PP
163	942919.021	353791.238	589.298	PP
200	942885.085	353282.784	587.930	0+0oval
201	942873.768	353333.680	587.339	EGPVDDIT
203	942872.442	353334.294	585.209	EIV12"CIP
208	942885.013	353382.834	587.362	1+0F
209	942884.372	353421.892	587.318	A2
221	942884.943	353482.843	587.375	2+0F
222	942873.958	353486.115	586.410	WIV6"CMP
223	942874.236	353506.507	586.724	E"
224	942875.040	353511.102	586.453	W"
232	942859.972	353543.305	587.268	GM
251	942985.116	353283.998	588.078	1+00
258	943084.996	353285.238	588.526	2+00
261	943045.858	353285.724	588.477	MH
264	942958.260	353307.748	587.643	TW
278	942918.568	353262.921	586.873	PP
293	943089.387	353305.686	587.891	PP
350	943242.457	353287.195	588.720	PI 350
351	943184.995	353286.488	589.215	3+00
392	943194.151	353307.021	588.512	PP
401	943243.728	353244.562	588.761	4+00
416	943249.736	353044.744	587.737	6+00
417	943252.728	352944.820	587.233	7+00
418	943257.150	352939.271	587.167	WV
419	943261.857	352938.992	587.226	MH
420	943265.151	352950.617	585.972	EIV6"CMP
421	943265.572	352930.192	585.963	W"
424	943276.508	352956.866	588.241	WV
439	943213.261	352925.221	586.812	TW
440	943237.401	352926.354	586.358	PP
441	943241.979	352922.860	586.100	DIRIM
452	943235.772	353036.795	587.163	PP
454	943238.391	353014.528	586.424	WIV10"CMP

POINT	NORTHING	EASTING	ELEVATION	DESCR
455	943237.630	353035.089	586.433	E"
457	943232.802	353143.150	588.029	PP
458	943246.761	353144.715	588.264	5+00
459	943232.433	353199.114	587.781	DIRIM
476	943386.614	353251.955	586.951	TW
480	943225.274	353341.589	589.154	PP
500	943257.487	352787.736	587.220	PI 500
501	943205.487	353374.767	589.281	TW
507	943339.974	353551.549	588.844	TW
519	943292.181	352928.769	586.210	PP
538	943336.579	352747.450	587.083	MH
541	943292.905	352761.450	587.558	PP
551	943228.672	352803.688	587.175	MH
552	943212.895	352786.065	586.728	TW
559	943173.949	352757.746	587.246	PP
561	943229.756	352795.541	586.741	GLM
562	943214.419	352787.049	586.722	9+00
563	943140.847	352774.808	586.738	DI
565	943128.501	352757.156	586.672	GM
567	943114.585	352785.736	587.421	10+00
569	943101.068	352757.076	588.093	GM
572	943030.080	352761.009	587.959	GM
576	943065.480	352787.791	587.424	MH
579	943014.598	352784.368	587.634	11+00
580	943023.007	352763.015	587.933	PP
584	942914.588	352782.974	587.617	12+00
589	942979.362	352795.449	586.573	DI
601	943116.838	352795.249	586.811	DI
602	943148.910	352798.583	586.936	DI
609	943255.766	352844.810	586.602	8+00
650	942585.501	352778.421	583.580	PI 650
800	942585.024	353217.792	585.940	PI 800
808	942918.365	352766.375	587.808	PP
812	942873.933	352761.124	586.740	GM
813	942905.005	352766.961	587.854	GM
830	942922.111	352792.434	586.871	NIV6"CIP
831	942902.714	352791.274	587.210	S"
832	942947.733	352794.426	587.070	S"
833	942969.010	352794.693	586.954	N"
845	942976.015	352805.485	583.180	GM
846	943003.442	352796.449	586.499	SIV6"CIP
847	943019.269	352796.003	586.631	N"
853	943031.673	352796.104	586.525	SIV6"CIP
854	943049.100	352795.914	586.599	N"
950	942682.555	353280.282	587.030	PI 950
976	942704.040	353296.793	584.587	NIV8"CLP
977	942700.742	353298.766	587.137	WELL
982	942772.464	353294.798	585.245	SIV12"CIP
985	942752.787	353299.809	586.197	GM
988	942809.829	353297.590	586.326	GM
1006	942841.278	353294.357	585.029	NIV12"CIP
1007	942871.046	353319.990	585.415	WIV12"CIP
1008	942812.420	353293.519	586.323	DIRIM
1009	942870.118	353316.090	585.639	SIV12"CMP
1010	942895.611	353319.503	585.825	NIV12"CMP
1011	942896.676	353320.290	586.320	SIV6"CMP
1012	942896.054	353319.880	586.958	DIRIM
1013	942903.330	353314.869	586.660	NIV6"CMP

POINT	NORTHING	EASTING	ELEVATION	DESCR
1018	942880.134	353286.780	587.857	MH
1019	942880.702	353283.421	587.833	WV
1023	942798.217	353281.717	587.153	22+00
1029	942698.210	353280.473	587.009	21+0
1035	942611.553	353234.773	586.381	20+0
1042	942659.005	353298.466	586.897	WELL
1043	942593.918	353236.872	585.911	PP
1044	942584.514	353220.693	586.021	MH
1045	942569.343	353205.871	585.753	GM
1050	942685.177	353288.840	587.143	MH
1100	942671.167	354225.487	588.430	PI 1100
1167	942692.147	354221.653	587.906	TW
1168	942682.023	354225.853	587.498	MH
1169	942674.036	354235.675	587.186	PP
1239	942688.808	354075.667	587.663	PP
1243	942685.422	353928.726	588.665	MH
1264	942726.052	354224.490	587.211	10+0
1265	942671.721	354180.262	588.200	9+0
1266	942672.958	354080.284	588.156	8+0
1291	942674.212	353980.239	588.443	7+0
1292	942697.813	353913.591	587.964	PP
1293	942675.438	353880.264	588.533	6+0
1338	942677.806	353680.218	587.873	4+0
1342	942699.603	353724.787	587.983	PP
1352	942707.896	353602.902	587.244	GSV
1353	942686.939	353598.440	587.648	MH
1355	942700.697	353617.536	587.314	PP
1356	942666.686	353656.959	587.194	TW
1358	942676.535	353780.180	588.538	5+0
1359	942678.975	353580.234	587.395	3+0
1364	942680.154	353480.233	586.894	2+0
1376	942658.941	353508.953	585.772	NIV6"CMP
1414	942704.998	353499.398	586.920	PP
1419	942696.823	353417.704	586.497	PP
1426	942566.521	353553.323	585.090	WELL
1440	942438.165	353278.207	580.232	SIV8"CLP
1454	942824.801	352790.600	584.936	NIV8"CMP
1455	942810.539	352790.454	585.524	S"
1469	942719.733	352792.268	584.199	SIV8"CMP
1476	942672.134	352800.825	584.873	GM
1480	942617.492	352823.605	583.534	DI
1482	942814.583	352781.599	586.638	13+00
1483	942771.770	352762.270	585.464	PP
1484	942717.607	352767.283	584.789	GM
1487	942714.621	352780.169	585.395	14+00
1488	942666.927	352778.208	584.686	MH
1489	942675.155	352760.281	584.464	PP
1490	942665.536	352757.137	584.406	GM
1497	942614.538	352778.766	584.559	15+00
1506	942610.320	352717.291	584.269	MW
1516	942560.753	352670.919	583.663	PP
1521	942543.638	352697.067	581.558	MH
1527	942591.304	352732.551	583.351	PP
1537	942597.053	352773.722	583.501	GM
1544	942564.591	352839.765	582.397	PP
1548	942585.437	352849.293	583.997	16+00
1550	942567.021	352860.116	582.661	GM
1556	942585.286	352949.283	584.223	17+00

POINT	NORTHING	EASTING	ELEVATION	DESCR
1557	942585.213	353049.289	584.372	18+00
1560	942585.060	353149.274	585.201	19+00
1562	942594.753	353066.345	583.804	DI
1584	942611.761	352927.513	584.045	GM
1593	942618.653	352868.556	584.057	GM
1596	942606.267	352850.768	583.938	PP
1598	942592.156	352818.731	583.768	WV
1599	942589.843	352821.341	583.971	MH
1663	942485.972	352711.234	579.955	MW
1668	942511.126	352744.595	579.584	B3104
1669	942489.409	352754.953	579.309	B3103
1674	942466.911	352728.174	578.930	PP
1708	942566.462	353149.789	584.382	GM
1720	942564.816	353096.848	583.986	PP
1726	942547.473	353019.183	581.404	MW
1730	942564.096	352968.721	581.869	PP
1763	942451.008	352993.592	578.062	MW
1800	942875.897	354047.129	587.607	WIV2.5X8"C
1801	942876.171	354090.810	588.001	E"
1802	942884.401	354082.760	589.517	8+00
1808	942884.495	354182.765	588.694	9+00
1809	942905.332	354183.262	587.846	MW
1810	942921.111	354166.988	587.798	PP
1811	942919.691	354040.051	589.015	PP
1813	942873.300	354204.931	586.798	WIV12"CMP
1814	942872.100	354245.602	586.411	E"
1816	942857.760	354236.911	588.310	PP
1818	942884.325	354282.881	587.573	10+00
1819	942872.191	354322.389	585.928	WIV12"CMP
1820	942870.629	354337.887	585.474	E"
1832	942922.977	354289.628	585.408	PP
1833	942900.249	354349.025	583.920	NIV18"CMP
1834	942869.290	354348.990	584.032	S"
1835	942884.284	354382.792	587.667	11+00
1838	942884.315	354482.798	587.855	12+00
1843	942901.013	354536.966	587.422	PP
1844	942884.335	354582.779	588.288	13+00
1847	942884.187	354682.783	588.909	14+00
1850	942884.147	354782.813	590.594	15+00
1857	942899.134	354785.802	590.429	PP
1860	942884.238	354882.811	591.984	16+00
1876	942884.339	354982.858	592.990	17+00
1877	942898.159	355037.310	593.577	PP
1912	942884.362	355082.807	594.376	18+00
1915	942907.552	355249.851	595.151	MW
1918	942884.240	355282.799	595.699	20+00
1920	942884.293	355182.758	595.238	19+00
1929	942926.928	354837.303	591.609	GLM

Coordinates stored Tuesday February 3, 1987 1:24 PM

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:23 AM

Field Data File Name: WB1 Book: Page:
Description:
traverse pi's se cor south st

REC#	H.I.	BACKSIGHT / FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.44	0-00-00					
		359-59-58	90-04-49	939.191	4.85	PI 150	-150
2	5.44	0-00-00					
		270-39-47	89-59-27	357.400	4.85	PI 350	350
3	5.29	0-00-00					
		91-00-59	90-14-33	499.690	4.85	PI 500	500
4	5.35	0-00-00					
		89-04-14	90-22-22	672.065	4.35	PI 650	650
5	5.27	0-00-00					
		89-16-05	89-45-41	439.375	4.85	PI 800	800
6	5.17	0-00-00					
		122-35-11	89-37-12	115.836	4.85	PI 950	950
7	5.45	0-00-00					
		148-03-38	89-56-04	202.617	4.85	SEE PI200	-951
8	5.45	0-00-00					
		238-02-30	89-58-31	945.273	4.85	PI 1100	1100
9	4.80	0-00-00					
		88-21-39	90-14-51	213.264	4.85	SEE PI150	-1101
10	4.80	0-00-00					
		88-24-20	90-22-30	227.798	4.85	EP	-1102
11	4.80	0-00-00					
		81-16-51	90-18-49	203.798	4.85	EP	-1103
12	4.80	0-00-00					
		82-23-33	90-17-37	200.176	4.85	EP	-1104
13	4.80	0-00-00					
		92-52-09	89-08-36	183.323	8.62	EP	-1105
14	4.80	0-00-00					
		80-17-18	90-16-42	192.243	4.85	F5205	-1106
15	4.80	0-00-00					
		70-32-17	90-12-22	202.637	4.85	F5204	-1107
16	4.80	0-00-00					
		73-47-04	90-20-15	163.165	4.85	B5201	-1108
17	4.80	0-00-00					
		67-38-16	90-22-44	123.195	4.85	B5202	-1109
18	4.80	0-00-00					
		82-01-49	90-41-26	126.407	4.85	EP	-1110
19	4.80	0-00-00					

		83-08-48	90-39-37	118.543	4.85	EP	-1111
20	4.80	0-00-00					
		101-58-28	91-18-20	86.220	4.85	F5002	-1112
21	4.80	0-00-00					
		96-03-34	90-45-39	60.557	4.85	EP	-1113
22	4.80	0-00-00					
		99-51-16	91-04-54	57.909	4.85	EP	-1114
23	4.80	0-00-00					
		122-36-09	91-42-41	61.075	4.85	F5001	-1115
24	4.80	0-00-00					
		136-42-05	91-56-04	65.662	4.85	EP	-1116
25	4.80	0-00-00					
		146-50-42	91-54-54	78.228	4.85	F5003	-1117
26	4.80	0-00-00					
		160-04-35	92-45-50	70.757	4.85	EP	-1118
27	4.80	0-00-00					
		132-36-56	92-00-20	52.732	4.85	EP	-1119
28	4.80	0-00-00					
		102-14-28	91-10-03	43.477	4.85	EP	-1120
29	4.80	0-00-00					
		99-14-48	90-48-43	41.105	4.85	EP	-1121
30	4.80	0-00-00					
		126-38-56	91-40-28	97.509	4.85	F5004	-1122
31	4.80	0-00-00					
		140-51-31	91-36-29	117.401	4.85	F5006	-1123
32	4.80	0-00-00					
		160-15-28	90-32-48	103.323	4.85	F5005	-1124
33	4.80	0-00-00					
		170-08-03	92-45-40	97.857	4.85	EP	-1125
34	4.80	0-00-00					
		172-32-04	93-01-12	86.226	4.85	EP	-1126
35	4.80	0-00-00					
		186-13-13	92-54-29	103.956	4.85	EP	-1127
36	4.80	0-00-00					
		199-21-01	92-46-34	113.362	4.85	EP	-1128
37	4.80	0-00-00					
		197-00-18	92-30-23	129.087	4.85	EP	-1129
38	4.80	0-00-00					
		192-43-28	92-10-15	144.865	4.85	EP	-1130
39	4.80	0-00-00					
		192-41-02	90-30-15	166.676	8.62	EP	-1131
40	4.80	0-00-00					
		186-12-02	91-43-40	165.642	4.85	EP	-1132
41	4.80	0-00-00					
		184-49-49	91-59-53	139.832	4.85	EP	-1133
42	4.80	0-00-00					
		173-37-40	92-23-37	136.705	4.85	EP	-1134
43	4.80	0-00-00					
		172-21-47	90-51-21	127.624	8.62	EP	-1135
44	4.80	0-00-00					
		174-17-53	90-37-36	124.277	4.85	EP	-1136
45	4.80	0-00-00					
		174-15-54	90-29-39	110.252	4.85	EP	-1137
46	4.80	0-00-00					
		148-07-47	91-32-18	8.116	4.85	EP	-1138
47	4.80	0-00-00					
		347-18-27	88-58-25	9.173	4.85	EP	-1139
48	4.80	0-00-00					
		7-03-39	89-35-39	16.850	4.85	EP	-1140
49	4.80	0-00-00					
		12-45-12	88-54-15	30.055	4.85	EP	-1141
50	4.80	0-00-00					
		6-31-21	88-58-48	36.082	4.85	EP	-1142
51	4.80	0-00-00					
		1-30-46	89-11-52	37.821	4.85	EP	-1143
52	4.80	0-00-00					

		351-02-35	90-20-31	27.739	4.85	F4905	-1144
53	4.80	0-00-00					
		299-02-08	89-36-45	52.119	4.85	F4906	-1145
54	4.80	0-00-00					
		304-18-20	89-22-48	69.264	4.85	EP	-1146
55	4.80	0-00-00					
		312-09-54	89-33-22	75.094	4.85	EP	-1147
56	4.80	0-00-00					
		315-44-26	89-33-20	69.133	4.85	EP	-1148
57	4.80	0-00-00					
		322-54-03	87-10-36	81.902	8.62	EP	-1149
58	4.80	0-00-00					
		323-38-39	87-22-26	92.414	8.62	EP	-1150
59	4.80	0-00-00					
		322-35-44	87-26-45	94.783	8.62	EP	-1151
60	4.80	0-00-00					
		318-42-47	89-52-36	100.085	4.85	EP	-1152
61	4.80	0-00-00					
		327-00-39	89-48-52	116.741	4.85	EP	-1153
62	4.80	0-00-00					
		355-22-48	87-37-22	99.159	8.62	EP	-1154
63	4.80	0-00-00					
		355-17-42	87-06-56	79.451	8.62	EP	-1155
64	4.80	0-00-00					
		333-39-29	89-50-00	85.688	4.85	EP	-1156
65	4.80	0-00-00					
		332-18-07	89-48-50	84.150	4.85	EP	-1157
66	4.80	0-00-00					
		326-48-15	89-43-19	62.427	4.85	EP	-1158
67	4.80	0-00-00					
		326-55-49	89-37-46	59.215	4.85	EP	-1159
68	4.80	0-00-00					
		349-48-05	89-32-35	49.196	4.85	EP	-1160
69	4.80	0-00-00					
		358-48-14	89-36-46	56.318	4.85	EP	-1161
70	4.80	0-00-00					
		40-34-33	90-24-46	75.882	4.85	VL1005	-1162
71	4.80	0-00-00					
		38-20-56	90-13-12	71.909	4.85	VL1004	-1163
72	4.80	0-00-00					
		36-19-06	90-18-21	67.880	4.85	VL1003	-1164
73	4.80	0-00-00					
		33-17-24	90-22-20	64.278	4.85	VL1002	-1165
74	4.80	0-00-00					
		26-14-57	90-18-27	58.379	4.85	VL1001	-1166
75	4.80	0-00-00					
		78-57-14	89-53-30	21.328	4.85	TW	-1167
76	4.80	0-00-00					
		91-14-34	91-56-07	10.869	4.85	MH	-1168
77	4.80	0-00-00					
		163-34-50	93-40-09	10.606	4.85	PP	-1169
78	4.80	0-00-00					
		153-54-27	90-42-51	156.636	4.85	1100A	1200

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:29 AM

Field Data File Name: WB2 Book: Page:
Description:
SE SECTION SOUTH ST.

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	4.58	0-00-00					
		240-22-43	89-44-15	34.645	4.85	B5003	-1201
2	4.58	0-00-00					
		276-11-16	91-57-53	63.313	4.85	B5004	-1202
3	4.58	0-00-00					
		250-46-07	90-15-11	99.268	4.85	B5002	-1203
4	4.58	0-00-00					
		227-42-58	90-38-15	83.503	4.85	B5001	-1204
5	4.58	0-00-00					
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Field Data File Name: WB4 Book: Page:
Description:
topo sw cor south st.

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	4.88	0-00-00					
		20-48-56	89-14-57	56.827	4.86	WELL	-1426
2	4.88	0-00-00					
		40-11-38	89-35-10	38.494	4.86	B4603	-1427
3	4.88	0-00-00					
		351-36-46	89-09-47	44.816	4.86	B4604	-1428
4	4.88	0-00-00					
		242-01-43	90-48-08	40.216	4.86	B4602	-1429
5	4.88	0-00-00					
		192-38-45	90-49-12	33.366	4.86	B4601	-1430
6	4.88	0-00-00					
		310-08-20	89-50-43	62.827	4.86	B4503	-1431
7	4.88	0-00-00					
		305-23-50	90-07-30	88.602	4.86	B4504	-1432
8	4.88	0-00-00					
		279-59-17	90-45-23	92.125	4.86	B4502	-1433
9	4.88	0-00-00					
		274-57-16	90-51-48	65.675	4.86	B4501	-1434
10	4.88	0-00-00					
		296-17-43	89-42-00	165.045	4.86	B4001	-1435
11	4.88	0-00-00					
		298-55-00	89-57-32	214.035	4.86	B4002	-1436
12	4.88	0-00-00					
		300-24-51	89-49-22	314.648	5.85	F3906	-1437
13	4.88	0-00-00					
		300-44-43	89-48-19	346.439	5.85	F3905	-1438
14	4.88	0-00-00					
		280-01-01	90-05-24	291.607	8.65	W04	-1439
15	4.88	0-00-00					
		280-49-42	90-03-52	288.529	8.65	SIV8"CLP	-1440
16	4.88	0-00-00					
		274-58-01	90-15-33	294.937	8.65	W06	-1441
17	4.88	0-00-00					
		275-01-51	90-11-56	278.782	8.65	W05	-1442

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:37 AM

Field Data File Name: WB5 Book: Page:
Description:
topo int. south st. and oval

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.37	0-00-00					
		94-03-00	90-05-11	145.393	4.86	EP	-951
2	5.37	0-00-00					
		95-44-20	90-13-23	144.491	4.86	EP	-952
3	5.37	0-00-00					
		96-24-03	90-17-26	131.249	4.86	EP	-953
4	5.37	0-00-00					
		94-29-17	90-12-05	127.985	4.86	EP	-954
5	5.37	0-00-00					
		94-03-50	90-03-11	122.529	4.86	EP	-955
6	5.37	0-00-00					
		97-39-25	90-22-28	123.139	4.86	F4003	-956
7	5.37	0-00-00					
		110-25-49	90-22-03	123.349	4.86	F4006	-957
8	5.37	0-00-00					
		108-17-38	90-52-50	77.998	4.86	F4002	-958
9	5.37	0-00-00					
		127-44-51	90-38-47	77.798	4.86	F4005	-959
10	5.37	0-00-00					
		148-00-36	90-31-36	126.328	4.86	B4004	-960
11	5.37	0-00-00					
		176-20-48	90-54-02	92.949	4.86	TW	-961
12	5.37	0-00-00					
		163-44-36	91-34-15	58.608	4.86	F4004	-962
13	5.37	0-00-00					

14	5.37	126-09-31 0-00-00	91-53-39	41.184	4.86	F4001	-963
15	5.37	89-59-16 0-00-00	90-07-23	100.026	4.86	1+0	-964
16	5.37	86-01-58 0-00-00	90-01-58	126.266	4.86	EP	-965
17	5.37	84-24-01 0-00-00	90-02-13	123.756	4.86	EP	-966
18	5.37	70-50-52 0-00-00	89-42-39	130.108	4.86	EP	-967
19	5.37	69-13-11 0-00-00	89-36-18	119.271	4.86	EP	-968
20	5.37	68-29-35 0-00-00	89-40-51	118.352	4.86	F4102	-969
21	5.37	83-16-04 0-00-00	89-58-31	112.860	4.86	EP	-970
22	5.37	85-21-09 0-00-00	90-05-38	111.046	4.86	EP	-971
23	5.37	80-43-06 0-00-00	90-34-21	97.867	4.86	F4101	-972
24	5.37	74-03-33 0-00-00	91-11-52	31.614	4.86	EP	-973
25	5.37	50-46-07 0-00-00	91-52-06	21.824	4.86	EP	-974
26	5.37	21-22-20 0-00-00	91-30-24	27.798	4.86	EP	-975
27	5.37	36-49-57 0-00-00	96-13-11	27.257	4.86	NIV8"CLP	-976
28	5.37	44-45-19 0-00-00	90-53-27	25.934	4.86	WELL	-977
29	5.37	37-58-03 0-00-00	91-26-30	22.365	4.86	EGPVDDIT	-978
30	5.37	39-38-22 0-00-00	92-03-30	31.223	4.86	"	-979
31	5.37	10-49-15 0-00-00	90-41-18	92.860	4.86	"	-980
32	5.37	5-57-47 0-00-00	90-25-22	93.441	4.86	"	-981
33	5.37	8-27-49 0-00-00	91-26-37	91.102	4.86	SIV12"CIP	-982
34	5.37	58-14-20 0-00-00	91-07-04	44.160	4.86	F4103	-983
35	5.37	42-14-27 0-00-00	89-31-16	63.457	4.86	F4104	-984
36	5.37	14-49-48 0-00-00	91-03-21	72.909	4.86	GM	-985
37	5.37	31-22-38 0-00-00	89-53-43	88.618	4.86	F4106	-986
38	5.37	12-13-37 0-00-00	90-43-40	93.093	4.86	F4105	-987
39	5.37	7-02-10 0-00-00	90-32-30	128.451	4.86	GM	-988
40	5.37	5-03-22 0-00-00	91-15-03	131.190	4.86	NIV12"CIP	-989
41	5.37	5-09-33 0-00-00	91-14-52	129.291	4.86	SIV12"CIP	-990
42	5.37	6-06-06 0-00-00	90-22-29	102.768	4.86	EP	-991
43	5.37	24-38-00 0-00-00	90-10-42	113.693	4.86	EP	-992
44	5.37	21-45-50 0-00-00	90-11-21	128.401	4.86	EP	-993
45	5.37	5-22-23 0-00-00	90-16-05	119.697	4.86	EP	-994
46	5.37	8-57-39 0-00-00	90-29-52	127.457	4.86	F4201	-995

47	5.37	17-48-36 0-00-00	90-15-15	144.602	4.86	F4202	-996
48	5.37	14-24-25 0-00-00	90-17-34	182.998	4.86	F4204	-997
49	5.37	9-50-53 0-00-00	90-18-53	169.619	4.86	F4203	-998
50	5.37	5-19-32 0-00-00	90-27-26	158.989	4.86	EGPVDDIT	-999
51	5.37	3-06-20 0-00-00	90-07-52	158.798	4.86	"	-1000
52	5.37	7-43-23 0-00-00	90-17-08	180.639	4.86	"	-1001
53	5.37	11-29-35 0-00-00	90-14-27	189.943	4.86	"	-1002
54	5.37	11-03-51 0-00-00	90-02-43	194.537	4.86	"	-1003
55	5.37	5-37-14 0-00-00	90-01-54	182.830	4.86	EP	-1004
56	5.37	3-05-20 0-00-00	90-07-49	158.926	4.86	EGPVDDIT	-1005
57	5.37	4-21-35 0-00-00	90-54-11	159.366	4.86	NIV12"CIP	-1006
58	5.37	11-11-18 0-00-00	90-37-56	192.640	4.86	WIV12"CIP	-1007
59	5.37	5-06-44 0-00-00	90-32-03	130.544	4.86	DIRIM	-1008
60	5.37	10-06-02 0-00-00	90-34-14	190.960	4.86	SIV12"CMP	-1009
61	5.37	9-43-22 0-00-00	90-27-14	216.643	4.86	NIV12"CMP	-1010
62	5.37	9-52-33 0-00-00	90-19-16	217.830	4.86	SIV6"CMP	-1011
63	5.37	9-47-58 0-00-00	90-09-14	217.141	4.86	DIRIM	-1012
64	5.37	8-11-45 0-00-00	90-13-33	223.470	4.86	NIV6"CMP	-1013
65	5.37	9-43-28 0-00-00	90-03-50	221.387	4.86	EP	-1014
66	5.37	5-24-15 0-00-00	90-01-01	223.638	4.86	EP	-1015
67	5.37	3-21-14 0-00-00	89-58-49	236.712	4.86	EP	-1016
68	5.37	2-25-20 0-00-00	89-57-49	249.947	4.86	EP	-1017
69	5.37	1-10-33 0-00-00	89-54-30	197.686	4.86	MH	-1018
70	5.37	0-11-59 0-00-00	89-54-56	198.172	4.86	WV	-1019
71	5.37	356-14-20 0-00-00	89-58-39	147.460	4.86	EP	-1020
72	5.37	354-38-29 0-00-00	88-53-13	148.917	8.65	VL0401	-1021
73	5.37	351-13-57 0-00-00	88-55-47	149.927	8.65	V0402	-1022
74	5.37	0-00-10 0-00-00	90-11-30	115.672	4.86	22+00	-1023
75	5.37	2-01-49 0-00-00	90-31-41	63.536	4.86	A8	-1024
76	5.37	344-51-25 0-00-00	92-15-45	48.001	4.86	V0301	-1025
77	5.37	333-18-37 0-00-00	92-11-46	51.633	4.86	V0302	-1026
78	5.37	327-54-47 0-00-00	92-11-02	53.703	4.86	V0303	-1027
79	5.37	324-16-06 0-00-00	92-18-12	57.050	4.86	V0304	-1028

80	5.37	359-59-27 0-00-00	91-56-27	15.665	4.86	21+0	-1029
81	5.37	299-43-23 0-00-00	92-37-56	9.977	4.86	EP	-1030
82	5.37	215-47-15 0-00-00	91-22-17	31.715	4.86	EP	-1031
83	5.37	234-06-05 0-00-00	93-08-01	21.374	4.86	PP	-1032
84	5.37	217-47-26 0-00-00	90-58-33	57.683	4.86	EP	-1033
85	5.37	221-08-37 0-00-00	90-40-42	83.805	4.86	EP	-1034
86	5.37	211-57-02 0-00-00	90-47-14	84.343	4.86	20+0	-1035
87	5.37	218-39-30 0-00-00	90-33-51	128.228	4.86	EP	-1036
88	5.37	211-03-00 0-00-00	90-42-30	108.677	4.86	EP	-1037
89	5.37	195-46-25 0-00-00	90-54-53	52.168	4.86	EP	-1038
90	5.37	173-30-20 0-00-00	91-22-02	29.445	4.86	EP	-1039
91	5.37	116-59-05 0-00-00	91-16-42	30.718	4.86	EP	-1040
92	5.37	100-11-45 0-00-00	90-34-28	52.152	4.86	EP	-1041
93	5.37	141-37-10 0-00-00	91-14-15	29.760	4.86	WELL	-1042
94	5.37	205-23-10 0-00-00	90-56-44	98.710	4.86	PP	-1043
95	5.37	210-35-01 0-00-00	90-45-32	114.740	4.86	MH	-1044
96	5.37	212-36-30 0-00-00	90-45-21	135.488	4.86	GM	-1045
97	5.37	213-53-35 0-00-00	90-43-24	138.506	4.86	F3902	-1046
98	5.37	220-07-54 0-00-00	90-53-56	146.978	4.86	F3901	-1047
99	5.37	212-46-41 0-00-00	90-42-25	179.566	4.86	F3904	-1048
100	5.37	218-52-02 0-00-00	91-03-28	198.828	4.86	F3806	-1049
		72-15-15	92-32-15	8.959	4.86	MH	-1050

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:40 AM

Field Data File Name: WB6 Book: Page:
Description:
topo int. fox st. and oval

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.24	0-00-00					
		12-29-32	91-04-02	52.148	4.86	EGPVDDIT	-201
2	5.24	0-00-00					
		16-53-55	91-03-18	54.471	4.86	"	-202
3	5.24	0-00-00					
		13-44-47	93-20-47	53.129	4.86	EIV12"CIP	-203
4	5.24	0-00-00					
		28-04-10	91-18-14	71.614	4.86	F4205	-204
5	5.24	0-00-00					
		13-44-55	91-05-37	90.062	4.86	F4206	-205
6	5.24	0-00-00					
		22-44-27	90-47-08	120.993	4.86	B4203	-206
7	5.24	0-00-00					
		2-40-26	90-44-47	86.400	4.86	ST2	-207
8	5.24	0-00-00					
		359-59-51	90-32-35	100.055	4.86	1+OF	-208
9	5.24	0-00-00					
		0-15-00	90-24-32	139.113	4.86	A2	-209
10	5.24	0-00-00					
		16-09-02	90-31-53	173.457	4.86	B4201	-210
11	5.24	0-00-00					
		19-04-24	90-15-54	218.779	4.86	EP	-211
12	5.24	0-00-00					
		18-10-27	90-14-40	229.025	4.86	EP	-212
13	5.24	0-00-00					
		5-28-20	90-17-04	220.081	4.86	EP	-213
14	5.24	0-00-00					
		3-13-05	90-15-42	222.784	4.86	EGPVDDIT	-214
15	5.24	0-00-00					
		3-02-53	90-12-50	228.779	4.86	"	-215
16	5.24	0-00-00					
		2-11-11	90-14-38	228.890	4.86	"	-216

17	5.24	0-00-00					
		2-13-00	90-16-37	224.100	4.86	"	-217
18	5.24	0-00-00					
		2-28-46	90-19-08	204.855	4.86	"	-218
19	5.24	0-00-00					
		3-52-12	90-15-29	207.909	4.86	"	-219
20	5.24	0-00-00					
		5-11-44	90-14-57	209.097	4.86	EP	-220
21	5.24	0-00-00					
		359-59-49	90-16-05	200.061	4.86	2+OF	-221
22	5.24	0-00-00					
		3-05-19	90-32-05	203.644	4.86	WIV6"CMP	-222
23	5.24	0-00-00					
		2-43-57	90-24-21	223.992	4.86	E"	-223
24	5.24	0-00-00					
		2-28-32	90-27-57	228.546	4.86	W"	-224
25	5.24	0-00-00					
		9-02-32	90-13-37	233.585	4.86	EP	-225
26	5.24	0-00-00					
		8-29-20	90-11-01	250.609	4.86	EP	-226
27	5.24	0-00-00					
		7-35-28	90-08-02	251.075	4.86	EP	-227
28	5.24	0-00-00					
		7-28-45	90-10-04	256.557	4.86	EP	-228
29	5.24	0-00-00					
		4-28-45	90-08-44	254.950	4.86	EP	-229
30	5.24	0-00-00					
		3-02-02	90-08-42	251.603	4.86	EP	-230
31	5.24	0-00-00					
		2-00-49	90-09-44	252.299	4.86	EP	-231
32	5.24	0-00-00					
		5-27-44	90-13-42	261.731	4.86	GM	-232
33	5.24	0-00-00					
		355-30-54	90-12-00	220.216	4.86	V0601	-233
34	5.24	0-00-00					
		351-57-03	90-22-53	115.718	4.86	V0501	-234
35	5.24	0-00-00					
		347-26-55	88-36-08	116.512	8.65	V0502	-235
36	5.24	0-00-00					
		342-02-59	88-49-18	118.743	8.65	V0503	-236
37	5.24	0-00-00					
		339-32-04	88-52-03	125.157	8.65	V0504	-237
38	5.24	0-00-00					
		326-09-57	92-25-49	37.581	4.86	V1301	-238
39	5.24	0-00-00					
		322-16-15	91-58-22	46.545	4.86	V1302	-239
40	5.24	0-00-00					
		163-30-33	91-19-47	68.621	4.86	F4305	-240
41	5.24	0-00-00					
		165-23-55	91-01-05	103.510	4.86	F4306	-241
42	5.24	0-00-00					
		196-12-12	90-57-58	68.169	4.86	F4304	-242
43	5.24	0-00-00					
		212-56-18	92-24-05	36.020	4.86	F4303	-243
44	5.24	0-00-00					
		232-43-17	90-51-06	79.547	4.86	F4302	-244
45	5.24	0-00-00					
		258-29-40	90-51-30	66.869	4.86	F4301	-245
46	5.24	0-00-00					
		262-17-25	90-19-18	76.013	4.86	EP	-246
47	5.24	0-00-00					
		236-25-20	90-17-45	92.549	4.86	EP	-247
48	5.24	0-00-00					
		241-50-06	88-57-38	109.399	7.55	EP	-248
49	5.24	0-00-00					
		267-55-17	90-13-00	95.324	4.86	EP	[illegible]

50	5.24	[illegible] 0-00-00	[illegible]	[illegible]	4.86	EP	-249
51	5.24	260-19-30 0-00-00	90-27-05	100.583	4.86	F4307	-250
52	5.24	270-39-07 0-00-00	90-07-59	100.039	4.86	1+00	-251
53	5.24	280-18-40 0-00-00	90-12-24	109.848	4.86	F4401	-252
54	5.24	303-28-00 0-00-00	89-40-51	137.634	4.86	F4403	-253
55	5.24	317-01-46 0-00-00	88-28-36	186.124	8.65	F4405	-254
56	5.24	279-20-34 0-00-00	90-13-05	136.554	4.86	F4407	-255
57	5.24	275-52-15 0-00-00	90-07-39	169.947	4.86	F4402	-256
58	5.24	293-07-40 0-00-00	89-58-45	182.798	4.86	F4404	-257
59	5.24	270-39-35 0-00-00	89-56-18	199.927	4.86	2+00	-258
60	5.24	268-58-29 0-00-00	90-02-04	139.484	4.86	A3	-259
61	5.24	300-43-14 0-00-00	89-52-37	203.139	4.86	F4406	-260
62	5.24	271-00-14 0-00-00	89-56-27	160.800	4.86	MH	-261
63	5.24	274-10-23 0-00-00	89-59-42	176.321	4.86	EP	-262
64	5.24	273-54-47 0-00-00	89-59-13	188.191	4.86	EP	-263
65	5.24	288-47-38 0-00-00	90-29-40	77.319	4.86	TW	-264
66	4.56	298-17-26 0-00-00	89-41-40	167.309	4.86	200A	275
67	4.56	210-28-59 0-00-00	89-37-51	65.475	4.86	EP	-276
68	4.56	202-44-54 0-00-00	89-37-35	70.334	4.86	EP	-277
69	4.56	12-46-11 0-00-00	90-46-13	151.010	4.86	PP	-278
70	4.56	50-38-20 0-00-00	90-32-59	185.924	4.86	B4302	-279
71	4.56	40-44-17 0-00-00	90-27-03	276.780	4.86	B4304	-280
72	4.56	45-16-11 0-00-00	90-28-41	268.733	4.86	B4303	-281
73	4.56	68-45-21 0-00-00	90-18-13	296.751	4.86	B0402	-282
74	4.56	69-22-03 0-00-00	90-24-29	261.124	4.86	B0401	-283
75	4.56	79-51-18 0-00-00	90-17-34	272.227	4.86	B0403	-284
76	4.56	77-58-34 0-00-00	90-19-36	309.031	4.86	B0404	-285
77	4.56	80-21-46 0-00-00	90-17-10	389.041	4.86	B0503	-286
78	4.56	77-11-16 0-00-00	89-40-32	383.978	8.65	B0501	-287
79	4.56	95-41-11 0-00-00	90-18-41	283.565	4.86	F0403	-288
80	4.56	98-59-55 0-00-00	90-17-47	310.875	4.86	F0402	-289
81	4.56	103-27-10 0-00-00	90-14-28	219.418	4.86	F0405	-290
82	4.56	114-19-16 0-00-00	90-10-06	183.595	4.86	F0406	-291
		105-15-11	90-15-07	159.031	4.86	F0407	-292

83	4.56	0-00-00					
		106-56-11	90-43-19	80.295	4.86	PP	-293

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:43 AM

Field Data File Name: WB7 Book: Page:
Description:
TOPO NE COR OVAL

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.33	0-00-00					
		359-59-52	89-58-29	57.467	4.86	3+00	-351
2	5.33	0-00-00					
		352-37-19	90-19-27	84.796	4.86	EP	-352
3	5.33	0-00-00					
		345-41-49	90-13-50	78.575	4.86	EP	-353
4	5.33	0-00-00					
		319-56-40	90-00-21	84.665	4.86	EP	-354
5	5.33	0-00-00					
		319-56-40	90-02-48	87.004	4.86	EP	-355
6	5.33	0-00-00					
		308-16-34	89-55-56	104.950	4.86	EP	-356
7	5.33	0-00-00					
		310-49-10	90-16-37	65.718	4.86	EP	-357
8	5.33	0-00-00					
		321-02-00	90-09-59	66.896	4.86	EP	-358
9	5.33	0-00-00					
		343-19-30	90-05-20	63.303	4.86	EP	-359
10	5.33	0-00-00					
		346-50-39	90-11-27	60.265	4.86	EP	-360
11	5.33	0-00-00					
		336-42-09	90-28-23	40.009	4.86	EP	-361
12	5.33	0-00-00					
		324-01-34	90-44-14	39.826	4.86	EP	-362
13	5.33	0-00-00					
		311-36-12	90-44-21	45.049	4.86	EP	-363
14	5.33	0-00-00					
		301-55-44	90-38-34	38.592	4.86	EP	-364
15	5.33	0-00-00					
		322-19-15	90-30-55	26.000	4.86	EP	-365
16	5.33	0-00-00					
		265-22-52	92-04-42	16.843	4.86	EP	-366
17	5.33	0-00-00					
		104-28-46	94-55-00	6.574	4.86	EP	-367
18	5.33	0-00-00					
		8-43-12	90-02-53	40.232	4.86	EP	-368
19	5.33	0-00-00					
		69-04-35	89-49-30	38.133	4.86	EP	-369
20	5.33	0-00-00					
		94-05-25	90-21-17	68.172	4.86	EP	-370
21	5.33	0-00-00					
		116-31-01	90-43-27	71.174	4.86	EP	-371
22	5.33	0-00-00					
		114-46-29	90-33-28	81.016	4.86	EP	-372
23	5.33	0-00-00					
		151-52-56	90-56-36	148.559	4.86	EP	-373
24	5.33	0-00-00					
		148-45-15	90-56-29	152.896	4.86	EP	-374
25	5.33	0-00-00					

26	5.33	96-11-18 0-00-00	90-21-57	85.590	4.86	EP	-375
27	5.33	94-59-33 0-00-00	90-26-24	149.970	4.86	EP	-376
28	5.33	96-19-07 0-00-00	90-29-42	153.454	4.86	EP	-377
29	5.33	121-54-39 0-00-00	89-20-57	177.949	8.65	EP	-378
30	5.33	121-07-32 0-00-00	89-27-19	186.151	8.65	EP	-379
31	5.33	86-48-54 0-00-00	90-25-17	145.209	4.86	EP	-380
32	5.33	87-52-34 0-00-00	90-26-40	145.147	4.86	EP	-381
33	5.33	87-37-47 0-00-00	90-23-53	141.505	4.86	EP	-382
34	5.33	83-54-41 0-00-00	90-26-58	130.045	4.86	EP	-383
35	5.33	86-25-07 0-00-00	90-26-26	124.766	4.86	EP	-384
36	5.33	82-27-59 0-00-00	90-34-24	93.192	4.86	EP	-385
37	5.33	80-33-15 0-00-00	90-39-19	89.583	4.86	EP	-386
38	5.33	80-48-52 0-00-00	90-42-26	84.333	4.86	EP	-387
39	5.33	67-30-58 0-00-00	90-18-50	59.589	4.86	EP	-388
40	5.33	28-20-38 0-00-00	90-12-38	55.324	4.86	EP	-389
41	5.33	11-38-29 0-00-00	90-05-58	68.602	4.86	EP	-390
42	5.33	7-10-28 0-00-00	90-10-49	84.251	4.86	EP	-391
43	5.33	336-58-43 0-00-00	90-44-37	52.221	4.86	PP	-392
44	5.33	209-55-26 0-00-00	98-27-55	7.847	4.86	F0101	-393
45	5.33	179-18-16 0-00-00	92-02-55	34.629	4.86	F0104	-394
46	5.33	145-47-04 0-00-00	91-35-27	34.471	4.86	F0105	-395
47	5.33	130-24-31 0-00-00	90-54-20	54.068	4.86	F0106	-396
48	5.33	97-32-49 0-00-00	90-54-39	52.224	4.86	F0103	-397
49	5.33	71-16-30 0-00-00	90-38-40	112.430	4.86	F0404	-398
50	5.33	103-03-06 0-00-00	90-38-04	89.091	4.86	F0201	-399
51	5.33	57-58-14 0-00-00	90-46-51	26.213	4.86	F0102	-400
52	5.33	91-00-02 0-00-00	90-34-33	42.654	4.86	4+00	-401
53	5.33	113-34-46 0-00-00	90-45-32	98.454	4.86	F0203	-402
54	5.33	128-23-22 0-00-00	90-49-28	103.484	4.86	F0205	-403
55	5.33	119-14-10 0-00-00	90-39-32	144.261	4.86	F0206	-404
56	5.33	109-15-19 0-00-00	90-39-28	130.308	4.86	F0204	-405
57	5.33	109-10-51 0-00-00	90-31-05	180.983	4.86	F0305	-406
58	5.33	103-41-10 0-00-00	90-27-19	181.013	4.86	F0303	-407

59	5.33	96-24-05 0-00-00	90-33-20	176.797	4.86	F0301	-408
60	5.33	104-58-59 0-00-00	90-34-08	199.025	4.86	F0304	-409
61	5.33	109-04-08 0-00-00	90-35-35	207.926	4.86	F0306	-410
62	5.33	109-04-58 0-00-00	90-26-13	307.053	4.86	O-A	-411
63	5.33	94-18-40 0-00-00	90-18-38	317.194	4.86	O-B	-412
64	5.33	96-25-32 0-00-00	90-27-45	266.675	4.86	O-C	-413
65	5.33	91-32-02 0-00-00	90-20-31	261.548	4.86	ST4	-414
66	5.33	91-09-46 0-00-00	90-20-30	241.712	4.86	A4	-415
67	5.33	91-00-44 0-00-00	90-20-37	242.565	4.86	6+00	-416
68	5.33	91-00-40 0-00-00	90-19-40	342.535	4.86	7+00	-417
69	5.33	91-42-39 0-00-00	90-20-00	348.240	4.86	WV	-418
70	5.33	92-28-54 0-00-00	90-19-23	348.749	4.86	MH	-419
71	5.33	93-09-00 0-00-00	90-32-49	337.358	4.86	EIV6"CMP	-420
72	5.33	92-59-50 0-00-00	90-31-02	357.765	4.86	W"	-421
73	5.33	92-51-18 0-00-00	90-19-32	338.808	4.86	EP	-422
74	5.33	94-14-02 0-00-00	90-15-33	338.221	4.86	EP	-423
75	5.33	95-10-41 0-00-00	89-30-37	332.092	8.65	WV	-424
76	5.33	95-29-08 0-00-00	90-13-00	336.127	4.86	EP	-425
77	5.33	95-59-48 0-00-00	90-15-34	336.255	4.86	EP	-426
78	5.33	95-53-35 0-00-00	90-12-51	345.097	4.86	EP	-427
79	5.33	96-32-09 0-00-00	90-12-50	342.200	4.86	EP	-428
80	5.33	96-26-28 0-00-00	90-12-51	345.310	4.86	EP	-429
81	5.33	96-52-28 0-00-00	90-12-41	346.974	4.86	EP	-430
82	5.33	96-49-17 0-00-00	90-12-42	352.049	4.86	EP	-431
83	5.33	93-17-51 0-00-00	90-19-10	357.512	4.86	EP	-432
84	5.33	92-22-30 0-00-00	90-25-24	404.907	4.86	EP	-433
85	5.33	91-56-27 0-00-00	90-22-51	404.989	4.86	EP	-434
86	5.33	93-00-54 0-00-00	90-27-07	389.034	4.86	F0701	-435
87	5.33	93-01-46 0-00-00	90-23-39	421.741	4.86	F0702	-436
88	5.33	86-03-32 0-00-00	90-13-45	393.837	4.86	F0605	-437
89	5.33	84-53-26 0-00-00	90-18-31	369.940	4.86	F0606	-438
90	5.33	84-40-53 0-00-00	90-22-32	363.158	4.86	TW	-439
91	5.33	88-29-24 0-00-00	90-27-00	360.888	4.86	PP	-440

92	5.33	89-13-03 0-00-00	90-29-11	364.349	4.86	DIRIM	-441
93	5.33	88-47-52 0-00-00	90-27-22	372.702	4.86	EP	-442
94	5.33	87-17-18 0-00-00	90-25-01	354.933	4.86	F0501	-443
95	5.33	83-02-56 0-00-00	90-21-11	352.204	4.86	F0504	-444
96	5.33	82-38-43 0-00-00	90-21-11	317.250	4.86	F0505	-445
97	5.33	86-35-22 0-00-00	90-26-36	303.926	4.86	F0502	-446
98	5.33	86-38-10 0-00-00	90-27-55	280.068	4.86	F0503	-447
99	5.33	82-42-21 0-00-00	90-25-22	283.660	4.86	F0506	-448
100	5.33	75-05-45 0-00-00	90-22-55	350.314	4.86	B0504	-449
101	5.33	75-25-15 0-00-00	90-10-05	412.262	4.86	B0604	-450
102	5.33	85-04-41 0-00-00	90-34-36	235.216	4.86	F0401	-451
103	5.33	87-45-48 0-00-00	90-27-50	250.498	4.86	PP	-452
104	5.33	87-57-30 0-00-00	90-21-07	267.988	4.86	EP	-453
105	5.33	88-26-18 0-00-00	90-34-53	272.712	4.86	WIV10"CMP	-454
106	5.33	88-11-45 0-00-00	90-37-36	252.168	4.86	E"	-455
107	5.33	87-57-02 0-00-00	90-23-22	256.479	4.86	EP	-456
108	5.33	85-27-28 0-00-00	90-27-39	144.373	4.86	PP	-457
109	5.33	91-01-23 0-00-00	90-22-21	142.548	4.86	5+00	-458
110	5.33	82-48-00 0-00-00	90-54-38	88.661	4.86	DIRIM	-459
111	5.33	91-34-11 0-00-00	90-45-35	48.215	4.86		-460
112	5.33	146-02-57 0-00-00	90-52-41	174.163	4.86	B0202	-461
113	4.93	205-01-22 0-00-00	91-02-53	82.020	4.86	350A	465
114	4.93	81-37-24 0-00-00	90-30-27	240.652	4.86	B0301	-466
115	4.93	78-56-05 0-00-00	90-17-44	204.409	4.86	B0304	-467
116	4.93	84-28-57 0-00-00	90-28-56	211.072	4.86	B0302	-468
117	4.93	87-48-24 0-00-00	90-24-36	175.314	4.86	B0201	-469
118	4.93	79-41-36 0-00-00	90-16-45	166.515	4.86	B0203	-470
119	4.93	81-27-18 0-00-00	90-19-48	132.883	4.86	B0204	-471
120	4.93	77-00-42 0-00-00	90-26-16	235.455	4.86	B0303	-472
121	4.93	63-12-12 0-00-00	90-01-09	195.137	4.86	EP	-473
122	4.93	63-09-19 0-00-00	89-58-40	199.130	4.86	EP	-474
123	4.93	74-34-40 0-00-00	90-36-14	58.211	4.86	B0103	-475
124	4.93	109-02-32 0-00-00	90-27-52	99.793	4.86	TW	-476

125	4.93	114-49-52 0-00-00	90-36-51	84.507	4.86	B0101	-477
126	4.93	127-08-06 0-00-00	90-49-10	62.818	4.86	B0102	-478
127	4.93	106-54-20 0-00-00	91-11-51	37.913	4.86	B0104	-479
128	4.93	322-36-33 0-00-00	89-08-29	92.988	4.86	PP	-480
129	4.93	316-59-46 0-00-00	89-12-56	99.278	4.86	EP	-481
130	4.93	299-42-50 0-00-00	88-57-43	79.199	4.86	EP	-482
131	4.93	292-00-32 0-00-00	88-57-11	86.446	4.86	EP	-483
132	4.93	291-33-47 0-00-00	88-59-42	90.022	4.86	EP	-484
133	4.93	288-26-12 0-00-00	89-02-45	89.930	4.86	EP	-485
134	4.93	287-19-57 0-00-00	89-10-26	102.138	4.86	EP	-486
135	4.93	287-41-26 0-00-00	89-18-54	109.783	4.86	EP	-487
136	4.93	294-03-18 0-00-00	89-13-56	113.844	4.86	EP	-488
137	4.93	295-35-29 0-00-00	89-13-00	125.180	4.86	EP	-489
138	4.93	293-38-12 0-00-00	89-16-48	129.107	4.86	EP	-490
139	4.93	293-51-52 0-00-00	89-13-13	132.161	4.86	EP	-491
140	4.93	292-35-12 0-00-00	89-20-05	133.615	4.86	EP	-492
141	4.93	294-11-09 0-00-00	89-24-20	141.043	4.86	EP	-493
142	4.93	296-00-56 0-00-00	89-24-46	147.726	4.86	EP	-494
143	4.93	293-50-20 0-00-00	89-30-29	154.031	4.86	EP	-495
144	4.93	295-28-30 0-00-00	89-31-30	160.324	4.86	EP	-496
145	4.93	297-47-55 0-00-00	88-04-53	156.938	8.65	EP	-497
146	4.93	299-04-04 0-00-00	89-28-11	164.527	4.86	EP	-498
147	4.93	312-09-48 0-00-00	89-25-29	151.157	4.86	EP	-499
148	4.93	309-09-01 0-00-00	89-17-18	122.434	4.86	TW	501
149	4.93	293-28-25 0-00-00	89-33-48	166.958	4.86	D02I	502
150	4.93	277-00-28 0-00-00	89-41-02	212.883	4.86	D02J	503
151	4.93	251-34-37 0-00-00	89-34-22	216.292	4.86	D02G	504
152	4.93	245-16-22 0-00-00	89-50-20	277.131	4.86	D02H	505
153	4.93	231-52-43 0-00-00	89-12-45	270.675	8.65	D02D	506
154	4.93	238-22-10 0-00-00	89-43-49	229.973	4.86	TW	507
155	4.93	233-24-52 0-00-00	89-33-57	187.637	4.86	D02C	508
156	4.93	239-56-13 0-00-00	89-24-04	121.220	4.86	D02B	509
157	4.93	225-34-49 0-00-00	89-54-56	111.394	4.86	EN10	510

158	4.93	237-35-20 0-00-00	90-12-05	69.773	4.86	EN9	511
159	4.93	261-40-37 0-00-00	89-28-35	58.677	4.86	D02A	512
		284-16-52	89-10-53	106.000	4.86	D02E	513

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:46 AM

Field Data File Name: WB8 Book: Page:
Description:
topo nw cor oval

REC#	H.I.	BACKSIGHT / FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.26	0-00-00					
		356-34-49	90-00-47	366.902	4.86	F0202	-515
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		355-04-40	90-02-57	302.719	4.86	F0302	-516
3	5.26	0-00-00					
		346-11-01	89-49-16	163.654	4.86	EP	-517
4	5.26	0-00-00					
		344-13-14	89-11-17	148.726	7.25	EP	-518
5	5.26	0-00-00					
		344-27-22	90-33-23	145.245	4.86	PP	-519
6	5.26	0-00-00					
		344-13-41	90-35-50	114.940	4.86	F0703	-520
7	5.26	0-00-00					
		331-46-52	90-21-20	128.139	4.86	F0705	-521
8	5.26	0-00-00					
		318-27-12	90-25-13	111.695	4.86	F0706	-522
9	5.26	0-00-00					
		332-13-38	90-30-56	91.253	4.86	F0704	-523
10	5.26	0-00-00					
		309-02-14	90-43-51	73.464	4.86	F0805	-524
11	5.26	0-00-00					
		297-08-36	90-29-28	145.819	4.86	B0701	-525
12	5.26	0-00-00					
		296-49-05	90-32-07	154.730	4.86	B0702	-526
13	5.26	0-00-00					
		332-51-42	91-16-58	51.646	4.86	F0803	-527
14	5.26	0-00-00					
		10-59-31	91-15-20	44.714	4.86	F0801	-528
15	5.26	0-00-00					
		327-41-56	93-26-46	12.221	4.86	F0802	-529
16	5.26	0-00-00					
		282-20-38	90-57-14	43.910	4.86	F0804	-530
17	5.26	0-00-00					
		278-04-26	90-31-58	76.420	4.86	F0806	-531
18	5.26	0-00-00					
		253-31-44	90-26-19	102.427	4.86	F0902	-532
19	5.26	0-00-00					
		248-54-30	90-19-55	133.664	4.86	F0901	-533
20	5.26	0-00-00					
		237-57-40	90-13-38	148.047	4.86	F0903	-534
21	5.26	0-00-00					
		228-05-10	90-08-12	167.775	4.86	F0905	-535
22	5.26	0-00-00					
		225-17-40	89-37-31	135.212	5.75	F0906	-536
23	5.26	0-00-00					
		238-00-23	90-06-51	115.235	4.86	F0904	-537
24	5.26	0-00-00					
		241-17-03	90-20-49	88.762	4.86	MH	-538
25	5.26	0-00-00					
		229-55-36	90-06-51	95.806	4.86	F1003	-539

26	5.26	0-00-00					
		244-38-54	90-33-01	79.182	4.86	F1001	-540
27	5.26	0-00-00					
		231-41-42	90-04-51	44.107	4.86	PP	-541
28	5.26	0-00-00					
		226-27-52	90-44-09	47.893	4.86	F1002	-542
29	5.26	0-00-00					
		200-49-39	90-41-34	65.058	4.86	F1004	-543
30	5.26	0-00-00					
		204-41-45	90-40-48	88.943	4.86	F1006	-544
31	5.26	0-00-00					
		155-22-53	91-15-17	25.423	4.86	F1101	-545
32	5.26	0-00-00					
		170-55-38	91-03-10	54.235	4.86	F1103	-546
33	5.26	0-00-00					
		170-41-06	90-50-48	94.888	4.86	F1105	-547
34	5.26	0-00-00					
		159-18-29	90-52-09	100.560	4.86	F1106	-548
35	5.26	0-00-00					
		152-39-54	91-15-22	69.684	4.86	F1104	-549
36	5.26	0-00-00					
		102-15-57	92-12-35	31.778	4.86	F1102	-550
37	5.26	0-00-00					
		59-18-30	90-46-26	32.939	4.86	MH	-551
38	5.26	0-00-00					
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39	5.26	0-00-00					
		124-55-50	90-43-50	55.882	4.86	F1201	-553
40	5.26	0-00-00					
		144-49-19	89-54-13	89.179	4.86	F1203	-554
41	5.26	0-00-00					
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42	5.26	0-00-00					
		144-33-36	89-36-37	135.403	4.86	F1206	-556
43	5.26	0-00-00					
		136-30-42	89-32-20	119.868	4.86	F1204	-557
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		130-52-01	89-56-41	98.159	4.86	F1202	-558
45	5.26	0-00-00					
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46	5.26	0-00-00					
		98-36-07	90-22-45	84.783	4.86	F1307	-560
47	5.26	0-00-00					
		72-33-23	91-44-49	28.822	4.86	GLM	-561
48	5.26	0-00-00					
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51	5.26	0-00-00					
		101-36-49	90-24-36	132.565	4.86	GM	-565
52	5.26	0-00-00					
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53	5.26	0-00-00					
		89-04-41	90-04-48	142.916	4.86	10+00	-567
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		96-40-22	89-48-00	152.660	4.86	F1401	-568
55	5.26	0-00-00					
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56	5.26	0-00-00					
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62	5.26	89-25-35 0-00-00	90-01-23	200.737	4.86	A5	-575
63	5.26	88-15-36 0-00-00	90-03-31	192.007	4.86	MH	-576
64	5.26	98-17-16 0-00-00	90-03-17	183.670	4.86	F1402	-577
65	5.26	94-25-24 0-00-00	90-04-48	195.750	4.86	F1601	-578
66	5.26	89-04-15 0-00-00	89-59-49	242.912	4.86	11+00	-579
67	5.26	94-17-41 0-00-00	89-55-27	235.780	4.86	PP	-580
68	5.26	92-59-00 0-00-00	89-58-39	249.635	4.86	F1701	-581
69	5.26	93-55-35 0-00-00	89-58-32	277.168	4.86	F1702	-582
70	5.26	93-00-27 0-00-00	90-05-37	303.201	4.86	F1901	-583
71	5.26	89-04-19 0-00-00	90-00-03	342.932	4.86	12+00	-584
72	5.26	86-23-24 0-00-00	90-05-32	334.418	4.86	F2006	-585
73	5.26	85-49-52 0-00-00	90-06-50	316.646	4.86	F2003	-586
74	5.26	86-26-53 0-00-00	90-06-00	306.157	4.86	F2004	-587
75	5.26	85-43-15 0-00-00	90-07-59	290.658	4.86	F1801	-588
76	5.26	86-41-16 0-00-00	90-12-57	278.234	4.86	DI	-589
77	5.26	85-14-37 0-00-00	90-05-51	272.761	4.86	F1802	-590
78	5.26	82-13-21 0-00-00	89-50-19	273.316	4.86	F1805	-591
79	5.26	80-01-14 0-00-00	90-09-05	291.495	4.86	F1804	-592
80	5.26	85-56-32 0-00-00	90-07-13	252.148	4.86	F1803	-593
81	5.26	78-42-21 0-00-00	90-02-08	253.093	4.86	F1806	-594
82	5.26	79-05-16 0-00-00	90-04-44	197.755	4.86	F1504	-595
83	5.26	83-51-46 0-00-00	90-11-11	202.880	4.86	F1501	-596
84	5.26	81-22-40 0-00-00	90-09-01	177.729	4.86	F1502	-597
85	5.26	74-51-39 0-00-00	90-02-47	171.295	4.86	F1505	-598
86	5.26	77-53-48 0-00-00	90-11-21	145.501	4.86	F1503	-599
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89	5.26	82-34-17 0-00-00	90-21-33	109.120	4.86	DI	-602
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163	4.94	0-00-00					
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164	4.94	0-00-00					
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165	4.94	0-00-00					
		66-28-34	90-24-37	53.812	4.86	B0801	-685
166	4.94	0-00-00					
		83-21-52	91-10-22	23.894	4.86	B0802	-686
167	4.94	0-00-00					
		231-46-45	90-18-14	33.402	4.86	B0703	-687
168	4.94	0-00-00					
		237-12-25	90-33-09	58.867	4.86	B0704	-688

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:50 AM

Field Data File Name: WB9 Book: Page:
Description:
TOPO WEST SIDE OVAL

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2	4.76	0-00-00					
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3	4.76	0-00-00					
		78-12-39	90-09-45	39.150	4.86	B1204	-692
4	4.76	0-00-00					
		109-44-02	90-59-54	23.297	4.86	B1101	-693
5	4.76	0-00-00					
		182-31-19	89-38-06	16.847	4.86	B1102	-694
6	4.76	0-00-00					
		139-33-24	89-49-28	55.934	4.86	B1202	-695
7	4.76	0-00-00					
		116-55-40	90-08-16	66.194	4.86	B1201	-696
8	4.76	0-00-00					
		94-29-26	90-07-46	62.371	4.86	B1203	-697
9	4.76	0-00-00					
		292-47-26	91-26-54	54.911	4.86	B1003	-698
10	4.76	0-00-00					
		267-05-52	90-59-52	58.395	4.86	B1001	-699
11	4.76	0-00-00					
		267-36-50	90-59-30	74.796	4.86	B1002	-700
12	4.76	0-00-00					
		283-59-08	90-48-32	75.921	4.86	B1004	-701
13	4.76	0-00-00					
		276-24-31	90-29-18	99.353	4.86	B0903	-702
14	4.76	0-00-00					
		261-45-18	90-34-41	100.436	4.86	B0901	-703
15	4.76	0-00-00					
		263-29-35	90-20-26	130.009	4.86	B0902	-704
16	4.76	0-00-00					
		275-30-49	90-18-18	128.562	4.86	B0904	-705
17	4.76	0-00-00					
		88-46-52	90-24-30	90.350	4.86	B1304	-706
18	4.76	0-00-00					
		91-39-59	90-18-15	113.805	4.86	B1303	-707
19	4.76	0-00-00					
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20	4.76	0-00-00					
		105-17-36	90-12-32	129.300	4.86	B1301	-709
21	4.76	0-00-00					
		97-47-44	90-15-00	140.708	4.86	B1404	-710
22	4.76	0-00-00					
		107-45-18	90-09-49	147.227	4.86	B1402	-711
23	4.76	0-00-00					
		107-16-40	89-12-49	175.009	4.86	B1401	-712
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28	4.76	107-39-05 0-00-00	89-44-03	224.999	4.86	B1601	-716
29	4.76	92-08-45 0-00-00	89-32-12	211.187	4.86	B1603	-717
30	5.02	93-03-15 0-00-00	89-43-15	348.135	4.86	500B	720
31	5.02	359-08-15 0-00-00	91-03-22	55.724	4.86	B1904	-721
32	5.02	0-58-07 0-00-00	90-00-30	78.513	4.86	B1703	-722
33	5.02	356-51-24 0-00-00	90-01-52	107.562	4.86	B1704	-723
34	5.02	328-01-39 0-00-00	90-16-33	124.235	4.86	B1702	-724
35	5.02	322-51-42 0-00-00	90-18-33	97.201	4.86	B1701	-725
36	5.02	323-07-18 0-00-00	90-48-10	68.480	4.86	B1902	-726
37	5.02	296-51-46 0-00-00	90-45-44	62.526	4.86	B1901	-727
38	5.02	333-09-36 0-00-00	92-49-02	34.557	4.86	B1903	-728
39	5.02	74-45-52 0-00-00	92-07-27	77.572	4.86	F1906	-729
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41	5.02	93-16-17 0-00-00	90-36-41	202.407	4.86	F2102	-731
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43	5.02	94-04-04 0-00-00	90-40-48	218.989	4.86	F2104	-733
44	5.02	95-44-33 0-00-00	90-42-13	206.131	4.86	F2101	-734
45	5.02	98-51-12 0-00-00	90-59-15	202.335	4.86	F2202	-735
46	5.02	96-49-54 0-00-00	90-49-09	236.721	4.86	2206	-736
47	5.02	97-09-10 0-00-00	90-40-06	321.633	4.86	B2203	-737
48	5.02	96-57-50 0-00-00	90-37-01	370.579	4.86	B2201	-738
49	5.02	160-03-27 0-00-00	99-06-06	12.253	4.86	EP	-739
50	5.02	171-01-36 0-00-00	95-02-55	18.782	4.86	EP	-740
51	5.02	178-53-05 0-00-00	92-16-48	78.362	4.86	B2304	-741
52	5.02	180-09-01 0-00-00	91-53-20	103.454	4.86	B2303	-742
53	5.02	201-21-07 0-00-00	91-02-13	108.205	4.86	B2302	-743
54	5.02	206-25-29 0-00-00	90-59-13	84.770	4.86	B2301	-744
55	5.02	196-43-30 0-00-00	89-56-44	161.745	4.86	B2502	-745
56	5.02	176-59-30 0-00-00	90-06-51	154.815	8.65	B2504	-746
57	5.02	177-36-27 0-00-00	89-55-40	195.091	8.65	B2503	-747
58	5.02	182-06-46 0-00-00	90-29-52	241.807	4.86	B2704	-748

59	5.02	190-15-03 0-00-00	89-27-31	247.220	8.65	B2702	-749
60	5.02	189-23-16 0-00-00	89-37-40	267.000	8.65	B2703	-750
61	5.02	181-45-20 0-00-00	90-30-36	265.977	4.86	B2701	-751
62	5.02	187-44-11 0-00-00	89-46-29	306.967	8.65	B2904	-752
63	5.02	190-54-30 0-00-00	89-52-39	311.242	8.65	B2902	-753
64	5.02	189-30-31 0-00-00	89-53-43	337.574	8.65	B2901	-754
65	5.02	187-27-24 0-00-00	90-28-49	335.898	4.86	B2903	-755
66	5.02	186-59-34 0-00-00	90-46-54	351.656	4.86	B2802	-756
67	5.02	98-18-38 0-00-00	90-58-22	177.903	4.86	EP	-757
68	5.02	96-47-49 0-00-00	91-00-40	171.958	4.86	EP	-758
		96-32-25	91-01-03	166.925	4.86	EP	-759

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:52 AM

Field Data File Name: WB10 Book: Page:
Description:
TOPO WEST SIDE OVAL

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.29	0-00-00					
		334-21-37	90-09-34	166.049	4.86	EP	-765
2	5.29	0-00-00					
		330-15-05	90-18-36	146.689	4.86	EP	-766
3	5.29	0-00-00					
		330-19-31	90-20-59	139.038	4.86	F1303	-767
4	5.29	0-00-00					
		320-19-05	90-20-43	145.022	4.86	F1304	-768
5	5.29	0-00-00					
		322-20-12	90-06-37	176.289	4.86	F1305	-769
6	5.29	0-00-00					
		308-35-57	90-10-36	172.138	4.86	F1306	-770
7	5.29	0-00-00					
		307-02-44	90-17-48	151.987	4.86	F1405	-771
8	5.29	0-00-00					
		296-50-14	89-52-16	139.258	4.86	F1406	-772
9	5.29	0-00-00					
		302-53-49	89-50-03	125.544	4.86	F1404	-773
10	5.29	0-00-00					
		306-37-47	90-24-05	97.296	4.86	EP	-774
11	5.29	0-00-00					
		315-31-45	90-05-05	108.897	4.86	EP	-775
12	5.29	0-00-00					
		319-52-41	89-49-48	114.809	4.86	F1403	-776
13	5.29	0-00-00					
		298-26-06	90-16-31	87.759	4.86	EP	-777
14	5.29	0-00-00					
		289-33-52	90-16-33	83.618	4.86	EP	-778
15	5.29	0-00-00					
		293-22-56	90-14-59	76.472	4.86	EP	-779
16	5.29	0-00-00					
		301-03-13	90-13-51	75.518	4.86	EP	-780
17	5.29	0-00-00					
		311-40-28	90-23-51	86.394	4.86	EP	-781
18	5.29	0-00-00					
		338-05-47	90-09-36	41.991	4.86	EP	-782
19	5.29	0-00-00					
		330-19-27	90-19-50	43.323	4.86	EP	-783
20	5.29	0-00-00					
		320-57-15	90-28-37	34.025	4.86	EP	-784
21	5.29	0-00-00					
		326-44-19	90-11-30	29.871	4.86	EP	-785
22	5.29	0-00-00					
		288-28-43	89-47-16	123.070	4.86	F1605	-786
23	5.29	0-00-00					
		278-33-15	89-52-16	114.730	4.86	F1606	-787
24	5.29	0-00-00					
		266-07-25	89-18-32	146.312	4.86	F1705	-788
25	5.29	0-00-00					
		254-08-18	89-19-30	147.673	4.86	F1704	-789

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26	5.29	0-00-00					
		244-22-18	90-12-26	129.812	4.86	F1905	-790
27	5.29	0-00-00					
		229-16-35	90-22-28	103.789	4.86	F1903	-791
28	5.29	0-00-00					
		242-11-02	89-52-36	104.566	4.86	F1704	-792
29	5.29	0-00-00					
		250-55-44	89-41-11	110.022	4.86	EP	-793
30	5.29	0-00-00					
		245-56-47	89-38-29	113.982	4.86	EP	-794
31	5.29	0-00-00					
		254-38-45	89-26-40	90.075	4.86	F1703	-795
32	5.29	0-00-00					
		211-57-28	90-00-51	50.173	4.86	EP	-796
33	5.29	0-00-00					
		203-09-38	89-47-19	43.595	4.86	EP	-797
34	5.29	0-00-00					
		207-15-27	90-04-00	58.877	4.86	EP	-798
35	5.29	0-00-00					
		197-43-54	90-00-20	58.763	4.86	EP	-799
36	5.29	0-00-00					
		193-18-18	89-56-13	78.575	4.86	EP	801
37	5.29	0-00-00					
		194-46-37	90-16-16	82.237	4.86	EP	802
38	5.29	0-00-00					
		217-33-51	90-16-30	107.985	4.86	EP	803
39	5.29	0-00-00					
		227-57-40	90-09-05	125.682	4.86	EP	804
40	5.29	0-00-00					
		222-14-45	90-08-09	138.050	4.86	EP	805
41	5.29	0-00-00					
		191-22-51	90-04-30	96.548	4.86	EP	806
42	5.29	0-00-00					
		192-55-27	90-07-43	111.308	4.86	F1902	807
43	5.29	0-00-00					
		194-23-08	89-57-41	106.469	4.86	PP	808
44	5.29	0-00-00					
		188-56-46	90-00-12	124.409	4.86	EP	809
45	5.29	0-00-00					
		191-01-18	90-06-43	129.428	4.86	EP	810
46	5.29	0-00-00					
		195-13-21	90-10-44	133.690	4.86	EP	811
47	5.29	0-00-00					
		192-22-46	90-22-41	150.993	4.86	GM	812
48	5.29	0-00-00					
		192-36-43	89-56-36	119.379	4.86	GM	813
49	5.29	0-00-00					
		189-00-00	90-21-11	174.441	4.86	F2301	814
50	5.29	0-00-00					
		197-49-03	90-28-13	189.884	4.86	F2303	815
51	5.29	0-00-00					
		178-05-02	90-22-44	251.082	4.86	F2403	816
52	5.29	0-00-00					
		177-27-53	90-23-17	233.080	4.86	F2402	817
53	5.29	0-00-00					
		178-16-35	90-24-30	202.056	4.86	F2401	818
54	5.29	0-00-00					
		174-10-46	90-28-54	182.519	4.86	F2203	819
55	5.29	0-00-00					
		173-40-03	89-50-49	167.457	6.50	F2204	820
56	5.29	0-00-00					
		179-24-10	90-30-43	182.420	4.86	F2201	821
57	5.29	0-00-00					
		177-16-30	89-56-51	120.032	4.86	F2103	822
58	5.29	0-00-00					
		169-04-28	90-20-31	103.464	4.86	F2001	823

59	5.29	[illegible]	[illegible]	[illegible]	[illegible]	F2001	823
		0-00-00					
60	5.29	163-49-01	89-55-05	119.143	4.86	F2106	824
		0-00-00					
61	5.29	180-51-08	90-04-22	115.967	4.86	EP	825
		0-00-00					
62	5.29	180-46-13	90-03-54	102.519	4.86	EP	826
		0-00-00					
63	5.29	177-24-29	89-59-45	104.832	4.86	EP	827
		0-00-00					
64	5.29	180-34-52	90-10-54	99.904	4.86	EP	828
		0-00-00					
65	5.29	178-42-37	90-14-17	99.953	4.86	EP	829
		0-00-00					
66	5.29	180-11-42	90-16-02	99.779	5.26	NIV6"CIP	830
		0-00-00					
67	5.29	180-51-39	90-15-10	119.169	4.86	S"	831
		0-00-00					
68	5.29	178-25-37	90-30-50	74.219	4.86	S"	832
		0-00-00					
69	5.29	177-09-42	90-50-45	52.988	4.86	N"	833
		0-00-00					
70	5.29	176-54-31	90-22-44	75.213	4.86	EP	834
		0-00-00					
71	5.29	180-01-40	90-18-10	74.589	4.86	EP	835
		0-00-00					
72	5.29	179-49-40	90-20-48	67.093	4.86	EP	836
		0-00-00					
73	5.29	175-25-33	90-21-23	65.649	4.86	EP	837
		0-00-00					
74	5.29	165-33-56	90-35-13	73.585	4.86	F2005	838
		0-00-00					
75	5.29	144-04-33	87-44-13	85.213	8.65	F2006	839
		0-00-00					
76	5.29	164-06-21	90-33-31	59.350	8.65	EP	840
		0-00-00					
77	5.29	174-21-53	90-33-38	56.387	8.65	EP	841
		0-00-00					
78	5.29	179-34-48	90-27-34	54.150	8.65	EP	842
		0-00-00					
79	5.29	178-47-16	90-30-59	51.866	8.65	EP	843
		0-00-00					
80	5.29	173-22-53	90-34-36	52.647	8.65	EP	844
		0-00-00					
81	5.29	163-38-49	90-54-49	48.024	8.65	GM	845
		0-00-00					
82	5.29	165-11-06	92-12-11	19.166	5.36	SIV6"CIP	846
		0-00-00					
83	5.29	119-47-15	96-23-06	5.436	5.36	N"	847
		0-00-00					
84	5.29	170-14-31	91-12-38	19.885	5.36	EP	848
		0-00-00					
85	5.29	160-11-56	91-10-46	20.606	4.86	EP	849
		0-00-00					
86	5.29	167-55-27	91-28-48	13.933	4.86	EP	850
		0-00-00					
87	5.29	137-57-12	94-27-40	4.950	4.86	EP	851
		0-00-00					
88	5.29	96-07-13	96-04-28	6.335	4.86	EP	852
		0-00-00					
89	5.29	27-06-50	93-43-31	10.941	5.36	SIV6"CIP	853
		0-00-00					
90	5.29	10-31-58	91-19-18	27.618	5.36	N"	854
		0-00-00					
91	5.29	42-30-45	92-40-15	11.089	4.86	EP	855
		0-00-00					
		71-35-30	90-58-58	15.757	[illegible]	EP	[illegible]

		[illegible]	[illegible]	[illegible]	4.86	EP	856
92	5.29	0-00-00					
		100-26-24	90-05-06	74.875	4.86	EP	857
93	5.29	0-00-00					
		93-15-41	89-46-33	73.890	4.86	EP	858
94	5.29	0-00-00					
		86-10-24	89-57-38	67.857	4.86	EP	859
95	5.29	0-00-00					
		67-55-58	89-55-10	73.011	4.86	EP	860
96	5.29	0-00-00					
		58-07-17	89-56-45	51.824	4.86	EP	861
97	5.29	0-00-00					
		56-20-00	90-00-48	52.358	4.86	EP	862
98	5.29	0-00-00					
		54-14-53	90-08-15	49.596	4.86	EP	863
99	5.29	0-00-00					
		58-05-58	89-59-34	46.473	4.86	EP	864
100	5.29	0-00-00					
		15-20-27	90-47-57	26.164	4.86	EP	865
101	5.29	0-00-00					
		6-32-41	91-08-28	29.757	4.86	EP	866
102	5.29	0-00-00					
		14-07-34	91-07-30	29.832	4.86	EP	867
103	5.29	0-00-00					
		5-07-57	90-35-13	93.615	4.86	EP	868
104	5.29	0-00-00					
		7-19-10	90-15-13	101.610	4.86	EP	869
105	5.29	0-00-00					
		21-16-11	89-46-42	106.997	4.86	EP	870
106	5.29	0-00-00					
		21-20-56	89-47-02	117.982	4.86	EP	871
107	5.29	0-00-00					
		19-18-16	89-46-01	118.444	4.86	EP	872
108	5.29	0-00-00					
		19-43-08	89-49-04	130.708	4.86	EP	873
109	5.29	0-00-00					
		12-10-53	89-56-45	134.172	4.86	EP	874
110	5.29	0-00-00					
		11-27-00	89-54-16	137.932	4.86	EP	875
111	5.29	0-00-00					
		12-19-44	90-01-08	140.298	4.86	EP	876
112	5.29	0-00-00					
		16-45-56	89-51-03	137.676	4.86	EP	877
113	5.29	0-00-00					
		17-51-09	89-53-10	149.455	4.86	EP	878
114	5.29	0-00-00					
		6-33-25	90-20-24	158.257	4.86	EP	879
115	5.29	0-00-00					
		7-44-04	90-16-43	175.757	4.86	EP	880
116	5.29	0-00-00					
		12-57-48	90-15-00	203.628	4.86	EP	881
117	5.29	0-00-00					
		20-31-25	90-17-02	226.574	4.86	EP	882
118	5.29	0-00-00					
		103-29-17	90-10-27	128.037	4.86	500BB	890
119	5.02	0-00-00					
		306-55-41	91-05-54	24.353	4.86	B1804	-891
120	5.02	0-00-00					
		265-15-34	90-27-52	51.594	4.86	B2002	-892
121	5.02	0-00-00					
		288-25-25	86-46-07	60.111	8.65	B2001	-893
122	5.02	0-00-00					
		265-05-03	90-18-54	84.681	4.86	B2103	-894
123	5.02	0-00-00					
		236-38-17	90-25-11	96.243	4.86	B2101	-895
124	5.02	0-00-00					
		231-14-00	90-17-52	128.858	4.86	B2102	-896

125	5.02	0-00-00					
		267-10-44	90-26-25	117.604	4.86	B2104	-897
126	5.02	0-00-00					
		228-16-05	90-07-17	56.814	4.86	B2003	-898
127	5.02	0-00-00					
		216-19-34	90-37-09	64.527	4.86	B2004	-899
128	5.02	0-00-00					
		180-38-36	90-11-06	41.532	4.86	B1802	-900
129	5.02	0-00-00					
		143-01-33	90-44-16	43.418	4.86	B1801	-901
130	5.02	0-00-00					
		123-20-50	89-51-58	76.991	4.86	B1502	-902
131	5.02	0-00-00					
		80-58-31	89-42-38	85.596	4.86	B1503	-903
132	5.02	0-00-00					
		90-02-36	90-07-24	143.254	4.86	B0502	-904
133	5.02	0-00-00					
		74-01-01	90-01-44	140.997	4.86	B0602	-905
134	5.02	0-00-00					
		82-46-48	89-46-29	54.363	4.86	B1504	-906
135	5.02	0-00-00					
		29-00-56	90-29-45	28.805	4.86	B1803	-907

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:56 AM

Field Data File Name: WB11 Book: Page:
Description:
topo west side oval

REC#	H.I.	BACKSIGHT / FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	4.54	0-00-00					
		326-14-38	89-44-51	78.362	4.85	EP	-908
2	4.54	0-00-00					
		321-16-35	89-44-32	81.016	4.85	EP	-909
3	4.54	0-00-00					
		264-48-03	90-07-08	108.326	4.85	500CC	910
4	4.88	0-00-00					
		295-04-26	89-12-19	58.244	4.85	EP	-911
5	4.88	0-00-00					
		287-47-52	89-16-56	53.881	4.85	EP	-912
6	4.88	0-00-00					
		216-21-51	89-27-12	24.822	4.85	EP	-913
7	4.88	0-00-00					
		202-53-07	89-39-17	24.251	4.85	EP	-914
8	4.88	0-00-00					
		197-24-39	89-50-04	30.200	4.85	EP	-915
9	4.88	0-00-00					
		167-58-16	90-36-56	49.796	4.85	B2204	-916
10	4.88	0-00-00					
		137-48-41	90-28-50	64.399	4.85	B2202	-917
11	4.88	0-00-00					
		183-44-18	90-04-51	83.956	4.85	B2403	-918
12	4.88	0-00-00					
		184-20-19	90-15-52	121.689	4.85	B2404	-919
13	4.88	0-00-00					
		140-34-38	90-26-47	136.987	4.85	B2402	-920
14	4.88	0-00-00					
		130-34-03	90-28-02	116.925	4.85	B2401	-921
15	4.88	0-00-00					
		146-59-31	90-34-58	156.597	4.85	B3401	-922
16	4.88	0-00-00					
		148-57-01	90-36-27	168.546	4.85	B3404	-923
17	4.88	0-00-00					
		145-24-22	90-32-59	199.878	4.85	B3501	-924
18	4.88	0-00-00					
		155-23-21	90-33-42	163.818	4.85	B3403	-925
19	4.88	0-00-00					
		153-31-50	90-35-18	151.262	4.85	B3402	-926
20	4.88	0-00-00					
		174-21-37	90-34-46	175.170	4.85	B3202	-927
21	4.88	0-00-00					
		174-24-18	90-34-48	190.757	4.85	B3204	-928
22	4.88	0-00-00					
		172-30-21	90-39-54	204.907	4.85	EP	-929
23	4.88	0-00-00					

		170-06-57	89-34-32	205.176	8.65		EP	-930
24	4.88	0-00-00						
		180-29-30	90-36-21	191.453	4.85		B3203	-931
25	4.88	0-00-00						
		181-12-11	90-38-26	176.689	4.85		B3201	-932
26	4.88	0-00-00						
		188-42-23	90-29-20	159.310	4.85		B2602	-933
27	4.88	0-00-00						
		186-30-25	89-21-27	202.283	8.65	B2604		-934

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:02 AM

Field Data File Name: WB12 Book: Page:
Description:
topo sw cor oval

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.24	0-00-00					
		2-22-06	89-27-25	268.769	4.85	EP	-1450
2	5.24	0-00-00					
		2-00-17	89-31-55	248.867	4.85	EP	-1451
3	5.24	0-00-00					
		2-42-38	89-25-40	238.969	4.85	EP	-1452
4	5.24	0-00-00					
		1-53-40	89-26-30	238.211	4.85	EP	-1453
5	5.24	0-00-00					
		2-07-10	89-37-07	239.615	5.48	NIV8"CMP	-1454
6	5.24	0-00-00					
		2-16-00	89-26-42	225.370	5.48	S"	-1455
7	5.24	0-00-00					
		2-56-47	89-20-38	225.570	4.85	EP	-1456
8	5.24	0-00-00					
		4-05-31	89-24-19	179.681	4.85	EP	-1457
9	5.24	0-00-00					
		3-31-50	89-27-06	166.115	4.85	EP	-1458
10	5.24	0-00-00					
		9-51-24	89-14-21	168.661	4.85		-1459
11	5.24	0-00-00					
		10-43-45	89-11-16	158.838	4.85	EP	-1460
12	5.24	0-00-00					
		10-18-24	89-12-22	158.598	4.85	EP	-1461
13	5.24	0-00-00					
		11-03-10	89-15-27	149.799	4.85	EP	-1462
14	5.24	0-00-00					
		15-06-07	89-20-49	152.624	4.85	EP	-1463
15	5.24	0-00-00					
		16-16-54	89-19-27	142.772	4.85	EP	-1464
16	5.24	0-00-00					
		19-50-07	89-23-58	154.209	4.85	B2601	-1465
17	5.24	0-00-00					
		16-34-32	89-24-28	135.121	4.85	F2606	-1466
18	5.24	0-00-00					
		26-14-28	89-24-56	117.115	4.85	B2603	-1467
19	5.24	0-00-00					
		9-50-19	89-33-27	121.246	4.85	F2605	-1468
20	5.24	0-00-00					
		5-05-44	89-38-07	134.947	5.48	SIV8"CMP	-1469
21	5.24	0-00-00					
		4-53-33	89-31-22	135.058	4.85	EP	-1470
22	5.24	0-00-00					
		5-17-47	89-33-47	129.104	4.85	EP	-1471
23	5.24	0-00-00					
		6-39-28	89-33-07	129.172	4.85	EP	-1472
24	5.24	0-00-00					
		3-12-07	89-28-01	128.802	4.85	A6	-1473
25	5.24	0-00-00					

		9-19-06	89-27-29	101.663	4.85	EP	-1474
26	5.24	0-00-00					
		9-01-50	89-30-39	98.507	4.85	EP	-1475
27	5.24	0-00-00					
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29	5.24	0-00-00					
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32	5.24	0-00-00					
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33	5.24	0-00-00					
		0-00-02	89-19-59	229.120	4.85	13+00	-1482
34	5.24	0-00-00					
		354-15-01	89-32-33	186.974	4.85	PP	-1483
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		354-23-11	89-38-46	132.578	4.85	GM	-1484
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		266-50-36	88-12-50	138.533	8.65	F2904	-1514
66	5.24	0-00-00					
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67	5.24	0-00-00					
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73	5.24	0-00-00					
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Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:06 AM

Field Data File Name: WB13 Book: Page:
Description:
topo sw cor oval

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		91-33-55	91-37-41	38.585	4.85	EP	-1655
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		103-39-24	91-34-19	38.825	4.85	EP	-1656
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		101-12-07	92-03-04	36.181	4.85	F2801	-1657
9	5.02	0-00-00					
		133-28-24	91-58-22	23.425	4.85	F3002	-1658
10	5.02	0-00-00					
		135-53-07	91-37-10	42.030	4.85	EP	-1659
11	5.02	0-00-00					
		131-55-18	91-40-12	51.561	4.85	EP	-1660
12	5.02	0-00-00					
		89-48-42	91-32-09	56.308	4.85	EP	-1661
13	5.02	0-00-00					
		90-35-15	91-34-01	63.884	4.85	EP	-1662
14	5.02	0-00-00					
		94-07-49	91-56-36	62.011	4.85	MW	-1663
15	5.02	0-00-00					
		83-05-18	91-30-15	68.087	4.85	EP	-1664
16	5.02	0-00-00					
		80-18-57	91-34-00	66.446	4.85	EP	-1665
17	5.02	0-00-00					
		78-23-57	91-45-35	62.982	4.85	EP	-1666
18	5.02	0-00-00					
		79-03-23	91-40-00	59.822	4.85	EP	-1667
19	5.02	0-00-00					
		55-34-30	92-11-59	64.438	4.85	B3104	-1668
20	5.02	0-00-00					
		64-37-10	91-50-36	85.462	4.85	B3103	-1669
21	5.02	0-00-00					
		69-25-41	91-41-57	110.731	4.85	B3101	-1670
22	5.02	0-00-00					
		79-16-57	91-54-26	95.386	4.85	B3102	-1671
23	5.02	0-00-00					
		82-10-09	91-53-43	168.031	4.85	SW03	-1672

24	5.02	0-00-00					
		93-14-07	92-18-59	134.238	4.85	SW01	-1673
25	5.02	0-00-00					
		88-07-03	92-04-32	86.351	4.85	PP	-1674
26	5.02	0-00-00					
		99-20-51	92-00-48	75.413	4.85	F2802	-1675
27	5.02	0-00-00					
		152-14-51	91-22-45	47.942	4.85	F2803	-1676
28	5.02	0-00-00					
		173-58-19	84-39-54	71.098	10.65	F2805	-1677
29	5.02	0-00-00					
		129-10-42	91-50-36	87.473	4.85	F2804	-1678
30	5.02	0-00-00					
		153-21-55	90-02-45	92.329	4.85	F2806	-1679
31	5.02	0-00-00					
		215-36-07	87-41-34	146.869	4.85	650B	1690
32	4.99	0-00-00					
		70-51-12	92-26-43	101.902	4.85	B3003	-1691
33	4.99	0-00-00					
		81-21-10	92-05-26	103.001	4.85	B3001	-1692
34	4.99	0-00-00					
		84-21-16	92-30-03	75.764	4.85	B3002	-1693
35	4.99	0-00-00					
		69-22-08	92-45-46	75.603	4.85	B3004	-1694
36	4.99	0-00-00					
		78-54-12	93-33-43	47.614	4.85	B2801	-1695
37	4.99	0-00-00					
		61-18-51	93-40-53	49.776	4.85	B2803	-1696
38	4.99	0-00-00					
		29-49-06	98-29-43	19.609	4.85	B2804	-1697

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:08 AM

Field Data File Name: WB14 Book: Page:
Description:
topo se cor oval

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.11	0-00-00 231-21-33	90-23-18	25.065	4.85	F3903	-1700
2	5.11	0-00-00 347-46-04	90-35-31	46.712	4.85	EP	-1701
3	5.11	0-00-00 302-37-16	90-53-59	80.793	4.85	EP	-1702
4	5.11	0-00-00 307-03-21	90-51-00	87.654	4.85	EP	-1703
5	5.11	0-00-00 319-06-25	91-28-56	85.193	4.85	F3806	-1704
6	5.11	0-00-00 331-21-48	91-25-47	88.933	4.85	F3805	-1705
7	5.11	0-00-00 344-47-25	91-01-39	58.927	4.85	F3803	-1706
8	5.11	0-00-00 348-59-33	90-48-22	56.863	4.85	EP	-1707
9	5.11	0-00-00 344-40-14	91-28-40	70.514	4.85	GM	-1708
10	5.11	0-00-00 344-29-12	91-27-08	89.156	4.85	F3802	-1709
11	5.11	0-00-00 334-04-15	91-26-48	111.203	4.85	F3804	-1710
12	5.11	0-00-00 331-23-44	91-38-08	149.714	4.85	EP	-1711
13	5.11	0-00-00 333-24-32	91-36-30	159.448	4.85	EP	-1712
14	5.11	0-00-00 334-10-45	91-52-30	171.843	4.85	F3705	-1713
15	5.11	0-00-00 334-05-35	91-51-04	195.383	4.85	B3704	-1714
16	5.11	0-00-00 334-11-26	91-42-24	229.402	4.85	F3608	-1715
17	5.11	0-00-00 331-01-44	91-48-49	220.281	4.85	F3809	-1716
18	5.11	0-00-00 349-38-35	91-14-27	100.993	4.85	F3801	-1717
19	5.11	0-00-00 352-57-10	90-52-22	105.636	4.85	EP	-1718
20	5.11	0-00-00 353-33-37	90-50-53	117.588	4.85	EP	-1719
21	5.11	0-00-00 350-27-08	91-02-04	122.640	4.85	PP	-1720
22	5.11	0-00-00 348-05-46	91-13-37	130.642	4.85	F3702	-1721
23	5.11	0-00-00 354-41-06	90-50-57	131.033	4.85	EP	-1722
24	5.11	0-00-00 355-53-39	90-48-21	148.280	4.85	EP	-1723

		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	5.11	0-00-00					
		353-44-43	91-21-09	162.565	4.85	F3701	-1724
26	5.11	0-00-00					
		356-30-52	91-01-56	192.178	4.85	F3603	-1725
27	5.11	0-00-00					
		349-13-53	91-21-34	202.184	4.85	MW	-1726
28	5.11	0-00-00					
		355-46-00	91-04-35	217.722	4.85	F3602	-1727
29	5.11	0-00-00					
		357-27-18	90-40-58	242.079	4.85	F3601	-1728
30	5.11	0-00-00					
		357-36-43	90-36-30	221.712	4.85	EP	-1729
31	5.11	0-00-00					
		355-08-06	90-59-35	249.986	4.85	PP	-1730
32	5.11	0-00-00					
		356-09-04	90-52-59	269.048	4.85	B3303	-1731
33	5.11	0-00-00					
		358-13-46	90-28-44	308.217	4.85	EP	-1732
34	5.11	0-00-00					
		358-07-01	90-30-08	317.417	4.85	EP	-1733
35	5.11	0-00-00					
		20-15-12	90-25-28	189.901	4.85	F3505	-1734
36	5.11	0-00-00					
		21-24-37	90-12-54	207.932	4.85	EP	-1735
37	5.11	0-00-00					
		22-32-21	90-21-13	199.543	4.85	EP	-1736
38	5.11	0-00-00					
		28-18-20	90-32-38	173.264	4.85	B3504	-1737
39	5.11	0-00-00					
		36-56-53	89-12-23	190.511	8.65	B3502	-1738
40	5.11	0-00-00					
		20-19-18	90-16-47	237.427	4.85	B3503	-1739
41	5.11	0-00-00					
		35-06-57	91-13-46	67.588	4.85	V0104	-1740
42	5.11	0-00-00					
		28-19-40	91-13-11	62.112	4.85	V0103	-1741
43	5.11	0-00-00					
		24-05-45	91-08-48	59.540	4.85	V0102	-1742
44	5.11	0-00-00					
		15-24-14	91-25-06	55.564	4.85	V0101	-1743
45	5.11	0-00-00					
		8-56-00	90-41-00	58.608	4.85	EP	-1744
46	5.11	0-00-00					
		58-34-20	89-18-38	26.456	4.85	EP	-1745
47	5.11	0-00-00					
		113-34-35	90-29-27	62.903	4.85	V0201	-1746
48	5.11	0-00-00					
		105-39-08	90-38-42	65.147	4.85	V0202	-1747
49	5.11	0-00-00					
		267-43-10	92-03-24	129.632	4.85	800A	1750
50	4.86	0-00-00					
		335-18-27	87-38-45	39.179	4.85	B3903	-1751
51	4.86	0-00-00					
		303-08-14	89-30-44	22.014	4.85	B3901	-1752
52	4.86	0-00-00					
		298-10-21	89-39-02	66.630	4.85	B3904	-1753
53	4.86	0-00-00					
		280-43-16	90-25-17	61.883	4.85	B3902	-1754
54	4.86	0-00-00					
		287-27-25	90-04-47	78.835	4.85	B3803	-1755
55	4.86	0-00-00					
		272-57-20	90-36-42	75.856	4.85	B3801	-1756
56	4.86	0-00-00					
		271-35-57	90-41-04	102.181	4.85	B3802	-1757
57	4.86	0-00-00					
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

		287-20-43	90-18-07	107.844	4.85	B3804	-1758
58	4.86	0-00-00					
		292-54-15	90-25-30	139.425	4.85	F3706	-1759
59	4.86	0-00-00					
		268-49-33	90-53-27	143.388	4.85	B3701	-1760
60	4.86	0-00-00					
		274-01-24	90-49-44	168.592	4.85	B3702	-1761
61	4.86	0-00-00					
		274-01-30	90-47-36	221.469	4.85	F3610	-1762
62	4.86	0-00-00					
		271-04-39	90-52-26	229.287	4.85	MW	-1763
63	4.86	0-00-00					
		273-51-07	90-37-36	265.586	4.85	800B	1775
64	4.81	0-00-00					
		231-25-37	89-25-24	36.026	4.85	B3303	-1776
65	4.81	0-00-00					
		274-44-26	88-33-33	28.736	4.85	B3304	-1777
66	4.81	0-00-00					
		260-15-52	88-08-42	170.436	4.85	F3404	-1778
67	4.81	0-00-00					
		262-00-21	88-18-25	210.098	4.85	F3406	-1779
68	4.81	0-00-00					
		270-48-58	88-21-20	208.985	4.85	F3405	-1780
69	4.81	0-00-00					
		286-56-39	88-24-41	72.919	4.85	F3604	-1781
70	4.81	0-00-00					
		308-55-48	88-34-25	85.108	4.85	F3605	-1782
71	4.81	0-00-00					
		319-23-47	88-52-20	92.788	4.85	F3606	-1783
72	4.81	0-00-00					
		325-07-38	88-43-53	133.165	4.85	F3703	-1784
73	4.81	0-00-00					
		330-29-17	88-29-42	150.278	4.85	F3704	-1785
74	4.81	0-00-00					
		338-50-45	88-44-56	151.994	4.85	EP	-1786
75	4.81	0-00-00					
		340-16-13	88-27-22	164.156	4.85	EP	-1787
76	4.81	0-00-00					
		346-23-02	89-19-15	89.976	4.85	B3703	-1788
77	4.81	0-00-00					
		347-22-36	89-32-40	70.039	4.85	F3609	-1789
78	4.81	0-00-00					
		303-52-10	88-49-32	39.333	4.85	F3607	-1790

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:10 AM

Field Data File Name: WB15 Book: Page:
Description:
topo west end fox st.

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.28	0-00-00					
		1-17-52	90-02-25	307.168	4.85	200AA	25
2	5.38	0-00-00					
		43-20-47	93-17-54	9.934	4.85	3+00	-26
3	5.38	0-00-00					
		349-57-54	94-55-10	21.515	4.85	EIV6"CCP	-27
4	5.38	0-00-00					
		353-02-48	92-08-41	24.573	4.85	EP	-28
5	5.38	0-00-00					
		345-30-39	92-36-01	24.681	4.85	EP	-29
6	5.38	0-00-00					
		336-25-14	92-49-31	26.692	4.85	B6002	-30
7	5.38	0-00-00					
		312-31-09	90-46-57	97.204	4.85	B6001	-31
8	5.38	0-00-00					
		296-30-19	90-35-12	110.183	4.85	B6003	-32
9	5.38	0-00-00					
		280-55-55	90-49-40	71.466	4.85	B6004	-33
10	5.38	0-00-00					
		256-45-57	90-15-57	66.174	4.85	B5801	-34
11	5.38	0-00-00					
		260-43-11	87-49-37	91.239	8.65	B5803	-35
12	5.38	0-00-00					
		211-39-18	90-05-49	85.360	4.85	B5802	-36
13	5.38	0-00-00					
		215-31-02	89-43-09	45.971	4.85	EP	-37
14	5.38	0-00-00					
		182-20-45	90-27-45	38.375	4.85	EP	-38
15	5.38	0-00-00					
		181-42-01	90-17-07	39.419	4.85	EP	-39
16	5.38	0-00-00					
		190-19-03	90-18-10	40.721	4.85	EP	-40
17	5.38	0-00-00					
		207-52-33	99-05-07	8.156	4.85	WIV6"CIP	-41
18	5.38	0-00-00					
		206-21-54	92-40-23	13.005	4.85	EP	-42
19	5.38	0-00-00					
		243-34-31	89-56-36	30.433	4.85	EP	-43
20	5.38	0-00-00					
		176-03-45	90-05-29	55.078	4.85	MH	-44
21	5.38	0-00-00					
		183-15-48	91-44-39	45.285	4.85	EIV6"CIP	-45
22	5.38	0-00-00					
		181-52-40	90-46-04	67.155	4.85	WIV8"CMP	-46
23	5.38	0-00-00					
		181-08-23	90-44-13	83.756	4.85	E"	-47
24	5.38	0-00-00					
		184-03-09	90-13-08	69.173	4.85	EP	-48

25	5.38	0-00-00					
		180-21-54	90-02-34	71.692	4.85	EP	-49
26	5.38	0-00-00					
		180-15-48	90-03-18	81.886	4.85	EP	-50
27	5.38	0-00-00					
		183-52-35	90-01-21	83.247	4.85	EP	-51
28	5.38	0-00-00					
		174-23-52	89-59-39	93.182	4.85	4+00	-52
29	5.38	0-00-00					
		198-29-39	89-57-30	104.373	4.85	B5701	-53
30	5.38	0-00-00					
		213-04-49	89-49-27	149.569	4.85	B5704	-54
31	5.38	0-00-00					
		191-56-52	89-54-29	129.747	4.85	B5702	-55
32	5.38	0-00-00					
		180-43-27	89-47-34	143.995	4.85	EP	-56
33	5.38	0-00-00					
		179-57-52	90-18-22	143.395	4.85	WIV8"CIP	-57
34	5.38	0-00-00					
		179-35-51	90-05-46	164.084	4.85	E"	-58
35	5.38	0-00-00					
		179-16-35	89-51-10	163.808	4.85	EP	-59
36	5.38	0-00-00					
		179-23-07	89-53-53	168.385	4.85	EP	-60
37	5.38	0-00-00					
		180-36-46	89-58-26	169.294	4.85	EP	-61
38	5.38	0-00-00					
		186-12-44	89-48-25	175.304	4.85	B5601	-62
39	5.38	0-00-00					
		204-11-33	89-57-00	191.246	4.85	B5603	-63
40	5.38	0-00-00					
		201-56-15	89-55-53	208.913	4.85	B5604	-64
41	5.38	0-00-00					
		201-40-14	89-44-44	243.664	4.85	EP	-65
42	5.38	0-00-00					
		200-52-59	89-45-02	253.424	4.85	EP	-66
43	5.38	0-00-00					
		184-07-43	89-07-14	228.283	8.65	EP	-67
44	5.38	0-00-00					
		180-10-30	89-47-38	220.396	4.85	EP	-68
45	5.38	0-00-00					
		185-06-31	89-50-47	192.945	4.85	B5602	-69
46	5.38	0-00-00					
		176-38-09	89-46-46	193.096	4.85	5+00	-70
47	5.38	0-00-00					
		179-23-11	90-03-46	219.359	4.85	WIV6"CIP	-71
48	5.38	0-00-00					
		179-04-42	90-07-46	274.136	4.85	E"	-72
49	5.38	0-00-00					
		184-44-31	90-55-27	239.540	0.00	EP	-73
50	5.38	0-00-00					
		177-20-13	89-51-50	293.030	4.85	6+00	-74
51	5.38	0-00-00					
		177-40-50	89-57-27	392.984	4.85	7+00	-75
52	5.38	0-00-00					
		178-46-02	90-06-04	422.276	4.85	WIV10"CMP	-76
53	5.38	0-00-00					
		178-59-24	90-00-26	422.850	4.85	EP	-77
54	5.38	0-00-00					
		178-44-38	90-00-00	423.670	4.85	EP	-78
55	5.38	0-00-00					
		178-43-24	89-59-26	426.049	4.85	EP	-79
56	5.38	0-00-00					
		179-05-57	89-59-52	440.205	4.85	EP	-80
57	5.38	0-00-00					
		178-50-28	90-04-44	443.273	4.85	EIV10"CMP	-81

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58	5.38	0-00-00					
		178-22-49	89-58-17	449.700	4.85	MH	-82
59	5.38	0-00-00					
		179-11-55	90-02-33	457.646	4.85	EP	-83
60	5.38	0-00-00					
		178-34-32	89-59-06	457.187	4.85	EP	-84
61	5.38	0-00-00					
		174-15-44	89-58-29	403.998	4.85	F5301	-85
62	5.38	0-00-00					
		175-26-45	89-55-40	343.860	4.85	EP	-86
63	5.38	0-00-00					
		174-16-11	89-54-59	340.921	4.85	EP	-87
64	5.38	0-00-00					
		174-47-28	89-54-20	329.149	4.85	EP	-88
65	5.38	0-00-00					
		175-15-29	89-53-03	326.833	4.85	EP	-89
66	5.38	0-00-00					
		175-15-05	89-54-02	323.562	4.85	EP	-90
67	5.38	0-00-00					
		174-54-38	89-51-25	295.176	4.85	EP	-91
68	5.38	0-00-00					
		172-15-24	89-57-15	207.201	4.85	V0701	-92
69	5.38	0-00-00					
		170-05-37	89-53-35	208.441	4.85	V0702	-93
70	5.38	0-00-00					
		159-13-42	90-27-50	81.000	4.85	F5901	-94
71	5.38	0-00-00					
		140-00-24	90-32-37	81.692	4.85	F5903	-95
72	5.38	0-00-00					
		126-39-01	90-10-26	110.065	4.85	F5905	-96
73	5.38	0-00-00					
		120-18-02	90-45-39	69.389	4.85	F5904	-97
74	5.38	0-00-00					
		127-11-57	90-18-03	57.339	4.85	EP	-98
75	5.38	0-00-00					
		152-27-50	90-29-46	41.896	4.85	EP	-99
76	5.38	0-00-00					
		104-15-37	90-06-14	45.321	4.85	EP	-100
77	5.38	0-00-00					
		115-14-57	90-24-57	28.884	4.85	EP	-101
78	5.38	0-00-00					
		119-31-11	90-56-30	21.499	4.85	EP	-102
79	5.38	0-00-00					
		152-22-05	91-46-08	45.098	4.85	EIV12"CMP	-103
80	5.38	0-00-00					
		93-43-10	95-02-01	19.484	4.85	W"	-104
81	5.38	0-00-00					
		67-05-27	91-50-29	22.109	4.85	F5907	-105
82	5.38	0-00-00					
		30-02-09	91-11-08	48.710	4.85	MW	-106
83	5.38	0-00-00					
		175-02-59	89-50-46	249.805	4.85	200BB	-120
84	5.38	0-00-00					
		87-26-09	89-55-34	186.603	4.85	200AB	121
85	4.83	0-00-00					
		298-51-50	90-12-29	67.266	4.85	B5901	-122
86	4.83	0-00-00					
		345-58-46	90-30-41	95.701	4.85	F5906	-123
87	4.83	0-00-00					
		243-17-58	91-10-45	70.984	4.85	B5902	-124
88	4.83	0-00-00					
		225-10-00	91-11-46	48.129	4.85	B5903	-125
89	4.83	0-00-00					
		145-42-38	90-36-29	45.262	4.85	B5904	-126
90	4.83	0-00-00					
		87-02-54	90-10-41	71.374	4.85	B4401	-127

91	4.83	0-00-00					
		88-25-39	90-37-02	95.039	4.85	B4402	-128

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:13 AM

Field Data File Name: WB16 Book: Page:
Description:
topo west center section oval

REC#	H.I.	BACKSIGHT / FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.27	0-00-00					
		258-42-56	90-10-24	40.669	4.85	EP	-131
2	5.27	0-00-00					
		259-34-34	90-11-08	44.163	4.85	EP	-132
3	5.27	0-00-00					
		250-04-48	89-51-10	46.564	4.85	EP	-133
4	5.27	0-00-00					
		232-01-11	90-34-01	30.803	4.85	EP	-134
5	5.27	0-00-00					
		58-15-04	97-29-04	7.834	4.85	F5402	-135
6	5.27	0-00-00					
		98-20-24	91-33-18	45.318	4.85	F5404	-136
7	5.27	0-00-00					
		96-58-57	91-01-08	88.110	4.85	F5406	-137
8	5.27	0-00-00					
		99-53-20	90-40-39	136.069	4.85	B5403	-138
9	5.27	0-00-00					
		98-18-40	90-37-00	185.675	4.85	B5401	-139
10	5.27	0-00-00					
		124-24-40	90-36-12	87.683	4.85	F5405	-140
11	5.27	0-00-00					
		120-42-53	90-22-00	92.109	4.85	EP	-141
12	5.27	0-00-00					
		119-57-15	90-19-07	94.104	4.85	EP	-142
13	5.27	0-00-00					
		121-55-45	90-20-21	96.321	4.85	EP	-143
14	5.27	0-00-00					
		120-04-03	90-17-09	105.262	4.85	EP	-144
15	5.27	0-00-00					
		127-58-56	90-15-46	114.809	4.85	EP	-145
16	5.27	0-00-00					
		141-09-31	90-47-36	69.353	4.85	F5403	-146
17	5.27	0-00-00					
		166-17-18	91-10-58	47.417	4.85	F5401	-147
18	5.27	0-00-00					
		170-09-33	90-27-35	54.284	4.85	EP	-148
19	5.27	0-00-00					
		171-29-42	90-28-54	67.047	4.85	EP	-149
20	5.27	0-00-00					
		173-36-51	90-52-29	71.459	4.85	F5407	151
21	5.27	0-00-00					
		173-54-12	90-45-35	96.922	4.85	F5303	152
22	5.27	0-00-00					
		173-51-20	90-29-22	128.723	4.85	F5302	153
23	5.27	0-00-00					
		154-36-00	90-15-52	173.894	4.85	F5304	154
24	5.27	0-00-00					
		151-38-42	90-01-58	146.134	4.85	F5305	155
25	5.27	0-00-00					

		144-06-32	90-23-29	129.550	4.85	F5306	156
26	5.27	0-00-00					
		138-50-37	90-19-45	129.717	4.85	EP	157
27	5.27	0-00-00					
		135-07-22	90-22-04	121.653	4.85	EP	158
28	5.27	0-00-00					
		194-21-53	90-07-55	172.322	4.85	F5201	159
29	5.27	0-00-00					
		190-26-45	90-18-30	210.842	4.85	F5202	160
30	5.27	0-00-00					
		189-49-35	90-20-46	262.912	4.85	F5203	161
31	5.27	0-00-00					
		162-41-18	90-50-38	72.529	4.85	PP	162
32	5.27	0-00-00					
		31-31-43	81-19-22	54.881	13.60	PP	163
33	5.27	0-00-00					
		206-02-06	88-50-46	177.978	8.65	EP	164
34	5.27	0-00-00					
		203-03-04	89-17-51	206.239	7.65	EP	165
35	5.27	0-00-00					
		190-21-22	90-17-55	191.387	4.85	EP	166
36	5.27	0-00-00					
		191-42-05	90-15-36	178.956	4.85	EP	167
37	5.27	0-00-00					
		97-28-27	90-33-51	152.306	4.85	200CC	175
38	4.80	0-00-00					
		289-44-04	89-49-39	37.608	4.85	B5404	-176
39	4.80	0-00-00					
		270-10-40	90-04-47	100.485	4.85	B5303	-177
40	4.80	0-00-00					
		269-45-52	90-07-08	131.344	4.85	B5304	-178
41	4.80	0-00-00					
		246-56-53	90-23-37	137.411	4.85	B5302	-179
42	4.80	0-00-00					
		242-19-34	90-19-40	108.835	4.85	B5301	-180
43	4.80	0-00-00					
		215-30-31	90-40-50	51.417	4.85	B5402	-181

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:14 AM

Field Data File Name: WB17 Book: Page:
Description:
topo east end fox st

REC#	H.I.	BACKSIGHT / FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.30	0-00-00					
		357-10-55	90-25-01	175.055	4.85	WIV2.5X8"C	-1800
2	5.30	0-00-00					
		356-22-46	90-23-00	131.423	4.85	E"	-1801
3	5.30	0-00-00					
		359-58-09	89-44-17	139.215	4.85	8+00	-1802
4	5.30	0-00-00					
		10-21-55	90-30-31	102.926	4.85	V0801	-1803
5	5.30	0-00-00					
		14-51-52	89-56-44	106.400	4.85	V0802	-1804
6	5.30	0-00-00					
		17-43-21	88-32-40	109.215	8.65	V0803	-1805
7	5.30	0-00-00					
		22-20-16	88-43-26	113.379	8.65	V0804	-1806
8	5.30	0-00-00					
		26-07-42	88-44-03	116.971	8.65	V0805	-1807
9	5.30	0-00-00					
		0-08-22	90-16-20	39.209	4.85	9+00	-1808
10	5.30	0-00-00					
		28-23-28	91-20-43	44.035	4.85	MW	-1809
11	5.30	0-00-00					
		33-42-25	87-38-47	66.187	8.65	PP	-1810
12	5.30	0-00-00					
		10-56-38	88-28-29	185.386	9.65	PP	-1811
13	5.30	0-00-00					
		333-00-00	91-51-28	25.531	4.85	EP	-1812
14	5.30	0-00-00					
		326-57-04	95-51-01	20.429	4.85	WIV12"CMP	-1813
15	5.30	0-00-00					
		207-23-56	95-17-51	26.738	4.85	E"	-1814
16	5.30	0-00-00					
		214-57-46	91-49-46	30.836	4.85	EP	-1815
17	5.30	0-00-00					
		240-38-58	91-04-14	30.521	4.85	PP	-1816
18	5.30	0-00-00					
		242-42-30	91-00-12	33.182	4.85	EP	-1817
19	5.30	0-00-00					
		179-59-53	91-13-47	60.921	4.85	10+00	-1818
20	5.30	0-00-00					
		186-52-18	91-40-18	101.194	4.85	WIV12"CMP	-1819
21	5.30	0-00-00					

		186-43-00	91-40-17	116.774	4.85	E"	-1820
22	5.30	0-00-00					
		189-10-09	90-54-48	99.110	4.85	EP	-1821
23	5.30	0-00-00					
		192-03-24	90-53-15	103.461	4.85	EP	-1822
24	5.30	0-00-00					
		191-05-13	90-45-07	115.455	4.85	EP	-1823
25	5.30	0-00-00					
		186-09-43	90-49-09	114.734	4.85	EP	-1824
26	5.30	0-00-00					
		191-39-37	91-05-48	101.381	4.85	V1401	-1825
27	5.30	0-00-00					
		196-43-53	90-48-16	104.924	4.85	VL1402	-1826
28	5.30	0-00-00					
		169-32-11	92-02-41	101.978	4.85	V0901	-1827
29	5.30	0-00-00					
		164-35-48	92-03-09	103.287	4.85	V0902	-1828
30	5.30	0-00-00					
		161-41-34	91-59-44	103.867	4.85	V0903	-1829
31	5.30	0-00-00					
		158-15-16	92-01-30	104.041	4.85	V0904	-1830
32	5.30	0-00-00					
		156-49-23	89-53-33	108.566	8.65	V0905	-1831
33	5.30	0-00-00					
		150-14-41	89-45-33	77.896	8.65	PP	-1832
34	5.30	0-00-00					
		172-49-56	92-13-07	128.136	4.85	NIV18"CMP	-1833
35	5.30	0-00-00					
		186-43-37	91-29-59	127.952	6.35	S"	-1834
36	5.30	0-00-00					
		179-59-13	90-25-57	160.823	4.85	11+00	-1835
37	5.30	0-00-00					
		174-50-02	90-27-25	199.307	4.85	V1501	-1836
38	5.30	0-00-00					
		172-10-37	89-14-03	199.530	8.65	V1502	-1837
39	5.30	0-00-00					
		179-58-06	90-13-32	260.826	4.85	12+00	-1838
40	5.30	0-00-00					
		182-19-36	90-17-06	295.019	4.85	EP	-1839
41	5.30	0-00-00					
		183-15-02	90-35-47	297.397	4.85	V1601	-1840
42	5.30	0-00-00					
		184-55-36	90-34-36	298.322	4.85	V1602	-1841
43	5.30	0-00-00					
		177-27-04	90-13-03	304.333	4.85	EP	-1842
44	5.30	0-00-00					
		176-55-55	90-15-55	315.435	4.85	PP	-1843
45	5.30	0-00-00					
		179-57-43	90-05-40	360.806	4.85	13+00	-1844
46	5.30	0-00-00					
		177-17-40	90-08-00	399.608	4.85	V1701	-1845
47	5.30	0-00-00					
		175-53-52	90-08-00	401.160	4.85	V1702	-1846
48	5.30	0-00-00					
		179-58-45	89-59-49	460.809	4.85	14+00	-1847
49	5.30	0-00-00					
		182-02-39	89-59-10	495.740	4.85	V1801	-1848
50	5.30	0-00-00					
		183-11-35	89-58-58	497.948	4.85	V1802	-1849
51	5.30	0-00-00					
		179-58-45	89-49-32	560.842	4.85	15+00	-1850
52	5.30	0-00-00					
		178-28-03	89-52-43	542.233	4.85	EP	-1851
53	5.30	0-00-00					
		177-49-37	89-25-36	544.552	8.65	EP	-1852
54	5.30	0-00-00					

		178-33-07	89-50-31	560.746	4.85	EP	-1853
55	5.30	0-00-00					
		177-24-18	89-05-29	555.953	10.65	EP	-1854
56	5.30	0-00-00					
		176-17-57	88-49-15	554.546	13.65	EP	-1855
57	5.30	0-00-00					
		176-24-35	88-49-30	546.652	13.65	EP	-1856
58	5.30	0-00-00					
		178-27-23	89-50-36	564.024	4.85	PP	-1857
59	5.30	0-00-00					
		178-17-24	89-45-42	593.358	4.85	V1901	-1858
60	5.30	0-00-00					
		177-21-10	89-48-10	593.128	4.85	V1902	-1859
61	5.30	0-00-00					
		179-58-04	89-43-54	660.845	4.85	16+00	-1860
62	5.30	0-00-00					
		181-12-38	89-42-23	691.734	4.85	V2001	-1861
63	5.30	0-00-00					
		181-59-43	89-41-18	692.045	4.85	V2002	-1862
64	5.30	0-00-00					
		180-09-16	89-36-58	931.123	4.85	150A	1875
65	5.28	0-00-00					
		0-52-29	90-52-02	170.262	4.85	17+00	-1876
66	5.28	0-00-00					
		8-09-37	90-58-27	117.020	4.85	PP	-1877
67	5.28	0-00-00					
		356-05-56	90-50-29	97.644	4.85	EP	-1878
68	5.28	0-00-00					
		355-51-04	90-51-07	85.147	4.85	EP	-1879
69	5.28	0-00-00					
		351-54-28	90-58-15	84.343	4.85	B5105	-1880
70	5.28	0-00-00					
		331-28-18	90-37-32	95.278	4.85	EP	-1881
71	5.28	0-00-00					
		331-46-19	90-33-19	105.560	4.85	EP	-1882
72	5.28	0-00-00					
		295-35-23	90-37-14	113.142	4.85	B5103	-1883
73	5.28	0-00-00					
		300-12-37	90-14-51	120.593	4.85	EP	-1884
74	5.28	0-00-00					
		300-31-17	90-11-52	130.829	4.85	EP	-1885
75	5.28	0-00-00					
		286-08-38	90-12-02	125.078	4.85	EP	-1886
76	5.28	0-00-00					
		284-42-29	90-07-56	135.216	4.85	EP	-1887
77	5.28	0-00-00					
		266-34-15	90-13-40	100.639	4.85	EP	-1888
78	5.28	0-00-00					
		272-05-21	90-09-05	96.180	4.85	EP	-1889
79	5.28	0-00-00					
		275-13-06	90-04-14	72.001	4.85	EP	-1890
80	5.28	0-00-00					
		256-57-51	89-59-05	74.717	4.85	EP	-1891
81	5.28	0-00-00					
		253-51-54	90-01-41	77.027	4.85	EP	-1892
82	5.28	0-00-00					
		253-48-43	89-58-38	75.354	4.85	EP	-1893
83	5.28	0-00-00					
		256-20-54	89-57-23	72.578	4.85	EP	-1894
84	5.28	0-00-00					
		255-35-48	90-06-12	51.532	4.85	EP	-1895
85	5.28	0-00-00					
		275-51-46	90-23-37	55.160	4.85	EP	-1896
86	5.28	0-00-00					
		271-51-19	90-38-14	37.319	4.85	EP	-1897
87	5.28	0-00-00					

		314-32-23	91-00-27	73.549	4.85		B5102	-1898
88	5.28	0-00-00						
		344-34-31	91-58-39	46.331	4.85		B5101	-1899
89	5.28	0-00-00						
		262-01-49	95-58-50	5.577	4.85		EP	-1900
90	5.28	0-00-00						
		198-59-37	91-03-25	16.046	4.85		EP	-1901
91	5.28	0-00-00						
		61-50-19	92-15-20	18.247	4.85		PP	-1902
92	5.28	0-00-00						
		255-34-19	90-47-52	154.107	4.85		B51?	-1903
93	5.28	0-00-00						
		212-21-59	90-27-18	120.052	4.85		F5106	-1904
94	5.28	0-00-00						
		192-41-58	90-24-42	119.907	4.85		F5103	-1905
95	5.28	0-00-00						
		184-56-36	90-06-16	123.861	4.85		EP	-1906
96	5.28	0-00-00						
		184-50-15	89-48-03	75.806	4.85		EP	-1907
97	5.28	0-00-00						
		198-05-24	90-20-50	85.022	4.85		F5102	-1908
98	5.28	0-00-00						
		210-41-46	90-20-34	80.616	4.85		F5105	-1909
99	5.28	0-00-00						
		206-10-33	90-50-43	45.216	4.85		F5101	-1910
100	5.28	0-00-00						
		235-33-58	90-25-56	49.018	4.85		F5104	-1911
101	5.28	0-00-00						
		2-25-05	90-58-12	70.347	4.85		18+00	-1912
102	5.28	0-00-00						
		146-53-22	91-32-39	39.061	4.85		V2101	-1913
103	5.28	0-00-00						
		136-13-49	91-17-03	45.291	4.85		V2102	-1914
104	5.28	0-00-00						
		164-32-37	90-14-14	100.318	4.85		MW	-1915
105	5.28	0-00-00						
		171-08-52	90-05-33	110.167	4.85		EP	-1916
106	5.28	0-00-00						
		164-55-08	90-00-10	135.193	4.85		EP	-1917
107	5.28	0-00-00						
		178-26-16	89-56-30	129.766	4.85		20+00	-1918
108	5.28	0-00-00						
		178-32-44	89-55-36	141.554	4.85	PIFXLS		-1919
109	5.28	0-00-00						
		173-45-40	90-37-50	29.855	4.85		19+00	-1920
110	5.28	0-00-00						
		191-12-56	90-19-23	125.987	4.85		EP	-1921

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:17 AM

Field Data File Name: WB18 Book: Page:
Description:
topo misc

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.18	0-00-00					
		0-53-52	89-51-16	555.231	4.85	150Z	1925
2	5.20	0-00-00					
		344-47-18	90-06-00	198.641	10.15	EN7	-1926
3	5.20	0-00-00					
		338-08-36	90-27-28	146.738	8.65	EN8	-1927
4	5.20	0-00-00					
		73-05-31	89-50-49	79.412	4.85	EN4	-1928
5	5.20	0-00-00					
		138-23-35	89-13-06	79.337	4.85	GLM	-1929
6	5.20	0-00-00					
		178-37-27	89-16-48	327.377	4.85	150Y	1930
7	5.23	0-00-00					
		57-16-51	88-40-35	207.758	10.65	EN6	-1931
8	5.23	0-00-00					
		35-17-15	88-01-47	130.432	10.65	EN3	-1932

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:18 AM

Field Data File Name: WB19 Book: Page:
Description:
topo misc

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.44	0-00-00					
		15-18-23	90-22-44	256.797	4.85	B4301	-1940
2	5.44	0-00-00					
		95-04-37	90-29-57	166.249	4.85	EP	-1941
3	5.44	0-00-00					
		96-42-02	90-14-44	583.640	4.85	F1005	-1942
4	5.44	0-00-00					
		89-15-08	90-25-25	154.126	4.85	350Z	1945
5	5.33	0-00-00					
		81-37-07	90-13-53	101.033	4.85	EP	-1946
6	5.33	0-00-00					
		76-05-03	90-10-41	102.952	4.85	EP	-1947
7	5.33	0-00-00					
		143-24-18	90-33-28	128.579	4.85	EP	-1948
8	5.33	0-00-00					
		145-57-16	90-26-53	136.820	4.85	EP	-1949

Field data stored

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 11:19 AM

Field Data File Name: WB20 Book: Page:
Description:
topo misc

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	5.38	0-00-00					
		359-01-53	89-22-35	74.593	4.85	EP	-1951

Field data stored

WIDE BEACH
86E-011

1-26-87
RHB.

DI INVERTS
(DIFFERENCE FROM RIM ELEV.)

REC. #	RIM ELEV.	DESC.	DIFFERENCE	ELEV.
4 9	587.78	E. 8" CONC. W. " "	4.31 4.36	583.47 583.42
563	586.74	E. 8" CONC. W. " "	2.60 2.55	584.14 584.19
5 9	586.57	N 8" CONC. S " "	5.15 5.20	581.42 581.37
601	586.81	N 8" CONC. S " "	5.05 4.96	581.76 581.85
602	586.94	S. 8" CONC.	3.12	583.82
1008 180	586.32	S. 8" CONC. N " "	1.80 1.80	584.52 584.52
1012 217	586.96	NW 6" CMP S 12"	0.63 1.12	586.33 585.84
1 80	583.53	E. 8" CONC. W 8" CONC.	3.21 3.21	580.32 580.32
1562	583.80	E 8" CONC. W 8" CONC.	2.77 2.85	581.03 580.95
4 1	586.10	E. 8" CONC. W. " "	3.72 3.70	582.38 582.40

MISCELLANEOUS

A) A sample of the field notes on the following page has been broken down step by step as follows:

1. Field File Name - See processing data sheet to determine starting point and back sight direction. These point numbers have been previously developed in processing WB-1 and WB-2.

2. Rec. Number - Each line of field data is assigned a sequential number beginning at number 1 for each field file. (Not to be confused with the point number - see #10.)

3. HI - Height of Instrument

4. Backsight Direction

5. Foresight Direction

6. Zenith Angle

7. Slope Distance

8. HT - Height of Target or prism

9. Description

10. Point Number - This is the point number that will be assigned to the line data once it is processed. A"-" indicates a side shot.

11. Point Number - A"+" indicates the instrument will be moved to this point and backsight the previous instrument set up.

B) Upon completion of the field work, we seald the lid on the disposal barrel. We used only one (1) barrel and labled it as follows:

Contains tyvek suits
1/16/87
1 of 1

The barrel is located in the grove area with the remainder of unused barrels.

====== FIELD TRAVERSE ====== Tuesday February 3, 1987 10:32 AM

Field Data File Name: WB3 Book: Page:
Description:
topo south st.

REC#	H.I.	BACKSIGHT FORESIGHT	ZENITH	S.DIST	H.T.	DESCRIPTION	POINT
LIST							
1	4.91	0-00-00					
		0-47-25	90-57-48	324.172	4.86	EP	-1260
2	4.91	0-00-00					
		0-36-25	91-00-52	319.205	4.86	EP	-1261
3	4.91	0-00-00					
		0-10-01	90-33-51	319.812	7.65	EP	-1262
4	4.91	0-00-00					
		327-03-59	90-22-40	230.557	4.86	A10	-1263
5	4.91	0-00-00					
		343-44-52	89-41-54	195.537	6.65	10+0	-1264
6	4.91	0-00-00					
		357-57-31	89-54-20	138.523	4.86	9+0	-1265
7	4.91	0-00-00					
		337-54-01	89-44-53	42.145	4.86	8+0	-1266
8	4.91	0-00-00					
		148-49-54	90-01-02	175.705	4.86	1100D	1275
9	4.80	0-00-00					
		228-39-22	90-10-50	55.111	4.86	B4803	-1276
10	4.80	0-00-00					
		198-26-43	90-37-52	56.978	4.86	B4801	-1277
11	4.80	0-00-00					
		206-13-02	90-29-30	101.866	4.86	B4802	-1278
12	4.80	0-00-00					
		225-49-57	89-51-32	101.328	4.86	B4804	-1279
13	4.80	0-00-00					
		221-43-03	89-47-45	132.519	4.86	EP	-1280
14	4.80	0-00-00					
		221-39-48	89-51-10	141.535	4.86	EP	-1281
15	4.80	0-00-00					
		205-11-22	90-35-04	222.532	4.86	B4702	-1282
16	4.80	0-00-00					
		204-07-03	90-33-07	193.080	4.86	B4701	-1283
17	4.80	0-00-00					
		269-22-03	89-37-03	80.534	4.86	F4805	-1284
18	4.80	0-00-00					
		273-05-35	89-51-40	117.220	4.86	F4802	-1285
19	4.80	0-00-00					
		292-17-25	89-37-42	64.930	4.86	F4806	-1286
20	4.80	0-00-00					
		304-44-51	89-49-56	102.545	4.86	F4803	-1287
21	4.80	0-00-00					
		266-31-30	89-42-59	158.713	4.86	1100D	1290
22	4.63	0-00-00					
		308-43-08	89-59-29	180.616	4.86	7+0	-1291
23	4.63	0-00-00					
		296-15-33	90-13-13	117.368	4.86	PP	-1292
24	4.63	0-00-00					
		306-00-36	89-54-58	80.797	4.86	6+0	-1293
25	4.63	0-00-00					
		311-36-24	89-45-06	29.543	4.86	EP	-1294
26	4.63	0-00-00					
		326-51-54	90-09-52	26.699	4.86	EP	-1295
27	4.63	0-00-00					
		18-45-15	90-02-55	68.369	4.86	EP	-1296

WIDE BEACH
86E-011

PROCESSING DATA

FIELD FILE NAME	INITIAL SETUP	BACK SIGHT
WB-1	INT FOX & OVAL (PT#200)	INT FOX & LAKE SHORE
WB-2	PT # 1200	PT # 1100
WB-3	PT # 1215	PT # 1100
WB-4	PT # 1425	PT # 1370
WB-5	INT SIST & OVAL (PT 950)	INT FOX & OVAL (PT #200
WB-6	INT FOX & OVAL (PT #200)	INT FOX & LAKESHORE
WB-7	PT # 350	PT # 200
WB-8	PT # 500	PT # 350
WB-9	PT # 680	PT # 500
WB-10	PT # 681	PT # 500
WB-11	PT # 890	PT # 681
WB-12	PT # 650	PT # 500
WB-13	PT # 1605	PT # 650
WB-14	PT # 800	PT # 650
WB-15	PT # 200	INT FOX & LAKE SHORE
WB-16	PT # 120	PT # 25
WB-17	PT # 150	INT FOX & LAKESHORE
WB-18	PT # 150	INT FOX & LAKESHORE
WB-19	PT # 350	INT FOX & OVAL
WB-20	PT # 650	PT # 500

WENDEL 11 PINCHOT CT. • BOX 1456 • BUFFALO, NY 14228 • 716/625-6867 or 688-0766
WENDEL SURVEY 7405 CANAL RD. • BOX 501 • LOCKPORT, NY 14094 • 716/625-8228 or 433-5993

November 7, 1988

EBASCO Services Incorporated
160 Chubb Avenue
Lyndhurst, NJ 07071

Attention: Joseph Cleary

Responses to questions concerning the wide beach development site mapping services of survey data RFQ 4938-88I-3128.

NOTE #1 Comments: Listed below are the coordinates, elevations, and designations for the point numbers in question.

PAGE #	POINT #	NORTHING	EASTING	ELEV.	DESIG.
1 of 2	1216	942659.49	354120.24	587.76	F-4904
2 of 2	587	942951.49	352797.50	587.09	F-2004
2 of 2	588	942967.12	352800.70	586.95	F-1801
2 of 2	1639	942844.96	352686.91	586.51	F-2305

NOTE #2 Comments: Page 1 Of 2: Point #1903 was not labled in the field. By process of elimination it appears to be B-5104.

Page 2 of 2: The following is a list of correct point numbers and well designations.

POINT #	DESIGNATION
839	F-2006
585	F-2002
1592	F-2602
1478	F-2603
1555	F-3306
1549	F-3301
1731	F-3303
1776	B-3303

NOTE #3 Comment: Mylars are revised to show driveways misplotted. Please note that not all driveways noted were incorrect.

NOTE #4 Comment: Page 1 of 2: Field crew was not permitted on this property as instructed by EBASCO.

Page 2 of 2: Mylars are revised to show driveways not plotted.

Misc Question: EN-C and EN-3 were found to be labled in the field as we reported.

Gridlines are corrected on the revised mylars.

The most westerly driveway on the south side of South Street was found to be concrete.

Wendel Survey

Peter J. Welsby

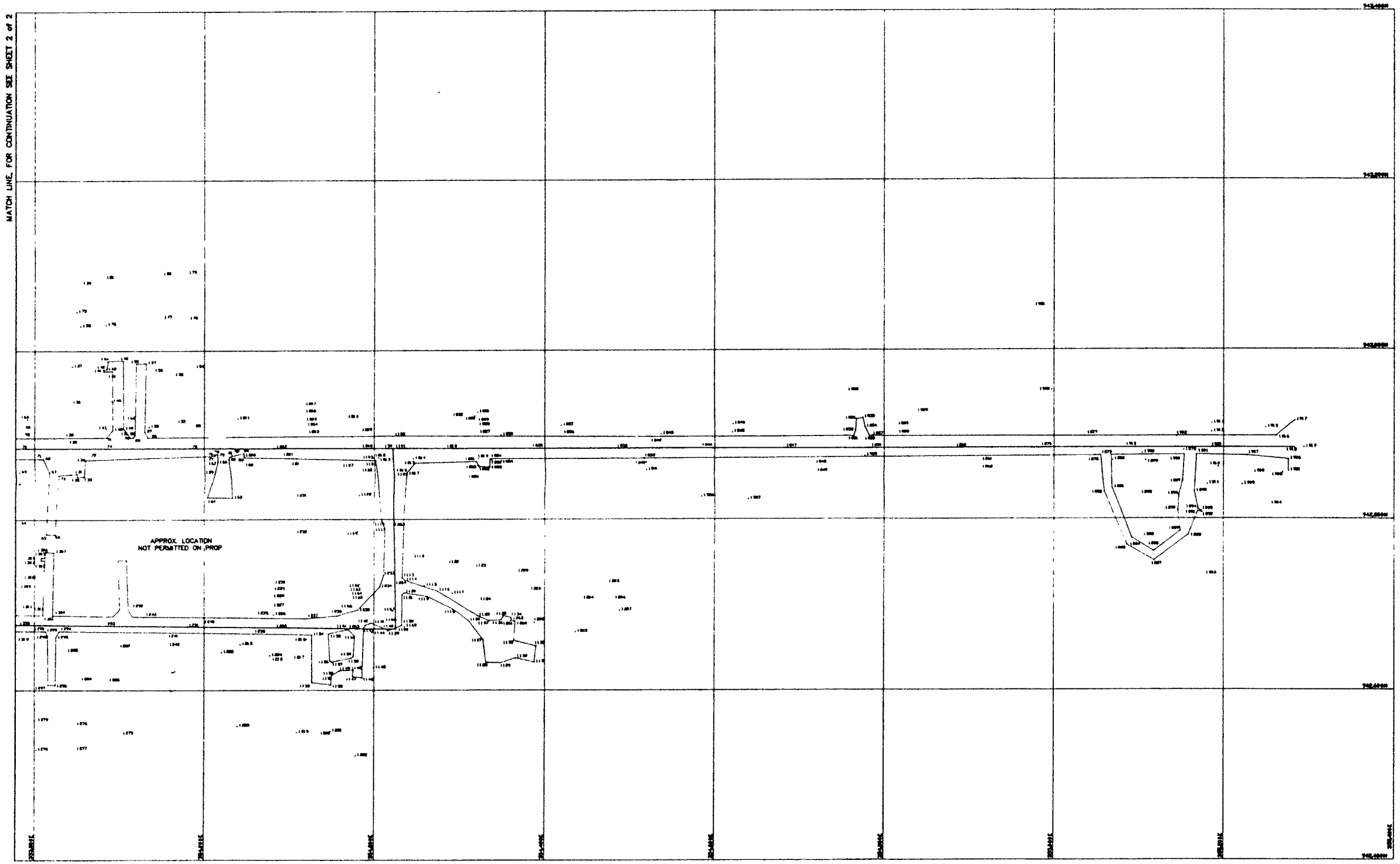
Peter J. Welsby, P.~~L.S.~~

PJW/et

DRAWING LIST

Title	
PAVEMENT AND POINT NUMBERS	Sheet 1 of 2
PAVEMENT AND POINT NUMBERS	Sheet 2 of 2
FOX STREET BASELINE AND SOUTH STREET BASELINE	Sheet 1 of 3
OVAL BASELINE STA. 0 + 50.00 - STA. 12 + 12.00	Sheet 2 of 3
OVAL BASELINE STA. 14 + 69.00 - STA. 22 + 52.00	Sheet 3 of 3
PAVEMENT AND POINT DESCRIPTIONS	Sheet 1 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 2 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 3 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 4 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 5 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 6 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 7 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 8 of 9
PAVEMENT AND POINT DESCRIPTIONS	Sheet 9 of 9

NOTE: The enclosed copies of the drawings listed above have been reduced to one-half the original scale.



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No. 049416
LICENSED LAND SURVEYOR

Peter J Walden

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

PAVEMENT AND POINT NUMBERS

DWN. J.J.VALERY | CHK. | APPD. PJW | CAD FILE No. 1 / 7

DATE 7/29/88
SCALE 1" = 50'
JOB NO. 88E-011

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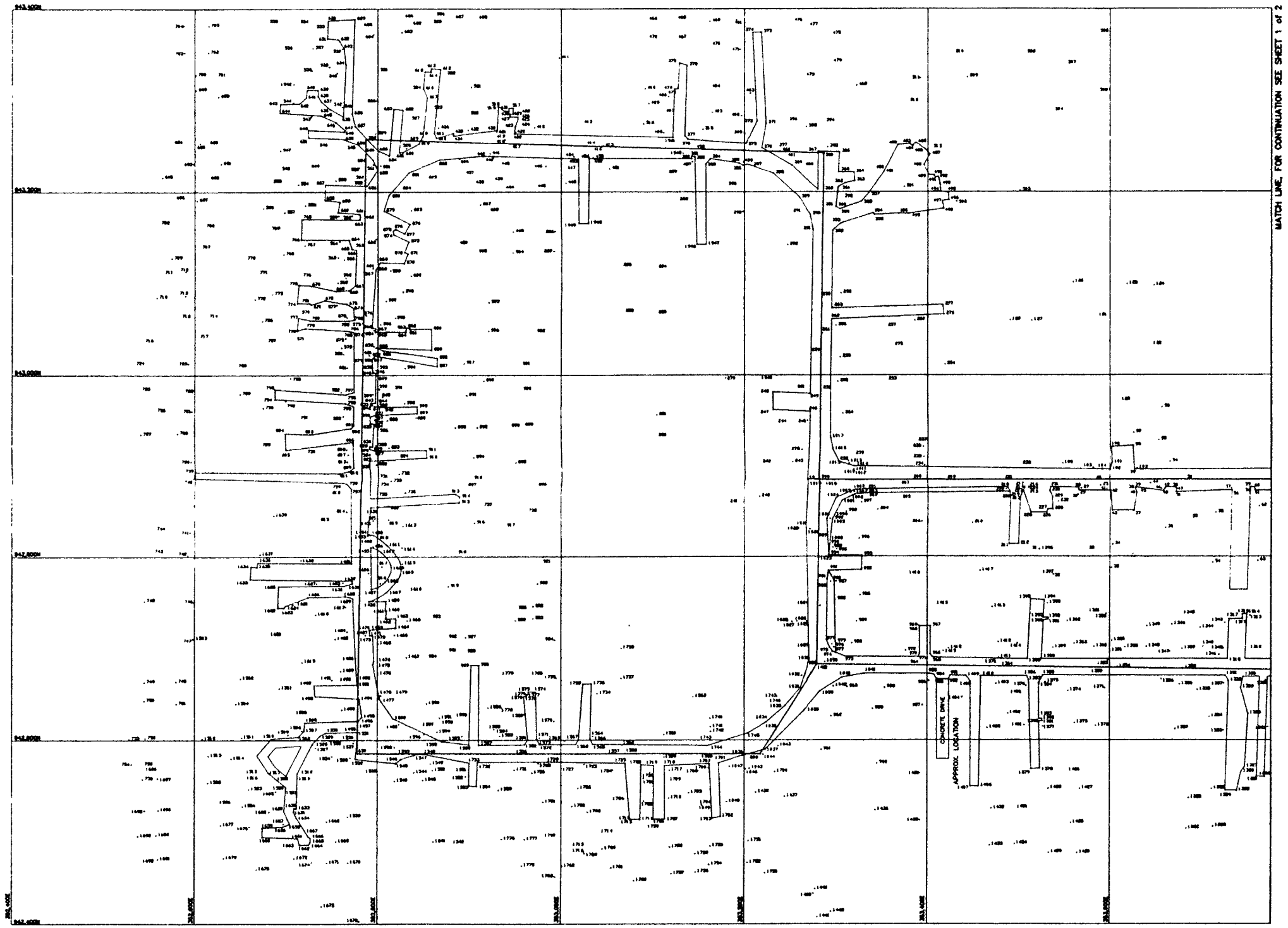
1 of 2



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WIDE BEACH
TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

PAVEMENT AND POINT NUMBERS

DSN. J.J.VALERY | CHK. | APPR. | CAD FILE NO. 1 / 7
DATE 7/29/08
SCALE 1" = 50'
JOB NO. 08E-011

WENDEL
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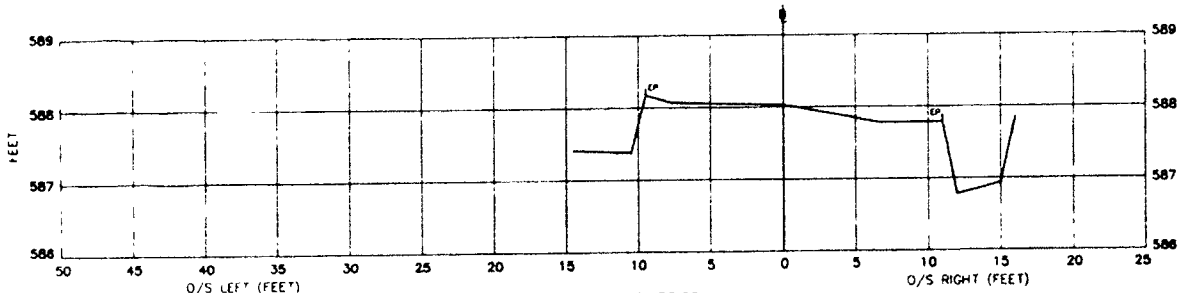
2 of 2



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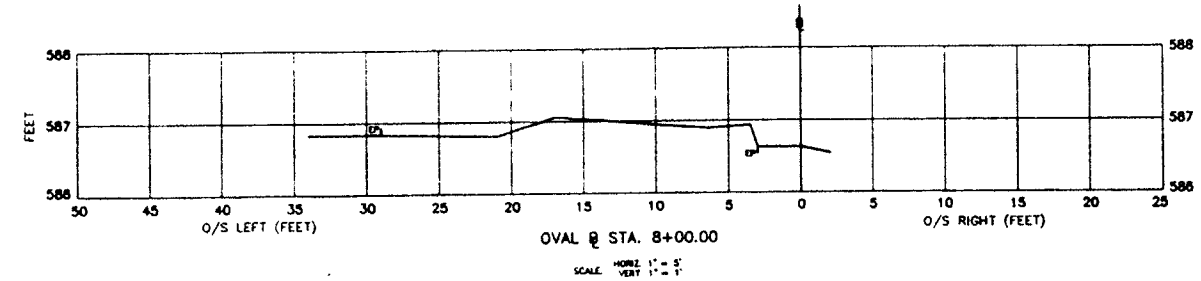

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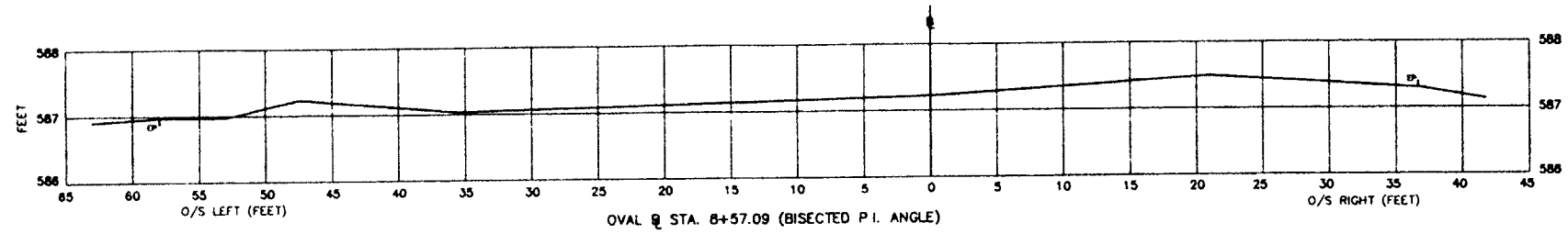

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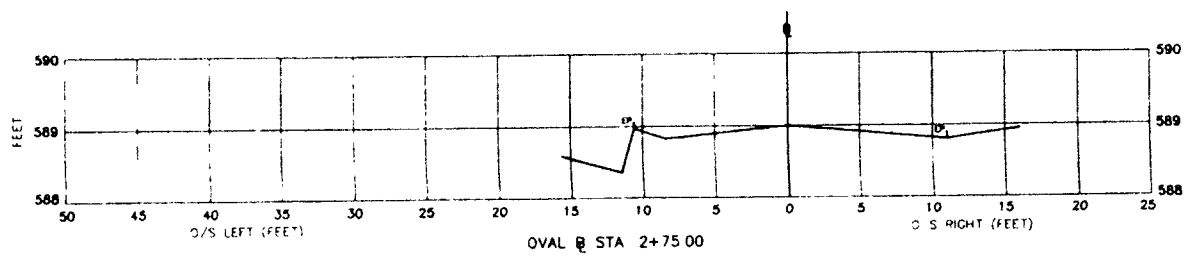

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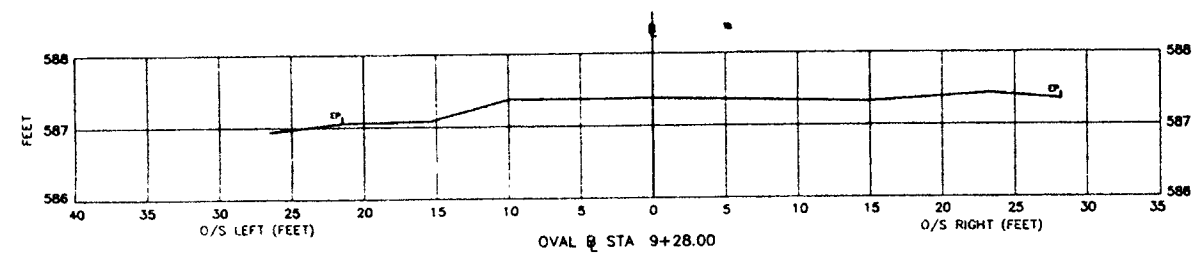

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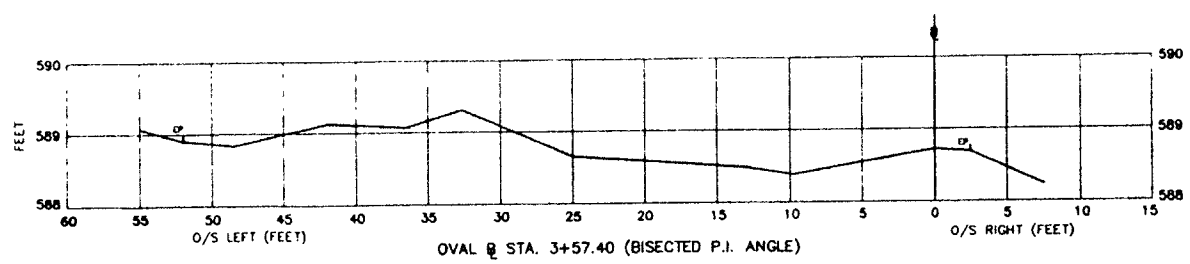

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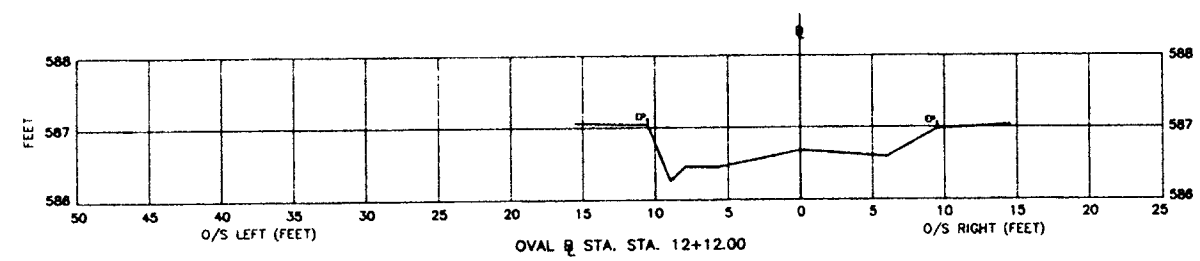
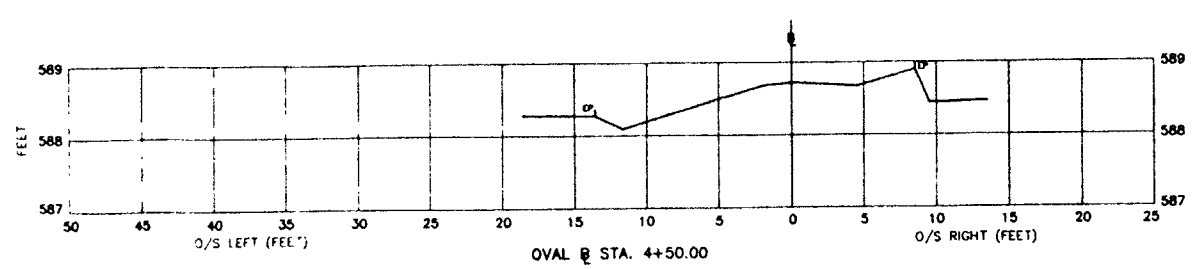


OVAL ℄ STA. STA. 12+12.00

SCALE HORIZ. 1" = 5' VERT. 1" = 1



OVAL ℄ STA. 4+50.00

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TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

OVAL ℄ STA. 0+50.00 – STA. 12+12.00

DRN. J.J.VALERY | CHK. CFB | APPD. PJW | CAD FILE NO. 1/2
DATE 7/14/88
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JOB NO. 86E-011

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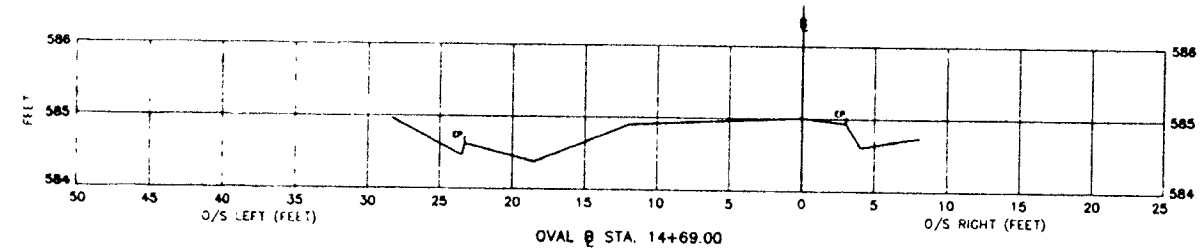
2 of 3



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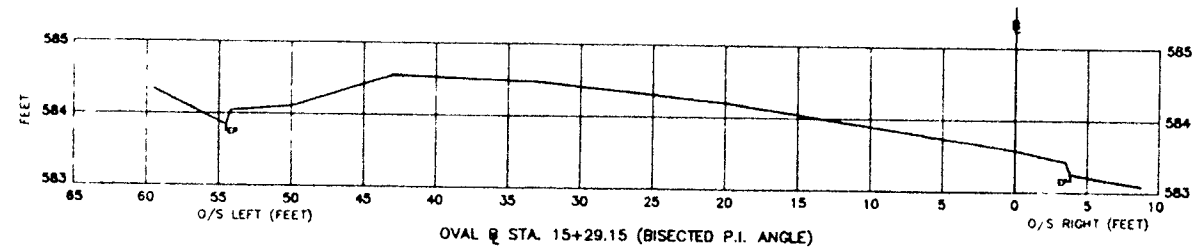

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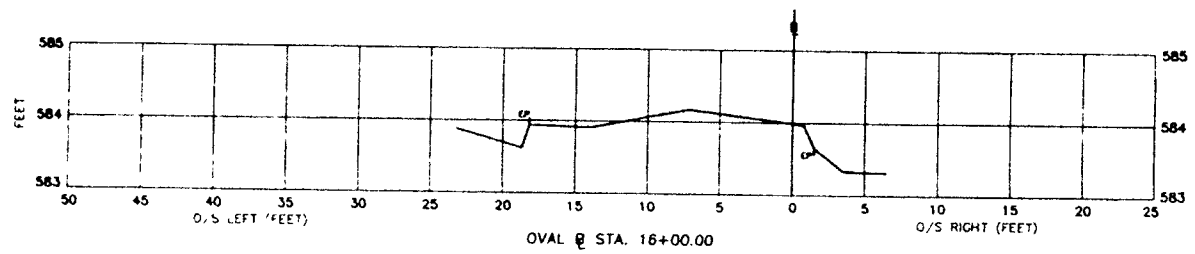

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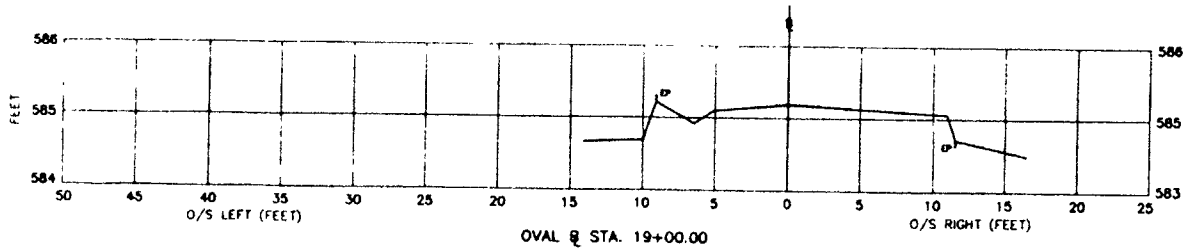

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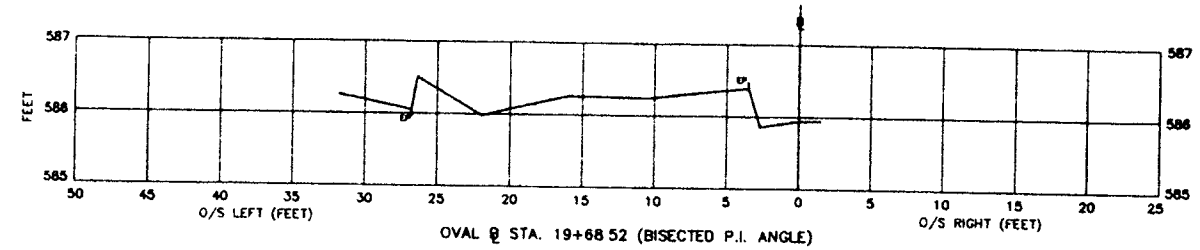
SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



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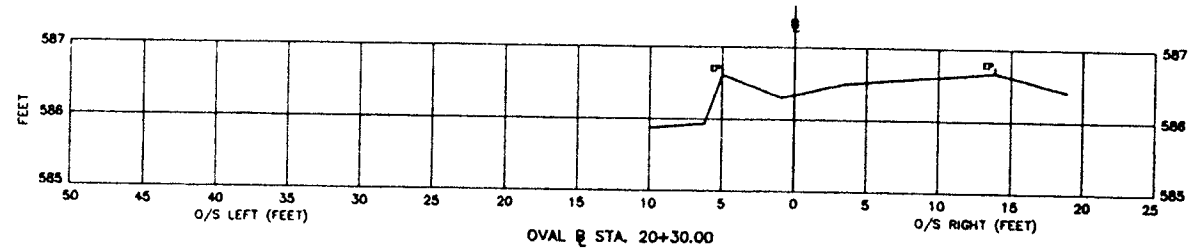

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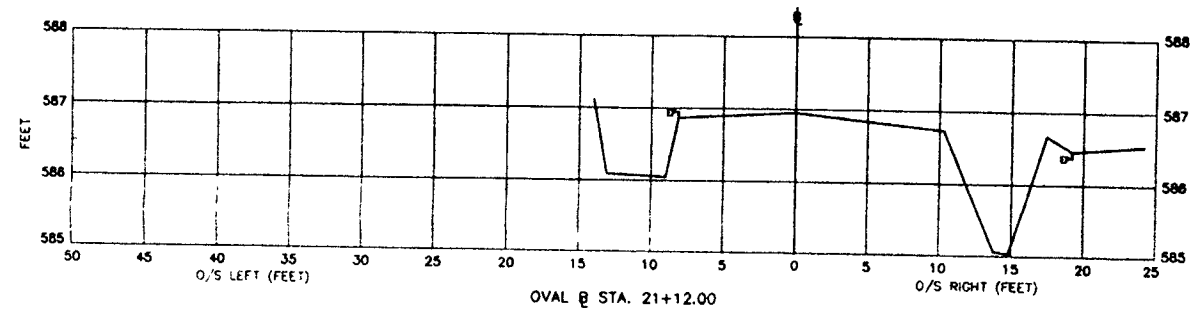
SCALE: HORIZ. 1" = 8' VERT. 1" = 1'



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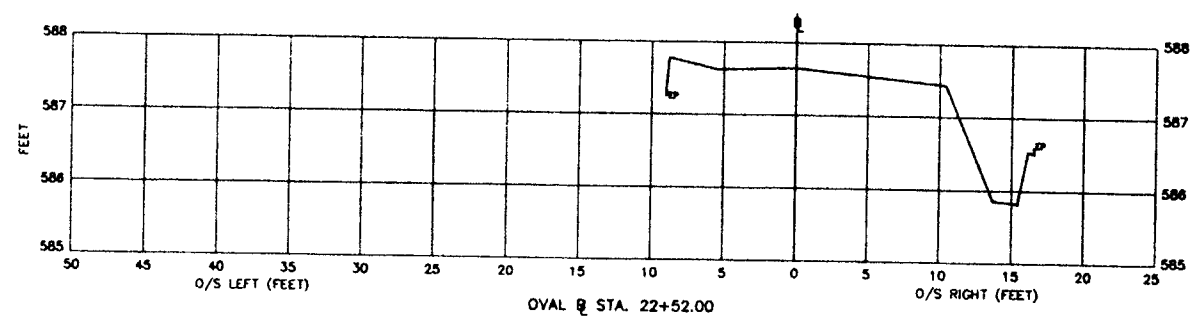

OVAL ℄ STA. 22+52.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'

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WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

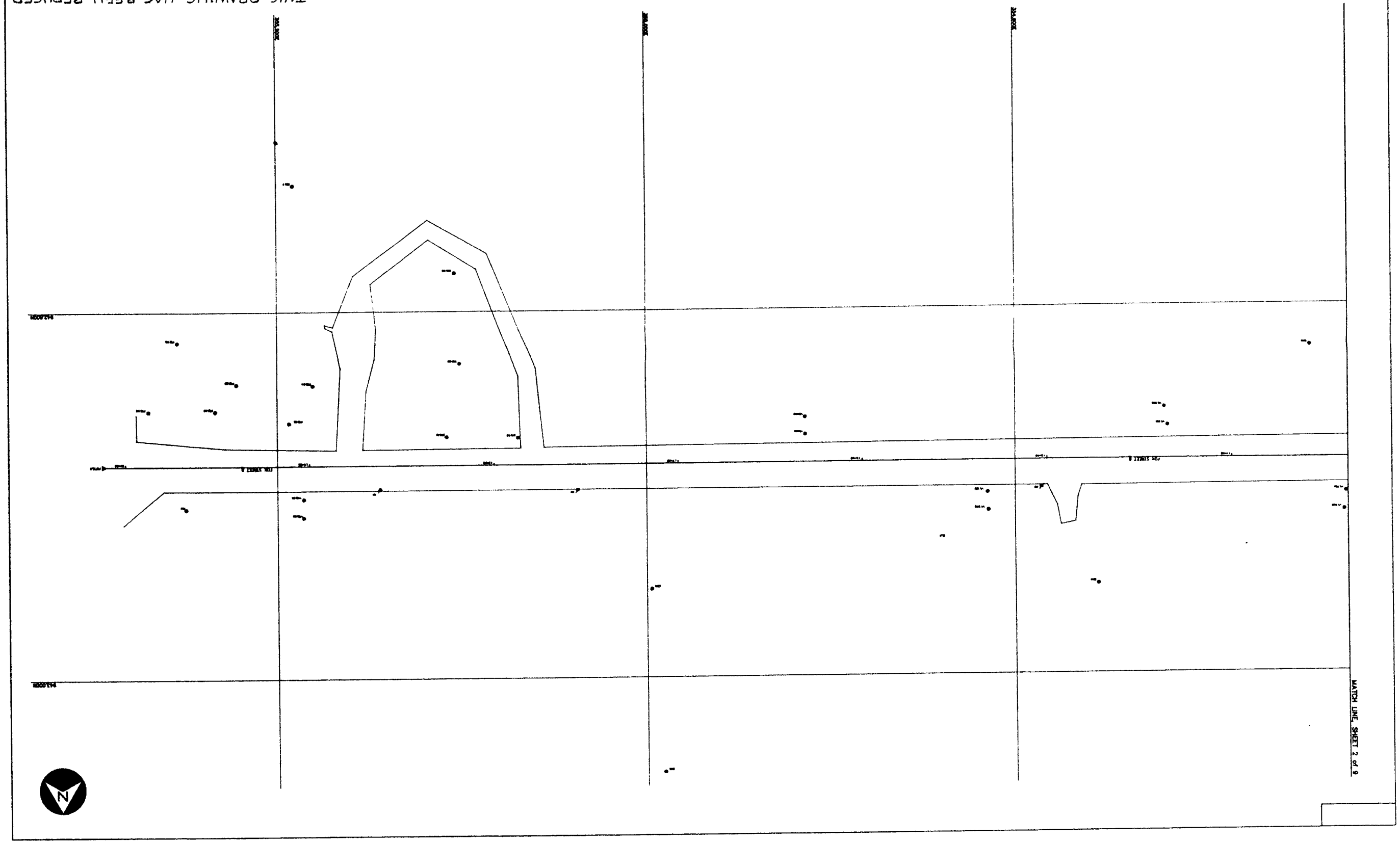
OVAL ℄ STA. 14+69.00 – STA. 22+52.00

DWN. J.J.VALERY | CHK. C.M.S. | APPD. R.J.W. | CAD FILE No. 1/2

WENDEL
BUFFALO, NY · LOCKPORT, NY

DATE 7/14/88
SCALE NOTED
JOB NO. 88E-011

3 of 3



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- DESIGNING SOL BORING
- VACANT LOT SOL BORING
- BACK YARD SOL BORING
- FRONT YARD SOL BORING
- ASPHALT SOL BORING
- OPEN AREA SOL BORING
- RCI LABORS SOL BORING
- SEWER SERVICE SOL BORING
- CURBING REMOVING VAIL
- CURBING REPLACING VAIL
- DRAIN VALVE
- GAS VALVE
- GAS LINE MARKER
- GAS METER
- GAS VAIL
- BOOT VALVE
- WATER VALVE
- POWER POLE
- WATER LINE
- DRAINAGE PIPE
- SEWER SERVICE SOL BORING
- CURBING REMOVING VAIL
- CURBING REPLACING VAIL

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NO.	DATE	GENERAL REVISIONS	CH	APPD.
1	11/3/99			

NO.	DATE	REVISION	BY	APPD.

STATE OF NEW YORK
REGISTERED LAND SURVEYOR

Dale Stulla

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

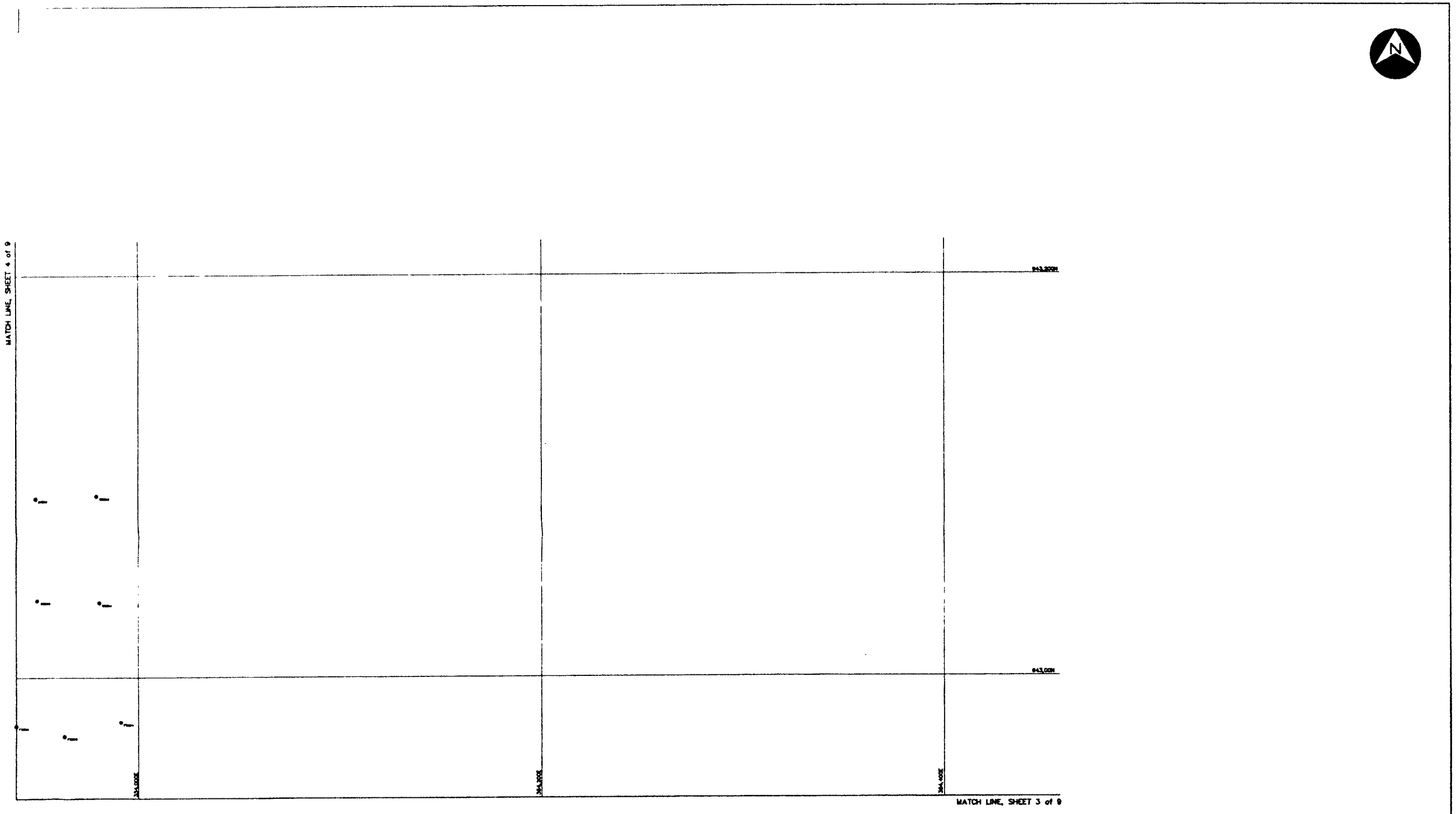
PAVEMENT AND POINT DESCRIPTIONS

DWN. J.LYMLEY	CHK.	DES.	APPR.	CHIEF

SHT. NO.	1 / 6
DATE	6/10/99
SCALE	1" = 20'
JOB NO.	86C-011

WENDEL
BUFFALO, NY • LOCKPORT, NY

1 of 9



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- – CHANNELING SOIL BORING
- – VACANT LOT SOIL BORING
- – BACK YARD SOIL BORING
- – FRONT YARD SOIL BORING
- – ASPHALT SOIL BORING
- – OPEN AREA SOIL BORING
- – WET LANDS SOIL BORING
- – SEWER TRENCH SOIL BORING
- – EXISTING MONITORING WELL
- – EXISTING MONITORING WELL
- – POWER POLE
- – GAS VALVE
- – WATER VALVE
- – GAS LINE MARKER
- – GAS METER
- – MAN HOLE
- – DROP INLET
- – CULVERT PIPE
- – MATCH LINE

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NO.	DATE	REVISION	BY	APPD.
1	11/3/99	GENERAL REVISIONS	CB	PJW

STATE OF NEW YORK · PETER J. WEBBY · No. 049616 · LICENSED LAND SURVEYOR

Peter J. Webby

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

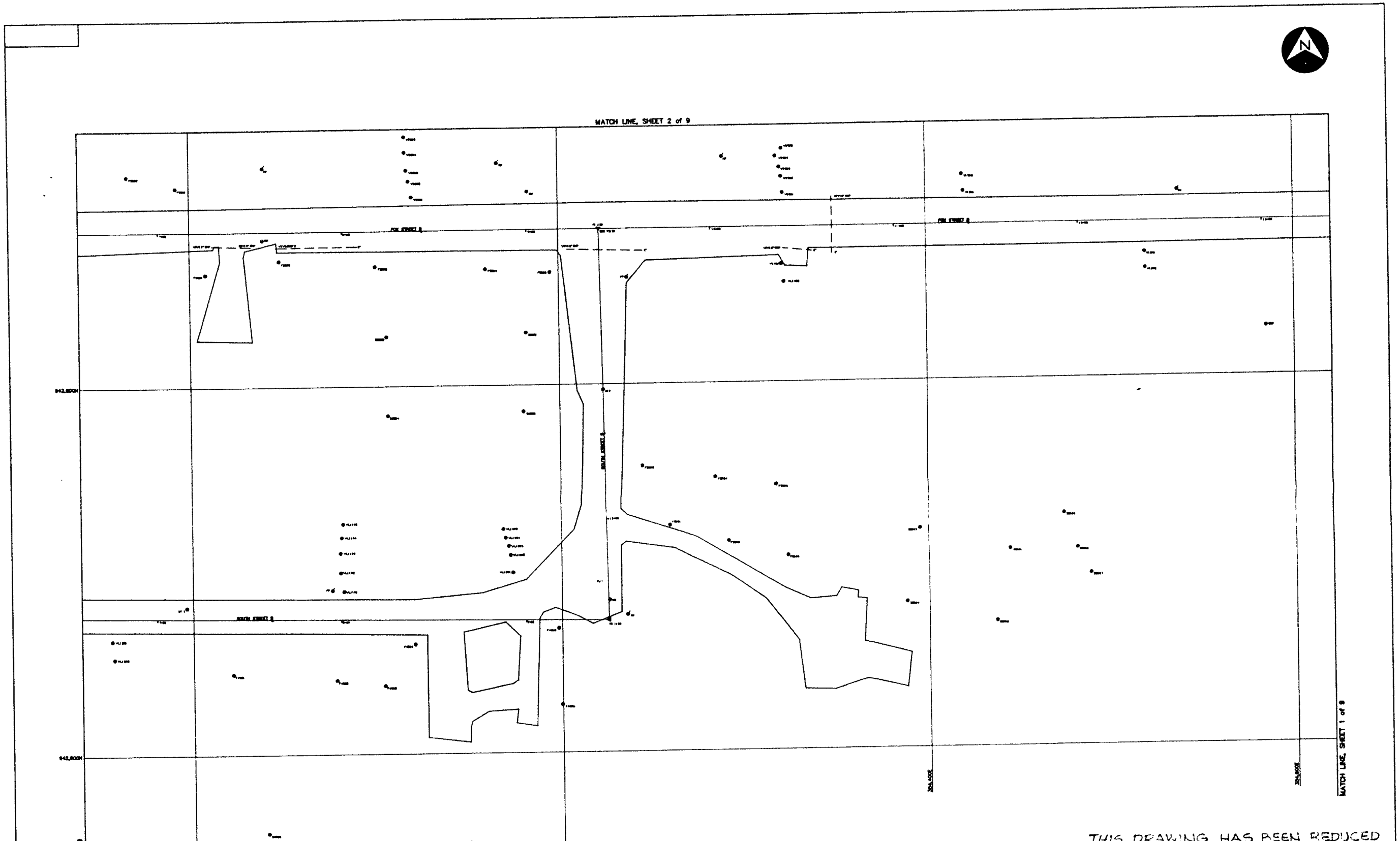
PAVEMENT AND POINT DESCRIPTIONS

DRN. J.J.VALERY | CHK. [illegible] | APPD. [illegible]

CAD FILE No. 1 / 6
DATE 6/10/05
SCALE 1" = 20'
JOB NO. 662-011

WENDEL
BUFFALO, NY · LOCKPORT, NY

2 of 9



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- CHENGDENG SOIL BORING
- VACANT LOT SOIL BORING
- BACK YARD SOIL BORING
- FRONT YARD SOIL BORING
- ASPHALT SOIL BORING
- OPEN AREA SOIL BORING
- WET LANDS SOIL BORING
- SEWER TRENCH SOIL BORING
- EXISTING MONITORING WELL
- EXISTING MONITORING WELL
- POWER POLE
- GAS VALVE
- SEWER VALVE
- GAS LINE MARKER
- GAS METER
- MAN HOLE
- DROP INLET
- CULVERT PIPE
- MATCH LINE

NO.	DATE	REVISION	BY	APPD.
1	11/3/88	GENERAL REVISIONS	CB	PJW

STATE OF NEW YORK · PETER J. WALTON · 44 DARLEY · LICENSED LAND SURVEYOR

Peter J. Walton

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

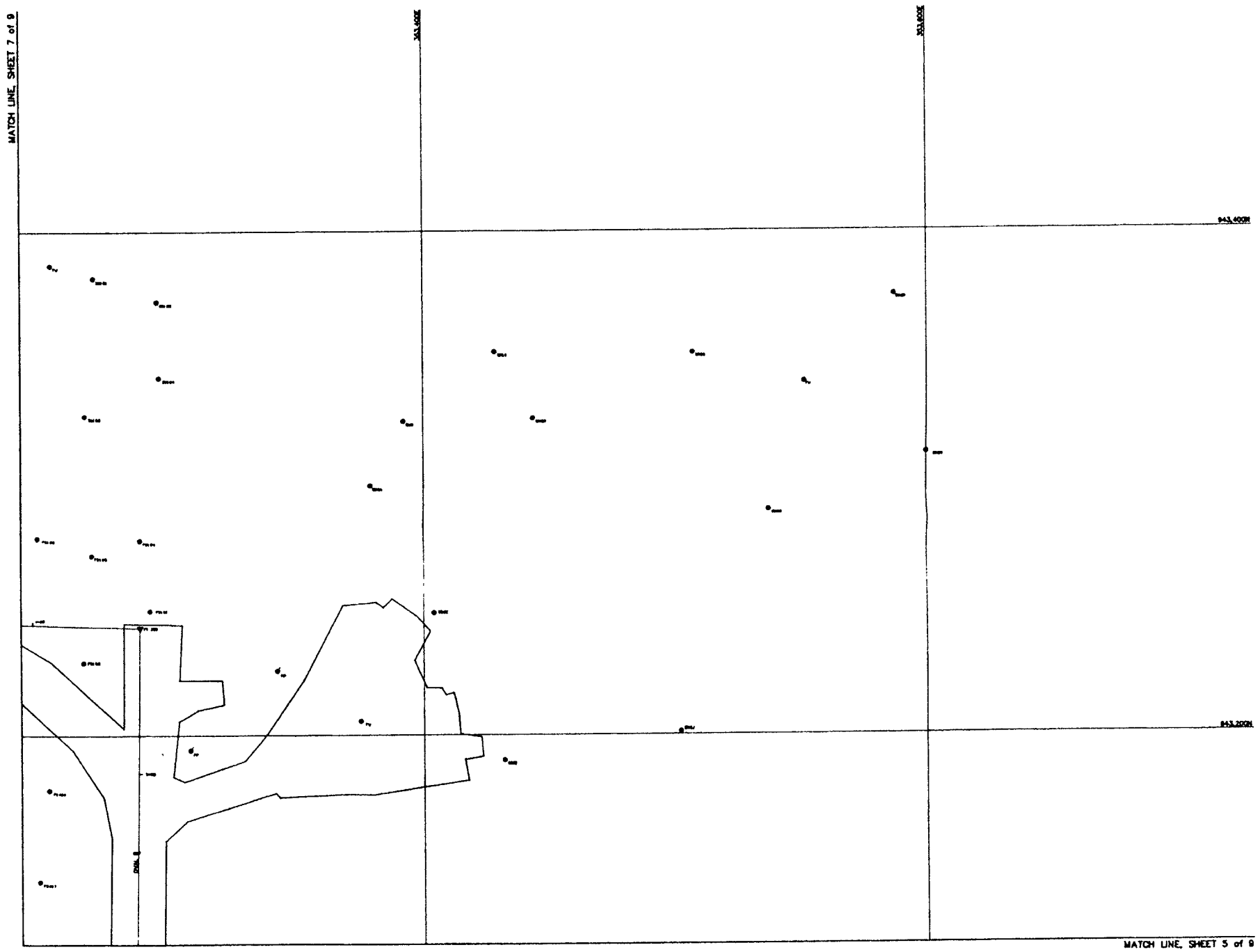
PAVEMENT AND POINT DESCRIPTIONS

DWN. J.J. VALERY | CHK. RMB | APPD. PJW

WENDEL
BUFFALO, NY · LOCKPORT, NY

CAD FILE No.	1 / 6
DATE	8/10/88
SCALE	1" = 20'
JOB NO.	86E-011

3 of 9



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- CHEMEERING SOIL BORING
- VACANT LOT SOIL BORING
- BACK YARD SOIL BORING
- FRONT YARD SOIL BORING
- ASPHALT SOIL BORING
- OPEN AREA SOIL BORING
- WET LANDS SOIL BORING
- SEWER TRENCH SOIL BORING
- EXISTING MONITORING WELL
- EXISTING MONITORING WELL
- POWER POLE
- GAS VALVE
- WATER VALVE
- GAS LINE MARKER
- GAS METER
- MAN HOLE
- DROP INLET
- CULVERT PIPE
- MATCH LINE

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Peter J. Webber

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

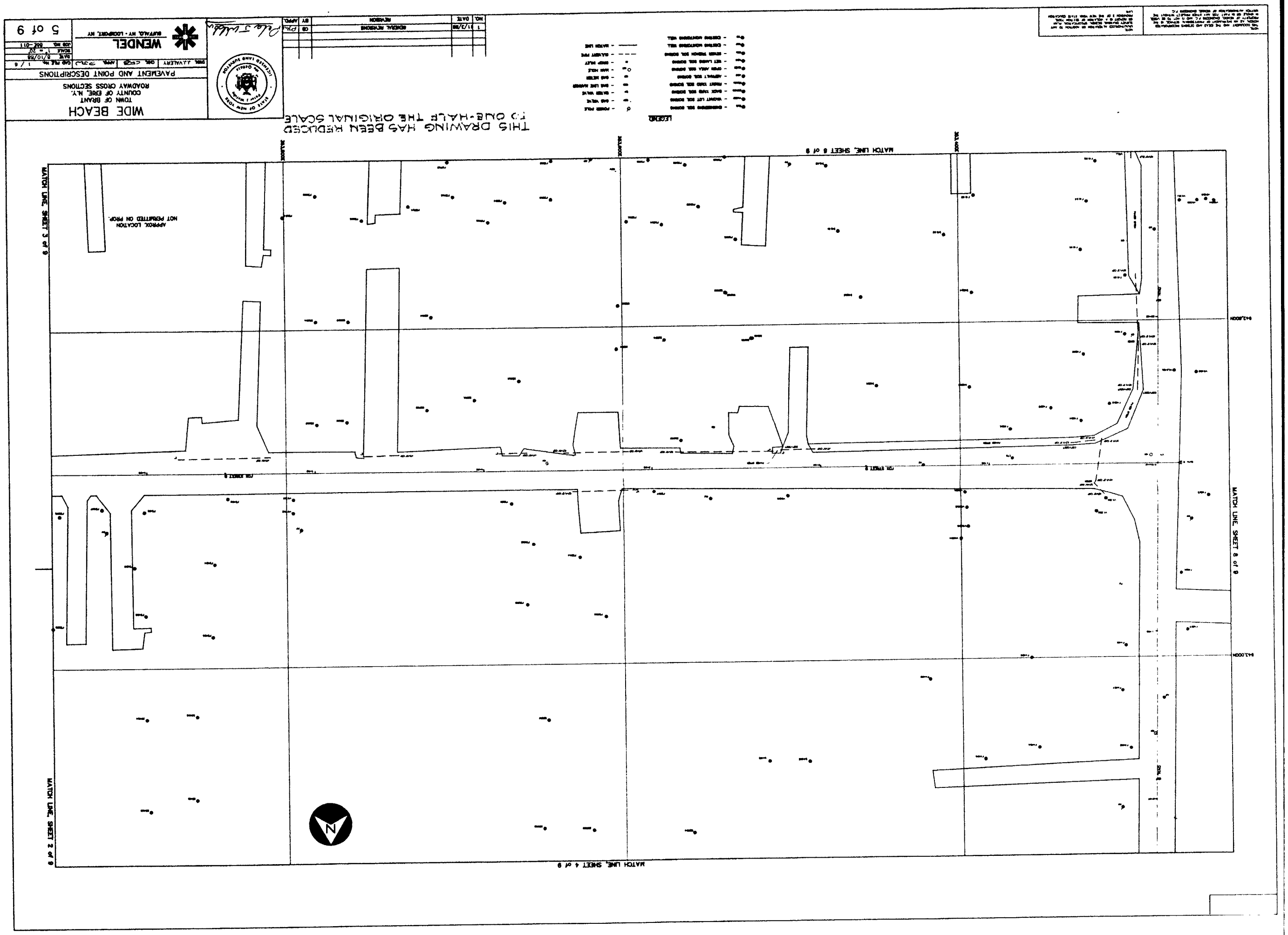
PAVEMENT AND POINT DESCRIPTION

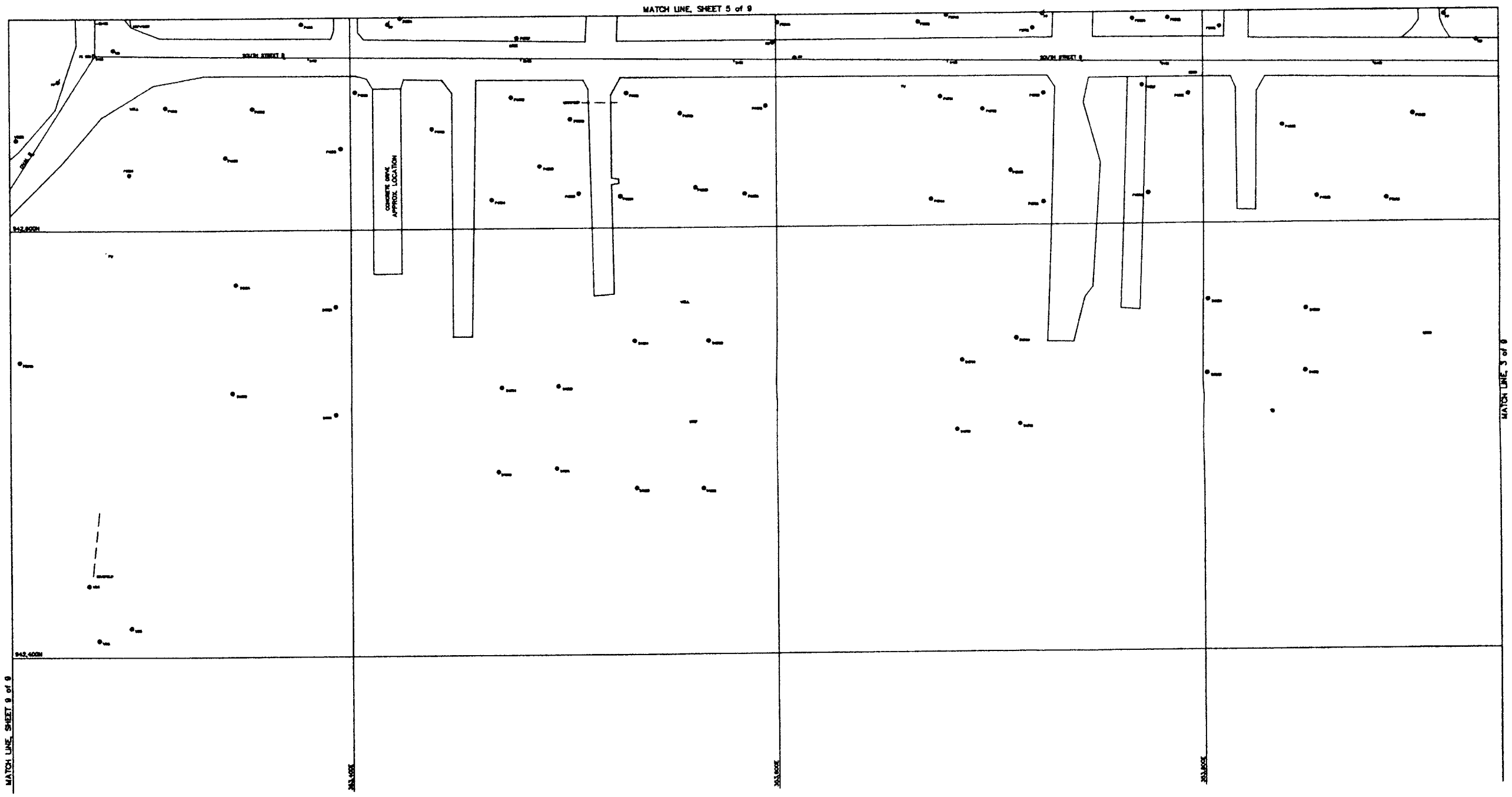
DWN. J.J. VALERY | CHK. PJW | APPD. PJW

WENDEL
BUFFALO, NY · LOCKPORT, NY

CAD FILE No. 1 / 8
DATE 8/10/88
SCALE 1" = 20'
JOB NO. 86E-011

4 of 9


MATCH LINE, SHEET 6 of 9
MATCH LINE, SHEET 2 of 9
MATCH LINE, SHEET 4 of 9
MATCH LINE, SHEET 8 of 9
APPROX. LOCATION NOT PERMITTED ON PROP.
THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE
LEGEND
WIDE BEACH
TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS
PAVEMENT AND POINT DESCRIPTIONS
WENDEL
BUFFALO, NY · LOCKPORT, NY
5 of 9



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- ENGINEERING SOIL BORING
- VACANT LOT SOIL BORING
- BACK YARD SOIL BORING
- FRONT YARD SOIL BORING
- ASPHALT SOIL BORING
- OPEN AREA SOIL BORING
- WET LANDS SOIL BORING
- SEWER TRENCH SOIL BORING
- EXISTING MONITORING WELL
- EXISTING MONITORING WELL
- POWER POLE
- GAS VALVE
- WATER VALVE
- GAS LINE MARKER
- GAS METER
- MAN HOLE
- DROP INLET
- CULVERT PIPE
- MATCH LINE

NO.	DATE	REVISION	BY	APPD
1	11/3/88	GENERAL REVISIONS	CB	PJW

STATE OF NEW YORK · PETER J. WALSH · No. 049818 · LICENSED LAND SURVEYOR

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

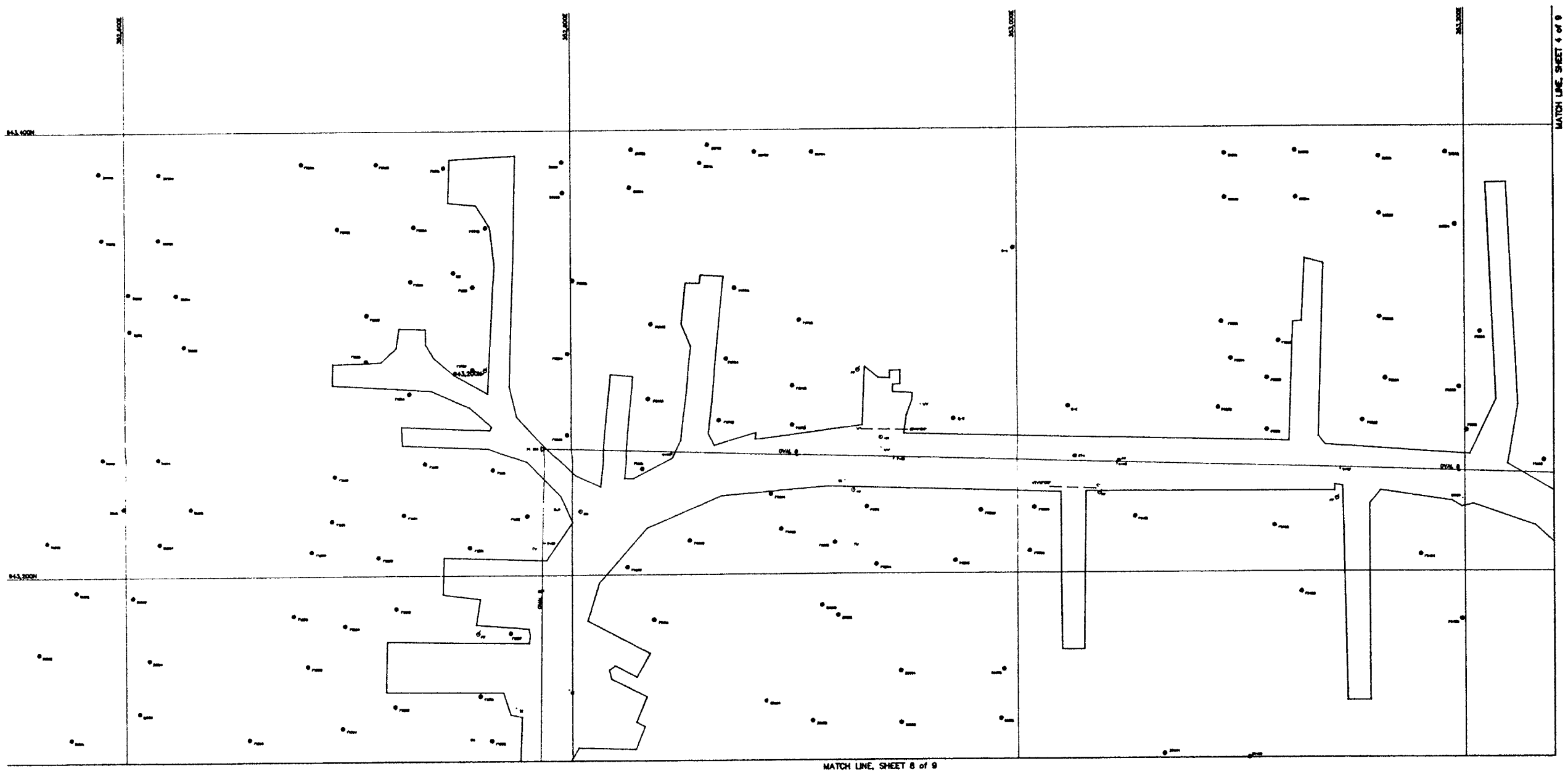
PAVEMENT AND POINT DESCRIPTION

DWN. J.J.VALERIY | CHK. PJW | APPD. PJW

CAD FILE No. 1 / 6
DATE 8/10/88
SCALE 1" = 20'
JOB NO. 88E-011

WENDEL
BUFFALO, NY · LOCKPORT, NY

6 of 9



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

LEGEND

- ⊕ – ENGINEERING SOIL BORING
- ⊕ – VACANT LOT SOIL BORING
- ⊕ – BACK YARD SOIL BORING
- ⊕ – FRONT YARD SOIL BORING
- ⊕ – ASPHALT SOIL BORING
- ⊕ – OPEN AREA SOIL BORING
- ⊕ – WET LANDS SOIL BORING
- ⊕ – SEWER TRENCH SOIL BORING
- ⊕ – EXISTING MONITORING WELL
- ⊕ – EXISTING MONITORING WELL
- – POWER POLE
- – GAS VALVE
- – WATER VALVE
- – GAS LINE MARKER
- – GAS METER
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- – CULVERT PIPE
- – MATCH LINE

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WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

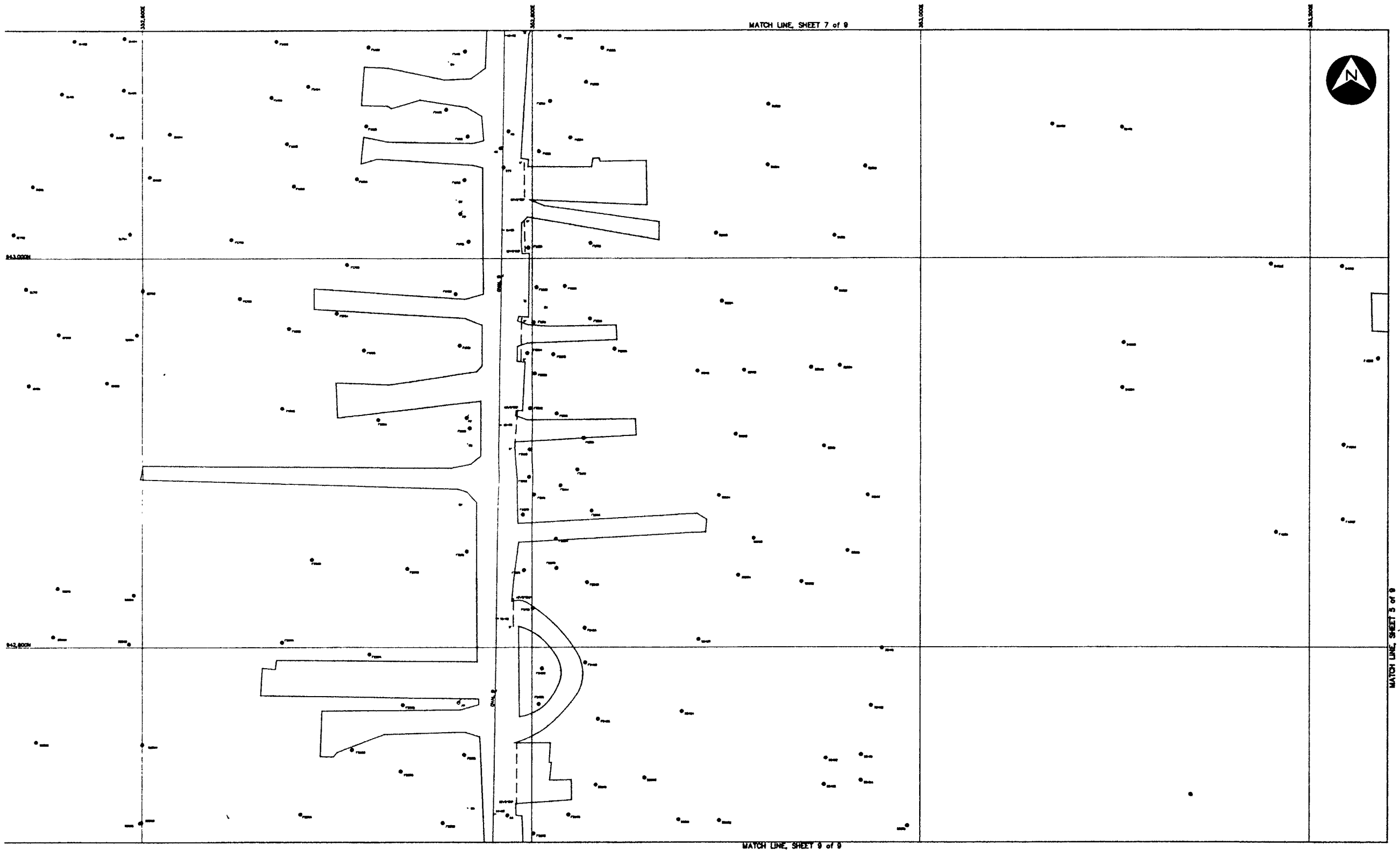
PAVEMENT AND POINT DESCRIPTIONS

DWN. J.J.VALERY | CHK. RWB | APPD. RJW

WENDEL
BUFFALO, NY · LOCKPORT, NY

CAD FILE No.	1 / 8
DATE	8/10/88
SCALE	1" = 20'
JOB NO.	86E-011

7 of 9



LEGEND

- CHANNELING SOIL BORING
- VACANT LOT SOIL BORING
- BACK YARD SOIL BORING
- FRONT YARD SOIL BORING
- ASPHALT SOIL BORING
- OPEN AREA SOIL BORING
- WET LANDS SOIL BORING
- SEWER TRENCH SOIL BORING
- EXISTING MONITORING WELL
- EXISTING MONITORING WELL
- POWER POLE
- GAS VALVE
- WATER VALVE
- GAS LINE MARKER
- GAS METER
- MAN HOLE
- DROP INLET
- CULVERT PIPE
- MATCH LINE

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

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1	1/3/88	GENERAL REVISIONS	CB	PJL

STATE OF NEW YORK — PETER J. WELDON — LICENSED LAND SURVEYOR

WIDE BEACH

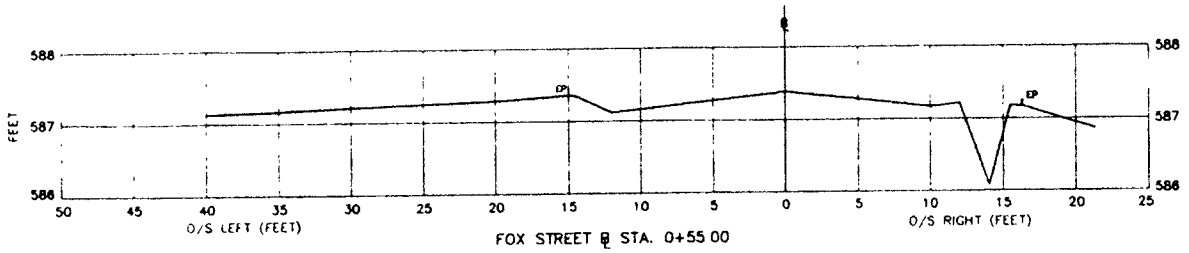
TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

PAVEMENT AND POINT DESCRIPTIONS

DRN. J.J VALERY | CHK. | APPD. PJL | CAD FILE No. 1 / 6
DATE 8/10/88
SCALE 1" = 20'
JOB NO. 88E-011

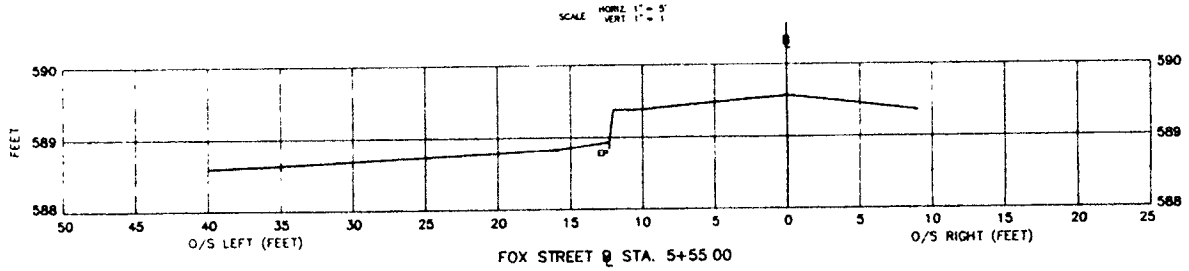
WENDEL
BUFFALO, NY • LOCKPORT, NY

8 of 9



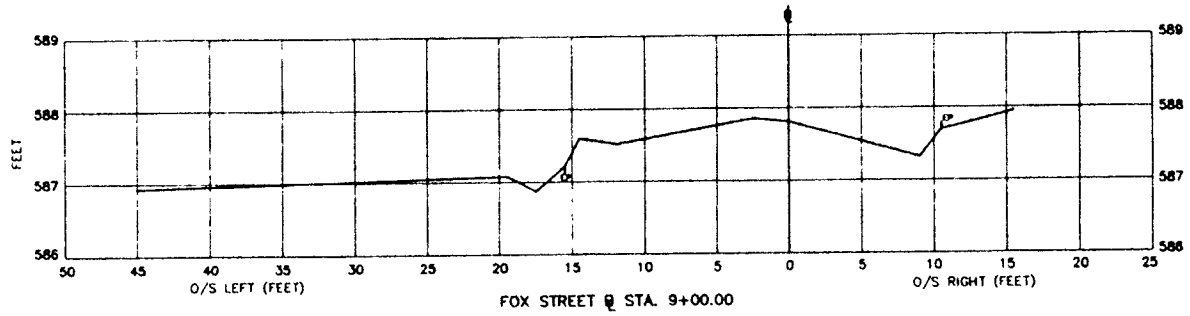
FOX STREET ℄ STA. 0+55.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



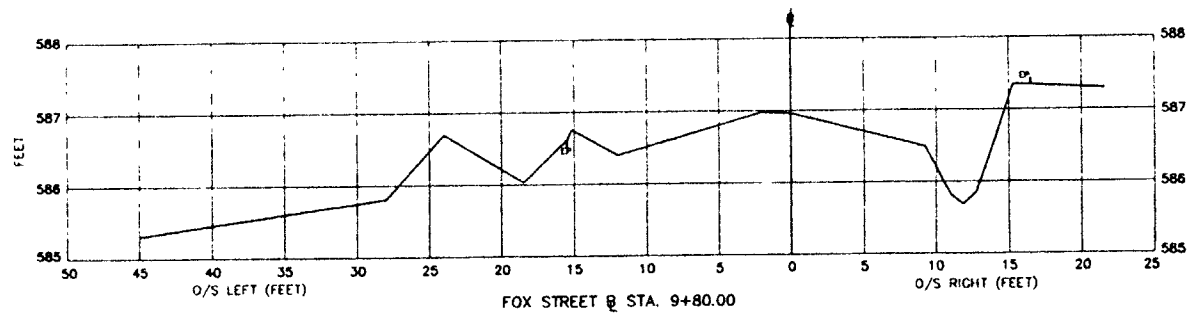
FOX STREET ℄ STA. 5+55.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



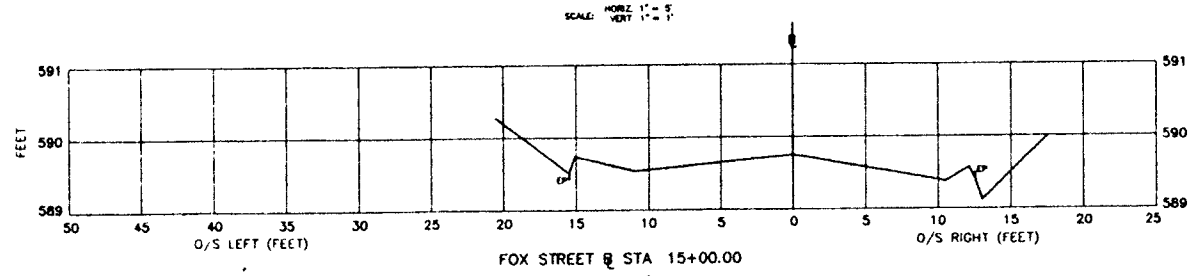
FOX STREET ℄ STA. 9+00.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



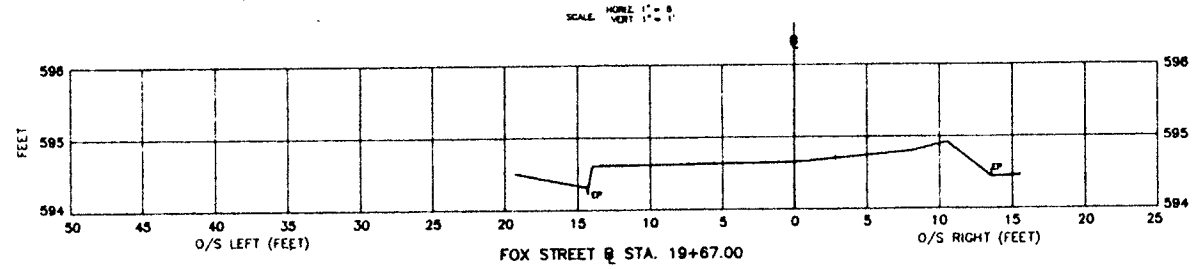
FOX STREET ℄ STA. 9+80.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



FOX STREET ℄ STA 15+00.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



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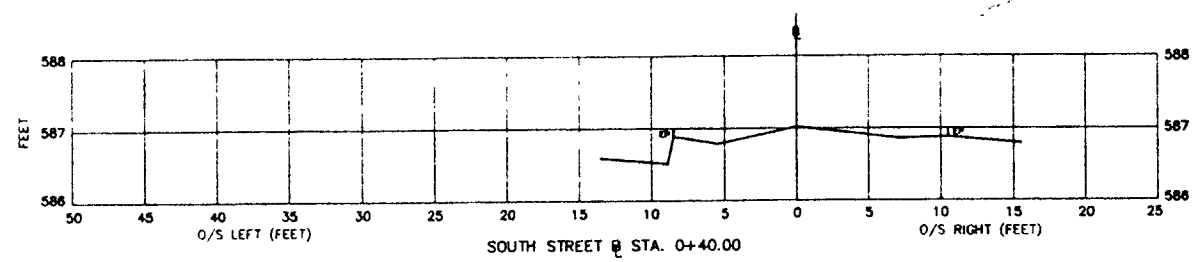
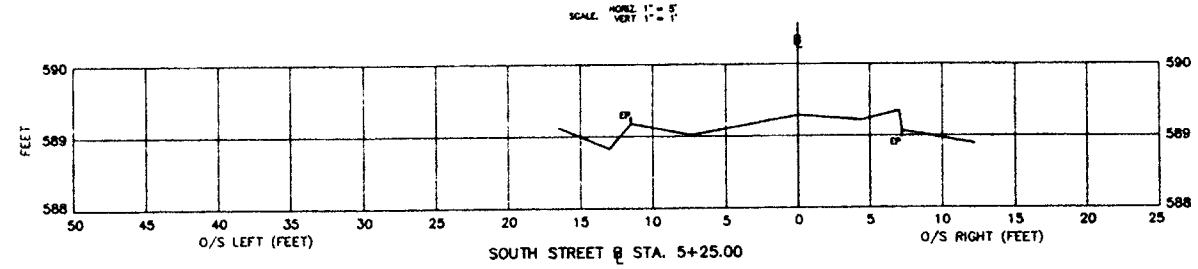
SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



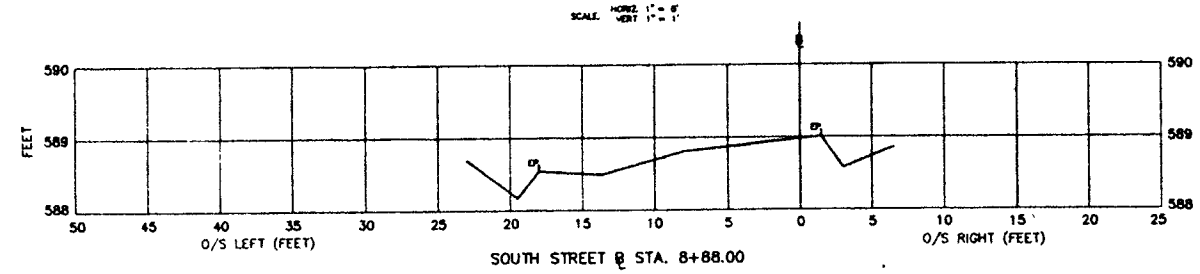
SOUTH STREET ℄ STA. 0+40.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



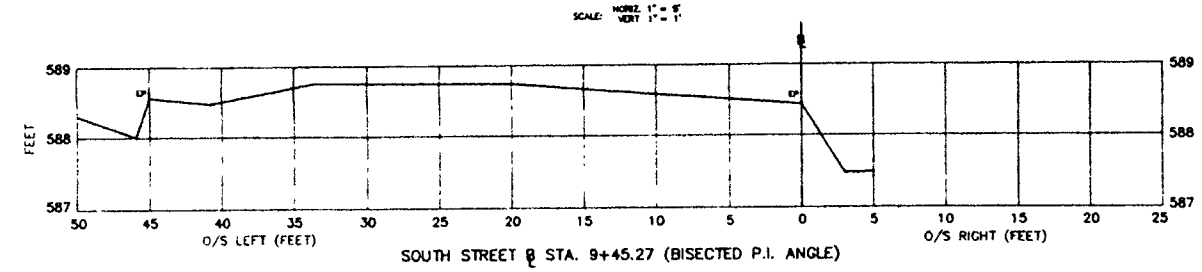
SOUTH STREET ℄ STA. 5+25.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



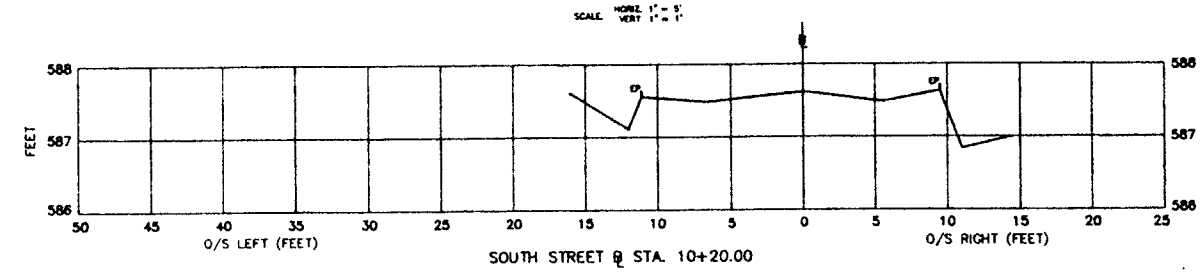
SOUTH STREET ℄ STA. 8+88.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



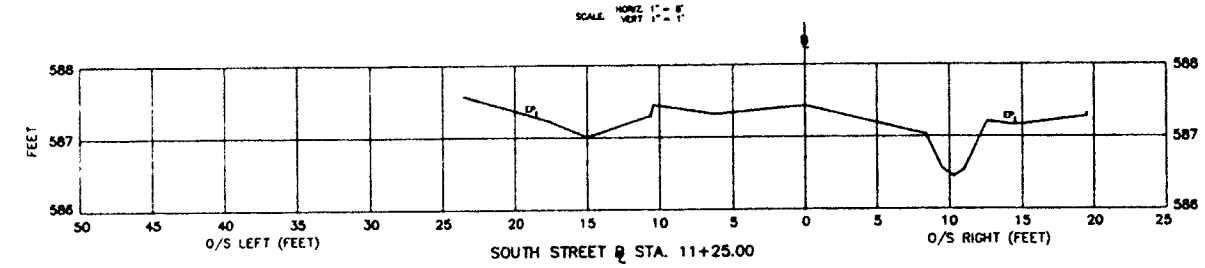
SOUTH STREET ℄ STA. 9+45.27 (BISECTED P.I. ANGLE)

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



SOUTH STREET ℄ STA. 10+20.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'



SOUTH STREET ℄ STA. 11+25.00

SCALE: HORIZ. 1" = 5' VERT. 1" = 1'

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

NO.	DATE	REVISION	BY	APPD.

STATE OF NEW YORK · PETER J. WILKS · NO. 048815 · LICENSED LAND SURVEYOR

Peter J. Wilks

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

FOX STREET ℄ AND SOUTH STREET ℄

DWN. J.J.VALERY | CHK. C.P.S. | APPD. P.J.W. | CAD FILE No. 1/2

DATE 7/14/88
SCALE NOTED
JOB NO. 88E-011

WENDEL
BUFFALO, NY · LOCKPORT, NY

1 of 3

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LEGEND

- ⊕ – EMBANKMENT SOIL BORING
- ⊕ – VACANT LOT SOIL BORING
- ⊕ – BACK YARD SOIL BORING
- ⊕ – FRONT YARD SOIL BORING
- ⊕ – ASPHALT SOIL BORING
- ⊕ – OPEN AREA SOIL BORING
- ⊕ – WET LANDS SOIL BORING
- ⊕ – SEWER TRENCH SOIL BORING
- ⊕ – EXISTING MONITORING WELL
- ⊕ – EXISTING MONITORING WELL
- – POWER POLE
- – GAS VALVE
- – WATER VALVE
- – GAS LINE MARKER
- – GAS METER
- – MAN HOLE
- – DROP INLET
- – CULVERT PIPE
- – MATCH LINE

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NO.	DATE	REVISION	BY	APPD
1	11/3/88	GENERAL REVISIONS	CB	[illegible]

STATE OF NEW YORK · PETER J. WALSH · No. 049411 · LICENSED LAND SURVEYOR

WIDE BEACH

TOWN OF BRANT
COUNTY OF ERIE, N.Y.
ROADWAY CROSS SECTIONS

PAVEMENT AND POINT DESCRIPTIONS

DWN. J.J. VALERY | CHK. [illegible] | APPD. [illegible]

CAD FILE No. 1 / 6
DATE 8/10/88
SCALE 1" = 20'
JOB NO. 86E-011

WENDEL
BUFFALO, NY · LOCKPORT, NY

9 of 9

SECTION III

BORING LOGS

BORING LOG LOCATIONS:

Locations of borings are shown on drawing WB-03 and WB-04. The letter suffix for "ST" borings are identified as follows:

A - Boring over sewer (middle boring)

B - Boring nearest centerline of roadway

C - Boring furthest from centerline of roadway

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION
GW DEPTH (FT) ~7ft
TOTAL DEPTH 7ft
DATE START 12/13/86 DATE COMPLETE 12/13/86

BORING NO. EN-01 SHEET 1 OF
DRILLER Kimball
FIELD ENGINEER T. Witthauer
DATE/ HOUR/ AM-PM 12/13/86, 15:10

DEPTH FEET	BLOWS PER 6 IN INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1	1 2 4 11		33			Brown and Orange silty clay with trace gravel										Simco 4000 Drill Rig
2																
3																
4																
5	15 15 20 15	EN-01-02	25			Top 2" wet brown silty clay Bottom 4". pk grey fractured shale										
6																
7						Water table ~7ft Terminate boring due to Bedrock										

BORING TERMINATE AT _____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) not Encountered
TOTAL DEPTH 5.5 ft
DATE START 12/13/86 DATE COMPLETE 12/13/86 FIELD ENGINEER T. Mitover

BORING NO. EN-02 SHEET 1 OF 1
DRILLER Kimball
DATE/ HOUR/ AM-PM 12/13/86, 14:37

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
							BOREHOLE			SAMPLE						
1	1 1 6 7	EN-02-2	50			4" Dk brown silt w/some clay, moist 8" orange-brown silty clay										Simco 4000 Drill Rig
2																
3																
4						-3.5 ft → Hit gray weathered shale										
5	16 55/6		30			grey green weathered shale										
6						Terminate boring due to Bedrock										
7																
8																

BORING TERMINATE AT _____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION
GW DEPTH (FT) NE
TOTAL DEPTH 7ft
DATE START 12/13/86 DATE COMPLETE 12/13/86
FIELD ENGINEER T. Mitchover
BORING NO. EN-03
DRILLER Kimball
SHEET 1 OF
DATE/HOUR/AM-PM 12/13/86, 14:20

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L, M, N, O)	REMARKS (P)
							BOREHOLE			SAMPLE			
1	1 2 3 9	EN-03-02	50			Top 3" AK brown moist Silt w/some Clay Bottom 8" Orange and brown silty Clay							Simco 4000 Drill Rig
2													
3													
4						Shale encountered at (4.5')							
5	55/6		100			5.0-5.5 → Grey green weathered shale							
6													
7						Terminate Sampling at 5.5 ft due to Bedrock/refusal							

BORING TERMINATE AT _____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) not Encountered
TOTAL DEPTH 5.5 ft
DATE START 12/13/86 DATE COMPLETE 12/13/86

BORING NO. EN-04 SHEET 1 OF 1
DRILLER Kimball
FIELD ENGINEER T. M. Hower
DATE/ HOUR/ AM-PM 12/13/86, 12:53

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1		EN-04-02				moist DK brown silty clay sand w/trace coarse sand grading to orange + brown mottled silty clay										Simco 4000 Drill Rig
2			33													
3																
4						4.8' - Encountered Bedrock										
5	55		100			grey green weathered shale										
6						Terminate spoon at 5.5' due to refusal										
7																

BORING TERMINATE AT _____ FT

EBASCO BORING NO. -

SUMMARY LOG OF BORING

PROJECT: W.R. Beach
ELEVATION: ____ GW DEPTH (FT): ____
TOTAL DEPTH: 5.5 ft
DATE START: 12/13/86 DATE COMPLETE: 12/13/86

BORING NO.: FEN-05 SHEET 1 OF 1
DRILLER: Kimball
FIELD ENGINEER: T. Mithower
DATE/ HOUR/ AM-PM: 12/13/86, 13:25

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALYZER (PPM) (I)	ORGANIC VAPOR ANALYZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L, M, N, O)	REMARKS (P)
1	1					0.5'-2.5' → 2" brown silty clay, wet then orange and grey clay with silt.							Simco 4000 Drill Rig
	1												
2	3		75										
	10												
3													
4		Rock-2											
5	50/6		100			5.0'-5.5' → grey green weathered shale							
6						Terminate sampling at 5.5' due to spoon refusal and bedrock							
7													

BORING TERMINATE AT ____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH 6 Ft
DATE START 12/13/86 DATE COMPLETE 12/13/86

BORING NO. EN-06 SHEET 1 OF 1
DRILLER Kimball
FIELD ENGINEER T. Mittower
DATE/ HOUR/ AM-PM 12/13/86, 13:45

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	RESULTS (PPM) (L)	(M)	(N)	(O)	REMARKS (P)
						0.5'-2.5' → Top 3" - dark brown silt and clay with trace roots										Simco 4000 Drill Rig
1	1															
	1															
2	4					Bottom 5" - brown and orange silty clay										
	5		33													
3																
4																
5						5.0'-6.0' → Top 4" brown silt w/some clay										
	26	EN-06-2				Bottom 2" gray weathered shale										
6	65/6		100													
7						Terminate boring at 6' due to refusal of spoon and bedrock										

BORING TERMINATE AT _____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION
GW DEPTH (FT) Not Encountered
TOTAL DEPTH 5.5 Ft
DATE START 12/13/86
DATE COMPLETE 12/13/86
FIELD ENGINEER T. M. Hower

BORING NO. EN-07
SHEET 1 OF 1
DRILLER Kimball
DATE/ HOUR/ AM-PM 12/13/86

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1	1 3					0.5-2.5 → 3" of dark brown clay w/some silt, followed by brown and orange mottled silty Clay										Simco 4000 Drill Rig
2	5 5		33													
3																
4		EN-07-2														
5	70		100			5.0-5.5 → 1" dark brown silty clay followed by grey green weathered shale										
6						Terminate boring at 5.5 ft due to refusal and bedrock										

BORING TERMINATE AT _____ FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT: Wide Beach
ELEVATION: ____ GW DEPTH (FT): ____
TOTAL DEPTH: 10ft
DATE START: 12/13/86 DATE COMPLETE: 12/13/86

BORING NO. EN-08
DRILLER: Kimball
FIELD ENGINEER: J. Mitsner
DATE/ HOUR/ AM-PM: 11:05, 12/13/86

SHEET 1 OF 1

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1	2 5 7 10	EN-08-2				.5-2.5' → brown silty clay.										Simco 4000 Drill Rig
2																
3																
4																
5	50		100			5'-6' → 4" Dark brown silty clay w/trace of orange silty clay followed by weathered Shale.										
6																
7																
8																
9																
10						Augered through weathered bedrock to 10ft.										

BORING TERMINATE AT ____ FT

EBASCO BORING NO. ...

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/9/86 DATE COMPLETE 12/9/86

BORING NO. EN-9 SHEET 1 OF
DRILLER Kimball
FIELD ENGINEER P. Cuide
DATE/ HOUR/ AM-PM 12/9/86, 12:2

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1	1					0-2 - 5" of LT Brown fine silty sand followed by Grey and Brown mottled clay, trace silt. Wet, Loose										5 inro 40:0 Drilling
	3															SS #1 - 12:35 no recovery
	3		50													2 attempts made
2																
3																SS #2 - 12:45
4																
5	6	EN				5-7' - Same as above. Trace gravel Wet.										
	9															
6	12	9-02	100													
	13															
7																SS #3 - 12:55
8																
9																
10	9					10-11 ft - Same as above - weathered shale encountered at 11 Ft. Terminate boring due to bedrock.										13:00 → Terminate boring
	30		100													
11	30															
12	34															
13																
14																
15																

BORING TERMINATE AT _____ FT

EBASCO BORING NO. ____

SUMMARY LOG OF BORING

PROJECT: Wide Beach
ELEVATION:
GW DEPTH (FT): 3½ ft
TOTAL DEPTH:
DATE START: 12/1/86 DATE COMPLETE: 12/1/86
FIELD ENGINEER: P. Conde

BORING NO.: EN-10 SHEET 1 OF
DRILLER: Kimball Associates
DATE/ HOUR/ AM-PM: 12/1/86, 11:30

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L, M, N, O)	REMARKS (P)
						0-2ft → Brown Clayey Silt, little gravel Trace Fine Sand, ~~wet~~ moist. Loose							Simco 4000 Drill Rig.
1	1 3 3 2	EN-10 2	50										S.S. #1 -11:35
2													
3						4ft → encountered a brown clay, little Fine Sand. moist – Auger Cuttings							3½" x 1½" (Augers
4													
5	1 1					5-7ft – Grey and Brown mottled Clay. Trace Silt, Trace gravel. wet. Loose							SS #2 11:45
6	2 4		50										
7													
8													
9													SS #3-12:00
10	12 30 33 41		75			10-12ft → Same as above then turning to weathered grey shale fragments							
11													
12						Augered down to 15ft → alternating layers of Hard and decomposed grey shale. Fractures in shale introduced a lot of ~~cuttings~~ water in hole.							12:18 = Terminate boring at 15ft due to bedrock.
13													
14													
15													

BORING TERMINATE AT EN-1 15 FT

Water at 3½ ft upon termination of Drilling.

EBASCO BORING NO. EN-1

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-1A SHEET 1 OF
DRILLER Kimball Ass.
FIELD ENGINEER J. Strickland
DATE/ HOUR/ AM-PM 12/12/86 1500

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
						Did Not Count Top 6"										Begin Drilling AT. 1500
1	10 15	ST-1A-1	33%			Brown Sand and Gravel										ST-1A-1 - 1511
2	17 6					0.6-2.5										
3	4 5	ST-1A-2	33%			Brown Silt and Clay.										ST-1A-2 - 1515
4	6 7					2.5-4.5										
5						Terminate Sample Spoon at. 4.5'										
						* No Auger Used.										

BORING TERMINATE AT 4.5 FT

EBASCO BORING NO. -

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-18 SHEET ____ OF
DRILLER Kimball Ass.
FIELD ENGINEER J. Stockland
DATE/ HOUR / AM-PM 12/12/86 1604

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
																Begin Drilling AT. 1604
-1																
-2																
-3																
-4																
-5	5															
	3	ST-18-1	75%			Brown Silt and clay.										
-6	5															ST-18-1- 1613
	6															
-7	16															
	17	ST-18-2	100%			18" of Sand and clay										
-8	18															ST-18-2 - 1619
	19					6" Brown clay										
-9						Auger Terminated AT 6.5 ft. Spoon to 8.5 ft.										

BORING TERMINATE AT 8.5 FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-1C SHEET ____ OF
DRILLER Kimball Ass
FIELD ENGINEER J. Strickland
DATE/ HOUR / AM-PM 12/12/86 - 1540

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR Hnu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
																Bayu Drilling AT. 1540
1																
2																
3																
4																
5	2	ST-1C-1	100%			Brown fine Silt and clay										ST-1c-1 - 1548
6	4 5 10															
7	4	ST-1c-2	100%			Brown Sand and Clay										ST-1c-2 - 1553
8	8 10 8															
9						Terminate Sample Spoon at. 8.5 BT.										

BORING TERMINATE AT 8.5 FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-2A SHEET ____ OF
DRILLER Kimball Ass.
FIELD ENGINEER J. Strickland
DATE/ HOUR/ AM-PM 12/12/86 1215

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
						Did not Count Top 6".										Begin Drilling At. 1219
1	12 5 13	ST-2A-1	33%			Brown Fine Silt with gravel 0.5-2.0										ST-2A-1 - 1230
3	3 6 3 5	ST-2A-2	50%			Brown Silt and Sand 2.0-4.0										ST-2A-2 - 1237
5	2 2 3 3	ST-2A-3	50%			Brown Silty Clay 4.0-6.0										ST-2A-3 - 1251
7						Terminate Auger at 4.0 ft. Split Spoon depth to. 6.0 ft.										

BORING TERMINATE AT 6.0 FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-2B SHEET ____ OF
DRILLER Kimball Ass.
FIELD ENGINEER J. Strickland
DATE/ HOUR/ AM-PM 12/12/86 1340

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
						0.0-0.5 Asphalt.										Begin Drilling At. 1340
1																
2																
3																
4																
5																
6																
7	6 9 14 20	ST-2B-1	100%			Brown fine SILT with Some Clay 6.0-8.0										ST-2B-1 · 1353
9	4 5 8 8	ST-2B-2	20%			Brown fine SILT With Some clay 8.0-10.0										ST-2B-2 · 1401
10						Terminate Auger At 8.0 ft. " Spoon " 10.0 ft.										

BORING TERMINATE AT 10.0 FT

EBASCO BORING NO. ...

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86 FIELD ENGINEER J. Strickland

BORING NO. ST-2C SHEET ____ OF
DRILLER Kimball Ass.
DATE/ HOUR/ AM-PM 12/12/86 1305

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
																Begin Drilling AT 1305
1																
2																
3																
4																
5																
6																
7	4 6 13 16	ST-2C-1	75%			Brown and Light Brown Silt with Some clay										ST-2C-1 - 1315
8						6.0-8.0										
9	4 8 10 13	ST-2C-2	50%			SAME As Above.										ST-2C-2 - 1323
10						8.0-10.0										
						Terminate Auger at 8.0 ft										
						" Spoon " 10.0 ft.										

BORING TERMINATE AT 10.0 FT

EBASCO BORING NO. -

SUMMARY LOG OF BORING

PROJECT: Wide Beach
ELEVATION: ____ GW DEPTH (FT): ____
TOTAL DEPTH: 8 Ft
DATE START: 12/10/86 DATE COMPLETE: 12/10/86

BORING NO.: ST-4A SHEET 1 OF 1
DRILLER: Kimball Associates
FIELD ENGINEER: P Conde
DATE/ HOUR/ AM-PM: 12/10/86, 10:3?

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L, M, N, O)	REMARKS (P)
						0-6" → Asphalt							Sinco 4000 Drill Rig
1	20 32 22 15	ST 4A 1	50			0½ – 2½ → miscellaneous Fill → med Sand and gravel with intermittent clumps (½" ⌀) of greyish brown mottled clay, dry, dense							ST-4A-1 → 11:05
2													ST-4A-2 → 11:15
3	8 7 5 4	ST 4A 2	25			2½ – 4½ → Same as above – Softer water noted at ~3 Ft							ST-4A-3 → 11:20
4													
5	2 2 2 2	ST 4A 3	25			4½ – 6½ → Same as above – 60% gravel softer							
6													
7	2 2 2	~~ST 4A~~	0			6½ – 8.0' → no recovery – no additional Attempt needed at my discretion							11:30 – Terminate Boring
8		missample											
9						Terminate sampling at 8 Ft with Augers down to 6½ Ft							
10													
													Terminate Boring in order to not damage sewer pipe.

BORING TERMINATE AT 8 Ft FT

EBASCO BORING NO. ST-4A

SUMMARY LOG OF BORING

PROJECT: Wide Beach
ELEVATION: ____ GW DEPTH (FT): ____
TOTAL DEPTH: 12FT
DATE START: 12/10/86 DATE COMPLETE: 12/10/86

BORING NO.: ST-4B
DRILLER: Ricabo
FIELD ENGINEER: P Conde
DATE/ HOUR/ AM-PM: 12/10/86 13:30

SHEET 1 OF 1

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L)	(M)	(N)	(O)	REMARKS (P)
1																J. 3' South of ST-4A
2																
3																
4																
5																
6																
7																
8						8-10' - no recovery - piece of Asphalt caught in spoon										
9	3 5 15 6	~~ST-4B~~														~~ST-4B / 9-12 44~~
10						10-12' - 6" orange brown Silty Clay grading into Grey Clay. 6" of fractured grey shale at end of spoon, wet, Loose										ST-4B-R → 14:14
11	7 5 10 11	ST 4B-11														
12						Terminate Boring at 12 ft with Augers at 10ft										

BORING TERMINATE AT 12 FT

EBASCO BORING NO. ____

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH 12 Ft
DATE START 12/10/86 DATE COMPLETE 12/10/86

BORING NO. ST-4B SHEET 1 OF 1
DRILLER Kiball
FIELD ENGINEER P. Conde
DATE/ HOUR/ AM-PM 12/10/86, 11:40

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR NM (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
1						0-6" Asphalt Augering to 6ft for sampling due to failed attempt at that interval in Boring ST-4A (see Boring Log)										Simco 4000 Drill Rig 4.0' North of ST-4-A
6	1 3 4 5	ST 4B 1	60			6-8ft → gray brown mottled clay, High Plasticity, moist loose										ST-4B-1 - 12:30
8	1 2 3 4	ST 4B-2	100			8-10ft → Same as above, moist										ST-4B-2 - 12:42
10	2 2 10 10	ST 4B-3	80			10-12ft → Same as above, some gravel wet. → shale (gray) fractured, found in end of spoon										ST-4B-3 - 15:55
12						Terminate Boring due to achieving specified depth. Augers at 10ft.										

BORING TERMINATE AT 12 FT

EBASCO BORING NO. ____

SUMMARY LOG OF BORING

PROJECT: Wide Beach
ELEVATION: ____ GW DEPTH (FT): ~4 Ft
TOTAL DEPTH: ~~[illegible]~~ 10.5 Ft
DATE START: 12/11/86 DATE COMPLETE: 12/11/86

BORING NO. ST-5A SHEET 1 OF 1
DRILLER: Kimball
FIELD ENGINEER: P. Conde
DATE/HOUR/AM-PM: 12/11/86, 12:05

A DEPTH FEET	B BLOWS PER SIX INCHES	C SAMPLE NO.	D PERCENT RECOVERY	E GEOLOGY	UNIFIED SOIL CLASSIFICATION	F MATERIAL CLASSIFICATION	G LOWER EXPLOSIVE LIMIT (%)	H PHOTO IONIZATION DETECTOR HNu (PPM)	I ORGANIC VAPOR ANALIZER (PPM)	J ORGANIC VAPOR ANALIZER (PPM)	K LABORATORY SAMPLE NO.	L	M	N	O	P REMARKS
						0-0.5' → Asphalt										Simco 4000 Drill Rig
1	25 44 45 37	1-4.5-15	33			0.5'-2.5' → Fine sand and gravel / fill, dry.										ST-5A-1 → 12:09
3	9 12 8 7	2-4.5-15	90			2.5'-4.5' - Same as above, dry										ST-5A-2 · 12:20
5	4 9 6 6	3-4.5-15	25			4.5'-6.5' Same as above, WET										ST-5A-3 · 12:25
7	4 5 6 3	4-4.5-15	40			6.5'-8.5' Same as above, saturated										ST-5A-4-12:30
9	4 2 2 2	~~[illegible]~~	0			8.5'-10.5' - no recovery										~~[illegible]~~
						Terminate Boring at 10.5 Ft (Specified Depth)										Boring offset 1.2 feet from center line of Trench

BORING TERMINATE AT 10.5 FT

EBASCO BORING NO. ST-5A

SUMMARY LOG OF BORING

PROJECT Wilco Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH 10.0 Ft
DATE START 12/11/86 DATE COMPLETE 12/11/86

BORING NO. ST-5B SHEET 1 OF 1
DRILLER Kimball
FIELD ENGINEER P. Cook / J. Strickland
DATE/ HOUR/ AM-PM 12/11/86, 13:20

DEPTH FEET	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
						0 – 0.5' Ft → Asphalt										Simco 4000 Drill Rig
1						Augering to 10 Ft. Encountering very hard material for the first 3 Ft composed of fine Sand and Gravel. dry										ST-5B Located _ Ft W
2																from OF ST-5A
3						from 3 ft → 10 ft - brown and secondarily										
4						grey mottled Clay										
5																
6																
7																
8																
9																
10	60	ST-5B-1				10 – 12' → no sample due to Bedrock at										ST-5B-1
11			0			10 Ft. Gray weathered and fractured shale.										13:41 - no recovery and refusal due to
12		~~ST-5B-2~~				~~Drilling~~										~~ST-5B-2~~ Bedrock
13																
14						Terminate Boring at 10.0 Ft.										

BORING TERMINATE AT 14.0 FT

EBASCO BORING NO. ST-5B

SUMMARY LOG OF BORING

PROJECT Wike Beach
ELEVATION 11.2 Ft GW DEPTH (FT) NOT measured
TOTAL DEPTH ~~14.0 Ft~~
DATE START 12/11/86 DATE COMPLETE 12/11/86

BORING NO. ST-5C SHEET ____ OF
DRILLER Kimball
FIELD ENGINEER P. Conde
DATE/ HOUR/ AM-PM 12/11/86, 12:55

DEPTH (FT)	BLOWS PER SIX INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR mm (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	LABORATORY TESTS RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
						0-0.5' → Asphalt										SIMCO 4000
1						Augering to 10 Ft. Cuttings are										Drill Rig
12						composed of fine sand and gravel.										ST-5C Located 49 ft E
3																of ST-5A
4																~~ST~~
5																
6																
7																
8																
9																
10	20	1-25-16				10'-11' 4" → Gray Brown Mottled Clay, Saturated										ST-5C-1-15:06 →
11	65		25			then Fractured gray shale										refusal at spoon at
	CO/ .2d															11.2' due to Bedrock
12																
13																
14						Terminate Boring at ~~14.0~~ 11.2 Ft. Bedrock										

BORING TERMINATE AT 14.0 FT

EBASCO BORING NO. 14.0

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST. 7A SHEET ____ OF
DRILLER Kimball Assoc.
FIELD ENGINEER J. Strickland
DATE/ HOUR/ AM-PM 12/12/86 0905

DEPTH FEET (A)	BLOWS PER SIX INCHES (B)	SAMPLE NO. (C)	PERCENT RECOVERY (D)	GEOLOGY (E)	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION (F)	LOWER EXPLOSIVE LIMIT (%) (G)	PHOTO IONIZATION DETECTOR HNu (PPM) (H)	ORGANIC VAPOR ANALIZER (PPM) (I)	ORGANIC VAPOR ANALIZER (PPM) (J)	LABORATORY SAMPLE NO. (K)	LABORATORY TESTS RESULTS (PPM) (L)	(M)	(N)	(O)	REMARKS (P)
						0.0-0.5' Asphalt.										Begin Drilling AT. 0905
1	27 30 27	ST-7A-1	95%			Brown fine Sand and gravel 0.5-2.0										ST-7A-1 - 0912
2 3	17 18 10 6	ST-7A-2	75%			Brown Silt and Sand w/ 10% gravel 2.0-4.0										ST-7A-2 - 0918
4 5	1 1 1 1	ST-7A-3	50%			6" of Sand and gravel 6" of Brown Silty clay w/ 10% organic mat. 4.0-6.0										ST-7A-3 - 0928
6 7 8 9 10						Terminate Auger at 4.0 ft. " Spoon " 6.0 ft.										

BORING TERMINATE AT 6.0 FT

EBASCO BORING NO.

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-7B SHEET ____ OF
DRILLER Kimball ASS.
FIELD ENGINEER J. STRICKLAND
DATE/ HOUR/ AM-PM 12/12/86 0932

DEPTH FEET	BLOWS PER 6 IN. INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR HNu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
																Begin Drilling At. 0932
1																
2																
3																
4																
5																
6																
7	2 2	ST-7B-1	100%			Fine Brown Silty clay.										ST-7B-1 - 0938
8	4 3					6.0-8.0										
9	8 12	ST-7B-2	100%			Brown Silty clay with fractured Shale										ST-7B-2 - 0958
10	16 24					8.0-10.0										
						Terminate Auger at. 8.0 ft.										
						" Spoon " 10.0 ft.										

BORING TERMINATE AT 10.0 FT

EBASCO BORING NO. -

SUMMARY LOG OF BORING

PROJECT Wide Beach
ELEVATION _____ GW DEPTH (FT) _____
TOTAL DEPTH _____
DATE START 12/12/86 DATE COMPLETE 12/12/86

BORING NO. ST-7C SHEET ____ OF
DRILLER Kimball Agg.
FIELD ENGINEER J. Strickland
DATE/ HOUR/ AM-PM 12/12/86 1025

DEPTH FEET	BLOWS PER SIZE INCHES	SAMPLE NO.	PERCENT RECOVERY	GEOLOGY	UNIFIED SOIL CLASSIFICATION	MATERIAL CLASSIFICATION	LOWER EXPLOSIVE LIMIT (%)	PHOTO IONIZATION DETECTOR Hnu (PPM)	ORGANIC VAPOR ANALIZER (PPM)	ORGANIC VAPOR ANALIZER (PPM)	LABORATORY SAMPLE NO.	RESULTS (PPM)				REMARKS
							BOREHOLE			SAMPLE						
A	B	C	D	E		F	G	H	I	J	K	L	M	N	O	P
																Begin drilling AT. 1025
1																
2																
3																
4																
5																
6																
7	2 2 3 4	ST-7C-1	75%			Light Brown Silty clay 6.0-8.0										ST-7C-1 - 1030
8																
9	1 1 13 40	ST-7C-2	75%			Brown Silty clay w/ fractured gray weathered Shale 8.0-10.0										ST-7C-2 - 1037
10						Terminate Auger at 8.0 ft. " Spoon " 10.0 ft.										

BORING TERMINATE AT 10.0 FT

EBASCO BORING NO. ___

SECTION IV

SOIL ANALYSIS DATA

SOIL ANALYSIS SAMPLE LOCATIONS:

The Sample Identification number provided on each Lab Analysis Report attached corresponds to the sample number from the boring logs of Engineering Borings (EN) provided in Section III.

NUS CORPORATION

LABORATORY SERVICES DIVISION

5350 CAMPBELLS RUN ROAD • PITTSBURGH, PA 15205
412-788-1080

APR 1 5 1988

January 9, 1987

RECEIVED

JAN 12 1987

THOMAS GRANGER
ENVIROSPHERE COMPANY

Mr. Jon Gabry
Envirosphere Company
160 Chubb Road
Lyndhurst, New Jersey 07071

SUBJECT: Analytical Report
Wide Beach Site - WA NO. 86-2646

Dear Mr. Gabry:

I am enclosing the analytical report for the ten samples which we received from this site on December 26, 1986. The following methods were used to perform this analysis:

Grain Size	ASTM D422
Moisture Content	ASTM D2216
Atterburg Limit	ASTM D4318

The report includes the original chain of custody form, phone notes concerning this project, the analytical report, the copies of the calculations and the copies of the grain size curves.

If you have any questions concerning this report, please contact John Lehman, Supervisor of the Geotechnical Laboratory.

Very truly yours,

Joanne M. Cosgrove

Joanne M. Cosgrove
Assistant Laboratory Manager

JMC/cml

Enclosures

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON GABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121769
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WR-EN-01-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	28	
S706	Plastic Limit	23	
S707	Plastic Index	5	
S700	Moisture Content (Soil)	19.0	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
1"	100.0
3/4"	87.4
1/2"	74.1
3/8"	65.9
No. 4	52.9
No. 10	41.2
No. 40	28.7
No. 60	26.5
No. 200	23.0

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.022	16.9
.007	9.6
.001	3.9

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

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Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071

REPORT DATE: 01/09/87

ATTENTION: MR.JON GABRY

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121790
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WB-EN-02-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	27	
S706	Plastic Limit	22	
S707	Plastic Index	5	
S700	Moisture Content (Soil)	24.1	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/8"	100.0
No. 4	99.6
No. 10	98.7
No. 40	96.1
No. 60	94.4
No. 200	87.6

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	52.3
.006	38.7
.001	19.1

JCL

COMMENTS:

Reviewed and Approved by: JMC

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LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON GABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121791
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WB-EN-03-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	29	
S706	Plastic Limit	23	
S707	Plastic Index	6	
S700	Moisture Content (Soil)	22.7	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/4"	100.0
1/2"	96.9
3/8"	96.2
No. 4	92.3
No. 10	89.3
No. 40	86.3
No. 60	84.5
No. 200	72.2

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	47.3
.006	31.6
.001	15.5

JCL

COMMENTS:

Reviewed and Approved by: JMC

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Pittsburgh, PA 15205

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Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON DABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121792
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WB-EN-04-2 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	32	
S706	Plastic Limit	26	
S707	Plastic Index	6	
S700	Moisture Content (Soil)	22.5	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/8"	100.0
No. 4	99.6
No. 10	99.0
No. 40	96.2
No. 60	94.1
No. 200	86.1

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.020	61.2
.006	39.6
.001	17.2

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071

ATTENTION: MR.JON GABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121793
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: NB-EN-05-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	31	
S706	Plastic Limit	21	
S707	Plastic Index	10	
S700	Moisture Content (Soil)	9.1	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/4"	100.0
1/2"	96.5
3/8"	91.6
No. 4	84.6
No. 10	69.6
No. 40	58.2
No. 60	56.1
No. 200	51.2

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	36.6
.007	20.9
.001	8.5

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
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Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON DABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121794
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: NB-EN-06-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	29	
S706	Plastic Limit	22	
S707	Plastic Index	7	
S700	Moisture Content (Soil)	9.0	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
1/2"	100.0
3/8"	99.4
No. 4	93.8
No. 10	80.0
No. 40	67.4
No. 60	64.5
No. 200	58.7

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	41.3
.007	23.2
.001	9.0

JEL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON GABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121795
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WB-EN-07-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	29	
S706	Plastic Limit	21	
S707	Plastic Index	8	
S700	Moisture Content (Soil)	16.0	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/4"	100.0
1/2"	85.1
3/8"	76.8
No. 4	59.4
No. 10	41.4
No. 40	26.5
No. 60	23.9
No. 200	20.2

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.023	13.1
.007	7.8
.001	2.6

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071

REPORT DATE: 01/09/87

ATTENTION: MR.JON GABRY

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121796
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: NB-EN-08-2 SEDIMENT 12/13

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	30	
S706	Plastic Limit	23	
S707	Plastic Index	7	
S700	Moisture Content (Soil)	29.7	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/8"	100.0
No. 4	99.9
No. 10	99.5
No. 40	97.3
No. 60	94.7
No. 200	89.7

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	51.3
.006	35.8
.001	18.3

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071

REPORT DATE: 01/09/87

ATTENTION: MR.JON GABRY

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121797
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: WB-EN-09-2 SEDIMENT 12/09

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	31	
S706	Plastic Limit	22	
S707	Plastic Index	9	
S700	Moisture Content (Soil)	20.9	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
1"	100.0
3/4"	98.6
1/2"	97.8
3/8"	97.4
No. 4	96.6
No. 10	95.3
No. 40	91.5
No. 60	88.2
No. 200	83.3

HYDROMETER ANALYSIS:

Partticle Size (mm)	% Passing
.020	58.7
.006	35.3
.001	16.6

JCL

COMMENTS:

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: ENVIROSPHERE CO.
ADDRESS: 160 CHUBB AVE.
LYNDHURST NJ 07071
ATTENTION: MR.JON GABRY

REPORT DATE: 01/09/87

NUS CLIENT NO: 160512
NUS SAMPLE NO: 16121798
VENDOR NO:
WORK ORDER NO: 471Y
DATE RECEIVED: 12/29/86

SAMPLE IDENTIFICATION: NB-EN-10-2 SEDIMENT 12/09

TEST	DETERMINATION	RESULTS	UNITS
S500	LIQUID AND PLASTIC LIMIT		
S705	Liquid Limit	31	
S706	Plastic Limit	23	
S707	Plastic Index	8	
S700	Moisture Content (Soil)	23.5	%
S711	Grain Size(Sieve & Hydrometer)		

GRAIN SIZE ANALYSIS:

Sieve Size	% Pass
3/4"	100.0
1/2"	97.7
3/8"	93.6
No. 4	87.2
No. 10	81.3
No. 40	72.7
No. 60	67.0
No. 200	57.9

HYDROMETER ANALYSIS:

Particle Size (mm)	% Passing
.021	42.0
.007	26.5
.001	14.1

JAL

COMMENTS:

Reviewed and Approved by: JMC