

REPORT

**GEOPHYSICAL INVESTIGATION RESULTS
CLOTHIER SITE**

Clothier Disposal Site Settling Defendants

Granby, New York

November 1994



BLASLAND, BOUCK & LEE, INC.
ENGINEERS & SCIENTISTS



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November 2, 1994

Mr. Herbert King
U.S. Environmental Protection Agency
26 Federal Plaza, Room 29-102
New York, NY 10278

Re: Clothier Disposal Site

File: 0631.63101 #2

Transmitted Via: Federal Express
Pages Sent: 1 w/enclosure

Dear Mr. King:

On behalf of the Clothier Disposal Site Settling Defendants, we are forwarding to you one copy of the Clothier Disposal Site Geophysical Investigation Results. If you have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron
Vice President



PTF/mbl
Enclosure
2794842II

cc: Mr. Frank Tsang, ENSEARCH, Inc.
Mr. John May, New York State Department of Environmental Conservation
Clothier Disposal Site Technical Committee



Geophysical Investigation Results Clothier Site

Clothier Disposal Site Settling Defendants
Granby, New York

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1.0 Introduction



1.0 Introduction

1.1 General

This document presents a summary of field activities, data evaluation and conclusions regarding a geophysical investigation conducted at the Clothier Disposal Site (the Site), in Granby, New York. The geophysical investigation was conducted on behalf of the Clothier Disposal Site Settling Defendants (Settling Defendants) by Blasland, Bouck & Lee, Inc. (BB&L) in September, 1994. The field work was performed in accordance with a September 1, 1994 United States Environmental Protection Agency (EPA)-approved Geophysical Investigation Work Plan ("Work Plan").

BB&L has been retained by the Settling Defendants to provide monitoring, inspection, and maintenance services at the site as described in the EPA-approved Remedial Design/Remedial Action Report (BB&L, June 1993). BB&L conducted the initial combined site inspection and monitoring event at the site on April 26, 1994. During that site inspection and monitoring event a small area (approximately 4-inches wide by 4-feet long) of the soil cover (installed as part of the remedial action) was noted to be stained with a black, odorous material. Based on the analytical results from a sample of the stained soils, EPA requested that an additional investigation be performed to identify the source of the staining.

On June 10, 1994, BB&L conducted an investigation to identify the source of the black staining at the site in accordance with a June 8, 1994 EPA-approved work plan. The field activities related to the investigation were observed by Mr. John May of the New York State Department of Environmental Conservation (NYSDEC). Pursuant to the work plan, a manual excavation (using shovels) was initiated at the stained soil area followed by excavation with a rubber tire backhoe. During the investigation, three buried steel drums were confirmed to be present below the soil cover that was installed as part of the site remediation (i.e., approximately 1.5 to 3.0 feet below grade). EPA requested that the Settling Defendants remove the drums and perform a geophysical investigation in the vicinity of the newly-identified drums. The Settling Defendants agreed to perform both tasks.



On behalf of the Settling Defendants, BB&L prepared a work plan describing a proposed geophysical survey at the Site. The purpose of the geophysical survey was to supplement previous geophysical investigations performed by EPA contractors (described below in Section 2.2). The September 1, 1994 "Geophysical Investigation Work Plan" was approved by EPA and the geophysical survey was performed on September 8, 1994. On October 27, the three previously identified drums were removed and placed in overpacks. The purpose of this report is to analyze the geophysical data collected on September 8.

1.2 Background Information

Site History

Historically, the Clothier Disposal Site was operated as an unlicensed dump, where all manner of debris was deposited by the Site owner, Richard Clothier. In early 1971, a permit application to construct and operate a landfill at the Clothier Disposal Site was submitted by the Site owner to the NYSDEC and the New York State Department of Health. The permit application was denied in April 1971, because the Site was found to be unsuitable for the disposal of solid waste. Notwithstanding this determination, the Site owner continued to dump material at the property. In November 1976, the NYSDEC brought suit against the Site owner for operating an illegal dump. A temporary permit was granted for a period of one year to clean up the site, and at that time, an attempt was made to bury or cover the waste materials dumped on the Site.

Between early 1978 and the spring of 1980, additional efforts were made by the Site owner to clean up the property. Again, these efforts largely entailed burying or covering previously exposed wastes. Nevertheless, disposal of miscellaneous household wastes, roofing shingles, tar paper, and junked automobiles continued unabated through the fall of 1985, when NYSDEC Remedial Investigation (RI) field activities were underway.



During the period from the summer of 1986 to the summer of 1988, a number of PRPs and EPA removed approximately 2,130 drums from the site for disposal. As reported in the EPA's Supplemental RI Report (Ebasco, Inc., August 1988), "all known subsurface drums, particularly those along the embankment slope, have been removed, although refuse and other miscellaneous debris are still present on-site."

Previous Geophysical Investigation

As part of the previous RI activities conducted at the site, a surface geophysical survey was conducted in September-October 1985 by Dunn Geoscience Corporation (Dunn), a subcontractor to URS, Inc. (URS) under contract with the NYSDEC. The findings of the geophysical survey are presented in the Supplemental RI Report (August, 1988) prepared by Ebasco Services, Inc. under contract with EPA; a summary of the findings is presented below.

The geophysical survey methods used by Dunn included magnetometry, terrain conductivity, and seismic refraction. The magnetometer survey was conducted on a 20-foot square grid over the site. The terrain conductivity survey, used to identify buried ferrous material, was limited to a few select locations to further investigate suspect areas and magnetic anomalies identified by the magnetometer data. A seismic refraction survey was also performed to determine subsurface stratigraphy.

As presented in a letter report from Dunn (Appendix A of the Supplemental RI Report), the magnetometer survey (supplemented by the terrain conductivity survey) indicated the following:

"a prominent, 10 to 20 foot wide, segmented, north-south trending linear zone of magnetic anomalies extend[s] from the north edge of the large central drum pile near station 9,440N to the north edge of the study area. The southern segment of the zone is associated with the topographic break at the west edge of the site. The average peak anomaly in the zone is approximately 1,700 gammas and the minimum

ferrous metallic objects. The inference of buried metal at this location is based on either the absence of obvious surface metal, the nature of the anomalies, the presence of partly buried objects, and/or topographic irregularities. Considering the variety of metallic artifacts observed at the site, it is possible that the anomalies are largely caused by metallic objects other than steel containers. The zone provides a basis for selecting test pit locations."

Two distinct areas were identified by Dunn as areas of possible interest for further investigation. Following Dunn's recommendation, EPA excavated three test pits within these on-site areas; specifically on the mounds and ridge in the southwest part of the site (referenced as test pit location CTP-1) and on the slope near 9440 N immediately north of the large central drum pile (CTP-2 and CTP-3). Notably, test pit CTP-2 was located within the area surveyed in the September 1994 geophysical investigation (see Figure 1). The test pits identified the presence of household debris only (e.g., metal, plastic, paper, etc.). These findings are consistent with the history of operations at the Site, which included the disposal of demolition debris, household waste, and junked vehicles. Based on anecdotal evidence from the period of time prior to and during the EPA's removal action in 1985/1986, the Site operator dumped junked vehicle parts, household waste and other debris over the edge of the north-south trending ridge near the western edge of the Site; these materials tumbled down to the toe of the slope where some materials were subsequently covered with soil or other materials.

In addition to the geophysical investigation and test pit work performed in 1985, several soil borings were installed within the soil cover area in 1985, 1986 and 1987 (see Figure 1). It should be noted that none of the soil boring logs presented in the RI indicate that buried drums were encountered.



2.0 September 1994 Geophysical Investigation Results and Interpretation



2.0 September 1994 Geophysical Investigation Results and Interpretation

2.1 General

BB&L conducted a geophysical investigation at the Site on September 8, 1994. The area of the site to be surveyed was established in the work plan, and encompassed the area where the previous magnetometer survey could not be performed due to the presence of above-ground drums and piles of debris during the EPA's removal action. Figure 1 shows the recently surveyed area, as well as adjacent areas investigated during previous geophysical work and the test pits performed in these areas by Dunn in December 1985.

The geophysical investigation was performed using a Geonics EM61 time-domain metal detector. This equipment was selected over magnetometer, terrain conductivity and ground-penetrating radar because it provides for more accurate location of detected electromagnetic anomalies.

A discussion of the EM61 equipment is presented below.

2.2 Description and Limitations of the EM61 Time-Domain Metal Detector

The geophysical investigation completed at the Clothier Disposal site was an electromagnetic (EM) survey using a Geonics EM61 time-domain metal detector. The EM61 transmits a time-varying magnetic field into the ground, and measures the response produced by a secondary magnetic field. Specifically, during the operation of the EM61 equipment, a current is driven through a transmitter loop, which creates a primary magnetic field (electromagnetic induction). The current is cycled on-off-on over one period of measurement. During the off-cycle, a secondary magnetic field caused by

the electromagnetic induction is present in the subsurface. The secondary magnetic field is measured by the EM61 sensors (coils) during the off-cycle and converted to an electrical response expressed in millivolts.

The secondary field is induced briefly in moderately conductive soils, and for a longer time in more conductive metallic objects. The EM61 waits until the response from the soil dissipates, and then measures the prolonged response of the secondary field from conductive metallic objects. The EM61 is able to detect metallic objects, which appear as anomalies in the secondary field response. This results in relatively accurate target location and good identification of multiple targets. EM61 detects both ferrous and non-ferrous metallic objects, but cannot discriminate between different types of metals.

As with all other geophysical methods, the EM61 has certain limitations in identifying the type of object producing the anomaly. Objects of similar size and shape can produce essentially the same response. Metallic debris typically associated with uncontrolled landfilling will be identified as an anomaly, but resolution and identification of specific metallic targets within the debris is not possible with the EM61.

The EM61 survey completed at the Clothier site was performed in accordance with the Geophysical Investigation Work Plan (September, 1994) and the EM61 was operated in accordance with the operating procedures specified by the manufacturer. The EM61 survey was conducted as a screening tool to aid in the identification of areas with possible buried drums or metallic objects. Given the above limitations, any anomalies identified during the geophysical investigation may represent locations that have characteristics of buried metallic objects, and do not necessarily indicate the presence of buried drums.

2.3 Summary of Field Activities

In accordance with the work plan, a grid system was established within the investigation area which consisted of fourteen survey lines (designated 1 through 14) spaced at 20 foot intervals. The survey lines varied in length (east-west) from approximately 60 to 120 feet. Each grid node was marked using a wooden survey stake labelled with an alphanumeric designation which identifies its location relative to the grid. An electromagnetic survey was conducted within the limits of the geophysical investigation area (see Figure 1) using continuous EM61 data acquisition within the survey grid.

Prior to commencing EM61 data acquisition within the investigation area, the operation of the equipment was tested and background measurements were collected from one on-Site and one off-Site location, believed to be free of buried ferrous material and cultural interferences and considered representative of background conditions. The first background location, identified as Background Area 1, was within an agricultural field located north of South Granby Road, approximately 300 feet east of the Site entrance gate. The second background location, identified as Background Area 2, was located along the northern portion of the Site access road, commencing approximately 15 feet south of the Site's main entrance gate (see Figure 1). These background measurements were obtained to serve as a basis of comparison for data collected within the geophysical investigation area.

Data was collected continuously along the 14 survey lines established within the geophysical investigation area. The raw EM61 data were provided to USEPA on September 28, 1994.

2.4 Analysis of Geophysical Investigation Data

The responses measured along each survey line for both channel 1 and channel 2 were compared to the background measurements to identify potential magnetic anomalies. Channel 1 responses are

highly sensitive to shallow or surficial debris. Channel 2 data are less sensitive to near-surface interferences and can be used to minimize the likelihood of occurrence of false positive anomalies resulting from the presence of surficial and near-surface metallic debris. In general, channel 1 anomalies ranged from 2 to 20 times the background response, and channel 2 anomalies ranged from 1 to 4 times the background response (based on Background Area 1 measurements). The measurement from each of the survey lines are summarized in Tables 1, 2 and 3. It should be noted that one anomaly was also identified while obtaining background measurements within the access road to the site (near South Granby Road). The distribution of the anomalies is graphically presented on primary and secondary response contour maps for the channel 1 and channel 2 responses (Figures 2 and 3, respectively).

Based on the primary and secondary response contour maps, anomalies appear to be located predominantly along the western portion of the investigation area in a north/south oriented linear feature. These findings are consistent with the results of the previous geophysical work at the Site, as well as with the anecdotal evidence of the methods of operation employed by the Site owner during previous landfilling activities (i.e., material was placed at the top of the ridge and allowed to tumble down the hill where it may have been covered during attempts to clean up the site in the 1970s and 1980s). In fact, the anomalies located at the northern end of the survey area (in the vicinity of survey lines 11 through 14) were also detected during the previous magnetometer/terrain conductivity work and were used as the basis of locating test pits during the RI field work. As noted above, these test pits uncovered miscellaneous household waste, including metal, plastic, and paper.



3.0 Conclusions

3.0 Conclusions

A geophysical survey using magnetometer and terrain conductivity techniques was performed for USEPA by Dunn Geoscience in 1985. This survey found a north-south trending linear zone of magnetic anomalies near the toe of the slope at the western edge of the site, which was inferred to represent buried metallic objects. Based on observations at the site, Dunn reported that it is possible that the magnetic anomalies are largely caused by metallic objects other than steel drums. The north-south trending zone was the basis for selecting three test pit locations; these test pits encountered buried household debris, including metal, plastic, and paper, and did not encounter any buried drums.

BB&L conducted a geophysical investigation at the site in September 1994 using electromagnetic (EM61) techniques. The EM61 data indicate also the presence of buried metallic debris at the toe of the soil cover slope, in a narrow band oriented in a north/south direction. The data also show that the other portions of the soil cover area included in the geophysical survey are not likely to have buried metallic debris. As to the nature of the metallic debris detected by EM61, test pits and soil borings installed in this general area during previous RI field work did not indicate the presence of buried steel drums; rather, miscellaneous household debris containing metal, plastic and paper was noted in these areas. The similarity of the EM61 findings and the previous magnetometer/terrain conductivity work suggests that the anomalies are caused by miscellaneous debris such as that found in previous test pits.



Tables

TABLE 1
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

BACKGROUND AREA 1
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
1	0	64.50	213.94
1	1	64.69	214.50
1	2	64.50	213.00
1	3	64.31	214.69
1	4	64.69	214.87
1	5	64.87	213.94
1	6	64.12	210.00
1	7	65.44	210.00
1	8	71.44	214.50
1	9	68.62	217.12
1	10	64.31	215.06
1	11	64.12	212.62
1	12	63.56	214.50
1	13	64.31	210.94
1	14	63.37	213.94
1	15	63.94	215.62
1	16	64.50	216.37
1	17	63.94	215.06
1	18	64.12	214.12
1	19	63.75	215.62
1	20	62.62	209.06
1	21	63.37	211.87
1	22	63.94	212.81
1	23	62.81	212.62
1	24	62.81	212.81
1	25	63.75	214.12
1	26	63.75	213.75
1	27	63.37	212.25
1	28	64.12	216.00
1	29	64.12	215.81
1	30	65.06	213.19
1	31	63.75	215.81
1	32	63.56	216.00
1	33	64.69	215.81
1	34	63.37	215.81
1	35	64.69	214.12
1	36	63.37	213.75
1	37	64.31	216.00
1	38	63.56	214.31
1	39	64.31	214.31
1	40	64.87	215.62
1	41	63.19	213.75

TABLE 1
 CLOTHIER DISPOSAL SITE
 GRANBY, NEW YORK
 BACKGROUND AREA 1
 9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
1	42	64.31	213.75
1	43	63.56	213.19
1	44	64.50	217.31
1	45	64.87	216.94
1	46	64.31	217.87
1	47	65.62	217.69
1	48	63.75	215.06
1	49	64.69	213.94
1	46	64.31	217.87
1	47	65.62	217.69
1	48	63.75	215.06
1	49	64.69	213.94
2	0	61.50	209.25
2	1	63.00	211.50
2	2	63.00	211.50
2	3	62.25	213.00
2	4	63.37	213.75
2	5	64.50	213.56
2	6	63.00	213.75
2	7	65.25	214.50
2	8	63.75	215.25
2	9	64.50	211.50
2	10	63.00	214.50
2	11	64.50	213.75
2	12	63.75	214.50
2	13	63.75	213.75
2	14	63.56	211.50
2	15	64.12	213.75
2	16	62.81	213.75
2	17	63.19	213.56
2	18	63.00	213.00
2	19	63.37	212.25
2	20	63.00	213.75
2	21	64.12	213.00
2	22	62.62	210.75
2	23	62.06	213.00
2	24	63.56	213.00
2	25	63.37	213.00
2	26	64.50	213.75
2	27	62.25	210.75
2	28	63.37	211.69
2	29	63.00	211.50

TABLE 1
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

BACKGROUND AREA 1
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
2	30	63.00	209.25
2	31	63.00	212.81
2	32	64.87	214.69
2	33	64.31	213.75
2	34	62.81	212.25
2	35	62.62	212.25
2	36	63.56	211.50
2	37	63.00	209.25
2	38	63.75	212.25
2	39	64.31	213.56
2	40	68.06	217.50
2	41	74.62	219.75
2	42	78.00	226.50
2	43	64.50	210.94
2	44	64.69	211.31
2	45	64.50	213.00
2	46	63.94	215.62
2	47	64.87	215.25
2	48	64.69	215.25
2	49	64.31	210.94
2	50	64.50	213.00

TABLE 2
 CLOTHIER DISPOSAL SITE
 GRANBY, NEW YORK
 BACKGROUND AREA 2
 9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
1	0	82.50	229.12
1	1	82.87	229.87
1	2	83.81	230.44
1	3	89.81	237.19
1	4	78.94	223.50
1	5	71.44	221.62
1	6	71.62	220.69
1	7	71.44	222.37
1	8	71.44	223.12
1	9	70.12	222.37
1	10	70.31	220.12
1	11	68.25	219.94
1	12	68.62	220.69
1	13	68.81	219.19
1	14	71.06	224.06
1	15	72.37	222.56
1	16	69.75	217.31
1	17	73.12	224.81
1	18	73.87	226.31
1	19	76.12	223.50
1	20	77.62	222.75
1	21	84.75	228.56
1	22	94.69	236.81
1	23	93.94	235.69
1	24	86.06	226.31
1	25	81.94	220.87
1	26	80.25	221.06
1	27	75.56	213.19
1	28	74.25	216.00
1	29	73.50	212.25
1	30	72.56	215.81
1	31	72.94	219.94
1	32	69.75	213.56
1	33	67.50	210.00
1	34	68.25	208.31
1	35	75.37	214.69
1	36	116.06	234.00
1	37	288.19	346.50
1	38	529.12	534.19
1	39	546.75	545.44
1	40	288.19	335.81
1	41	118.69	232.31

TABLE 2
 CLOTHIER DISPOSAL SITE
 GRANBY, NEW YORK
 BACKGROUND AREA 2
 9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
1	42	75.19	208.87
1	43	65.81	206.25
1	44	63.00	207.00
1	45	64.50	208.69
1	46	62.44	205.31
1	47	61.69	202.69
1	48	61.12	194.44
1	49	61.12	196.12
1	50	62.44	199.69
1	51	65.06	208.87
1	52	65.62	205.50
1	53	67.50	209.25
1	54	65.62	203.25
1	55	65.81	205.50
1	56	63.94	196.69
1	57	63.19	205.50
1	58	62.06	195.75
1	55	65.81	205.50
1	56	63.94	196.69
1	57	63.19	205.50
1	58	62.06	195.75
2	0	63.19	208.50
2	1	65.44	213.00
2	2	63.94	211.50
2	3	64.87	211.50
2	4	63.56	209.81
2	5	66.94	212.25
2	6	69.94	214.50
2	7	91.50	223.69
2	8	169.12	267.94
2	9	367.69	409.31
2	10	525.75	535.31
2	11	547.69	555.56
2	12	547.87	555.37
2	13	479.81	499.87
2	14	331.69	381.00
2	15	171.94	270.00
2	16	94.50	226.69
2	17	74.81	216.00
2	18	70.50	213.00
2	19	68.81	212.25
2	20	70.12	214.50

←

TABLE 2
 CLOTHIER DISPOSAL SITE
 GRANBY, NEW YORK
 BACKGROUND AREA 2
 9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)
2	21	70.87	216.00
2	22	71.44	215.44
2	23	73.31	216.00
2	24	73.12	216.00
2	25	76.50	218.25
2	26	80.06	219.00
2	27	91.31	227.25
2	28	86.81	224.06
2	29	77.62	218.25
2	30	74.06	217.50
2	31	70.87	216.56
2	32	70.87	214.31
2	33	69.37	213.00
2	34	69.94	215.25
2	35	70.87	217.31
2	36	69.19	215.81
2	37	73.31	217.87
2	38	73.69	216.56
2	39	76.50	216.00
2	40	83.25	221.62
2	41	83.25	223.50
2	42	81.37	222.00
2	43	84.00	222.75
2	44	92.81	234.75
2	45	106.12	246.75
2	46	108.75	250.31
2	44	92.81	234.75
2	45	106.12	246.75
2	46	108.75	250.31

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
1	0	67.30	211.50	-144.20
1	1	68.00	214.50	-146.50
1	2	69.50	215.40	-145.90
1	3	67.80	214.50	-146.70
1	4	71.20	213.00	-141.80
1	5	68.80	208.80	-140.00
1	6	69.70	208.50	-138.80
1	7	67.50	207.00	-139.50
1	8	64.50	202.50	-138.00
1	9	56.80	174.30	-117.50
1	10	57.00	177.00	-120.00
1	11	57.00	176.20	-119.20
1	12	56.20	177.00	-120.80
1	13	59.80	178.50	-118.70
1	14	73.50	188.00	-114.50
1	15	147.70	255.50	-107.80
1	16	175.50	290.80	-115.30
1	17	199.10	318.70	-119.60
1	18	234.70	360.50	-125.80
1	19	203.20	326.80	-123.60
1	20	118.30	231.00	-112.70
1	21	72.50	186.70	-114.20
1	22	57.70	174.70	-117.00
1	23	54.30	174.00	-119.70
1	24	54.00	176.20	-122.20
1	25	54.00	175.50	-121.50
1	26	52.50	173.20	-120.70
1	27	54.00	171.70	-117.70
1	28	50.80	175.10	-124.30
1	29	50.60	172.50	-121.90
1	30	51.00	171.00	-120.00
1	31	51.00	174.50	-123.50
1	32	50.80	171.70	-120.90
1	33	53.80	177.00	-123.20
1	34	51.00	177.30	-126.30
1	35	54.70	179.20	-124.50
1	36	51.70	173.60	-121.90
1	37	52.50	173.20	-120.70
1	38	54.10	175.50	-121.40
1	39	54.70	176.60	-121.90
1	40	58.50	183.00	-124.50
1	41	61.50	188.00	-126.50

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
1	42	69.00	198.70	-129.70
1	43	88.10	204.30	-116.20
1	44	160.10	251.00	-90.90
1	45	723.00	726.70	-3.70
1	46	479.60	491.20	-11.60
1	47	255.70	294.70	-39.00
1	48	444.50	448.30	-3.80
1	49	295.80	357.00	-61.20
1	50	238.50	323.40	-84.90
1	51	278.00	349.50	-71.50
1	52	423.90	455.00	-31.10
1	53	670.50	648.70	21.80
1	54	712.10	685.60	26.50
1	55	644.60	621.00	23.60
1	56	510.50	519.50	-9.00
1	57	353.60	401.00	-47.40
1	58	319.50	381.70	-62.20
1	59	333.70	390.00	-56.30
2	0	73.30	193.60	-120.30
2	1	76.10	201.00	-124.90
2	2	78.00	202.50	-124.50
2	3	77.80	201.30	-123.50
2	4	77.00	200.80	-123.80
2	5	63.50	192.10	-128.60
2	6	53.20	173.40	-120.20
2	7	52.80	177.00	-124.20
2	8	53.20	170.60	-117.40
2	9	50.20	169.60	-119.40
2	10	50.60	172.50	-121.90
2	11	51.00	167.60	-116.60
2	12	52.50	174.10	-121.60
2	13	54.30	177.30	-123.00
2	14	57.90	175.10	-117.20
2	15	59.40	175.10	-115.70
2	16	61.30	181.30	-120.00
2	17	54.10	174.10	-120.00
2	18	56.20	179.60	-123.40
2	19	52.30	172.80	-120.50
2	20	50.80	173.60	-122.80
2	21	53.20	173.40	-120.20
2	22	52.30	168.70	-116.40
2	23	50.20	170.60	-120.40

TABLE 3
CLOTHIER DISPOSAL SITE
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SURVEY DATA
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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
2	24	52.30	171.30	-119.00
2	25	54.70	175.60	-120.90
2	26	53.20	171.30	-118.10
2	27	51.50	170.60	-119.10
2	28	52.30	168.90	-116.60
2	29	50.40	169.10	-118.70
2	30	50.60	166.10	-115.50
2	31	53.60	176.00	-122.40
2	32	53.60	170.60	-117.00
2	33	55.50	172.80	-117.30
2	34	56.00	178.10	-122.10
2	35	57.00	177.50	-120.50
2	36	59.60	178.60	-119.00
2	37	65.60	180.30	-114.70
2	38	70.50	188.60	-118.10
2	39	66.00	180.50	-114.50
2	40	65.20	179.60	-114.40
2	41	69.50	188.40	-118.90
2	42	69.70	189.50	-119.80
3	0	47.60	124.50	-76.90
3	1	48.90	126.00	-77.10
3	2	49.10	125.60	-76.50
3	3	45.00	111.10	-66.10
3	4	42.50	106.60	-64.10
3	5	75.00	126.00	-51.00
3	6	231.50	258.10	-26.60
3	7	485.00	502.30	-17.30
3	8	606.70	622.80	-16.10
3	9	585.90	597.10	-11.20
3	10	578.00	599.20	-21.20
3	11	380.60	403.80	-23.20
3	12	190.60	211.60	-21.00
3	13	78.50	123.70	-45.20
3	14	71.80	121.10	-49.30
3	15	116.20	153.70	-37.50
3	16	189.30	221.80	-32.50
3	17	265.10	318.10	-53.00
3	18	295.30	383.40	-88.10
3	19	208.30	237.70	-29.40
3	20	133.80	148.80	-15.00
3	21	81.10	114.10	-33.00
3	22	61.50	102.10	-40.60

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CLOTHIER DISPOSAL SITE
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SURVEY DATA
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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
3	23	37.80	87.10	-49.30
3	24	32.40	84.30	-51.90
3	25	35.40	96.00	-60.60
3	26	30.70	92.80	-62.10
3	27	32.00	97.30	-65.30
3	28	32.00	99.30	-67.30
3	29	33.10	95.40	-62.30
3	30	32.20	96.00	-63.80
3	31	34.10	100.60	-66.50
3	32	31.30	95.40	-64.10
3	33	29.60	95.40	-65.80
3	34	30.90	95.20	-64.30
3	35	32.20	96.50	-64.30
3	36	32.20	92.80	-60.60
3	37	30.50	94.50	-64.00
3	38	37.50	99.70	-62.20
3	39	39.50	94.60	-55.10
3	40	43.60	96.00	-52.40
3	41	43.50	93.70	-50.20
3	42	39.30	90.10	-50.80
3	43	49.30	103.60	-54.30
3	44	68.80	118.10	-49.30
3	45	82.50	118.10	-35.60
3	46	80.80	117.10	-36.30
4	0	102.10	255.90	-153.80
4	1	102.30	257.60	-155.30
4	2	102.50	256.30	-153.80
4	3	67.80	215.40	-147.60
4	4	71.40	220.80	-149.40
4	5	90.10	232.60	-142.50
4	6	95.80	234.50	-138.70
4	7	112.30	246.30	-134.00
4	8	97.80	241.50	-143.70
4	9	77.20	219.30	-142.10
4	10	68.00	216.00	-148.00
4	11	69.00	213.50	-144.50
4	12	68.80	213.50	-144.70
4	13	69.50	208.80	-139.30
4	14	65.00	207.50	-142.50
4	15	64.10	205.50	-141.40
4	16	63.10	201.10	-138.00
4	17	60.00	201.30	-141.30

TABLE 3
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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
4	18	62.80	200.60	-137.80
4	19	60.10	201.70	-141.60
4	20	61.60	196.80	-135.20
4	21	59.60	197.60	-138.00
4	22	65.60	196.80	-131.20
4	23	78.70	209.80	-131.10
4	24	97.30	220.60	-123.30
4	25	114.00	223.50	-109.50
4	26	97.60	200.00	-102.40
4	27	72.70	172.50	-99.80
4	28	59.60	170.60	-111.00
4	29	53.00	155.80	-102.80
4	30	51.10	160.10	-109.00
4	31	53.20	173.00	-119.80
4	32	51.70	163.50	-111.80
4	33	56.60	179.00	-122.40
4	34	59.80	184.50	-124.70
4	35	61.50	200.20	-138.70
4	36	61.80	197.20	-135.40
4	37	60.30	192.90	-132.60
4	38	62.60	189.70	-127.10
4	39	60.10	191.60	-131.50
4	40	62.00	192.90	-130.90
4	41	62.20	195.30	-133.10
4	42	60.30	200.20	-139.90
4	43	60.30	198.90	-138.60
4	44	60.10	197.40	-137.30
5	0	98.00	209.60	-111.60
5	1	96.70	207.50	-110.80
5	2	98.40	210.90	-112.50
5	3	96.30	204.00	-107.70
5	4	97.50	209.60	-112.10
5	5	94.80	209.60	-114.80
5	6	83.00	205.80	-122.80
5	7	100.80	218.20	-117.40
5	8	247.30	309.30	-62.00
5	9	530.00	522.30	7.70
5	10	495.70	477.70	18.00
5	11	433.30	433.80	-0.50
5	12	289.60	332.00	-42.40
5	13	149.40	228.30	-78.90
5	14	73.80	187.50	-113.70

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
5	15	64.80	186.10	-121.30
5	16	65.40	188.40	-123.00
5	17	67.80	189.90	-122.10
5	18	69.90	187.60	-117.70
5	19	68.40	199.10	-130.70
5	20	62.60	196.50	-133.90
5	21	60.00	194.80	-134.80
5	22	55.50	178.80	-123.30
5	23	57.00	179.40	-122.40
5	24	60.30	183.00	-122.70
5	25	58.50	182.20	-123.70
5	26	62.40	181.80	-119.40
5	27	81.10	191.80	-110.70
5	28	141.30	236.40	-95.10
5	29	237.10	303.50	-66.40
5	30	234.90	293.80	-58.90
5	31	185.40	258.00	-72.60
5	32	132.70	222.90	-90.20
5	33	86.80	195.10	-108.30
5	34	67.80	186.00	-118.20
5	35	59.60	180.30	-120.70
5	36	61.30	180.30	-119.00
5	37	62.80	184.80	-122.00
5	38	64.10	189.70	-125.60
5	39	68.00	190.50	-122.50
5	40	68.20	189.00	-120.80
5	41	60.10	180.00	-119.90
5	42	56.80	177.90	-121.10
5	43	59.40	183.00	-123.60
5	44	58.80	180.30	-121.50
5	45	61.60	182.00	-120.40
5	46	63.90	184.50	-120.60
5	47	66.00	184.50	-118.50
5	48	63.50	186.00	-122.50
5	49	65.20	193.30	-128.10
5	50	59.80	174.30	-114.50
5	51	59.40	174.30	-114.90
5	52	60.70	176.20	-115.50
5	53	65.20	179.20	-114.00
5	54	77.80	189.10	-111.30
5	55	85.60	192.90	-107.30
5	56	71.00	183.30	-112.30

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SURVEY DATA
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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
5	57	61.80	177.50	-115.70
5	58	58.80	177.30	-118.50
5	59	59.60	179.80	-120.20
5	60	60.00	183.00	-123.00
5	61	58.50	174.00	-115.50
5	62	61.50	177.30	-115.80
5	63	67.60	186.10	-118.50
5	64	65.60	174.50	-108.90
5	65	66.10	194.40	-128.30
5	66	64.60	192.00	-127.40
5	67	61.30	185.00	-123.70
5	68	64.10	197.20	-133.10
5	69	62.60	190.10	-127.50
5	70	64.10	191.60	-127.50
5	71	60.90	189.00	-128.10
5	72	59.80	192.30	-132.50
5	73	54.50	173.80	-119.30
5	74	54.90	174.00	-119.10
5	75	57.50	181.30	-123.80
5	76	59.20	190.80	-131.60
6	0	67.80	185.80	-118.00
6	1	68.60	187.80	-119.20
6	2	68.80	187.50	-118.70
6	3	79.80	217.60	-137.80
6	4	138.50	251.80	-113.30
6	5	370.50	392.20	-21.70
6	6	423.90	429.00	-5.10
6	7	373.80	418.50	-44.70
6	8	409.10	494.20	-85.10
6	9	511.30	586.10	-74.80
6	10	417.30	476.20	-58.90
6	11	313.10	376.30	-63.20
6	12	259.30	333.90	-74.60
6	13	213.30	310.10	-96.80
6	14	195.00	301.80	-106.80
6	15	173.40	288.00	-114.60
6	16	167.60	285.00	-117.40
6	17	198.50	303.10	-104.60
6	18	201.10	284.00	-82.90
6	19	200.40	270.90	-70.50
6	20	173.40	232.60	-59.20
6	21	94.50	60.00	34.50

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
6	22	85.80	64.60	21.20
6	23	108.30	182.20	-73.90
6	24	107.80	208.80	-101.00
6	25	94.10	204.10	-110.00
6	26	89.40	199.60	-110.20
6	27	80.80	192.10	-111.30
6	28	74.40	167.80	-93.40
6	29	75.30	186.00	-110.70
6	30	66.90	181.50	-114.60
6	31	58.80	168.00	-109.20
6	32	60.90	163.80	-102.90
6	33	64.80	156.00	-91.20
6	34	27.70	12.30	15.40
6	35	40.50	31.10	9.40
6	36	36.90	29.60	7.30
6	37	22.80	10.80	12.00
6	38	13.50	15.00	-1.50
6	39	5.40	1.10	4.30
6	40	5.60	1.50	4.10
6	41	4.60	0.70	3.90
6	42	6.30	0.90	5.40
6	43	10.80	3.00	7.80
6	44	21.10	13.50	7.60
6	45	39.50	27.50	12.00
6	46	47.80	32.80	15.00
6	47	41.60	33.10	8.50
6	48	43.50	39.90	3.60
6	49	29.40	30.00	-0.60
6	50	34.60	24.00	10.60
6	51	53.40	41.80	11.60
6	52	76.60	76.60	0.00
6	53	86.40	64.80	21.60
6	54	80.20	60.70	19.50
6	55	52.50	40.50	12.00
6	56	47.60	49.10	-1.50
6	57	44.60	63.50	-18.90
6	58	39.10	36.00	3.10
6	59	45.90	72.00	-26.10
6	60	28.80	47.00	-18.20
6	61	23.60	40.60	-17.00
6	62	23.80	51.70	-27.90
6	63	18.10	38.20	-20.10

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
6	64	21.00	51.70	-30.70
6	65	12.00	26.20	-14.20
6	66	23.80	62.20	-38.40
6	67	26.40	66.00	-39.60
6	68	37.30	112.30	-75.00
6	69	40.50	113.40	-72.90
6	70	36.50	78.00	-41.50
6	71	21.90	25.60	-3.70
6	72	21.30	29.20	-7.90
6	73	21.10	16.60	4.50
6	74	27.30	29.00	-1.70
6	75	27.90	29.00	-1.10
6	76	24.70	16.60	8.10
7	0	68.00	161.20	-93.20
7	1	65.80	153.00	-87.20
7	2	62.60	143.40	-80.80
7	3	63.70	152.80	-89.10
7	4	95.00	190.50	-95.50
7	5	133.80	221.00	-87.20
7	6	130.60	189.30	-58.70
7	7	111.70	198.00	-86.30
7	8	163.80	244.30	-80.50
7	9	268.80	336.10	-67.30
7	10	351.90	406.10	-54.20
7	11	317.80	349.30	-31.50
7	12	184.10	236.20	-52.10
7	13	117.70	178.50	-60.80
7	14	92.00	169.50	-77.50
7	15	78.50	160.10	-81.60
7	16	84.30	164.80	-80.50
7	17	65.20	143.80	-78.60
7	18	67.80	136.60	-68.80
7	19	73.50	135.70	-62.20
7	20	60.00	86.60	-26.60
7	21	58.10	82.50	-24.40
7	22	65.00	84.70	-19.70
7	23	71.80	85.50	-13.70
7	24	120.00	122.40	-2.40
7	25	160.30	144.50	15.80
7	26	128.00	117.00	11.00
7	27	120.70	115.10	5.60
7	28	114.90	112.50	2.40

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
7	29	105.30	103.30	2.00
7	30	87.10	91.10	-4.00
7	31	72.00	80.60	-8.60
7	32	54.30	70.30	-16.00
7	33	38.80	61.50	-22.70
7	34	28.10	57.00	-28.90
7	35	27.30	55.50	-28.20
7	36	23.80	55.80	-32.00
7	37	28.30	54.90	-26.60
7	38	44.40	69.70	-25.30
7	39	48.00	68.80	-20.80
7	40	29.20	55.60	-26.40
7	41	21.30	53.20	-31.90
7	42	21.10	51.50	-30.40
7	43	65.00	81.10	-16.10
7	44	347.80	326.00	21.80
7	45	135.90	121.80	14.10
7	46	21.90	53.00	-31.10
7	47	24.10	55.50	-31.40
7	48	23.40	49.30	-25.90
7	49	19.10	45.30	-26.20
7	50	18.90	46.30	-27.40
7	51	22.10	49.50	-27.40
7	52	22.80	52.80	-30.00
7	53	20.00	50.80	-30.80
7	54	21.50	50.20	-28.70
7	55	21.50	48.00	-26.50
7	56	10.60	9.00	1.60
7	57	9.30	13.50	-4.20
7	58	6.10	4.60	1.50
7	59	6.70	5.60	1.10
7	60	9.30	15.10	-5.80
7	61	9.10	12.50	-3.40
7	62	6.00	9.00	-3.00
7	63	2.40	-1.60	4.00
7	64	4.60	3.50	1.10
7	65	11.20	11.20	0.00
7	66	12.50	7.50	5.00
7	67	23.00	31.10	-8.10
7	68	21.90	38.20	-16.30
7	69	24.50	51.00	-26.50
7	70	21.50	45.70	-24.20

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
7	71	11.80	12.00	-0.20
7	72	15.70	24.30	-8.60
8	0	146.60	202.80	-56.20
8	1	166.80	230.60	-63.80
8	2	178.30	245.20	-66.90
8	3	219.90	330.10	-110.20
8	4	430.60	524.80	-94.20
8	5	455.40	542.20	-86.80
8	6	267.90	435.90	-168.00
8	7	227.60	425.80	-198.20
8	8	160.10	374.40	-214.30
8	9	117.90	342.50	-224.60
8	10	113.60	341.60	-228.00
8	11	119.20	347.80	-228.60
8	12	145.10	362.60	-217.50
8	13	156.30	371.00	-214.70
8	14	138.30	359.00	-220.70
8	15	108.90	339.00	-230.10
8	16	114.10	342.70	-228.60
8	17	111.10	340.50	-229.40
8	18	110.80	340.80	-230.00
8	19	112.10	341.80	-229.70
8	20	112.10	340.80	-228.70
8	21	113.00	340.50	-227.50
8	22	105.70	338.20	-232.50
8	23	83.60	321.70	-238.10
8	24	75.10	282.00	-206.90
8	25	81.10	317.60	-236.50
8	26	79.10	315.70	-236.60
8	27	81.30	317.20	-235.90
8	28	82.50	316.60	-234.10
8	29	83.20	319.80	-236.60
8	30	84.30	317.20	-232.90
8	31	83.80	318.70	-234.90
8	32	88.60	322.50	-233.90
8	33	96.00	328.10	-232.10
8	34	105.90	331.30	-225.40
8	35	119.60	339.10	-219.50
8	36	132.00	346.80	-214.80
8	37	141.70	352.50	-210.80
8	38	143.60	353.80	-210.20
8	39	133.30	349.10	-215.80

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Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
8	40	125.00	346.50	-221.50
8	41	113.60	339.00	-225.40
8	42	105.50	333.00	-227.50
8	43	95.60	332.40	-236.80
8	44	90.90	330.00	-239.10
8	45	87.70	324.70	-237.00
8	46	84.10	323.60	-239.50
8	47	83.80	321.10	-237.30
8	48	81.90	315.30	-233.40
8	49	86.60	317.40	-230.80
8	50	85.60	317.00	-231.40
8	51	82.60	316.50	-233.90
8	52	83.60	315.30	-231.70
8	53	82.30	313.10	-230.80
8	54	93.70	327.70	-234.00
8	55	183.90	394.50	-210.60
8	56	268.80	457.80	-189.00
8	57	141.90	352.80	-210.90
8	58	98.80	327.00	-228.20
8	59	91.30	325.50	-234.20
8	60	93.90	327.00	-233.10
8	61	99.00	327.70	-228.70
8	62	128.20	348.00	-219.80
8	63	127.60	348.90	-221.30
8	64	102.70	330.00	-227.30
8	65	110.80	333.30	-222.50
8	66	143.60	359.00	-215.40
8	67	131.80	344.00	-212.20
8	68	99.00	321.10	-222.10
8	69	93.90	323.00	-229.10
8	70	93.30	320.80	-227.50
8	71	92.00	316.50	-224.50
8	72	92.60	315.30	-222.70
8	73	84.70	321.00	-236.30
8	74	89.60	337.50	-247.90
8	75	90.30	334.50	-244.20
8	76	86.40	330.70	-244.30
8	77	87.90	333.10	-245.20
8	78	89.00	338.80	-249.80
8	79	98.00	344.20	-246.20
8	80	98.80	342.00	-243.20
8	81	97.50	338.40	-240.90

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
9	0	341.80	264.50	77.30
9	1	344.00	266.20	77.80
9	2	347.40	268.60	78.80
9	3	348.90	269.60	79.30
9	4	351.30	273.30	78.00
9	5	548.80	456.50	92.30
9	6	781.60	609.50	172.10
9	7	919.30	693.70	225.60
9	8	979.60	732.70	246.90
9	9	1057.50	787.10	270.40
9	10	481.10	326.40	154.70
9	11	144.50	96.00	48.50
9	12	104.60	78.00	26.60
9	13	104.40	76.50	27.90
9	14	132.90	92.80	40.10
9	15	185.00	127.50	57.50
9	16	305.20	211.30	93.90
9	17	377.40	253.80	123.60
9	18	355.60	226.60	129.00
9	19	210.30	132.00	78.30
9	20	86.80	54.00	32.80
9	21	48.00	30.70	17.30
9	22	77.40	59.20	18.20
9	23	93.00	70.10	22.90
9	24	55.60	42.70	12.90
9	25	37.50	32.40	5.10
9	26	28.10	33.70	-5.60
9	27	23.40	36.50	-13.10
9	28	23.40	37.30	-13.90
9	29	23.00	40.50	-17.50
9	30	14.20	26.20	-12.00
9	31	17.60	33.90	-16.30
9	32	19.50	37.30	-17.80
9	33	16.80	35.80	-19.00
9	34	16.60	38.80	-22.20
9	35	11.40	18.70	-7.30
9	36	15.00	27.70	-12.70
9	37	19.80	30.70	-10.90
9	38	18.70	26.80	-8.10
9	39	17.20	26.60	-9.40
9	40	18.10	24.00	-5.90
9	41	13.10	19.50	-6.40

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK
SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
9	42	11.20	26.20	-15.00
9	43	15.10	29.20	-14.10
9	44	13.10	22.50	-9.40
9	45	10.60	17.80	-7.20
9	46	12.10	25.80	-13.70
9	47	11.80	23.40	-11.60
9	48	10.80	19.60	-8.80
9	49	16.30	31.30	-15.00
9	50	13.50	27.00	-13.50
9	51	10.10	17.00	-6.90
9	52	30.50	41.60	-11.10
9	53	69.10	83.00	-13.90
9	54	65.60	41.80	23.80
9	55	17.60	27.00	-9.40
9	56	16.10	18.00	-1.90
9	57	12.10	10.30	1.80
9	58	12.00	5.80	6.20
9	59	14.60	17.60	-3.00
9	60	25.80	44.00	-18.20
9	61	11.60	7.50	4.10
9	62	23.80	36.00	-12.20
9	63	23.80	24.00	-0.20
9	64	15.00	6.00	9.00
9	65	66.00	39.10	26.90
9	66	254.60	177.50	77.10
9	67	287.60	191.20	96.40
9	68	52.80	22.80	30.00
9	69	3.00	1.30	1.70
9	70	10.80	18.00	-7.20
9	71	19.80	48.90	-29.10
9	72	26.20	46.50	-20.30
9	73	23.80	39.00	-15.20
9	74	22.60	38.00	-15.40
9	75	22.50	37.60	-15.10
10	0	121.50	179.80	-58.30
10	1	131.20	195.70	-64.50
10	2	133.60	198.00	-64.40
10	3	132.00	186.00	-54.00
10	4	263.20	274.50	-11.30
10	5	255.90	265.50	-9.60
10	6	138.10	195.90	-57.80
10	7	163.60	236.60	-73.00

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK
SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
10	8	231.50	279.50	-48.00
10	9	324.90	358.50	-33.60
10	10	309.70	349.30	-39.60
10	11	213.10	273.70	-60.60
10	12	142.60	227.20	-84.60
10	13	93.50	198.30	-104.80
10	14	74.00	187.50	-113.50
10	15	68.60	184.80	-116.20
10	16	67.50	183.70	-116.20
10	17	77.00	188.80	-111.80
10	18	72.00	187.50	-115.50
10	19	65.00	178.10	-113.10
10	20	69.00	183.10	-114.10
10	21	85.50	193.50	-108.00
10	22	190.30	258.30	-68.00
10	23	451.80	448.30	3.50
10	24	785.00	705.30	79.70
10	25	839.60	741.50	98.10
10	26	579.90	526.10	53.80
10	27	236.80	283.50	-46.70
10	28	127.80	221.00	-93.20
10	29	102.10	216.00	-113.90
10	30	85.50	201.10	-115.60
10	31	85.10	206.40	-121.30
10	32	81.30	196.10	-114.80
10	33	58.50	179.20	-120.70
10	34	53.80	178.30	-124.50
10	35	53.20	176.60	-123.40
10	36	53.40	177.00	-123.60
10	37	54.90	177.70	-122.80
10	38	65.80	184.30	-118.50
10	39	86.00	198.70	-112.70
10	40	90.10	199.30	-109.20
10	41	72.70	186.10	-113.40
10	42	70.80	185.20	-114.40
10	43	84.00	201.00	-117.00
10	44	77.20	191.20	-114.00
10	45	56.00	176.40	-120.40
10	46	54.00	176.00	-122.00
10	47	54.50	172.50	-118.00
10	48	59.60	177.70	-118.10
10	49	54.50	175.50	-121.00

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
10	50	59.60	177.70	-118.10
10	51	58.60	175.50	-116.90
10	52	61.60	194.20	-132.60
10	53	57.70	177.00	-119.30
10	54	60.50	177.00	-116.50
10	55	61.10	180.90	-119.80
10	56	60.50	177.30	-116.80
10	57	62.80	182.80	-120.00
10	58	63.10	186.90	-123.80
10	59	58.60	188.20	-129.60
10	60	59.60	174.50	-114.90
10	61	61.10	174.50	-113.40
10	62	60.00	174.00	-114.00
10	63	60.00	174.00	-114.00
11	0	171.70	297.50	-125.80
11	1	166.80	292.30	-125.50
11	2	169.30	300.00	-130.70
11	3	169.80	300.00	-130.20
11	4	170.60	301.50	-130.90
11	5	171.10	303.50	-132.40
11	6	173.20	298.30	-125.10
11	7	190.80	296.60	-105.80
11	8	206.60	306.70	-100.10
11	9	156.00	323.00	-167.00
11	10	122.20	231.70	-109.50
11	11	102.00	198.50	-96.50
11	12	125.40	224.80	-99.40
11	13	135.30	236.00	-100.70
11	14	113.20	207.50	-94.30
11	15	84.70	135.70	-51.00
11	16	66.00	107.80	-41.80
11	17	74.20	114.00	-39.80
11	18	75.30	78.70	-3.40
11	19	111.00	103.30	7.70
11	20	160.60	157.30	3.30
11	21	172.80	141.00	31.80
11	22	195.10	144.00	51.10
11	23	186.50	144.00	42.50
11	24	154.60	105.70	48.90
11	25	104.20	75.70	28.50
11	26	69.70	32.20	37.50
11	27	50.20	30.70	19.50

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
11	28	33.10	33.10	0.00
11	29	28.60	27.70	0.90
11	30	31.30	17.40	13.90
11	31	83.00	55.10	27.90
11	32	105.70	72.00	33.70
11	33	144.00	105.00	39.00
11	34	156.70	113.20	43.50
11	35	158.80	114.30	44.50
11	36	149.00	105.10	43.90
11	37	93.00	55.50	37.50
11	38	80.60	48.00	32.60
11	39	40.60	24.00	16.60
11	40	22.10	18.00	4.10
11	41	20.60	30.50	-9.90
11	42	16.10	28.80	-12.70
11	43	17.00	34.50	-17.50
11	44	14.00	21.90	-7.90
11	45	17.80	23.40	-5.60
11	46	30.50	59.60	-29.10
11	47	18.00	25.50	-7.50
11	48	25.50	57.30	-31.80
11	49	21.30	59.20	-37.90
11	50	25.50	63.00	-37.50
11	51	18.50	41.00	-22.50
11	52	20.00	45.10	-25.10
11	53	21.90	52.10	-30.20
11	54	21.30	54.50	-33.20
11	55	26.20	69.70	-43.50
11	56	24.00	65.80	-41.80
11	57	18.90	40.50	-21.60
11	58	25.50	67.80	-42.30
11	59	22.10	51.70	-29.60
11	60	17.80	42.00	-24.20
11	61	16.60	39.70	-23.10
11	62	24.70	61.50	-36.80
11	63	20.20	39.00	-18.80
11	64	56.80	80.60	-23.80
11	65	92.80	110.60	-17.80
11	66	61.60	108.00	-46.40
11	67	44.60	86.20	-41.60
11	68	51.30	109.30	-58.00
11	69	48.00	116.20	-68.20

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
11	70	45.10	100.50	-55.40
11	71	34.80	63.00	-28.20
11	72	31.30	42.00	-10.70
11	73	31.80	37.60	-5.80
11	74	31.10	38.60	-7.50
11	75	31.50	39.70	-8.20
11	76	31.80	40.50	-8.70
12	0	39.90	31.50	8.40
12	1	39.70	30.70	9.00
12	2	39.50	30.00	9.50
12	3	39.00	29.80	9.20
12	4	38.80	28.50	10.30
12	5	41.60	30.70	10.90
12	6	48.00	42.50	5.50
12	7	46.50	37.50	9.00
12	8	39.70	28.50	11.20
12	9	30.30	20.20	10.10
12	10	30.90	15.50	15.40
12	11	51.70	27.30	24.40
12	12	104.60	60.00	44.60
12	13	162.00	102.00	60.00
12	14	197.20	108.50	88.70
12	15	229.30	128.20	101.10
12	16	301.30	167.40	133.90
12	17	509.60	311.80	197.80
12	18	920.20	598.60	321.60
12	19	937.50	587.60	349.90
12	20	815.80	492.30	323.50
12	21	824.60	505.50	319.10
12	22	1032.70	645.00	387.70
12	23	1117.10	708.70	408.40
12	24	1383.30	919.80	463.50
12	25	1339.30	879.00	460.30
12	26	1128.70	731.80	396.90
12	27	843.70	535.50	308.20
12	28	324.90	177.00	147.90
12	29	85.30	44.60	40.70
12	30	32.40	24.00	8.40
12	31	14.20	9.30	4.90
12	32	8.00	4.50	3.50
12	33	6.00	3.00	3.00
12	34	1.80	-0.90	2.70

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
12	35	0.70	-0.10	0.80
12	36	0.70	-1.50	2.20
12	37	2.60	-1.50	4.10
12	38	4.30	1.80	2.50
12	39	15.00	15.50	-0.50
12	40	19.50	10.50	9.00
12	41	22.50	12.00	10.50
12	42	22.60	11.20	11.40
12	43	22.50	12.00	10.50
12	44	22.80	12.00	10.80
12	45	25.80	14.00	11.80
12	46	29.80	21.00	8.80
12	47	44.60	33.00	11.60
12	48	54.30	33.00	21.30
12	49	61.50	37.10	24.40
12	50	47.00	27.90	19.10
12	51	45.90	25.50	20.40
12	52	30.50	18.70	11.80
12	53	39.30	27.00	12.30
12	54	51.50	31.50	20.00
12	55	69.00	45.00	24.00
12	56	75.70	48.00	27.70
12	57	74.80	48.00	26.80
13	0	34.10	35.00	-0.90
13	1	33.10	35.00	-1.90
13	2	33.70	35.00	-1.30
13	3	32.80	33.90	-1.10
13	4	25.30	12.10	13.20
13	5	54.00	27.70	26.30
13	6	159.00	96.00	63.00
13	7	320.60	207.00	113.60
13	8	436.30	289.50	146.80
13	9	417.10	263.60	153.50
13	10	320.20	177.00	143.20
13	11	375.50	220.30	155.20
13	12	539.60	348.70	190.90
13	13	679.50	460.30	219.20
13	14	751.10	517.30	233.80
13	15	737.00	509.80	227.20
13	16	560.00	353.40	206.60
13	17	318.30	183.00	135.30
13	18	126.70	68.20	58.50

TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
13	19	33.50	20.20	13.30
13	20	11.40	4.50	6.90
13	21	6.90	3.70	3.20
13	22	4.50	2.20	2.30
13	23	6.00	4.50	1.50
13	24	5.20	3.00	2.20
13	25	4.80	4.50	0.30
13	26	7.60	11.60	-4.00
13	27	4.50	5.00	-0.50
13	28	4.30	4.50	-0.20
13	29	3.30	3.50	-0.20
13	30	4.60	3.00	1.60
13	31	8.80	21.00	-12.20
13	32	3.50	6.70	-3.20
13	33	8.80	18.70	-9.90
13	34	4.10	6.70	-2.60
13	35	13.60	22.50	-8.90
13	36	18.00	21.70	-3.70
13	37	33.00	23.00	10.00
13	38	39.10	21.50	17.60
13	39	51.00	41.60	9.40
13	40	75.10	83.20	-8.10
13	41	78.70	56.20	22.50
13	42	75.70	45.50	30.20
13	43	75.50	44.20	31.30
14	0	150.70	318.50	-167.80
14	1	150.00	318.00	-168.00
14	2	150.70	318.00	-167.30
14	3	151.50	318.00	-166.50
14	4	151.50	307.30	-155.80
14	5	95.00	320.20	-225.20
14	6	109.30	330.00	-220.70
14	7	132.00	345.00	-213.00
14	8	298.30	482.00	-183.70
14	9	690.50	790.50	-100.00
14	10	751.60	806.80	-55.20
14	11	703.80	741.70	-37.90
14	12	552.00	609.70	-57.70
14	13	762.30	780.70	-18.40
14	14	867.50	870.10	-2.60
14	15	474.00	560.00	-86.00
14	16	304.30	476.40	-172.10

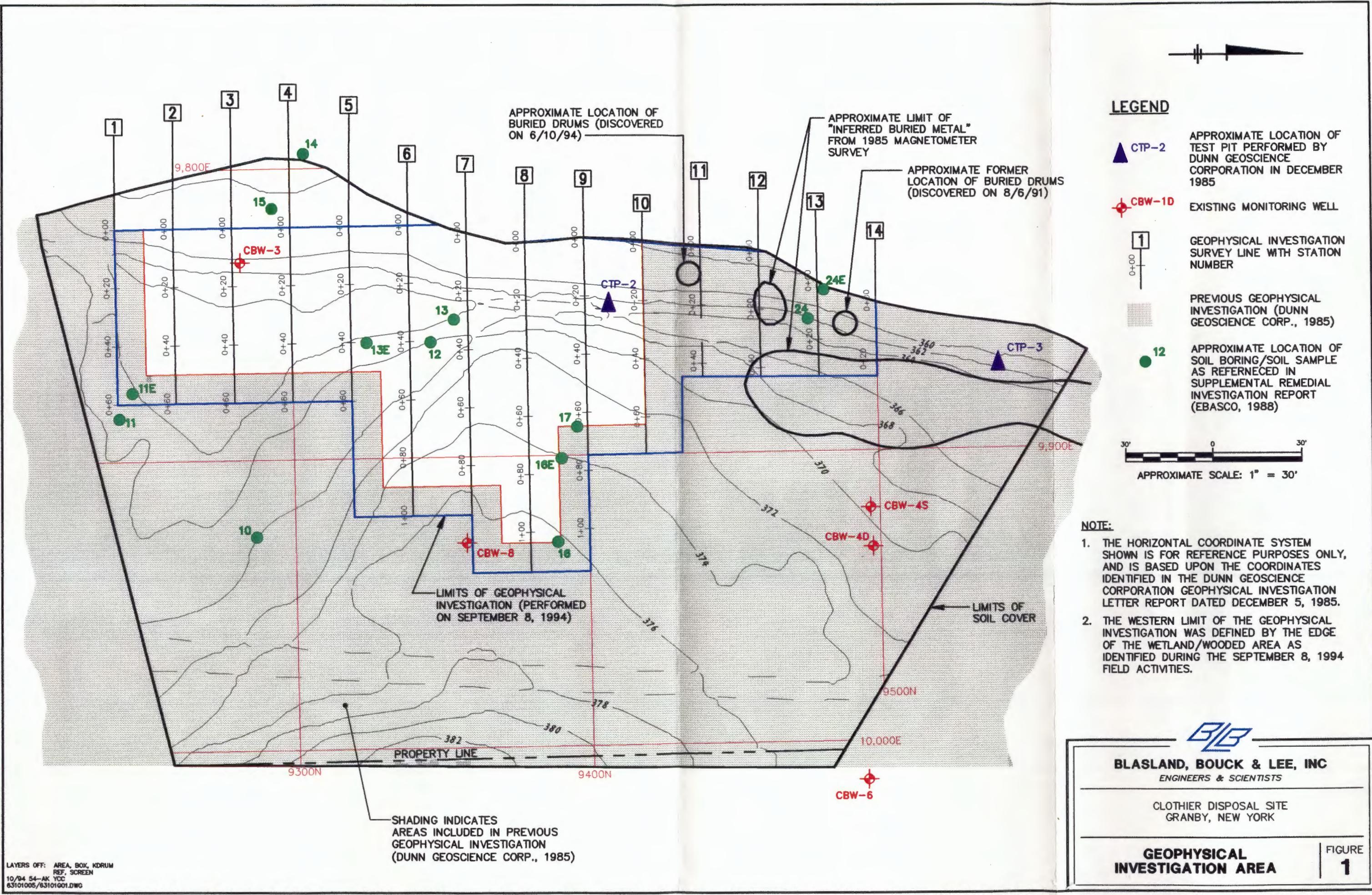
TABLE 3
CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

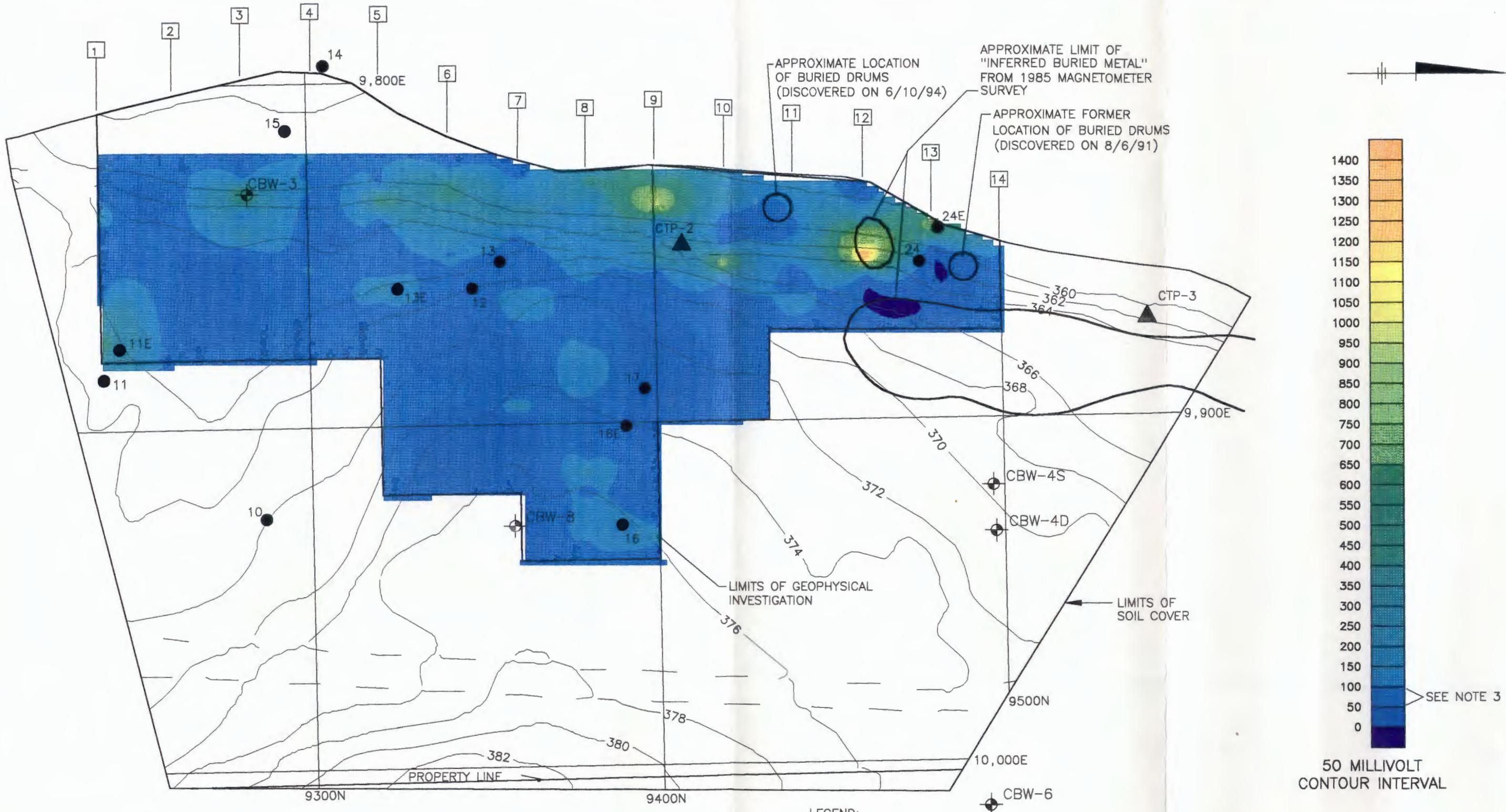
SURVEY DATA
9/8/94

Line No.	Station No.	Channel 1 (mV)	Channel 2 (mV)	Differential (mV)
14	17	175.30	385.60	-210.30
14	18	113.20	350.00	-236.80
14	19	95.60	337.30	-241.70
14	20	93.00	337.30	-244.30
14	21	90.50	339.00	-248.50
14	22	87.00	337.50	-250.50
14	23	86.00	334.30	-248.30
14	24	86.80	334.50	-247.70
14	25	86.00	335.00	-249.00
14	26	86.40	333.00	-246.60
14	27	85.30	335.80	-250.50
14	28	81.50	333.30	-251.80
14	29	85.80	334.50	-248.70
14	30	83.80	333.50	-249.70
14	31	86.20	333.90	-247.70
14	32	89.20	335.80	-246.60
14	33	89.00	336.00	-247.00
14	34	91.60	337.30	-245.70
14	35	91.10	337.50	-246.40
14	36	91.80	336.00	-244.20
14	37	91.10	336.00	-244.90
14	38	90.00	334.30	-244.30
14	39	89.80	332.20	-242.40
14	40	89.20	334.50	-245.30
14	41	86.60	342.70	-256.10
14	42	92.80	339.00	-246.20



Figures





NOTE:

1. THE HORIZONTAL COORDINATE SYSTEM SHOWN IS FOR REFERENCE PURPOSES ONLY, AND IS BASED UPON THE COORDINATES IDENTIFIED IN THE DUNN GEOSCIENCE CORPORATION GEOPHYSICAL INVESTIGATION LETTER REPORT DATED DECEMBER 5, 1985.
 2. THE WESTERN LIMIT OF THE GEOPHYSICAL INVESTIGATION WAS DEFINED BY THE EDGE OF THE WETLAND/WOODED AREA AS IDENTIFIED DURING THE SEPTEMBER 8, 1994 FIELD ACTIVITIES.
 3. CHANNEL 1 BACKGROUND RANGE 50-100 MILLIVOLTS

APPROXIMATE SCALE: 1" = 30'

LEGE

MONITORING WE

**GEOPHYSICAL INVESTIGATION
SURVEY LINE**

APPROXIMATE FORMER TEST
PIT LOCATION PERFORMED BY
DUNN GEOSCIENCE CORPORATION
IN DECEMBER 1985

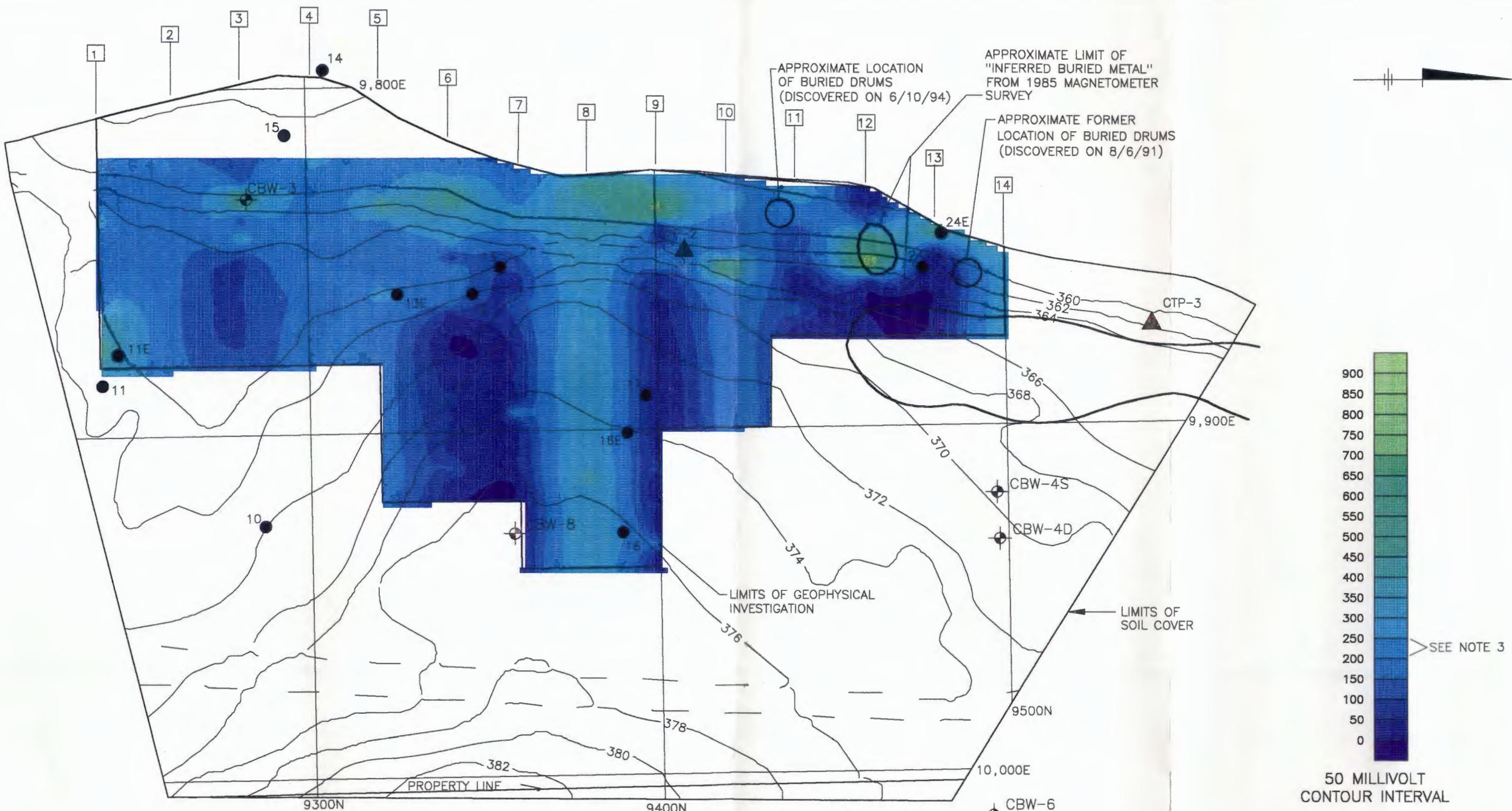
APPROXIMATE LOCATION OF SOIL
BORING/SOIL SAMPLE AS REFERENCED
IN SUPPLEMENTAL REMEDIAL INVESTIGATION
REPORT (EBASCO, 1988)

ISLAND, BOUCK & LEE, INC
ENGINEERS & SCIENTISTS

CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK

GEOPHYSICAL INVESTIGATION WORK PLAN

EM-61 CONTOUR MAP
CHANNEL 1 RESPONSE



BLASLAND, BOUCK & LEE, INC
ENGINEERS & SCIENTISTS

CLOTHIER DISPOSAL SITE
GRANBY, NEW YORK
GEOPHYSICAL INVESTIGATION WORK PLAN

EM-61 CONTOUR MAP
CHANNEL 2 RESPONSE

FIGURE
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