CONTINENTAL PLACER INC.

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PHASE I WATER SUPPLY INVESTIGATION

Deansboro Water District
Towns of Marshall and Kirkland
Oneida County, New York

Prepared For:
Deansboro Water District Advisory Board
P.O. Box 242
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And

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GEOLOGIC AND ENVIRONMENTAL SERVICES

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EXECUTIVE SUMMARY

This report presents the results of the Phase I Water Supply Investigation of the land surrounding the Deansboro Water District conducted by Continental Placer, Inc. (CPI). The Phase I activities included a review of the surficial and bedrock geology. Existing hydrogeologic studies and inquiries on potential contaminant sources that could affect study area groundwater quality was also conducted. A summary of CPI's conclusions and recommendations are as follows:

- Unconsolidated Sediments: Based on the information gathered during this investigation, the glaciofluvial aquifer in the Oriskany Creek Valley has the highest potential to yield adequate quantity and quality of water in the Deansboro Study area. Glacial till present along the valley sides reportedly does not yield quantities of water suitable for municipal water supply.
- Bedrock Geology: Exploration for a municipal groundwater source within the bedrock is not recommended at this time. The shale bedrock in the valley floor and valley sides reportedly does not provide adequate water quantity or quality for municipal supplies. The limestone bedrock on the hilltop west of Deansboro is limited in thickness and fractured bedrock aquifers at the top of a hill may be susceptible to low recharge periods (drought).
- Potential Contaminant Sources: A junkyard along Hughes Road is currently the only point source of potential contamination CPI has identified. Agricultural land use and road salt application are non-point sources of potential contamination that will factor into recommended target locations for groundwater exploration.

Further groundwater exploration investigations will target the glaciofluvial deposits present below the valley floor. Three recommended target areas have been prioritized as follows and are shown on Figure 5:

- Target Area 1: Large varied use land consisting of cultivated fields, meadows and forested land between Route 12B (near the Peck Road intersection) and the Oriskany Creek. This area occupies a narrow portion of the valley encompassing nearly the entire width of the glaciofluvial deposits mapped at the valley floor. Recharge features for Target Area 1 include the aquifers and streambeds emanating from the valley sides to the west, the Oriskany Creek to the east and aquifers that trend north-south in the main valley.
- Target Area 2 - Town Sand Pit: Land use consists of a Town owned sand pit and a cultivated field located between the "alfalfa terrace" and the Oriskany Creek. Recharge features for Target Area 2 include the Oriskany Creek to the east and aquifers that trend north-south in the main valley. Access to this target area following the sand pit road is very good.

- Target Area 3 - California Road: Land use consists of a cultivated field located northeast of the intersection of Route 315 and California Road. Tributaries to Oriskany Creek bound Target Area 3 to the east and west. Recharge features for Target Area 3 include tributaries of Oriskany Creek to the east and west, and aquifers that trend north-south in the main valley. This target area is very flat and likely to be wet throughout much of the year.

CPI recommends conducting electrical resistivity geophysical surveys at each target area to provide addition detail of site-specific geology. This technique can be cost-effective relative to drilling where high capacity zones are difficult to locate. Once located, the saturated sand and gravel zones can then be targeted for limited soil boring verification and test well advancement.

CPI estimates that two 1,000 feet survey lines at each of the three target areas will be necessary to provide adequate coverage. CPI anticipates that this scope of work can be completed during a 2 to 3 days field event. A brief report will document the methodology and results of the geophysical survey and recommendations for the next phase of investigation will be provided.

1.0 INTRODUCTION

This report presents the purpose, methods, findings, conclusions, and recommendations resulting from the Phase I Water Supply Investigation, performed for the Deansboro Water District Advisory Board and Richard W. Elliott, Civil Engineer. Mr. Greg V. Lesniak, CPI Regional Manager/Senior Geologist, performed the investigation, evaluation, and report preparation. Mr. William J. Miller, Senior Hydrogeologist provided peer review and additional hydrogeologic interpretations. The study area included the Deansboro Water District service area and an area encompassing approximately 1 mile surrounding the water district (See Figure 1).

2.0 PURPOSE

The Deansboro Water District currently utilizes a set of springs and diversion water from a stream located on the western side of the Oriskany Creek Valley. This combined water supply source was inadequate in quantity during the drought period that extended into 1999. The water district has undertaken efforts to develop a backup public water supply source capable of meeting average daily demands. The water district has estimated that a well with a sustained yield of approximately 50 gallons per minute (gpm) would meet or exceed that demand. CPI was contracted to identify and recommend locations within the study area where hydrogeologic conditions could be favorable to yield adequate groundwater quality and quantity to meet the backup municipal supply demands.

3.0 METHODS OF STUDY

3.1 LITERATURE SEARCH

A literature search was performed to identify previous studies describing geologic and hydrogeologic conditions of the unconsolidated deposits and/or bedrock in the Deansboro Study Area. The literature search included, but was not limited to New York State Geological Society maps and reports, U.S. Geological Survey maps and reports, New York State Museum and Science Service Maps, New York State Department of Environmental Conservation (NYSDEC) Water Well Program Database, and previous studies conducted in the water district. Specific documents reviewed include the following.

- Halberg, Hunt, and Pauszek, Water Resources of the Utica-Rome Area, New York, U.S. Geological Survey Water-Supply Paper 1499-C, 1962
- Dale, Nelson C., Geology and Mineral Resources of the Oriskany Quadrangle, New York State Museum Bulletin Number 345, 1953
- Hudec, Peter P., and Dunn, James R., Geology and Groundwater-Resources of Oneida Area, New York State Geological Survey Open File No. 5m020, 1967
- Surficial Geologic Maps of New York - Finger Lakes Sheet, New York Stat Museum and Science Service, Map Series No. 15, 1970
- Bedrock Geologic Maps of New York - Finger Lakes Sheet, New York Stat Museum and Science Service, Map Series No. 15, 1970
- New York State Department of Environmental Conservation - Division of Water, Water Well Database (Well Completion Reports within a 1.0 mile radius of Deansboro)
- Elliott, Richard W., Engineers Report on Study of Proposed Improvements to Deansboro Water District, 2002 (Appendices include drilling logs and hydrogeologic studies conducted in the water district)
- NYSDOT 7.5 min. Oriskany Falls and Clinton Quadrangles
- Availability of Water in Unconsolidated Deposits in Upstate New York, US Geological Survey, Open File Report 82-437, 1982

The available geologic and hydrogeologic data was evaluated with respect to bedrock and unconsolidated water-bearing aquifers. The data collected assisted in interpreting glacial features and in mapping the bedrock geology in the study area. Previous hydrogeologic studies within the water district provided information on the stratified lithology of the buried glacial valley.

3.2 Fracture Trace

CPI obtained aerial photographs and topographic maps that provided coverage of the study area to determine if bedrock fractures can be identified based on surface features. The fracture trace was conducted to evaluate the potential for water bearing bedrock fractures to be present in the study area. Significant fractures were plotted on topographic maps and limited field verification was conducted. During field verification, the approximate orientation (trend and dip angle of the fractures) was determined.

3.3 Evaluation of Potential Contaminant Sources

CPI conducted a preliminary inventory of documented groundwater contamination sites in the study area. An environmental database report was obtained that inventories sites that are on NYSDEC, NYSDOH and USEPA environmental databases. CPI contacted the NYSDEC Regional Spill Engineer to inquire if groundwater contamination sites were known in the study area. Land use was also evaluated as groundwater supplies (particularly shallow overburden wells) can become impacted due to nitrates from agriculture, sodium chloride from road salt, and volatile organic compounds from urban or industrial discharges.

3.4 Site Visits

Visit to the study area were performed on January 31 and February 15, 2005 to gather information on the land use and geomorphology of the area and to field verify fracture orientation. In addition, recommended target areas were inspected to confirm anticipated hydrogeologic setting, identify nearby utilities, and assess access for drilling or geophysical equipment.

4.0 Findings

4.1 Unconsolidated Sediments

The unconsolidated surficial geology within the Deansboro area is mapped as ground moraine glacial till on the hilltops and valley sides. Glaciofluvial deposits are mapped as being present at the valley floor. The glacial till deposits are commonly referred to as hardpan, and consist of a dense mix of silt, sand and gravel in a clay matrix. Glacial till does not typically yield sufficient groundwater to be considered a potential source for community water systems. The glaciofluvial deposits (predominately sand and gravel) are considered to be the most product aquifer in the region and are utilized by many municipalities in the Oriskany and Sauquoit Creek Valleys (Halberg, others, 1962). Although data regarding the water-yielding capacity of the Oriskany Creek Valley is limited, moderate yields can be expected based on similar depositional environments encountered in the region. The glacial deposits of the Clinton Quadrangle are presented as Figure 2 (the glacial deposits of the Oriskany Falls Quadrangle has not been mapped).

Drilling logs from wells installed for the Deansboro Water District in the past indicated that the unconsolidated sediments are interbedded with silt, sand, clay and gravel. Although a silty gravel unit was encountered at 120 to 136 feet in a test well advanced in August 2001, the silty gravel unit yielded less than 10 gpm. Gravel units identified in a test well advanced in the Town sand pit (May, 2000) were found to be dense and contained clay, silts and sand within the gravel units. This 2-inch diameter well was not tested for specific yield. Appendix A contains the portions of the reports and data from these hydrogeologic studies completed for the Deansboro Water District. Well Completion Reports provided by the NYSDEC (Appendix B) indicated that the wells screened in the unconsolidated material in the valley floor did not yield over 10 gallons per minute. Figure 3 presents the well locations and reported yields for several wells in the study area.

4.2 Bedrock Geology

Bedrock in the Deansboro area is comprised of the Vernon Shale, the Camillus Shale, and the Bertie and Manlius Limestone Formations. The Vernon Shale is encountered below the valley floor and the lower portions of the valley sides. The Camillus Shale is present on the western valley side. The Bertie and Manlius Limestone Formations are present at the top of the western hillside (Dale, 1953). This limestone cap appears to be relatively thin and ranges between 20 and 80 feet thick. Figure 4 presents the bedrock geology of the study area.

Groundwater in bedrock is generally found in secondary porosity features such as fractures and weathered bedding planes. Bedrock zones that contain connected open fractures can provide high groundwater yields. Fractures in shale often do not remain open to produce high yielding wells, however fractures in limestone can remain open and are associated with moderate to high well yields. The shale bedrock in the study area is not known to produce significant quantities of water with reported yields less than 10 gallons per minute. Water quality from the shale is generally poor and not suitable for community water systems without treatment. A well located approximately 100 feet down slope of the Deansboro Water District's spring is representative of the shale bedrock and this well reportedly contains elevated iron, sulfates and total hardness. High chloride concentrations in these formations are also common (Hunt, others, 1962).

The limestone formations that cap the western hilltop can produce small to moderate quantities of water for domestic purposes. Water quality information on wells screened in these limestone formations was limited, however the water is characterized as being moderately hard (Halberg, others, 1962).

4.3 Fracture Trace Analysis

Fracture trace analysis was performed to identify locations of bedrock fractures, particularly areas with multiple intersecting fractures. Such areas would be expected to be locations where higher yielding wells could be anticipated.

Fracture traces were readily identified on the western valley side and hilltop based on a review of topographic features. Figure 4 presents the fracture traces identified. Deep streambeds in the shale bedrock demonstrated a preferred orientation that corresponded to the predominate fracture set that trended to the northwest. Fracture traces were not extended out into the valley floor but may extend across the Oriskany Creek Valley. Fractures in the limestone cap were evident by breaks in elevation between hilltops and the orientation of geologic contacts. The confluence of several fractures was noted in the limestone cap approximately 2,500 feet northeast of the intersection of Bougusville Road and Skyline Drive.

CPI field verified the trend of fractures during a site visit on January 31, 2005. Shale bedrock outcrops were encountered in the steep streambeds north of Bougusville and Peck Roads. The primary fracture orientation was measured to be North 55° West (average orientation of 5 measurements) which corresponds to the approximate fracture trace orientation of the deep streambeds on the western valley sides. The fractures were observed to be nearly vertical. Outcrops were not readily accessible due to several inches of snow that covered the ground surface at the time of the fieldwork.

Based on the fracture trace analysis, several locations in the study area were identified where fractured bedrock exists. Concerns regarding water quality in the shale bedrock formations and concerns regarding the thickness and recharge potential of fractured limestone negates these fractured bedrock areas from being considered for groundwater exploration at this time.

4.4 Potential Contaminant Sources

CPI obtained a regulatory database report (Appendix C) dated January 18, 2005 to identify sites that are listed on local, state or federal databases as generating or disposing of regulated materials, or having releases of regulated materials. Three sites were listed on the database. The Fred Burrows Trucking Facility is listed as having had a release of 10 gallons of diesel fuel due to a traffic accident on October 28, 2004. The Tenza Construction facility is listed as owning two petroleum storage tanks, however both USTs were removed prior to 1991 and releases of petroleum are not listed. The remaining site is a hazardous waste generator site owned by NYSEG and located outside of the study area. The database sites listed do not appear to represent significant concerns to water quality of the Deansboro area.

CPI conducted a visual evaluation of potential concerns in the Deansboro area. A junkyard is located along Hughes Road between Route 12B and the Oriskany Creek. The junkyard appears to be a sprawling area of abandoned cars, metal objects and other discarded debris (covered with snow at the time of the field visit). This junkyard is considered to be a potential source of contamination to local groundwater and CPI does not recommending pursuing groundwater supplies immediately down gradient of the junkyard.

CPI contacted the Region 6 Spill Engineer, Mr. Neil Carrier, via telephone to inquire if he was aware of past or ongoing groundwater problems in the Deansboro area. Mr. Carrier was not aware of groundwater contamination in the Deansboro area. He was not aware if an investigation around the junkyard along Hughes Road had been conducted. The NYSDEC did respond to the Fred Burrow truck accident in October 2004 but this was considered a minor release and not a threat to groundwater.

The agricultural land use of the valley floor in the area is a potential concern due to nitrate loading and bacteriological concerns. Shallow water-table aquifers can be susceptible to nitrate and bacteriological contamination pending infiltration rates, local geochemistry and recharge features. Well construction and depth of groundwater withdrawals will be factors in groundwater development of any wells installed near agricultural lands.

Road salt use was observed on State Route 12B during the time of the site visit, however sand appeared to be used on secondary roads in the area. Road salt use is a growing concern to potable water supplies as sodium chloride can shallow aquifers or aquifers in fractured bedrock. Sodium chloride also corrodes steel well casings rapidly. CPI does not recommend shallow groundwater target areas within 200 feet of Route 12B.

5.0 CONCLUSIONS

5.1 UNCONSOLIDATED SEDIMENTS

Based on the information gathered during this investigation, the glaciofluvial aquifer in the Oriskany Creek Valley has the highest potential to yield adequate quantity and quality of water in the Deansboro Study area. Glacial till present along the valley sides reportedly does not yield quantities of water suitable for municipal water supply. Drilling conducted in the glaciofluvial deposits during recent studies has shown that locating sand and gravel zones capable of producing high well yields can be difficult. High capacity zones may be in the form of buried stream channels limited in width and depth, thereby locating these zones through drilling techniques alone may be challenging.

5.2 BEDROCK AQUIFERS

Exploration for a municipal groundwater source within the bedrock is not recommended at this time. The shale bedrock in the valley floor and valley sides reportedly does not provide adequate water quantity or quality for municipal supplies. The limestone bedrock on the hilltop west of Deansboro may provide suitable water quality, however the thickness of the limestone is limited. It is likely that a bedrock well installed at the top of the hill would penetrate through the limestone and into the underlying shale after only 20 to 80 feet of drilling. Fractured bedrock aquifers at the top of a hill may also be susceptible to low recharge periods (drought) than valley floor aquifers.

5.3 POTENTIAL CONTAMINANT SOURCES

A junkyard along Hughes Road is currently the only point source of potential contamination CPI has identified. Recommended target areas will not be considered in the immediate proximity of the junkyard or within several hundred feet downgradient (north) of the junkyard. Agricultural land use and road salt application are non-point sources of potential contamination that will factor into recommended target locations for groundwater exploration. Well construction details and groundwater withdrawal depth will also be considered relative to these non-point sources.

6.0 RECOMMENDATIONS

Based on the conclusions discussed above further investigations will target the glaciofluvial deposits present in the valley floor. The location, thickness and/or extensiveness of the sand and gravel zones within the glaciofluvial deposits are not currently known and therefore CPI has identified three target areas for groundwater exploration. The target areas have also been chosen for proximity to the Deansboro Water District to minimize the length of new water lines. The three recommended target areas have been prioritized as follows and are shown on Figure 5:

Target Area 1: Large varied use land consisting of cultivated fields, meadows and forested land between Route 12B (near the Peck Road intersection) and the Oriskany Creek. This area occupies a narrow portion of the valley encompassing nearly the entire width of the glaciofluvial deposits mapped at the valley floor. Recharge features for Target Area 1 include the aquifers and streambeds emanating from the valley sides to the west, the Oriskany Creek to the east and aquifers that trend north-south in the main valley.

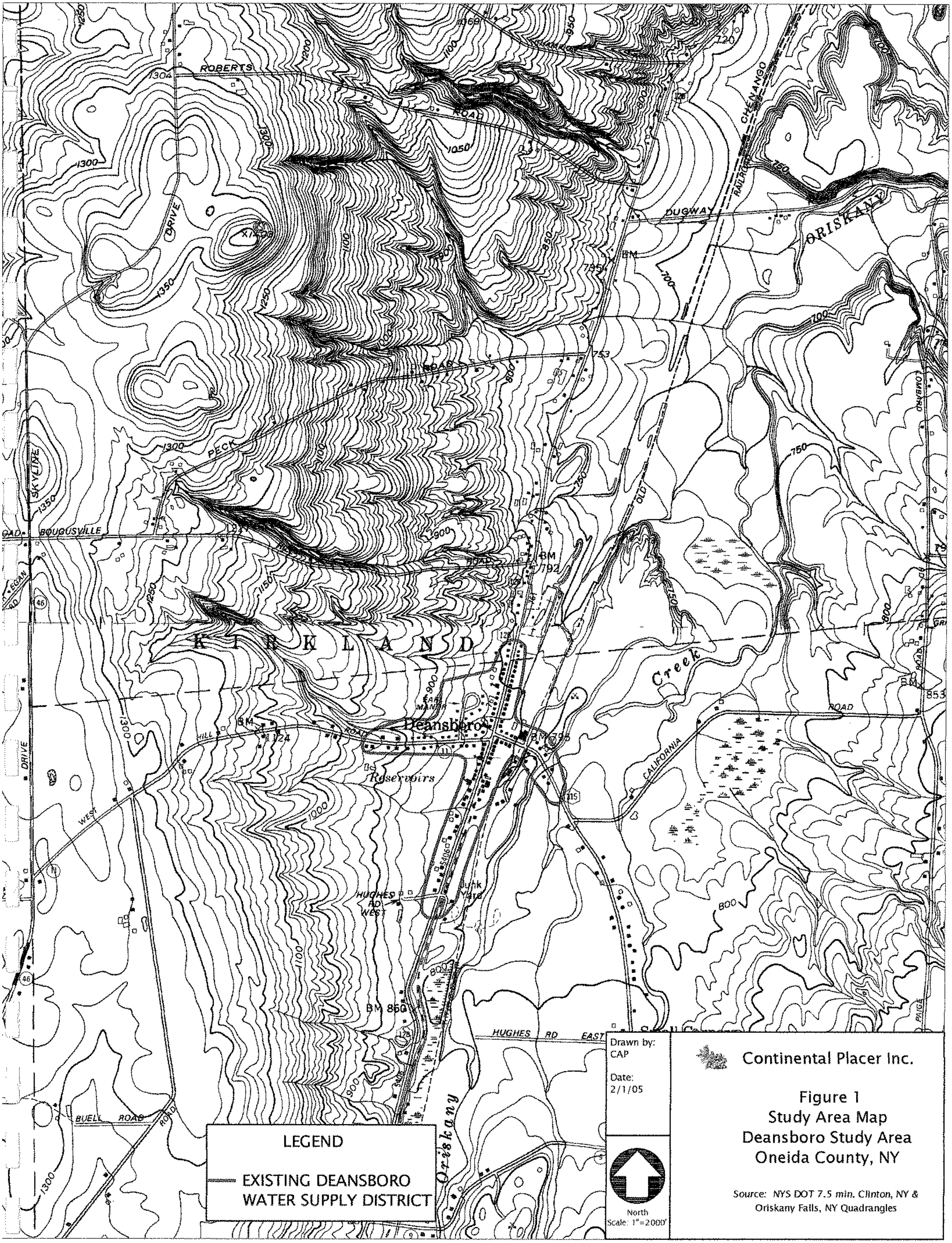
Target Area 2 - Town Sand Pit: Land use consists of a Town owned sand pit and a cultivated field located between the "alfalfa terrace" and the Oriskany Creek. Recharge features for Target Area 2 include the Oriskany Creek to the east and aquifers that trend north-south in the main valley. Access to this target area following the sand pit road is very good.

Target Area 3 - California Road: Land use consists of a cultivated field located northeast of the intersection of Route 315 and California Road. Tributaries to Oriskany Creek bound Target Area 3 to the east and west. Recharge features for Target Area 3 include tributaries of Oriskany Creek to the east and west, and aquifers that trend north-south in the main valley. This target area is very flat and likely to be wet throughout much of the year.

CPI recommends conducting electrical resistivity geophysical surveys at each target area to provide addition detail of site-specific geology. Resistivity imaging is a proven technique that can identify the horizontal and vertical extent of high capacity sand and gravel aquifers. Ground resistivity changes depending on the lithology, water saturation and chemical composition. Typically, permeable materials (like sand and gravel) have a lower resistivity than impermeable materials (like clay), so the section provides an indication of local stratigraphy. By employing multiple parallel sections, a

three dimensional interpretation of the subsurface geology will be developed. This technique can be cost-effective relative to drilling where high capacity zones are difficult to locate. Once located, the saturated sand and gravel zones can then be targeted for limited soil boring verification and test well advancement.

CPI estimates that two 1,000 feet survey lines at each of the three target areas will be necessary to provide adequate coverage. CPI anticipates that this scope of work can be completed during a 2 to 3 days field event. The preliminary results will be available in the field, but further data reduction will be required. A brief report will document the methodology and results of the geophysical survey and recommendations for the next phase of investigation will be provided.



LEGEND

EXISTING DEANSBORO WATER SUPPLY DISTRICT

Drawn by: CAP

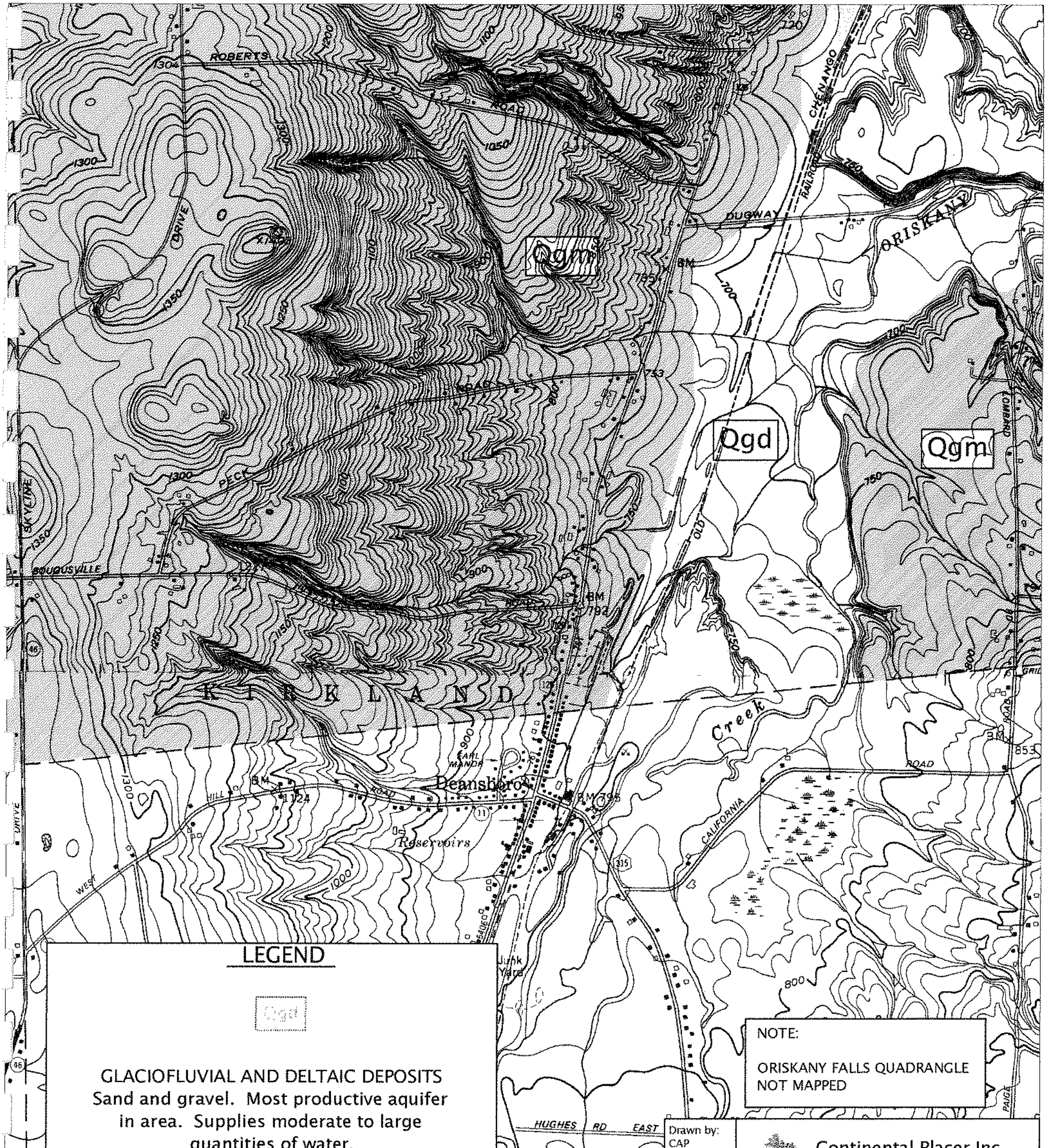
Date: 2/1/05

North
Scale: 1"=2000'

Continental Placer Inc.

Figure 1
Study Area Map
Deansboro Study Area
Oneida County, NY

Source: NYS DOT 7.5 min. Clinton, NY & Oriskany Falls, NY Quadrangles



LEGEND

Qgd

GLACIOFLUVIAL AND DELTAIC DEPOSITS
Sand and gravel. Most productive aquifer in area. Supplies moderate to large quantities of water.

Qgm

GROUND MORAINE TILL
Unsorted clay, silt and boulders. Includes some areas of bedrock. Generally a poor aquifer but furnishes small supplies to domestic dug wells.

NOTE:

ORISKANY FALLS QUADRANGLE NOT MAPPED

Drawn by: CAP

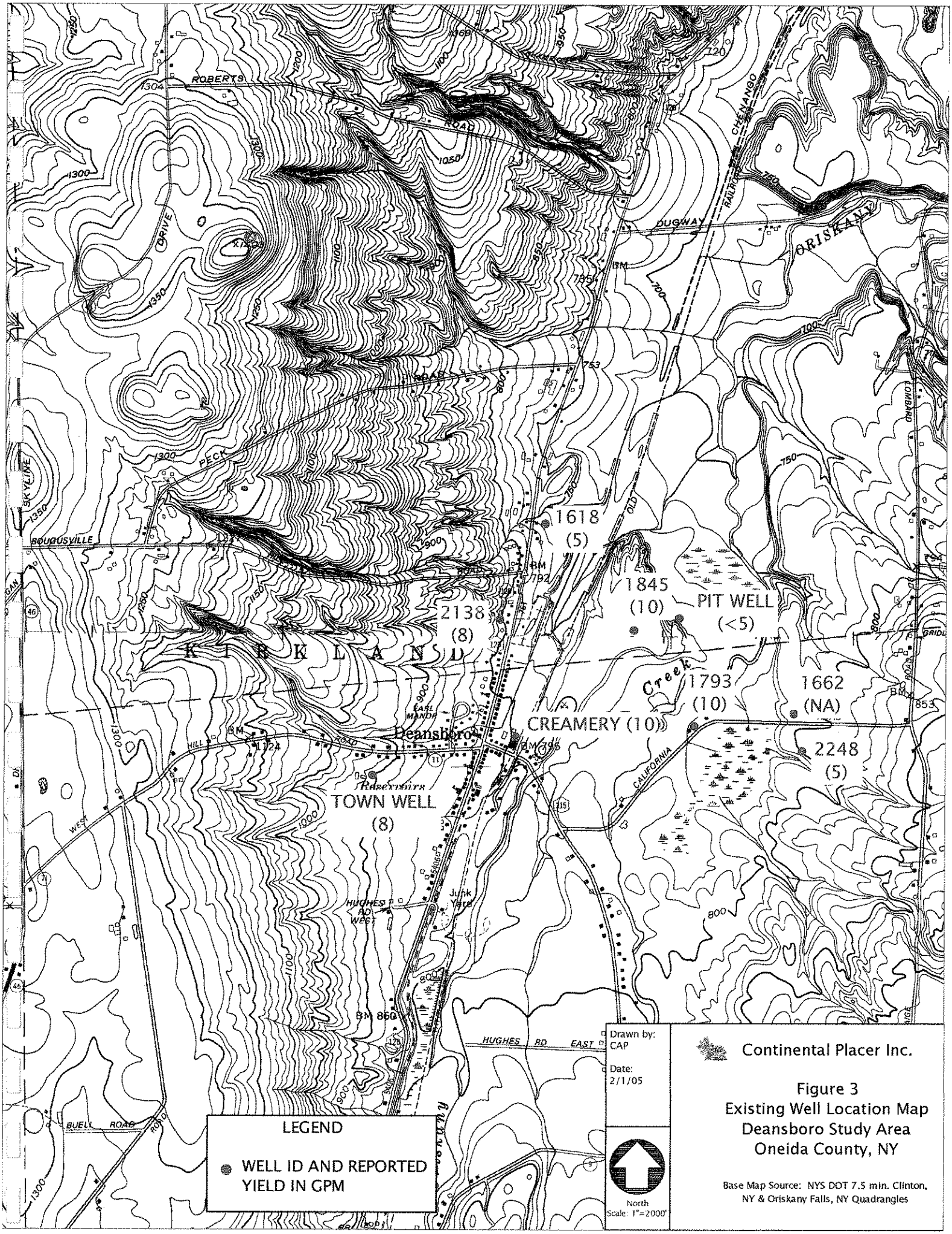
Date: 2/1/05

North
Scale: 1"=2000'

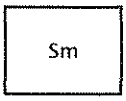
Continental Placer Inc.

Figure 2
Surficial Geology Map
Deansboro Study Area
Oneida County, NY

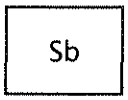
Source: NYS DOT 7.5 min. Clinton, NY & Oriskany Falls, NY Quadrangles and USGS Water Supply Paper 1499-C


1618
(5)
1845
(10)
PIT WELL
(<5)
2138
(8)
K I R K L A N D
1793
(10)
1662
(NA)
CREAMERY (10)
2248
(5)
Deansboro
Reservoirs
TOWN WELL
(8)
ROBERTS ROAD
DUGWAY
ORISKANY
PECK
BOUGUSVILLE
SKYLINE
HILL
WEST
HUGHES RD WEST
HUGHES RD EAST
CALIFORNIA
BUELL ROAD
Junk Yard
Creek
LEGEND
WELL ID AND REPORTED YIELD IN GPM
Drawn by: CAP
Date: 2/1/05
North
Scale: 1"=2000'
Continental Placer Inc.
Figure 3
Existing Well Location Map
Deansboro Study Area
Oneida County, NY
Base Map Source: NYS DOT 7.5 min. Clinton, NY & Oriskany Falls, NY Quadrangles

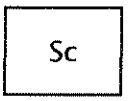
LEGEND – FIGURE 4



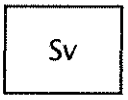
MANLIUS LIMESTONE
Fossiliferous limestone with shale partings. Furnishes small to moderate quantities of water to domestic wells.



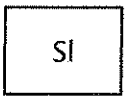
BERTIE LIMESTONE
Thin-bedded limestone. Furnishes small to moderate quantities of water to domestic wells.



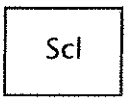
CAMILLUS SHALE
Mottled red and green shale with thin limestone beds. Furnishes small quantities of water of poor quality.



VERNON SHALE
Mottled purplish-red shale. Furnishes small to moderate quantities of water of poor quality.



LOCKPORT DOLOMITE
Nearly black dolomite and shale. Furnishes small to moderate quantities of water of poor quality.

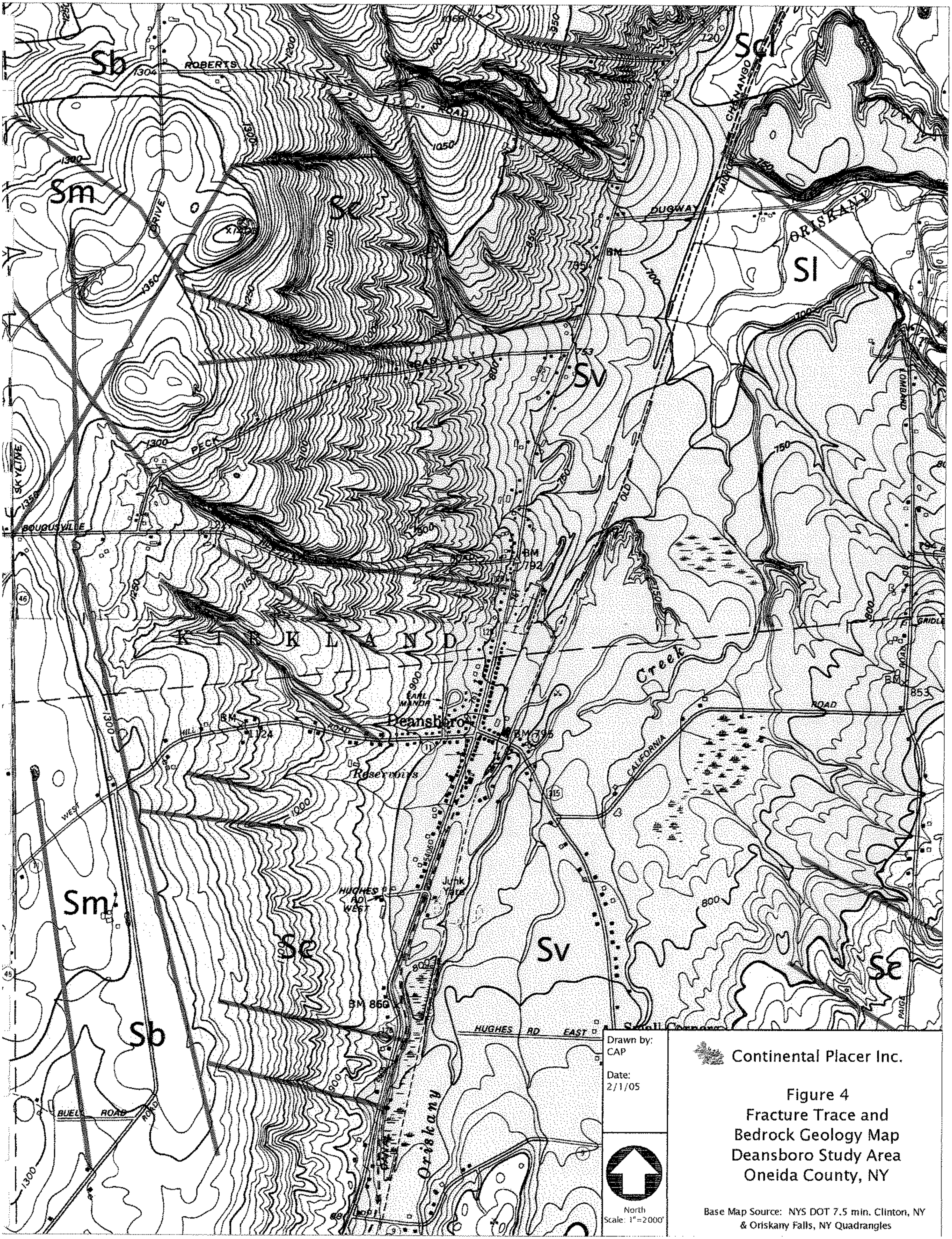


CLINTON GROUP
Gray and green shale and sandstone with a few beds of dolomite, conglomerate and red iron ore. Furnishes small supplies of water.

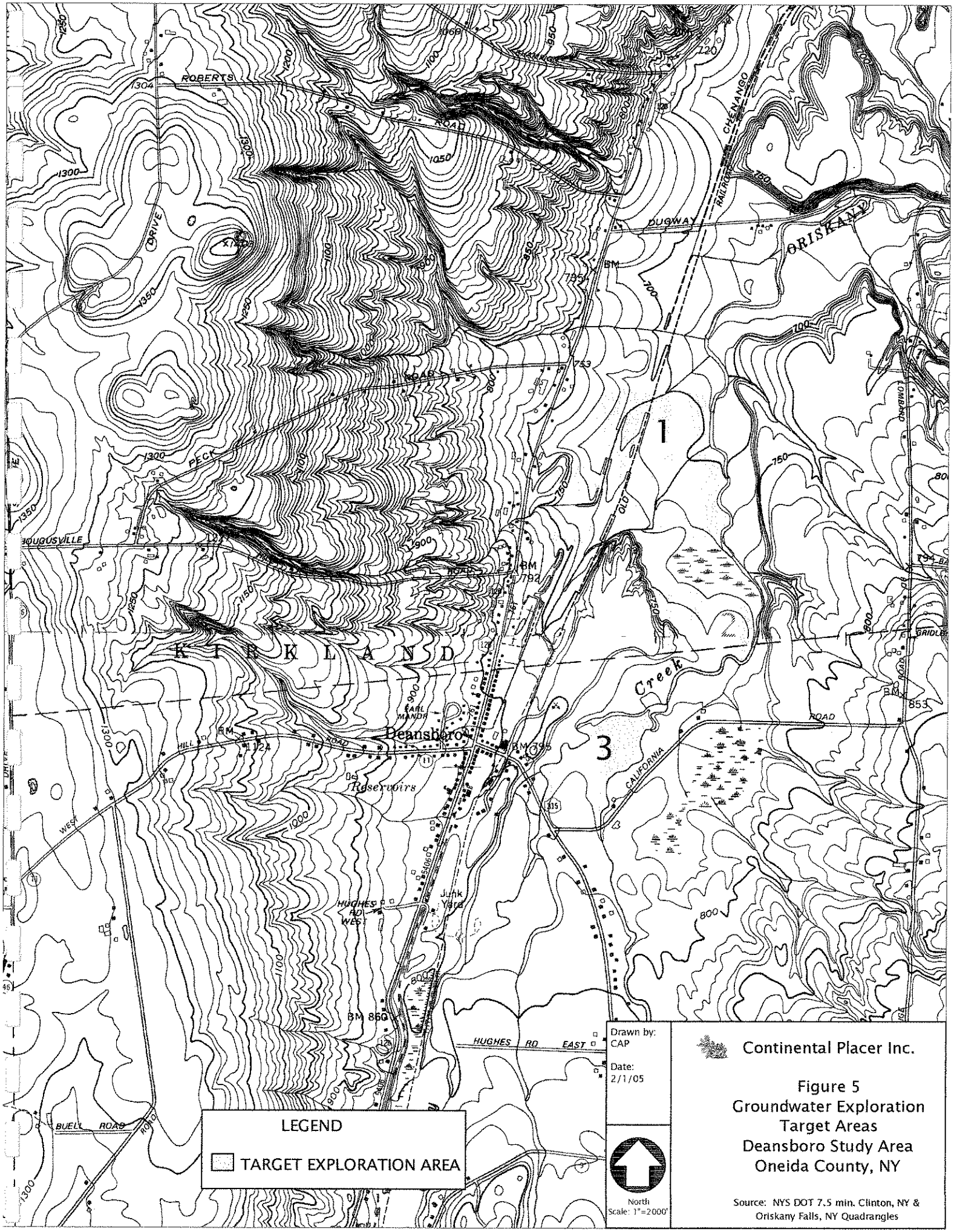
——— Contact, approximately located

– – – – Fracture Trace

Source: Water-Supply Paper 1499-C
Plate 2
(Oriskany Falls Quadrangle; Geology and Fracture Traces interpreted by CPI)



Drawn by: CAP Date: 2/1/05	Continental Placer Inc. Figure 4 Fracture Trace and Bedrock Geology Map Deansboro Study Area Oneida County, NY
North Scale: 1"=2000'	Base Map Source: NYS DOT 7.5 min. Clinton, NY & Oriskany Falls, NY Quadrangles


ROBERTS
ROAD
DUGWAY
ORISKANY
CHENANGO
RAILROAD
PECK
HOUGHSVILLE
K I R K L A N D
Deansboro
Creek
ROAD
CALIFORNIA
HILL
WEST
Reservoirs
Junk Yard
HUGHES RD WEST
HUGHES RD EAST
BUELL ROAD
BM 860
1
2
3
LEGEND
TARGET EXPLORATION AREA
Drawn by:
CAP
Date:
2/1/05
North
Scale: 1"=2000'
Continental Placer Inc.
Figure 5
Groundwater Exploration
Target Areas
Deansboro Study Area
Oneida County, NY
Source: NYS DOT 7.5 min. Clinton, NY &
Oriskany Falls, NY Quadrangles

Appendix A

Previous Hydrogeologic Studies in the Deansboro Area

Provided to CPI as Appendix A
of Engineers Report by Richard W. Elliott, P.E.
Only portions of this report are attached.

Delineating existing contribution areas and evaluating additional municipal water resources in central New York

Abby L. McDermott, Jennifer L. Cleary, and Todd W. Rayne
Department of Geology, Hamilton College
Clinton, New York

Abstract

The municipal water system in the village of Deansboro (NY) serves about 450 residents. The existing system utilizes two springs and a stream, which provide the village with sufficient water during wet seasons. Concerns about water quality and land use practices, combined with several dry summers, have led the water district to investigate supplemental sources.

Our project had two objectives: (1) we analyzed the existing system by delineating the contribution areas and identifying potential contaminant sources using detailed topographic information combined with GPS, a composite aerial photograph, and historical records; and (2) we conducted a geological and geophysical investigation of a nearby prospective aquifer. The study area was chosen based on surficial geology and economic factors.

The contribution areas to the existing system consist of a broad upland area and narrow stream valleys. Land use is predominantly agricultural, with small grains and dairy pastures. Potential contamination sources include fertilizer and pesticide application, farm dumps, unprotected spring discharge points, underground tanks, and an abandoned, unregulated municipal dump.

The prospective aquifer consists of meltwater-deposited sand and gravel ranging in thickness from approximately 25 to 100 feet. Based on the results of seismic refraction, the estimated saturated thickness ranges from 19 ft to greater than 60 ft. A slug test yielded a hydraulic conductivity of 1.7 ft/day. Results of GPR surveys were inconclusive.

Introduction

Geology of the Area

The surficial and bedrock geology of Deansboro, NY plays an important role in the quantity and quality of water available in the area. The flat area immediately east of the village is composed of Quaternary sand and gravel deposited in an ice-contact delta. Sediments carried by streams and glacial waters were deposited in a gap between the valley wall on the west and glacial ice to the east. As the glacier receded, the sediments lost their eastern support and slumped onto the floor of the valley, creating a highly variable unit 25 to 90 plus feet thick. Alluvial deposits from the Big Creek and Oriskany Creek are in the lower areas of the study area adjacent to the modern streams. In addition, alluvial fan deposits from the small streams draining the hill are located near the intersection of each stream and the valley. The fans in the Deansboro area appear to grade into the ice-contact delta. They are not mapped discretely in this project.

Reddish Vernon Shale bedrock underlies the glacial sediments in the valley and is close to the surface on West Hill, where it is covered by a thin layer of glacial till.

A karsted limestone or dolostone cap overlies the Vernon Shale on West hill. A thin layer of glacial till covers the entire upland area.

Purpose

The purpose of this study was to evaluate the existing Deansboro water system and investigate the area selected for future drilling. Our first objective was to define the contribution area for the current system. We also investigated possible sources of contamination and outlined the land use in the catchment area. The second phase of our

project involved examining a potential well site on a terrace currently used as an alfalfa field north of the Town of Marshall Highway garage. In May of 2000 a test well was drilled in an excavated area below the terrace. We studied the properties of the sediments in the vicinity of the test well aquifer and the terrace.

Current Water System

Delineation of Catchment Area

We relied primarily on a detailed topographic map of the Deansboro area (Figure 1) and Global Positioning System (GPS) units to map boundaries of the contribution area. We checked the accuracy of the drainage basin boundaries with field observations.

The contribution area for Deansboro's current water system consists of a broad band running north-south with one boundary just north of West Hill Road and the second, western boundary midway between Green Vedder Road and Skyline Drive. The band has two eastward protruding fingers. The northern finger extends down West Hill Road to the present-day settling house and includes the spring and stream comprising the north source. The south source spring is located on the southern finger and is piped directly to the settling house (Figure 1).

Land-use Investigation

Water quality is an important issue in Deansboro, a primarily agricultural area. We created a composite air photo (Figure 2) showing crops and pastureland in and around the village during summer 1999. We spot-checked land-use in the north and south source collection area to note any variance in crop type during summer 2000. Information

from the aerial photo combined with personal accounts from Deansboro residents and field observations allowed us to locate potential contamination sources within the contribution area.

Agricultural land-use predominates on West hill, and consists of small-grains (oats, alfalfa, corn), hayfields, and pastureland. Corn is the primary crop in the area. In general, manure, N-P-K fertilizers and pesticides are applied to promote corn growth. Runoff moving through cornfields during and after storms may pick up these chemicals and carry them down West Hill into the Deansboro water system. Shallow groundwater also transports these chemicals. Manure from cattle in runoff can eventually contaminate drinking water. Another possible contaminant source is a private farm dump located in a small valley just north of the south spring (Figure 1). The dump did not appear active during summer 2000, but clearly has been used in the past. The dump represents another possible source of contamination to the water system.

Filter blockage

A slow sand system is used to filter the spring and stream water gathered on West Hill. Since filtration was begun in 1996, a thin, semi-cemented layer has been forming on the surface of the sand bed and impeding filtration. Periodically, the layer must be removed to restore flow rate through the filters. The layer does not seem to occur when pure spring water is piped through the filters. An earlier examination of the layer showed that it was not precipitated $CaCO_3$ and it was not organic in nature. It appears to be silt or clay that is being trapped in the upper layers of the sand.

In addition to talking to residents of the town, we also contacted Mr. Ed Bates—a local well driller with Bates Drilling Company based in Rome, NY. He was able to tell us about the quantity, quality, depth, and stratigraphy of wells around Deansboro. His experiences drilling indicate that on the valley floor in the village the water quality is poor. The sediment of these wells is almost exclusively gravel. The best quality water is found within the first forty feet. Yields range from 5-10 gallons/minute. The deeper into the gravel one drills, the worse the water quality. For example, on the corner of 12B and West Hill Road Bates drilled a well. The well is ninety feet deep with greater than 15 gallons/minute production, but the quality is very poor, making it unusable. The water is extremely hard, with a high acidity and mineral content. In the valley flat wells reach bedrock at ninety plus feet.

Moving up the hill, the quality of water is better, but the yield of wells varies from very poor to 10-30 gallons/minute. Along Skyline Drive, the hill is capped with a limestone aquifer. This area has high production wells with good quality, but the extent of the aquifer is limited.

Test Well

A well was drilled north of the terrace behind the Town of Marshall Highway Department in May 2000. The well was drilled to a depth of fifty feet and we analyzed sediment as it was removed (Figure 3). The water table is at approximately six feet. The layers consist of sand and gravel to twenty-five feet with clay-like layers deeper. The well is two-inch PVC pipe placed at twenty-five feet with twenty feet of screen. We developed the well with repeated bailing. This brought the level of water in the well

down and flushed the slots to bring a clearer volume of water in. A slug test yielded a hydraulic conductivity of 1.7 ft/day (Figure 4).

Geophysical Tools

Geophysical tools used to analyze the possible drilling site were seismic refraction and ground penetrating radar (GPR). These tools do not directly sample the sediment layers and are more appropriately used in combination with confirmed information about the subsurface. In the absence of hard information such as drilling, conclusions about subsurface geology based on geophysical data alone is speculative.

Seismic Refraction

Seismic refraction involves recording the response of the subsurface to a blast of energy. Energy is transmitted into the ground using a hammer blow or a shotgun discharge. These energy waves encounters layers in the ground and are refracted depending on the characteristics of the sediment. The waves of energy are bent by the layers and return to the surface where time arrivals are recorded by geophones. Geophones are modified microphones that are inserted about six inches into the ground at 20-foot intervals along a 240-foot cable to a computer where the information is translated into a graph format (Figure 5). The geophones record the time of the return of the waves to the surface after refraction through layers in the subsurface. The times are used to determine depth to layer interfaces and travel velocities. Velocities are a function of the density of the sediment and are calculated using a combination of graphing and calculation (Figure 6).

Collection of seismic refraction data near the test well was ideal because drilling detailed the actual sediments present. Analyzing seismic data from this area helped to reference subsequent trials on the higher terrace. We acquired seismic data from five lines on the terrace and one line near the well. The seismic data by the test well indicated an interface at approximately six feet that we interpret to be the water table and another interface at twenty-five feet, which we interpret to be the top of the clay layer. We interpret the zone between 6 and 25 feet to be saturated sand and gravel. On the terrace the top layer depth was about twenty-five feet on average. After comparing velocities by the test well and considering the nature of the land use on the terrace, we concluded this layer is unsaturated sand and gravel with the water table at about 25 feet. The velocity of the top layer on the terrace was slightly less than the top layer velocity by the well. However, the sediment by the well is more compacted giving it a greater density which would increase the velocity. The terrace has been used for farming and has not been excavated extensively. The less compacted sediments should have a lower density and lower velocity.

The second layer in the subsurface on the terrace is about 60 feet thick. The velocities of this layer correspond to the saturated sand and gravel layer of the test well below. The two layers give the terrace a thickness of about 85 feet. Beyond 85 feet is likely to be glacial till or shale bedrock (Figure 7). Drilling records (test well) confirm that bedrock on the flat was reached around 50 feet. Table 2 shows the results of refraction seismic part of the project.

Ground Penetrating Radar (GPR)

Ground penetrating radar is another geophysical method used to probe the subsurface. This method uses a specific frequency antenna connected to a computer. The antenna sends radar impulses into the ground. As with seismic refraction, the nature of the layers affects the energy discharged. The waves reflect back to the antenna depending on the contrast in density and dielectric constants of the layers. These data are sent to the computer where a scan is created. Water content affects the density and dielectric constant of sediments, so a distinct water table should be visible as a strong reflector by the test. A dense unit such as clay should appear on the scans as a strong reflector. Both of these features are known to exist by the test well.

The use of GPR on the terrace and by the test well did not yield conclusive evidence about the subsurface. A number of lines around the well, along the road, and on the terrace were conducted. None of the lines produced scans that assisted in subsurface interpretation.

Conclusions

After five weeks of study we have the following suggestions for improving water quantity and quality.

The quality of the water in the existing system is at risk to contamination due to the land use in the catchment area. The north source is principally subject to direct contact with cattle and other wildlife as it travels over the surface to the settling house. This contact could be minimized by fencing the stream from spring source to its entrance

into more secluded wooded land. Also, a farm dump located between the two existing sources has the potential to influence water quality. Ideally, this dump should be removed.

The results obtained by seismic refraction lead us to believe that the saturated zone underlying the terrace on the southern end is approximately 50 to 60 feet thick with the water table at 25 ft. A test boring would confirm this theory by giving tangible information regarding aquifer characteristics. It is impossible to gain complete knowledge of subsurface sediments and water volumes without drilling.

Additional sources of water from springs may exist in the catchment area of the existing system. Both existing spring sources originate near the 1200-foot contour line according to field observations and GPS records. Several streams outside the drainage also originate at approximately this elevation (Figure 1). It is possible that additional springs may exist near or at this elevation. However, we did not discover any other springs in our quick field survey of the area.

Although our turbidity analysis was inconclusive, it is likely that suspended sediment is causing the filter blockage problem. Heavy precipitation causes source water to pick up a larger suspended load that may not be sufficiently removed in the existing system. Increased baffling in the settling house would help alleviate this problem by augmenting the total settling time.

Acknowledgments

We would like to thank the following people for their involvement in this research: Dale Allen and the Deansboro Water Board facilitated our involvement in this project and

TEST BORING LOG

Figure 3.

PROJECT Hamilton College Field Course Test Well

DRILLER Parratt Wolff Inc., Fisher Rd., East Syracuse, NY 13057

LOCATION Deansboro, NY
GPS 18T 0466108
UTM 4760673

ELEVATION 953' (relative to assigned BM)
The BM is the steel cover for gas access located at the intersection of Rt.315 and Town of Marshall highway department driveway with assigned elev. of 1000 feet.

DATE 5-25-00

GROUND WATER DEPTH WHILE DRILLING 6.5'

N--NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30"--ASTM D-1586, STANDARD PENETRATION TEST
C--NO. OF BLOWS TO DRIVE CASING 12" W/140# HAMMER FALLING 30"/OR % CORE RECOVERY

Two-inch PVC pipe was installed to a depth of twenty-five feet with twenty feet of screen. The well was placed above the clay layer which begins at approximately thiry feet depth. The filter pack is comprised of native sand taken from the terrace bank south of the well. Bentonite clay capped the sand and a concrete slab was placed at the surface. The PVC pipe was surrounded by a protective steel casing.

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE
	0-1.2'	1	1.2	4-13	63	VERY DENSE; TOP 6" MOIST, BOTTOM 6" DRY; F. TO C. SAND, SOME F. TO C. GRAVEL	
				50/.2			
	2-4'	2	0.9	18-30	67	VERY DENSE; DRY; F. TO M. GRAVEL; AND F. TO C. SAND	
				37-41			
5	4-6'	3	0.9	31-36	86	VERY DENSE; DRY; F. TOC. GRAVEL; SOME F. TO C. SAND	
				50			
	6-6.8'	4	-	18		NO RECOVERY; INSIDE OF SPOON WET	
				50/.2			
	8-10'	5	1.5	8-8	24	MED. DENSE; WET; F. TO M. SAND	
10				16-18			
	10-12'	6	-	7-8	16	MED. DENSE; WET; F. TO M. SAND	
				8-11			
15							
	15-16.5'	7	1.5	11-7	14	MED. DENSE; MOIST; F. SAND, TRACE SILT	
				7			
20							

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE
	20-21.5'	8	1.5	17-16	29	MED. DENSE; MOIST; M. TO C. SAND; TRACE F. GRAVEL	
				13			
25							
	25-26.5'	9	0.5	24-27	58	VERY DENSE; WET; M. TO C. SAND; TRACE F. TO M. GRAVEL TRACE SILT	
				31			
30							
	30-31.5'	10	1.0	3-4	7	MED. STIFF; MOIST; CLAY, SOME SILT; COHESIVE SOILS	
				3			
35							
	35-36.5'	11	1.5	6-9	18	STIFF; MOIST; CLAY WITH TRACE SILT	
				9			
40							
	40-41.5'	12	0.2	9-10	19	VERY STIFF; MOIST; CLAY WITH LITTLE SILT, TRACE GRAVEL	
				9			
45							
	45-46.5'	13	0.5	24-27	61	VERY DENSE; MOIST; F. TO C. GRAVEL, SOME C. TO M. SAND	
				34			
50							
	50-51.5'	14	0.5	22-27	44	DENSE; MOIST; C. TO F. GRAVEL WITH LITTLE SILT; CLOSE TO BEDROCK (VERNON SHALE)	
				17			

Figure 4. Slug Test Graph. This data was used to calculate the hydraulic conductivity for the test well aquifer. K=1.7 ft/day

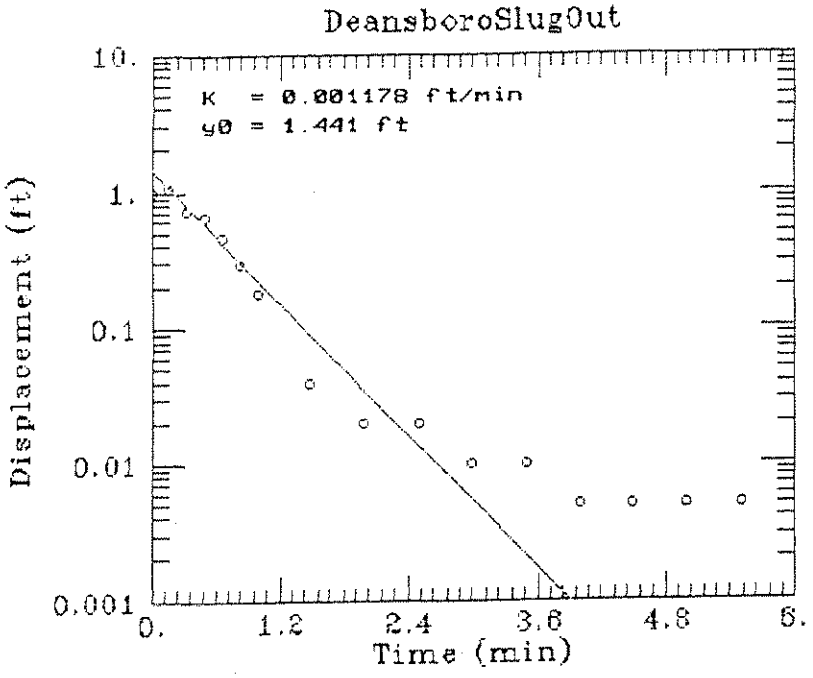
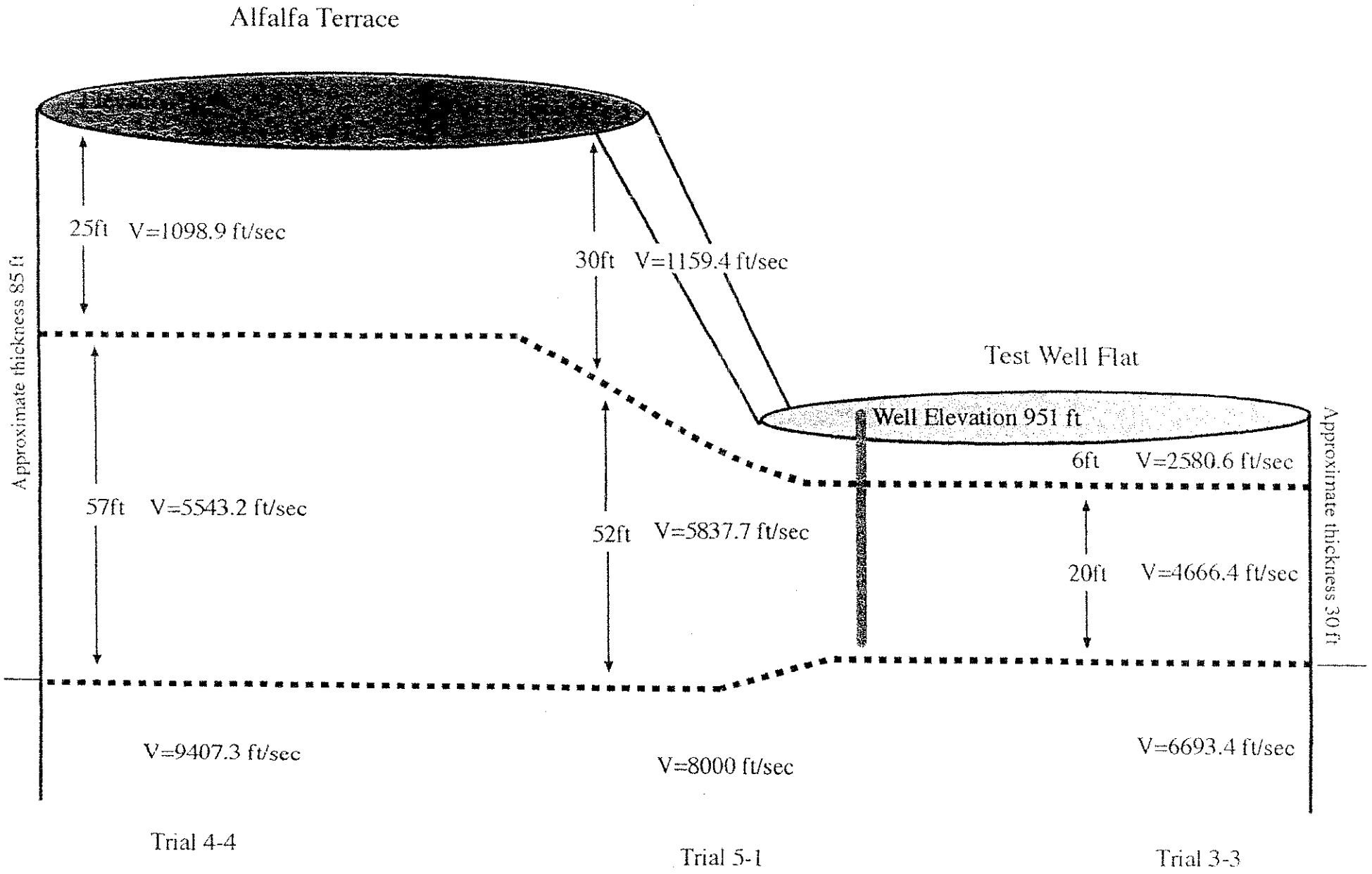


Figure 7. Schematic cross-section of terrace and test well with seismic data
**Elevations are relative to assigned BM



Provided to CPI as Appendices B,C, and D
of Engineers Report by Richard W. Elliott, P.E.

DRAFT
PRELIMINARY WELLHEAD PROTECTION PLAN

NEW WELL
TOWN OF MARSHALL PROPERTY

DEANSBORO WATER DISTRICT

Prepared by:

Steven Winkley
New York Rural Water Association

1.0 INTRODUCTION

In order to preserve and protect the quality of valuable potential well supplies, the New York Rural Water Association has prepared the following Preliminary Wellhead Protection Plan. The protection of potential sources of groundwater is of utmost importance to ensure a high-quality, affordable water supply for the residents of Deansboro.

This Wellhead Protection Plan identifies potential sites for a new well supply for the Deansboro Water District, maps the theoretical area that may supply water to the well sites, assesses potential contamination threats to the wells, and outlines approaches designed to prevent contamination.

2.0 POTENTIAL SUPPLY SITE SETTING

In light of recent supply shortages the Deansboro Water District has decided to investigate developing an additional supply of water. Based upon a review of the hydrogeology of the area and the availability and access of land in the vicinity of the existing water system, the District has elected to pursue development of a well supply on a small portion of a 104.6 acre tract of land that is owned by the Town of Marshall. This property is situated adjacent to the Oriskany Creek in an outwash sand and gravel aquifer that has been mapped by the United States Geological Survey as capable of yielding more than 100 gallons per minute (gpm) (Figure 1).

After a site visit with officials of the Oneida County Health Department, New York State Department of Environmental Conservation, and the New York Rural Water Association in May 2000, it was decided that a potential area for water supply development may be an alfalfa field situated between the town garage and town pit that are situated on the property (Figure 2). In order to properly locate the supply well to minimize the potential risk of groundwater contamination, New York Rural Water Association has developed this preliminary wellhead protection plan. Two possible well sites have been identified (Figure 2). Site 1 is situated approximately 750 feet northeast of the Town Garage building. This location is situated on Town-owned property and is within the jurisdictional boundaries of the Town of Marshall. Site 2 is situated approximately 1,350 feet northeast of the Town Garage building. Site 2, though located on Town-owned property, is actually located in the Town of Kirkland.

The Hamilton College Department of Geology conducted an investigation on the Town-owned parcel in spring and summer 2000. A test well was drilled to a depth of 50 feet in the Town pit and several seismic lines were conducted in the alfalfa field and pit. The conclusions of the study indicate that the saturated thickness of sand and gravel underlying the alfalfa field is about 60 feet thick. The depth to the water table here is believed to be on the order of 25 feet deep. These results confirmed the water-bearing potential of the potential well sites.

3.0 WELLHEAD PROTECTION AREA

The USEPA defines wellhead protection areas as the surface and subsurface area surrounding a well through which contaminants are reasonably likely to move toward and reach the water well. The Wellhead Protection Area (WHPA) for a potential supply well on the Town of Marshall property

was delineated using the MWCAP module of the USEPA's WHPA Code. This computer program is specifically designed to identify wellhead protection areas. Input data for the model was based upon findings of Hamilton College and other estimates. Based upon a slug test in the monitoring well, the hydraulic conductivity of the aquifer was measured by Hamilton College to be 1.7 ft/day. This value is considered to be relatively low for an outwash sand and gravel. A value of 17 ft/day was used in the MWCAP module to account for a more realistic and conservative analysis. A saturated thickness of 57 feet was used in the computer code based upon seismic refraction surveys conducted in the area. The water table gradient was estimated at 0.0057 feet/feet based upon the regional gradient of Oriskany Creek. The ambient direction of groundwater flow was estimated to be from S28W to N28E based upon regional topography. The pumping rate used in the MWCAP module was a continuous rate of 60 gallons per minute. This is far in excess of the 30,000 gallon per day (20.8 gpm) that is believed to be the average daily demand for the system. This was done in order to account for possible drought or worst-case conditions.

The 5-year time of travel wellhead protection area delineated by the computer code has been mapped on Figure 2 for each potential well site. This figure shows the area where groundwater would theoretically reach a supply well within 5 years. This time of travel threshold is significant because it is referenced in New York State's Source Water Assessment Program. It is important to prevent contamination within 5 years time of travel of a supply well because this length of time is generally not sufficient to remedy any contamination before it would reach the supply well.

In addition, the 60-day time of travel zone has been delineated and mapped on Figure 2. The distance to the 60-day time of travel threshold is 100 to 150 feet from the theoretical supply well. The NYDEC and DOH typically require all land within 200 feet or a time of travel of 60 days should be owned or directly controlled by the water supplier. In the case of Deansboro, it would appear that a 200-foot area around a supply well would have to be owned or directly controlled by the water supplier. This would have to be confirmed by actual data collected during the testing of the production well.

4.0 ANALYSIS OF POTENTIAL CONTAMINATION SOURCES

The principal potential source of contamination for either potential well site 1 or 2 would be the Town garage facility. No known contamination exists at the facility. However, salt and petroleum are stored at the facility and vehicles are serviced here. Well Site 1 is situated within 1-2 years ground water time of travel from the facility. Well Site 2 is situated beyond five years ground water time of travel from the garage facility. From this standpoint, it appears that Well Site 2 is a better site from the standpoint of wellhead protection.

Several management measures could be instituted to prevent or otherwise reduce the threat of ground water contamination from the Town Garage facility. These include:

- Storage of any necessary deicing salts and salt/sand mixtures under cover to prevent seepage;
- No petroleum storage allowed on-site;

- If off-site petroleum site is not practical, use berms or dikes around above ground storage tanks to contain any leaks;

- Vehicle maintenance or washing should be minimized and any such activities should occur as far from floor drains as feasible;

- All leaks or spills of petroleum products, antifreeze, grease, or other vehicle fluids should be minimized. Any spills or leaks that occur should be promptly cleaned up. Dry cleanup is best;

- Never dump or dispose of any fuels, solvents, or vehicle related fluids into a sink or floor drain;

- Specific procedures and notifications should be established in the event of a major spill or accident; and

- Signs and posters should remind employees about designated activities and site-specific best management practices.

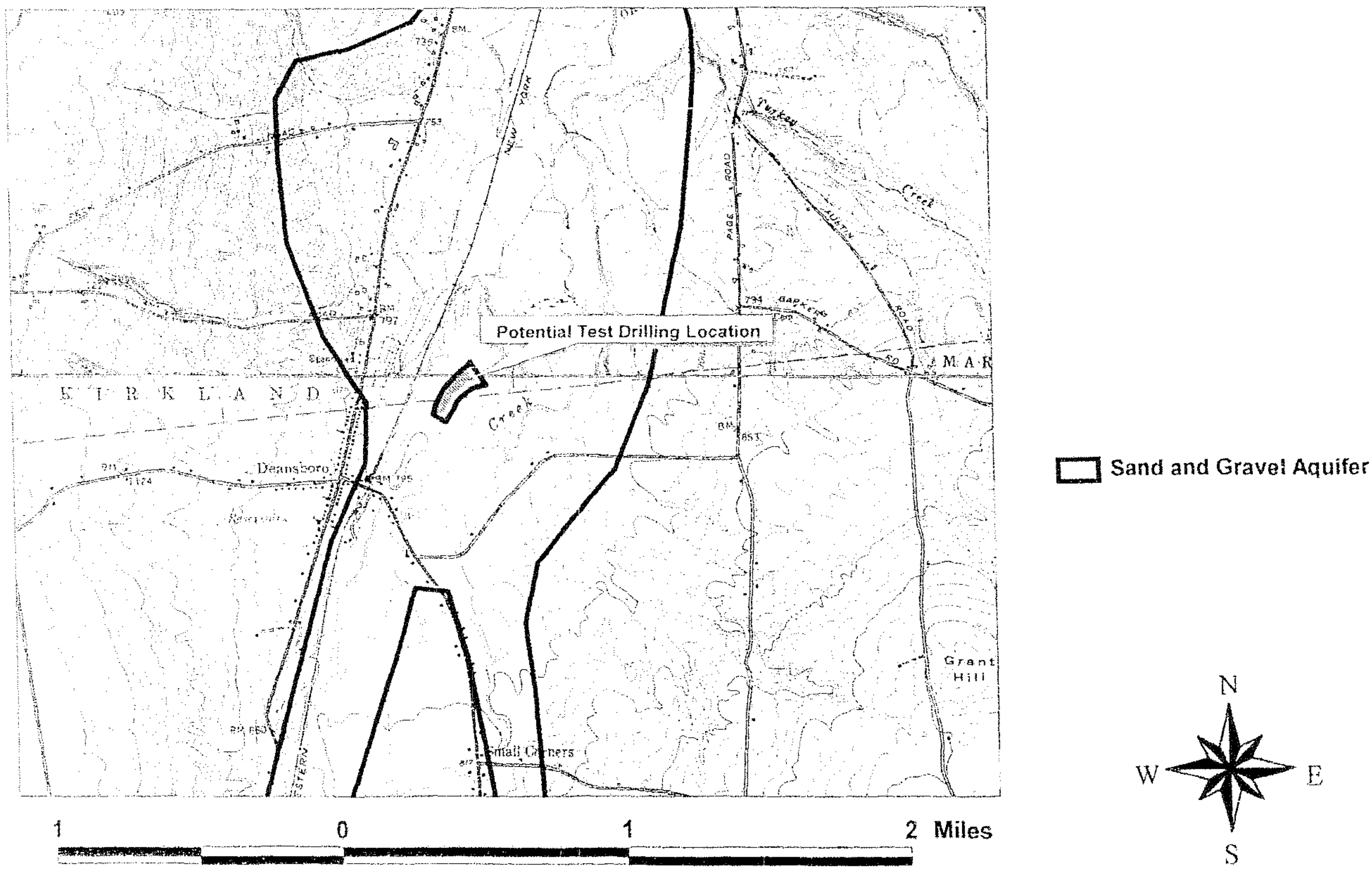
These measures are important for the Town to adopt even if a public water supply is not developed.

No fertilizers or pesticides should be applied within a 200-foot area of the supply well (a 3.7 acre area). Use of fertilizers and pesticides on agricultural fields within the wellhead protection area should be minimized and the lease agreement between the farmer and Town should indicate this. Ideally, no fertilizers or pesticides should be applied within 1-year time of travel of a supply well. This translates to an area of approximately nine acres.

5.0 FUTURE PLANNING

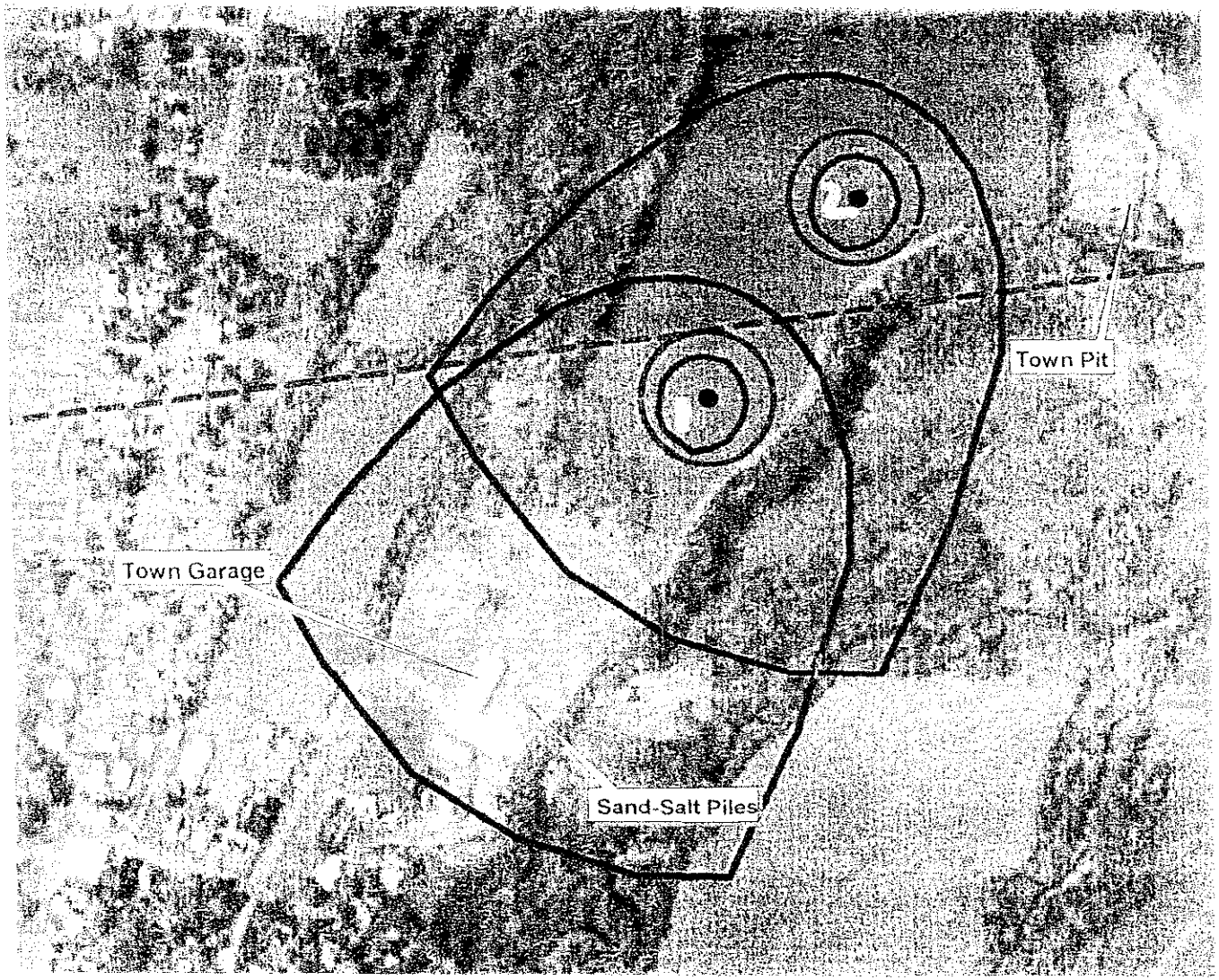
The Deansboro Water District should forward copies of this wellhead protection plan to officials of the Oneida County Department of Health and the New York State Department of Health. After conferring with these officials and the District's engineer, either Well Site 1 or Well Site 2 should be selected for test drilling.

Figure 1



Potential Test Drilling Location
Deansboro
Small Corners
Grant Hill
PAGE ROAD
AUSTIN ROAD
Creek
1
0
1
2 Miles
Sand and Gravel Aquifer
N
S
E
W

Figure 2



Potential New Well Sites
- Site 1
- Site 2
- 60-Day Time of Travel Zone(s)
- 200-Foot Buffer(s)

Potential Wellhead Protection Area(s)
- Site 1
- Site 2
- Kirkland/Marshall Town Line

N
W E
S

1 inch equals approximately 400 feet

1997 Air Photo By USGS

APPENDIX C

A. W. KINCAID, INC.
WELL DRILLING
8487 NORTH MAIN ST.
CANASTOTA, NEW YORK 13032

(315) 697-7720

CERTIFIED REPORT

September 12, 2001

Submitted to:

Town of Marshall
Town Hall, NYS Route 12B
Deansboro, NY 13328

Richard Elliott, PE
Job name: same
Job location: behind Town Barn

On August 17-28, 2001, at the above property location, a water well was drilled and developed with the following results:

6" well 136' deep
122'6" of 6" casing with drive shoe
10' of .020 slot SS screen with
6' sump & 3' riser w/packer
30 gallons per minute
54' static water level

Overize drilled & grouted first 20'

Formations:

0-10'	clay stone cobbles silt
10-35'	clay silt stone
35-40'	coarse sand, little stone
40-55'	gravel, silt, coarse sand
55-60'	coarse sand & silt
60-90'	sand & silt getting finer
90-105'	fine sand silt clay
105-120'	clay w/some stone
120-126'	gravel, fine-medium
126-129'	finer gravel, more silt
129-130'	coarser gravel, silt
130-136'	coarser gravel/silt-no H2O

We certify to this information, found at the time of drilling, to be true and correct and to be to the best of our knowledge.

National Ground Water Association Certified

Respectfully submitted Bruce A Yates CWD/PI
President

APPENDIX D

PUMP TEST
of
TEST WELL
at
DEANSBORO WATER DISTRICT
TOWN OF MARSHALL
September 14, 2001

Time	Drawdown (Feet)	Pumping Rate (GPM)
0:00	54'	30
0:01	63'	30
0:02	71'	30
0:03	77'	30
0:04	85'	30
0:05	91'	30
0:10	101'	15
0:20	112'	15

DISCONTINUED PUMP TEST AT O:20 HOURS

Appendix B

New York State Division of Water Database Search Results

New York State Department of Environmental Conservation
Division of Water
Bureau of Permits, 4th Floor
625 Broadway, Albany, New York 12233-3505
Phone: (518) 402-8111 • **FAX:** (518) 402-9029
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

November 30, 2004

Continental Placer Inc.
Attn: Greg Lesniak
26 Computer Dr. West
Albany, NY 12205

RE: Foil No. #04-1724
Well Logs - Deansboro, Oneida County

Dear Mr. Lesniak:

The Bureau of Permits (BWP), within the Division of Water (DOW), has received your Freedom of Information Request dated November 24, 2004. This bureau has program responsibilities for the registration of water well drillers and the collection of water well records. The records we maintain are well completion reports which contain information pertaining to the construction of water wells (depth, yield, materials encountered, and it's location). Your information request may have been sent to other units of this Department who are responsible for responding to you separately.

We have located 6 (six) records to be responsive to your request. The requested copies are enclosed with this letter.

The normal cost of $.25 per page copied has been waived for this request due to the small number involved.

Future communications relative to this request may be sent to:
NYSDEC, Div. of Water
Bureau of Permits, Water Well Program
625 Broadway, 4th Floor
Albany, NY 12233-3505
(Telephone # 518 402-8291)

Sincerely,

Dan Kendall
Geologist II

encs.

Send To Printer Back To TerraServer Change to 11x17 Print Size Show Grid Lines Change to Landscape

USGS 19 km SW of Utica, New York, United States 01 Jul 1988

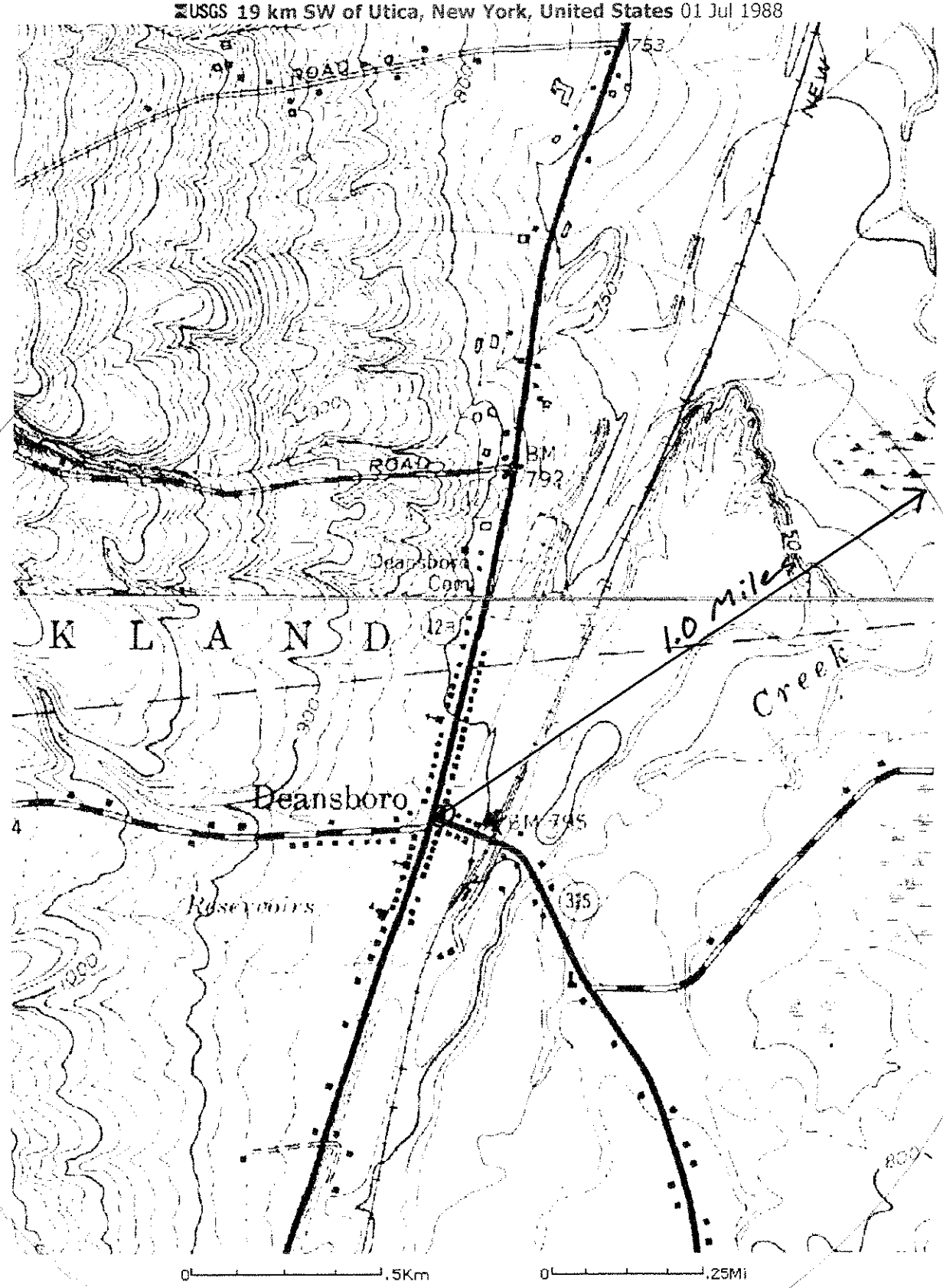


Image courtesy of the U.S. Geological Survey

(1) County Oneida

(2) Township

(3) DEC Well Number OE 2248

WELL COMPLETION REPORT

(4) OWNE

California Rd, Deansboro NY 13328

(6) LOCATION OF WELL (See Instructions On Reverse)
Show Lat/Long if available
and method used:
☑ GPS ☐ DEC Website ☐ Map Interpolation 42°59'41 N 075°24'27 W

(7) DEPTH OF WELL BELOW LAND SURFACE (Feet)	(8) DEPTH TO GROUNDWATER BELOW LAND SURFACE (Feet)	DATE MEASURED
53.5	45.5	8/8/03

CASINGS

(9) DIAMETER	6 in.	in.	in.	in.
(10) LENGTH	55 ft.	ft.	ft.	in.

(11) GROUT TYPE / SEALING: Bensead

(12) GROUT / SEALING INTERVAL (Feet) FROM _____ TO _____

SCREENS

(13) MAKE & MATERIAL

(14) OPENINGS

(15) DIAMETER	in.	in.	in.	in.
(16) LENGTH	ft.	ft.	ft.	in.

(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)

YIELD TEST

(18) DATE

(19) DURATION OF TEST

(20) LIFT METHOD ☐ Pump ☐ Air Lift ☒ Bail

(21) ~~STABILIZED DISCHARGE~~ (GPM) 5

(22) STATIC LEVEL PRIOR TO TEST (feet/inches below top of casing)

(23) MAXIMUM DRAWDOWN (Stabilized) (feet/inches below top of casing)

(24) RECOVERY (Time in hours/minutes)

(25) Was the water produced during test discharged away from immediate area? Yes ____ No ____

PUMP INSTALLATION

(26) PUMP INSTALLED? YES ___ NO ___

(27) DATE

(28) PUMP INSTALLER

(29) TYPE

(30) MAKE

(31) MODEL

(32) MAXIMUM CAPACITY (GPM)

(33) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet)

(34) METHOD OF DRILLING ☐ Rotary ☒ Cable Tool ☐ Other _____

(35) USE OF WATER (see instructions for choices) domestic

(36) DATE DRILLING WORK STARTED 8/7/03

(37) DATE DRILLING WORK COMPLETED 8/8/03

(38) DATE REPORT FILED	(39) DRILLER & COMPANY	(40) DEC REGISTRATION NO.
11/15/03	A.W. Kincaid Inc	10006

* Show log of geologic materials encountered with depth below ground surface, water bearing beds and water levels in each; casings; screens; pump; additional pumping tests and other matters of interest, e.g., water quality (sulphur, salt, methane). Describe repair work. Attach separate sheet if necessary.

See further instructions titled "Instructions for New York State Well Completion Report".

LOG *

Ground Surface EL. _____ ft. above sea level

Top Of Casing is located +2.5 ft.above (+) or below (-) ground surface

TOP OF WELL

clay
sand
silt
some
stone

8

sand

19

clay
silt
stone
gravel

53

fine
gravel

53.5

BOTTOM OF HOLE

NYSDEC COPY

(1) County Oneida

(2) Township Marshall

(3) DEC Well Number OE 1345

WELL COMPLETION REPORT

(4) OWNER
Town of Marshall

(5) ADDRESS
Route 12B Deansboro NY 13328

(6) LOCATION OF WELL (See Instructions On Reverse)
State Lat/Long if available
and method used. 42° 59 990 N 075° 25' 161 W
☒ GPS ☐ DEC Website ☐ Map Interpolation

LOG *
Ground Surface El. _____ ft. above sea level
Top Of Casing is located +2.5' ft.above (+) or below (-) ground surface

(7) DEPTH OF WELL BELOW LAND SURFACE (Feet) 136

(8) DEPTH TO GROUNDWATER BELOW LAND SURFACE (Feet) 54 DATE MEASURED 5/23/01

CASINGS

(9) DIAMETER: 6 in | in | in | in

(10) LENGTH: 122.5 ft. | ft. | ft. | ft.

(11) GROUT TYPE / SEALING: Bentonite

(12) GROUT / SEALING INTERVAL (Feet) FROM _____ TO _____

SCREENS

(13) MAKE & MATERIAL: Stainless

(14) OPENINGS: .020

(15) DIAMETER: 6 in | in | in | in

(16) LENGTH: 10 ft. | ft. | ft. | ft.

(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet): 120

YIELD TEST

(18) DATE

(19) DURATION OF TEST

(20) TEST METHOD ☐ Pump ☐ Air Lift ☒ Bail

(21) ~~STABILIZED DISCHARGE~~ (GPM): 30

(22) STATIC LEVEL PRIOR TO TEST (feet/inches below top of casing)

(23) MAXIMUM DRAWDOWN (Stabilized) (feet/inches below top of casing)

(24) RECOVERY (Time in hours/minutes)

(25) Was the water produced during test discharged away from immediate area? Yes ___ No ___

PUMP INSTALLATION

(26) PUMP INSTALLED? YES ___ NO ___

(27) DATE

(28) PUMP INSTALLER

(29) TYPE

(30) MAKE

(31) MODEL

(32) MAXIMUM CAPACITY (GPM)

(33) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet)

(34) METHOD OF DRILLING ☐ Rotary ☒ Cable Tool ☐ Other _____

(35) USE OF WATER (see instructions for choices) test

(36) DATE DRILLING WORK STARTED 3/17/01

(37) DATE DRILLING WORK COMPLETED 5/25/01

(38) DATE REPORT FILED 9/14/01

(39) DRILLER & COMPANY A.W. Kincaid Inc.

(40) DEC REGISTRATION NO. 10006

TOP OF WELL

	clay stone cobbles silt
10	
	clay silt stone
35'	
	coarse sand little stone
40	
	gravel silt coarse sand
55	
	coarse sand + silt
60	
	sand + silt getting finer
90	
	fine sand silt clay
105'	
	clay with some stone
120	
	fine-medium gravel
126	
	finer gravel more silt
131	
	coarse gravel silt
130	
	coarse gravel silt no water
136	

BOTTOM OF HOLE

* Show log of geologic materials encountered with depth below ground surface, water bearing beds and water levels in each; casings; screens; pump; additional pumping tests and other matters of interest, e.g., water quality (sulphur, salt, methane). Describe repair work. Attach separate sheet if necessary.

See further instructions titled "Instructions for New York State Well Completion Report".

NYSDEC COPY

LOCATION SKETCH - Indicate north

(1) County ONEIDA

(2) Township MARSHALL

(3) DEC Well Number OE1793

WELL COMPLETION REPORT

(4) Owner

CALIFORNIA RD, DEANSBORO, N.Y. 13328-1301

LOG *

Ground Surface El. 790 ft. above sea level

(5) LOCATION OF WELL (See Instructions On Reverse) Show Lat/Long if available and method used. 42°59'46 N 075°24'54 W

X GPS ☐ DEC Website ☐ Map Interpolation

Top Of Casing is located 2+ ft. above (+) or below (-) ground surface

(7) DEPTH OF WELL BELOW LAND SURFACE (Feet) 35

(8) DEPTH TO GROUNDWATER BELOW LAND SURFACE (Feet) 0 DATE MEASURED

CASINGS

(9) DIAMETER 6 in | in | in | in.

(10) LENGTH 37 ft. | ft | ft | in

(11) GROUT TYPE / SEALING BENTONITE QUICK GEL

(12) GROUT / SEALING INTERVAL (Feet) FROM 0 TO 20

SCREENS

(13) MAKE & MATERIAL

(14) OPENINGS

(15) DIAMETER in. | in | in | in.

(16) LENGTH ft. | ft. | ft. | in.

(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)

YIELD TEST

(18) DATE 5/14/01

(19) DURATION OF TEST 4 HOURS

(20) LIFT METHOD X Pump ☐ Air Lift ☐ Bail

(21) STABILIZED DISCHARGE (GPM) 10

(22) STATIC LEVEL PRIOR TO TEST (Feet/inches below top of casing) 1 FOOT ABOVE GROUND LEVEL

(23) MAXIMUM DRAWDOWN (Stabilized) (feet/inches below top of casing) 4'

(24) RECOVERY (Time in hours/minutes) 1

(25) Was the water produced during test discharged away from immediate area? Yes ✓ No ___

PUMP INSTALLATION

(26) PUMP INSTALLED? YES ✓ NO ___

(27) DATE 5/18/01

(28) PUMP INSTALLER BOB GAFFNEY

(29) TYPE AERMOTOR

(30) MAKE T850

(31) MODEL 115 V 2 WIRE

(32) MAXIMUM CAPACITY (GPM) 10

(33) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet) 25

(34) METHOD OF DRILLING ☐ Rotary X Cable Tool ☐ Other ___

(35) USE OF WATER (see instructions for choices) DOMESTIC

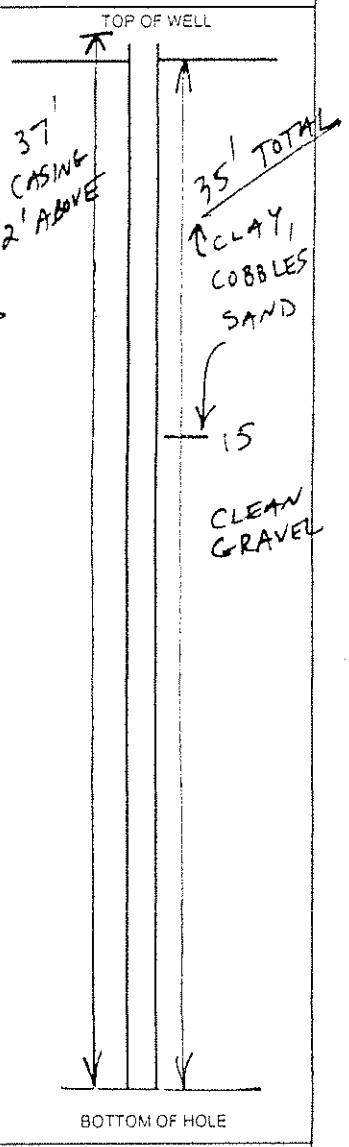
(36) DATE DRILLING WORK STARTED

(37) DATE DRILLING WORK COMPLETED 5/14/01

(38) DATE REPORT FILED 6/2/01

(39) DRILLER & COMPANY ROBERT GAFFNEY GAFFNEY DRILLING

(40) DEC REGISTRATION NO NYRD10026

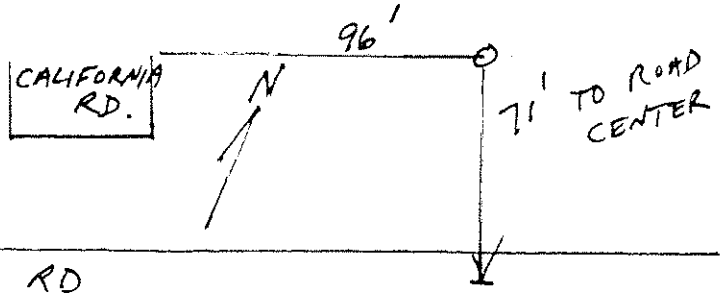


* Show log of geologic materials encountered with depth below ground surface, water bearing beds and water levels in each; casings; screens; pump; additional pumping tests and other matters of interest, e.g., water quality (sulphur, salt, methane). Describe repair work. Attach separate sheet if necessary.

See further instructions titled "Instructions for New York State Well Completion Report".

NYSDEC COPY

LOCATION SKETCH - Indicate north



(1) County ONEIDA

(2) Township KIRKLAND

(3) DEC Well Number OE2138

WELL COMPLETION REPORT

(4) OWNER

STATE ROUTE 12B, DEANSBORO, N.Y. 13328

LOG *

Ground Surface El. 782 ft. above sea level

(5) LOCATION OF WELL (See Instructions On Reverse) Show Lat/Long if available or Landmark used

X GPS ☐ DEC Website ☐ Map Interpolation

43° 00' 29 N (VACANT LOT NEXT DOOR)

075° 25' 32 W

Top Of Casing is located 2 ft above (+) or below (-) ground surface

(7) DEPTH OF WELL BELOW LAND SURFACE (Feet) 35

(8) DEPTH TO GROUNDWATER BELOW LAND SURFACE (Feet) 18 DATE MEASURED 9/11/02

CASINGS

(9) DIAMETER	6 in	in	in	in
(10) LENGTH	35 ft	ft	ft	in

(11) GROUT TYPE / SEALING: GRANULAR BENTONITE

(12) GROUT / SEALING INTERVAL (Feet) FROM 0 TO 20

SCREENS

(13) MAKE & MATERIAL

(14) OPENINGS

(15) DIAMETER	in	in	in	in
(16) LENGTH	ft	ft	ft	in

(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)

YIELD TEST

(18) DATE 9/11/02

(19) DURATION OF TEST 4 HRS

(20) LIFT METHOD X Pump ☐ Air Lift ☐ Bail

(21) STABILIZED DISCHARGE (GPM) 8

(22) STATIC LEVEL PRIOR TO TEST (feet/inches below top of casing) 18

(23) MAXIMUM DRAWDOWN (Stabilized) (feet/inches below top of casing) 25

(24) RECOVERY (Time in hours/minutes) 6 MIN

(25) Was the water produced during test discharged away from immediate area? Yes ✓ No ___

PUMP INSTALLATION

(26) PUMP INSTALLED? YES ___ NO ✓

(27) DATE

(28) PUMP INSTALLER

(29) TYPE

(30) MAKE

(31) MODEL

(32) MAXIMUM CAPACITY (GPM)

(33) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet)

(34) METHOD OF DRILLING ☐ Rotary X Cable Tool ☐ Other ___

(35) USE OF WATER (see instructions for choices) DOMESTIC

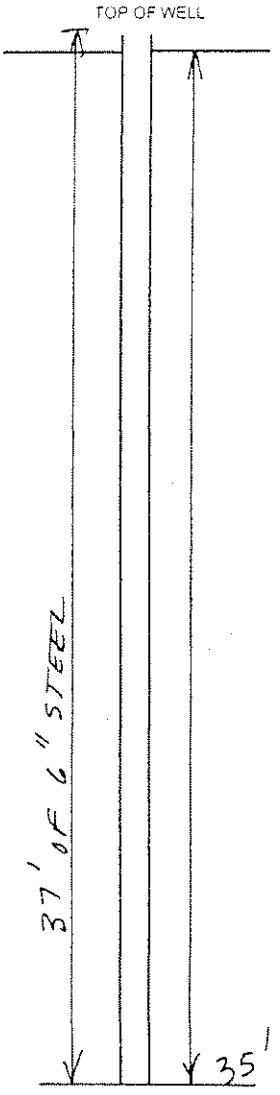
(36) DATE DRILLING WORK STARTED 9/8/02

(37) DATE DRILLING WORK COMPLETED 9/11/02

(38) DATE REPORT FILED 9/11/02

(39) DRILLER & COMPANY ROBERT GAFFNEY GAFFNEY DRILLING

(40) DEC REGISTRATION NO. NYRD 10026

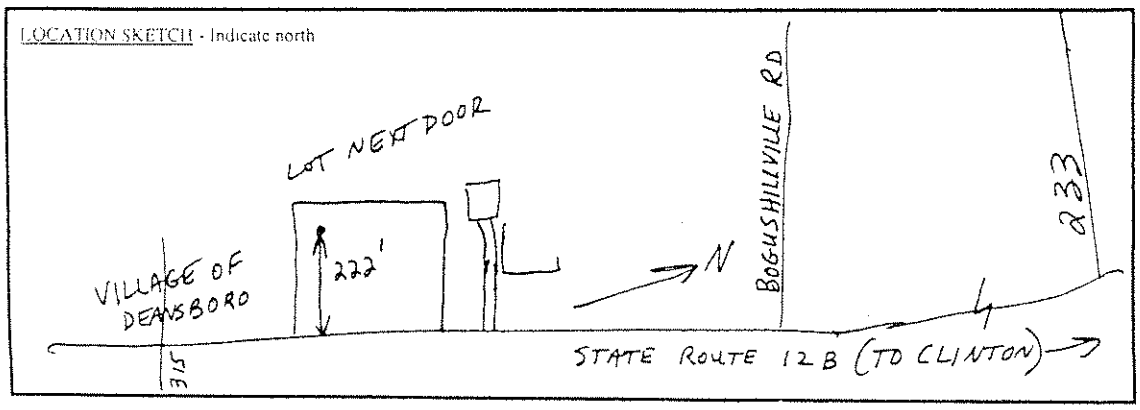


* Show log of geologic materials encountered with depth below ground surface, water bearing beds and water levels in each; casings; screens; pump; additional pumping tests and other matters of interest, e.g., water quality (sulphur, salt, methane). Describe repair work. Attach separate sheet if necessary.

See further instructions titled "Instructions for New York State Well Completion Report".

NYSDEC COPY

LOCATION SKETCH - Indicate north



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

(1) County Oneida

(2) DEC Well Number OE 1662

WELL COMPLETION REPORT

(3) OWNER

(4) ADDRESS

(5) LOCATION OF WELL

E. Clinton N.Y.
California Rd Durhboro

(6) DEPTH OF WELL BELOW SURFACE
50 ft

(7) DEPTH TO GROUNDWATER
20 ft

Ground Surface * LOG
EL 816 * above sea
TOC ft.

TOP OF WELL

Red Clay
20'
Grey Clay
20'
Gravel
12'

Bottom of Hole

CASINGS

(8) DIAMETER	(9) LENGTH
6 5/8 in.	52 ft.
in.	ft.
in.	ft.
in	in.

(10) SEALING

(11) CASINGS REMOVED

SCREENS

(12) MAKE & MATERIAL

(13) OPENINGS

(14) DIAMETER	(15) LENGTH
in.	ft.
in.	ft.
in	in.
in.	

(16) DEPTH TO TOP FROM TOP OF CASING

PUMPING TEST

(17) DATE

(18) TEST OR PERMANENT PUMP?

(19) DURATION OF TEST hours minutes

(20) MAXIMUM DISCHARGE gallons per min.

(21) STATIC LEVEL PRIOR TO TEST ft. in. below top of casing

(22) LEVEL DURING MAXIMUM PUMPING in. below top of casing

(23) MAXIMUM DRAWDOWN ft

(23) Approximate time of return to normal level after cessation of pumping hours min.

PUMP INSTALLED

(24) TYPE	(25) MAKE	(26) MODEL NUMBER
Sub	F & W	24450S9004
(27) MOTIVE POWER	(28) MAKE	(29) H.P.
220	Franklin Elec.	1/2

(30) CAPACITY g.p.m. against ft. of discharge head

(31) NUMBER OF BOWLS OR STAGES

307 ft. of total head

DROP LINE	SUCTION LINE
(32) DIAMETER & (33) LENGTH	(34) DIAMETER & (35) LENGTH

(36) METHOD OF DRILLING ☑ Rotary ☐ Cable tool ☐ Other

(37) USE OF WATER Drinking

(38) WORK STARTED 6/27

(39) WORK COMPLETED 6/30

(40) DATE 6/30

(41) DRILLER COMPANY Tim Mottus Well Drilling

(42) REGISTRATION NO. NYKD10149

*See additional instructions on back. Show log of geologic materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest, e.g. water quality (sulphur, salt, methane). Describe repair work. See instructions as to Well Driller's Registration and Reports.

Original - DEC Copy

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

(1)County Oneida

(2)DEC Well Number OE 1618

WELL COMPLETION REPORT

STATE RT 12B DEANSBORO NY 13328

(5) LOCATION OF WELL 43° 00.34 N 075° 25.46 W

(6) DEPTH OF WELL BELOW SURFACE: 70 FT

(7) DEPTH TO GROUNDWATER: 8 FT

CASINGS

(8) DIAMETER	(9) LENGTH
6 in.	70 ft.
in.	ft.
in.	ft.
in.	in.

(10) SEALING: Bentonite

(11) CASINGS REMOVED:

SCREENS

(12) MAKE & MATERIAL:

(13) OPENINGS:

(14) DIAMETER	(15) LENGTH
in.	ft.
in.	ft.
in.	ft.
in.	in.

(16) DEPTH TO TOP FROM TOP OF CASING:

PUMPING TEST

(17) DATE:

(18) TEST OR PERMANENT PUMP?

(19) DURATION OF TEST: hours | minutes

(20) MAXIMUM DISCHARGE: gallons per min.

(21) STATIC LEVEL PRIOR TO TEST: ft. | in. below top of casing

(22) LEVEL DURING MAXIMUM PUMPING: | in. below top of casing

(23) MAXIMUM DRAWDOWN: ft.

(23) Approximate time of return to normal level after cessation of pumping: hours | min.

PUMP INSTALLED

(24) TYPE	(25) MAKE	(26) MODEL NUMBER
Submersible	JACUZZI	TSHUR12-52
(27) MOTIVE POWER	(28) MAKE	(29) H.P.
Elect.	public utility	1/2

(30) CAPACITY: g.p.m. against ft. of discharge head

(31) NUMBER OF BOWLS OR STAGES: 7

61' ft. of total head

DROP LINE	SUCTION LINE
(32) DIAMETER & (33) LENGTH	(34) DIAMETER & (35) LENGTH
1" 65'	

(36) METHOD OF DRILLING	(37) USE OF WATER
☐ Rotary ■ Cable tool ☐ Other	Domestic
(38) WORK STARTED	(39) WORK COMPLETED
5/22/00	5/30/00

(40) DATE	(41) DRILLER, COMPANY	(42) REGISTRATION NO.
5/30/00	Stan Bates & Sons	10098

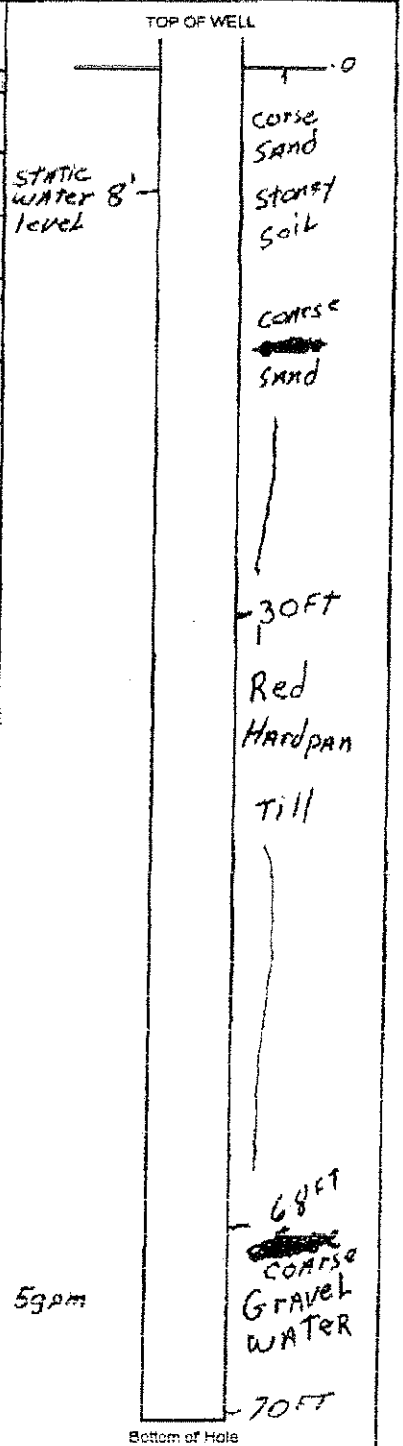
*See additional instructions on back. Show log of geologic materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest, e.g. water quality (sulphur, salt, methane). Describe repair work. See instructions as to Well Driller's Registration and Reports.

* LOG

Ground Surface

EL. _____ ft. above sea

TOC 2 ft.



Duplicate - Retain

NYS Department of Environmental Conservation
Office of Media Relations
625 Broadway, Albany, New York 12233-1016
(518) 402-8000 (518) 402-2209 (Fax)

Erin M. Crotty
Commissioner

FOIL Request No. 04-1724
11/23/2004

RECEIVED
NOV 24 2004

Mr. Greg Lesniak
Continental Placer Inc.
26 Computer Drive West
Albany, NY 12205-

Dear Mr. Lesniak:

This is to acknowledge receipt of your Freedom of Information Law request seeking records regarding: **Well logs and locations within 1.0 miles of Deansboro (Oneida county). This study will provide information on a water supply project for the Town of Marshall.**

I have referred your request to the following Records Custodian(s) / Freedom of Information Law Coordinator(s) who may possess the records you are requesting:

Ms. Sarah Rickard - Water
625 Broadway
Albany, NY 12233-3501 (518) 402-8216

You may expect a response to your request by **12/8/2004.**

If I can be of further assistance, please contact me at(518) 402-8000 . Refer to request number **04-1724** , if you write or call.

Sincerely,

Ruth L. Earl
Records Access Officer

Appendix C

FirstSearch Environmental Database Report

FirstSearch Technology Corporation

Environmental FirstSearch™ Report

TARGET PROPERTY:

DEANSBORO NY 13328

Job Number: 597-2410

PREPARED FOR:

CPI Environmental Services, Inc.

26 Computer Drive

Albany, NY 12205

01-18-05

Tel: (781) 551-0470 *Fax: (781) 551-0471*

Environmental FirstSearch
Search Summary Report

Target Site:

DEANSBORO NY 13328

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	09-12-04	1.25	0	0	0	0	0	0	0
CERCLIS	Y	09-13-04	1.25	0	0	0	0	0	0	0
NFRAP	Y	06-23-04	1.25	0	0	0	0	0	0	0
RCRA TSD	Y	09-12-04	1.25	0	0	0	0	0	0	0
RCRA COR	Y	09-12-04	1.25	0	0	0	0	0	0	0
RCRA GEN	Y	09-12-04	1.25	0	0	0	0	1	0	1
ERNS	Y	12-31-03	1.25	0	0	0	0	0	0	0
State Sites	Y	10-01-04	1.25	0	0	0	0	0	0	0
Spills-1990	Y	12-08-04	1.25	0	1	0	0	0	0	1
SWL	Y	01-01-04	1.25	0	0	0	0	0	0	0
REG UST/AST	Y	01-01-02	1.25	0	1	0	0	0	0	1
Leaking UST	Y	12-08-04	1.25	0	0	0	0	0	0	0
- TOTALS -				0	2	0	0	1	0	3

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSearch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	01-18-05	**Search Type:**	COORD
Requestor Name:	Greg Lesniak	**Job Number:**	597-2410
Standard:	ASTM		Filtered Report

TARGET ADDRESS:

DEANSBORO NY 13328

Demographics

Sites: 3 **Non-Geocoded:** 0 **Population:** NA

Radon: OF THE 3 HOMES TESTED, THE AVG. PCI/L LEVEL WAS 5.0

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-75.428317	-75:25:42	**Easting:**	465084.636
Latitude:	42.994801	42:59:41	**Northing:**	4760111.482
			Zone:	18

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 1 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel
13323	CLINTON	NY	0.33 NE	Y

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Topographical Maps	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

TARGET SITE: DEANSBORO NY 13328 **JOB:** 597-2410

TOTAL: 3 **GEOCODED:** 3 **NON GEOCODED:** 0 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Page No.
2	SPILLS	FRED BURROW S TRUCKING 0485090/ACTIVE	2684 STATE RT 12B DEANSBORO NY 13328	0.11 SW	1
3	UST	TENCZA CONSTRUCTION PBS6-431583/UNREGULATED BY PBS	RT 315 MARSHALL NY 13328	0.12 SE	2
1	RCRAGN	NYSEG - WATERVILLE & DEANSBORO REG NYR000071548/SGN	NYS RTE 315 & SHANLEY RD DEANSBORO NY 13328	1.10 SE	4

Environmental FirstSearch
Site Detail Report

TARGET SITE: DEANSBORO NY 13328

JOB: 597-2410

STATE SPILLS SITE

SEARCH ID: 2 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: FRED BURROW S TRUCKING
ADDRESS: 2684 STATE RT 12B
DEANSBORO NY
ONEIDA
CONTACT:

REV: 12/8/04
ID1: 0485090
ID2:
STATUS: ACTIVE
PHONE:

SITE INFORMATION:

SPILL DATE: 10/28/2004
DATE REPORTED: 10/29/2004
SPILL TIME: 02:15 PM
TIME REPORTED: 10:45 AM
SPILLED MATERIAL: DIESEL

SPILLED AMOUNT: 10 GAL.
SPILL CAUSE: TRAFFIC ACCIDENT
SPILL SOURCE: COMMERCIAL VEHICLE
RESOURCE AFFECTED: IMPERVIOUS SURFACE
WATERBODY:

REGION CLOSED DATE: NOT CLOSED

TARGET SITE: DEANSBORO NY 13328 **JOB:** 597-2410

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 3 **DIST/DIR:** 0.12 SE **MAP ID:** 3

NAME: TENCZA CONSTRUCTION
ADDRESS: RT 315
DEANSBORO NY 13328
ONEIDA
CONTACT: JOHN TENCZA

REV: 1/1/02
ID1: PBS6-431583
ID2:
STATUS: UNREGULATED BY PBS
PHONE: (315) 841-8511

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:
TOTAL ACTIVE TANKS ON SITE: 0
TOTAL FACILITY CAPACITY: 0 GALLONS
OLD PBS NUMBER: 124338 **CBS NUMBER:** **SPDES NUMBER:**
ADDITIONAL ADDRESS INFO:

TYPE OF OWNER:
OWNER SUB TYPE:
OWNER ADDRESS: 185 UTICA ROAD
CLINTON NY 13323
PHONE: (315) 853-2413

EMERGENCY CONTACT: JOHN TENCZA
PHONE: (315) 853-2413

MAILING NAME: JOHN TENCZA
ADDRESS: 185 UTICA ROAD
CLINTON NY 13323
ATTENTION:
PHONE: (315) 853-2413

CERTIFICATE DATE: 3/28/88 **EXP. DATE:** 3/28/93
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** CLOSED PRIOR TO 04/91 (IT IS EITHER IN PLACE OR REMOVED)
INSTALLED: 10/1/77 **CLOSED:**
TANK CAPACITY: 10000 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION:
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
SECONDARY CONTAINMENT: NONE
LEAK DETECTION: NONE
OVERFILL PROTECTION:
DISPENSER: SUCTION
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 002 **TANK STATUS:** CLOSED PRIOR TO 04/91 (IT IS EITHER IN PLACE OR REMOVED)
INSTALLED: 10/1/77 **CLOSED:**

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: DEANSBORO NY 13328

JOB: 597-2410

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 3 **DIST/DIR:** 0.12 SE **MAP ID:** 3

NAME:	TENCZA CONSTRUCTION	**REV:**	1/1/02
ADDRESS:	RT 315	**ID1:**	PBS6-431583
	DEANSBORO NY 13328	**ID2:**	
	ONEIDA	**STATUS:**	UNREGULATED BY PBS
CONTACT:	JOHN TENCZA	**PHONE:**	(315) 841-8511

TANK CAPACITY:	10000 GALLONS
PRODUCT:	LEADED GASOLINE
TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
PIPE TYPE:	GALVANIZED STEEL
PIPE LOCATION:	
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TARGET SITE: DEANSBORO NY 13328 **JOB:** 597-2410

RCRA GENERATOR SITE

SEARCH ID: 1 **DIST/DIR:** 1.10 SE **MAP ID:** 1

NAME:	NYSEG - WATERVILLE & DEANSBORO REG STA	**REV:**	9/13/04
ADDRESS:	NYS RTE 315 & SHANLEY RD	**ID1:**	NYR000071548
	DEANSBORO NY 13328	**ID2:**	
	MADISON	**STATUS:**	SGN
CONTACT:	RICK KUMPON	**PHONE:**	6077627648

SITE INFORMATION

CONTACT INFORMATION: RICK KUMPON
PROJ ENV SPEC
PO BOX 5224
BINGHAMTON NY 139025224

PHONE: 6077627648

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

TARGET SITE: DEANSBORO NY 13328

JOB: 597-2410

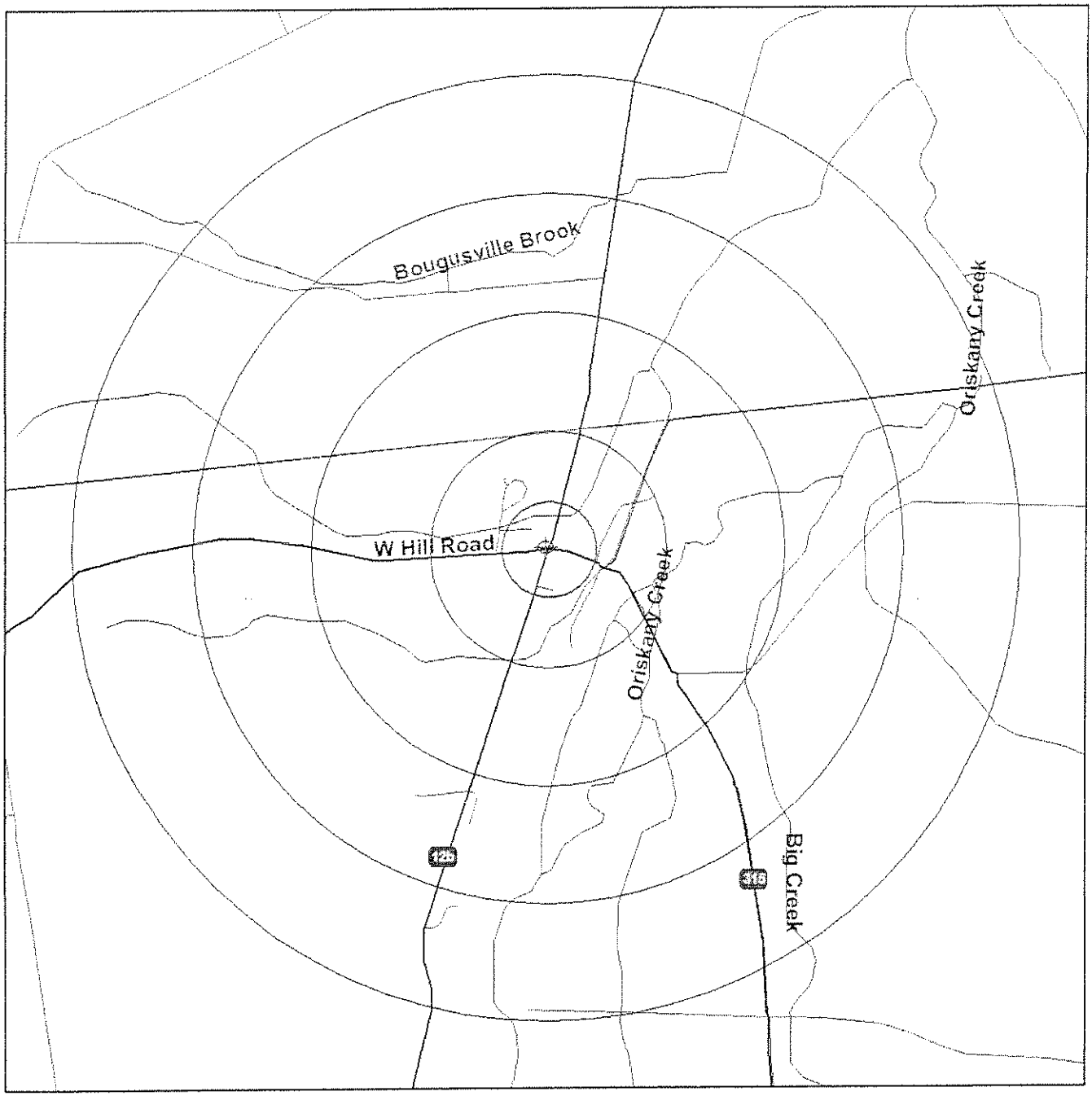
Street Name	Dist/Dir	Street Name	Dist/Dir
Earl Manor Rd	0.11 NW		
Middle St	0.12 SE		
State Highway 12B	0.00 --		
State Highway 314	0.23 SE		
State Highway 315	0.00 --		
W Hill Rd	0.00 --		
WEST Hill Rd	0.00 --		

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

, DEANSBORO NY 13328



Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 42.994801 Longitude: -75.428317) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

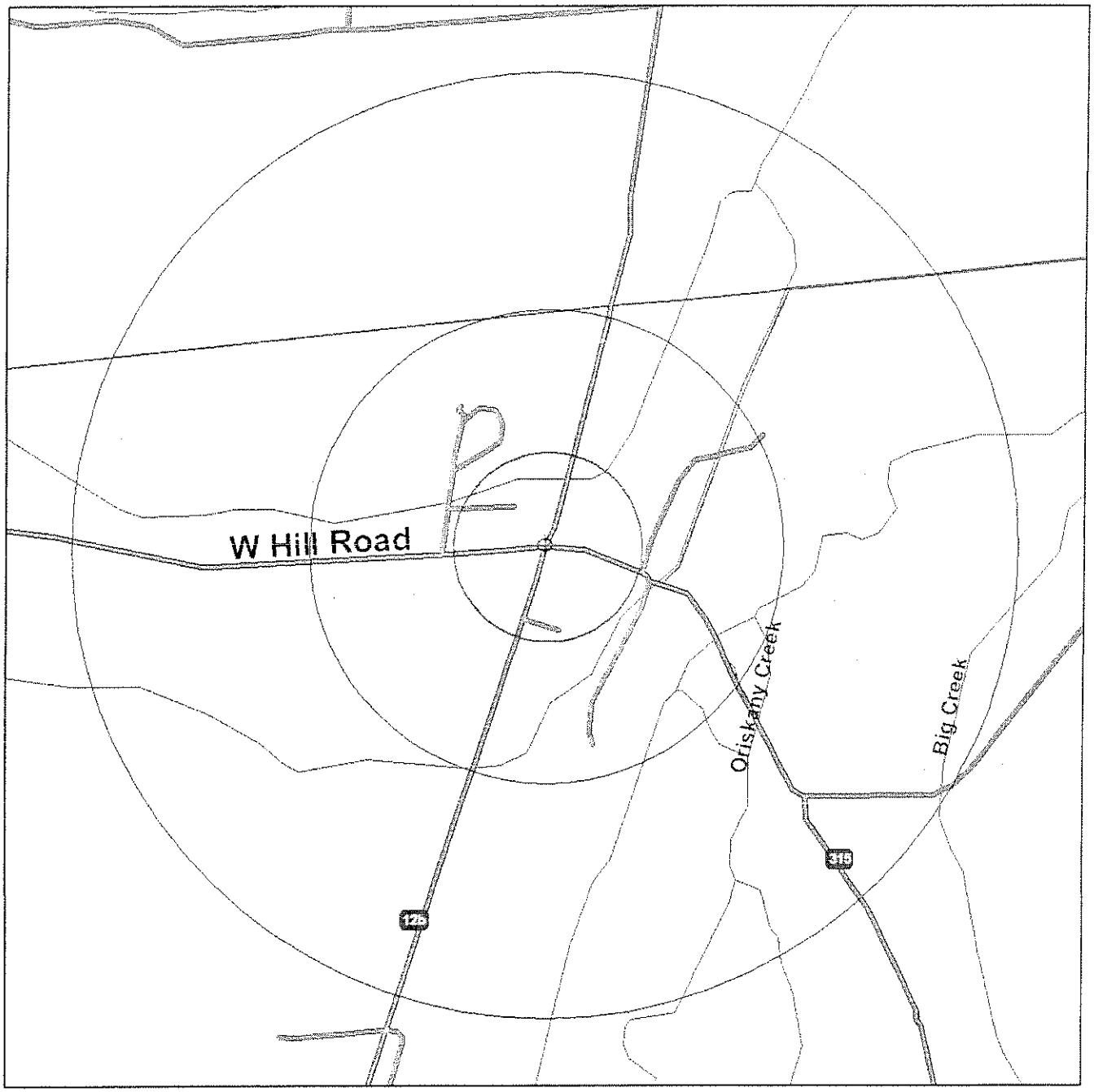
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

, DEANSBORO NY 13328



Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 42.994801 Longitude: -75.428317) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRAGEN, ERNS, UST

, DEANSBORO NY 13328

Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 42.994801 Longitude: -75.428317) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

1.25 Mile Radius

Non-ASTM Map: Spills 90

, DEANSBORO NY 13328

Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 42.994801 Longitude: -75.428317) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

National Historic Sites and Landmark Sites .....

Soil Sites .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius