EarthTech
A tyco International Ltd. Company

40 British American Blvd.
Latham, NY
12110

P 518.951.2200
F 518.951.2300
www.earthtech.com

November 15, 2007

NOV 5 2007

Mr. John Spellman
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

Subject: **NAPL Recovery Pump Test Report**
Site #: 5-46-033
Project Title: NYSEG – Central Avenue Mechanicville MGP Site

Dear Mr. Spellman:

Enclosed is the NAPL Recovery Pump Test Report for the five recovery tests performed at NYSEG's Central Avenue Manufactured Gas Plant Site. This report also includes a summary of the geophysical logging that was performed prior to the test and previously submitted to the NYSDEC in an August 14, 2007 letter report.

Should you have any questions or require additional information on this report, please do not hesitate to call me at (518) 396-7638 or Mr. Tracy Blazicek at (607) 762-8839.

Very truly yours,

EARTH TECH, Inc.

Scott Underhill
Project Manager

Enclosures – 2 Hard Copies/1 Electronic Copy

Cc: Tracy Blazicek, NYSEG (1 Hard Copy/1 Electronic Copy)

NAPL RECOVERY PUMP TEST REPORT

MECHANICVILLE
FOMER MANUFACTURED GAS PLANT SITE

CENTRAL AVENUE
MECHANICVILLE, NEW YORK
Consent Order DO-0002-9309

NOV 16 2007

Prepared for:

NEW YORK STATE ELECTRIC & GAS CORPORATION
James A. Carrigg Center, 18 Link Drive, P.O. Box 5224
Binghamton, New York 13902-5224

Prepared by:

EARTH TECH, INC.
40 British American Boulevard
Latham, New York 12110

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1.0 INTRODUCTION

1.1 GENERAL

This document presents the results of a non aqueous phase liquid (NAPL) Recovery Pump Test performed at the former NYSEG Manufactured Gas Plant (MGP), located in Mechanicville, Saratoga County, New York.

1.2 SITE DESCRIPTION

The former NYSEG MGP site is in the City of Mechanicville, Saratoga County, New York. The 1.8-acre site is currently unoccupied. The site is bordered on the east by North Central Avenue (formerly the Champlain Canal), on the south by Ferris Lane and on the west by a fuel distributor. The site is bordered on the north by the southern bank of the Anthony Kill, a small tributary that flows eastward into the Hudson River.

1.3 SITE BACKGROUND

From approximately 1901 through 1955, NYSEG (or predecessor companies) used the former MGP site on Central Avenue in Mechanicville to manufacture gas, which was used by the local residents and businesses near the site. In 1901, the Halfmoon Light, Heat, & Power, Co., which was founded in 1900, began distributing gas manufactured from coal to the citizens of Mechanicville. In 1924, Halfmoon Light, Heat, & Power Co. was acquired by the Associated Gas and Electric System, and in 1928 it became part of NYSEG. Coal gas production continued at the plant until 1955. NYSEG operated the site as a natural gas and electric service center from 1955 until 1990 when the operation was relocated to a new service center in the town of Halfmoon.

The former MGP site structures associated with coal gasification were concentrated on the eastern part of the site. The only structures that currently remain within the former MGP portion of the property are the storage and tool house building (former office) and the gas regulator building. NYSEG did not own the western part of the site during most of the operations of the MGP, which closed in 1955. By-products of the coal gasification process included coal ash, condensate material from the gas house, wood chips from the purifier house, coal tar, and oil sludge. No information was found concerning the methods employed to handle these materials in the early days of gas production at Mechanicville. However, common practice was to dispose ashes and spent oxide material on site. Also, the tars produced in gas plants were an important raw material for the flourishing tar distillation industry in the early 1900s. During the latter days of gas production at the site, the ash and clinkers were reportedly picked up by anyone who had a use for them. In addition, spent wood chips were reportedly incinerated by the City of Mechanicville from 1951 to 1955, piled along the road until someone came and hauled them away; or spread on the lot just west of the active plant.

Currently, NYSEG leases the area west of the former MGP site, which includes the mechanics shop and repair building, to G.A. Bove and Sons, a fuel distributor.

The neighborhood around the former gas plant is a mixed commercial/residential section of Mechanicville.

1.4 PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

In the late 1980s and early 1990s, NYSEG conducted a series of remedial investigations and a feasibility study for the Mechanicville site. The results of the previous investigations indicate soils, groundwater,

and sediments near the site have been impacted by MGP-related contaminants. In general, the contaminants that are commonly associated with MGP sites include polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), phenols, and cyanide.

During the period from October 18, 1999 through September 27, 2000, NYSEG completed an Interim Remedial Measure (IRM) at the site in accordance with a NYSDEC approved work plan entitled *Interim Remedial Measures Work Plan,* dated October 1999, and *Modification to Work Plan to Address Purifier Waste Cleanup and Bank Restoration*, dated August 28, 2000. The overall goal of this IRM was to excavate contaminated soil and remnants of underground former MGP structures at the Mechanicville site and remove any preferential migration pathways for site contaminants to reach the Anthony Kill. The contents of the former gas relief holder foundation, the former filter bed, and any associated piping encountered during excavation were removed. In addition, a nonaqueous phase liquid (NAPL) collection system was constructed on the top of the bedrock along the bank of the Anthony Kill. Since its installation, NAPL has not been recovered by the collection system. The results of the post-excavation samples indicate that there were still relatively high concentrations of benzene and PAHs in the soil.

The extent of MGP-related residuals in the bedrock and soil beyond the limits of the IRM were investigated during the Supplemental Remedial Investigation (*SRI*). The *SRI* activities were conducted between 2001 and 2003. A total of 123 soil borings were advanced at the site between April 2001 and January 2003. Forty-eight of the 123 soil borings were completed as monitoring wells. The existing monitoring well network is comprised of 14 overburden monitoring wells, 21 shallow bedrock monitoring wells, and 25 deep bedrock monitoring wells. A total of 18 surface soil samples, 56 subsurface soil samples, two samples of NAPL, seven sediment samples from the Anthony Kill, five sediment samples from the Hudson River near the confluence with the Anthony Kill, and 92 groundwater samples were collected for laboratory analysis.

A NAPL gauging and passive recovery program has been ongoing since 2001. Approximately 24 monitoring wells are inspected monthly for the presence of NAPL. Passive recovery occurs through bailing or pumping NAPL from the monitoring wells on a periodic basis as NAPL accumulated within the wells. Between October 2001 and August 2006, approximately 800 liters (210 gallons) of NAPL has been recovered from the site.

1.5 REMEDIAL REPORTS

NYSEG's consultants completed the following reports associated with the remedial activities at the site:

August 1986	*Task 1 Report Preliminary Site Evaluation* by E.C. Jordan Co.
December 1987	*Task 2 Report Initial Investigation Field Program* by E.C. Jordan Co.
September 1989	*Task 3 Report Expanded Problem Definition Program* by E.C. Jordan Co.
June 1992	*Investigation of the Former Coal Gasification Site at Mechanicville, New York* by ABB Environmental Services
December 1993	*Phase IIA Supplemental Remedial Investigation and Feasibility Report* by ABB Environmental Services
October 2000	*Interim Remedial Measure Final Engineering Report* by NYSEG Licensing and Environmental Operations Dept.
September 2004	*Supplemental Remedial Investigation Report* by URS Corp.
December 2005	*Feasibility Study Report* by URS Corp.
March 2006	*Record of Decision* by NYSDEC.
April 2007	*Remedial Action Design* by Earth Tech

1.6 RECORD OF DECISION AND REMEDIAL ACTION DESIGN

The primary objectives of the remedial action, as required by the Record of Decision issued March 2006, include the elimination or reduction, to the extent practicable:

- Exposures of persons at or around the site to site-related contaminants in soil, bedrock and groundwater;
- Migration of NAPL in the subsurface soil and bedrock;
- NAPL discharges to the Anthony Kill;
- Off-site migration of groundwater that does not attain New York State Groundwater Quality Standards; and
- Contravention of NYSDEC surface water quality criteria by site related constituents in the Anthony Kill.

The primary objectives covered under the remedial design submitted to NYSDEC in April 2007 included:

- Removal to the top of bedrock of all soil containing PAH concentrations greater than 500 parts per million (ppm) or soil containing visual tar or NAPL. Dewatering will be implemented as required to achieve removal. The remedy includes a temporary wall for deeper excavations to limit lateral inflow which would otherwise increase the amount of dewatering required. Soils exhibiting odors, staining or sheens will however be removed if found to exceed the 500 ppm PAH criteria. Soil with no visual indication of tar or NAPL and containing less than 500 ppm PAHs, located above or between areas meeting the removal criteria, may be stockpiled and reused as backfill within the excavations resulting from the removal. The top 12 inches of soil in all backfilled areas will meet the requirements for protection of groundwater as specified in ECL 375.6.
- Removal of purifier waste remaining in or near the North Central Avenue embankment and disposed off site. The delineation of the limits of removal will be visual, based upon the presence of wood chips or soils exhibiting a Prussian blue coloration.
- Disposal of excavated soils that exceed the criteria specified in the first bullet above off-site. Imported soil used for contouring will also meet the requirements for protection of groundwater as specified in ECL 375.6.
- Monitoring sediment deposition in the Anthony Kill during construction activities.

Implementation of this Remedial Action Design is scheduled for 2008. The remedial action design addresses only NAPL contained within unconsolidated soils. Migration of NAPL in the underlying bedrock was the focus of the NAPL recovery pump test.

1.7 OBJECTIVE

The objective of the pump tests is to determine if the NAPL present in bedrock fractures underlying the site can be continually recovered through downhole pumping. The NYSDEC introduced the concept of NAPL pump tests during a November 14, 2006 meeting with NYSEG and Earth Tech. The NYSDEC recommended performing the pump tests rather than installing new monitoring wells as stipulated in the Record of Decision (ROD, March 28, 2006) and the Order on Consent Index #D0-0002-9309 between NYSEG and the NYSDEC.

During the November 14, 2006 meeting, the NYSDEC recommended performing four pumping tests, one within each of the following bedrock intervals:

- 20-ft to 55-ft below ground surface (bgs) on a well west of Central Avenue;
- 68-ft to 80-ft bgs on a well west of Central Avenue;
- 95-ft to 115-ft bgs on a well east of Central Avenue; and
- 145-ft to 150-ft bgs on a well east of Central Avenue.

The selection of the particular wells was then based on historic data. Monthly water levels and NAPL recovery through manual bailing has been occurring at the site since 2001. As of June 2007, 838 L of NAPL have been recovered through the monthly recovery efforts (Appendix A). The majority of the NAPL recovered has been from five wells (802 L), as shown in the following table.

Table 1 NAPL Recovery from Selected Wells

Well	NAPL Recovered (L)	Screen/Open Interval (ft bgs)
RH-1S	69	1.8 – 17.3 (S)
MW-26S	21	7.5 – 22.5 (S)
MW-10D	427	82 – 114 (O)
MW-40D	24	140 – 175 (O)
MW-42D	261	140 – 175 (O)
Total	802	

Two of these wells (RH-1S and MW26S) are screened in the overburden and will be removed when the gas holder and surrounding contaminated soil will be removed. The remaining three wells occupy two of the zones recommended by NYSDEC for testing as part of the NAPL recovery pump tests: MW-10D is in the 95-ft to 115-ft bgs interval; and MW-40D and MW-42D are in the 145-ft to 150-ft bgs interval. Therefore, Earth Tech plans to conduct NAPL recovery pump tests on well MW-10D and MW-42D. Well MW-42D was selected over well MW-40D because it has yielded greater NAPL recovery to date.

Since monthly manual recovery efforts began, there has been no consistent NAPL recovery from any wells located in the upper two zones recommended by the NYSDEC. Based on the review of well logs and NAPL measurements for these intervals, the two wells expected most likely to yield any appreciable NAPL during the pump test include: MW-26I in the 20-ft to 55-ft bgs interval; and MW-1I in the 68-ft to 80-ft bgs interval.

In summary, based on a review of the well installation logs, monthly NAPL measurement and recovery data, and the site conceptual model, the following four wells were evaluated for the NAPL pump tests:

Table 2 Selected Wells for NAPL Recovery Testing

Well	Open hole interval (ft bgs)	Rationale
MW-26I	24-45	NAPL identified during drilling; trace NAPL recovered.
MW-1I	45-75	NAPL identified during drilling; 25 L NAPL recovered.
MW-10D	82-114	Over 420 L NAPL recovered.
MW-42D	140-175	Over 250 L NAPL recovered.

Only MW-42D is located east of Central Avenue; the other three are located adjacent to or on the NYSEG property (Figure 1).

Drilling and construction logs for each of the above wells are included in Appendix B.

2.0 GEOPHYSICAL INVESTIGATION

2.1 FIELD ACTIVITIES

A geophysical survey of four wells was performed to confirm the depth intervals of the NAPL containing fracture prior to installing the pump test equipment. The geophysical survey consisted of (1) videoing the borehole to provide a detailed image of the lithologic variations and rock fracture characteristics, (2) caliper, fluid temperature and fluid resistivity measurements to identify any hydraulically active fractures and (3) flowmeter measurements.

The borehole was video logged using a Laval Campak 200 color camera. The video camera contained a light head that typically illuminates objects within one or two feet of the camera. The video camera was lowered through the borehole at a rate of approximately four feet per minute.

Geophysical logging was performed using a Mount Sopris logging winch. Fluid temperature and fluid resistivity were measured at 0.1-ft depth intervals, while logging downwards at approximately five to ten feet per minute. Abrupt changes in borehole fluid temperature or fluid resistivity typically represents depths where water or NAPL is entering or exiting the borehole.

After developing fluid temperature and fluid resistivity logs, a caliper log was performed to indicate local enlargements in borehole diameter that often occur when a drill bit passes through a fracture zone. Caliper data will be recorded at 0.1-ft depth intervals while pulling the three-arm caliper probe upward through the borehole. Caliper and fluid temperature/resistivity data will be recorded using the same probe in a single trip down and up through the borehole.

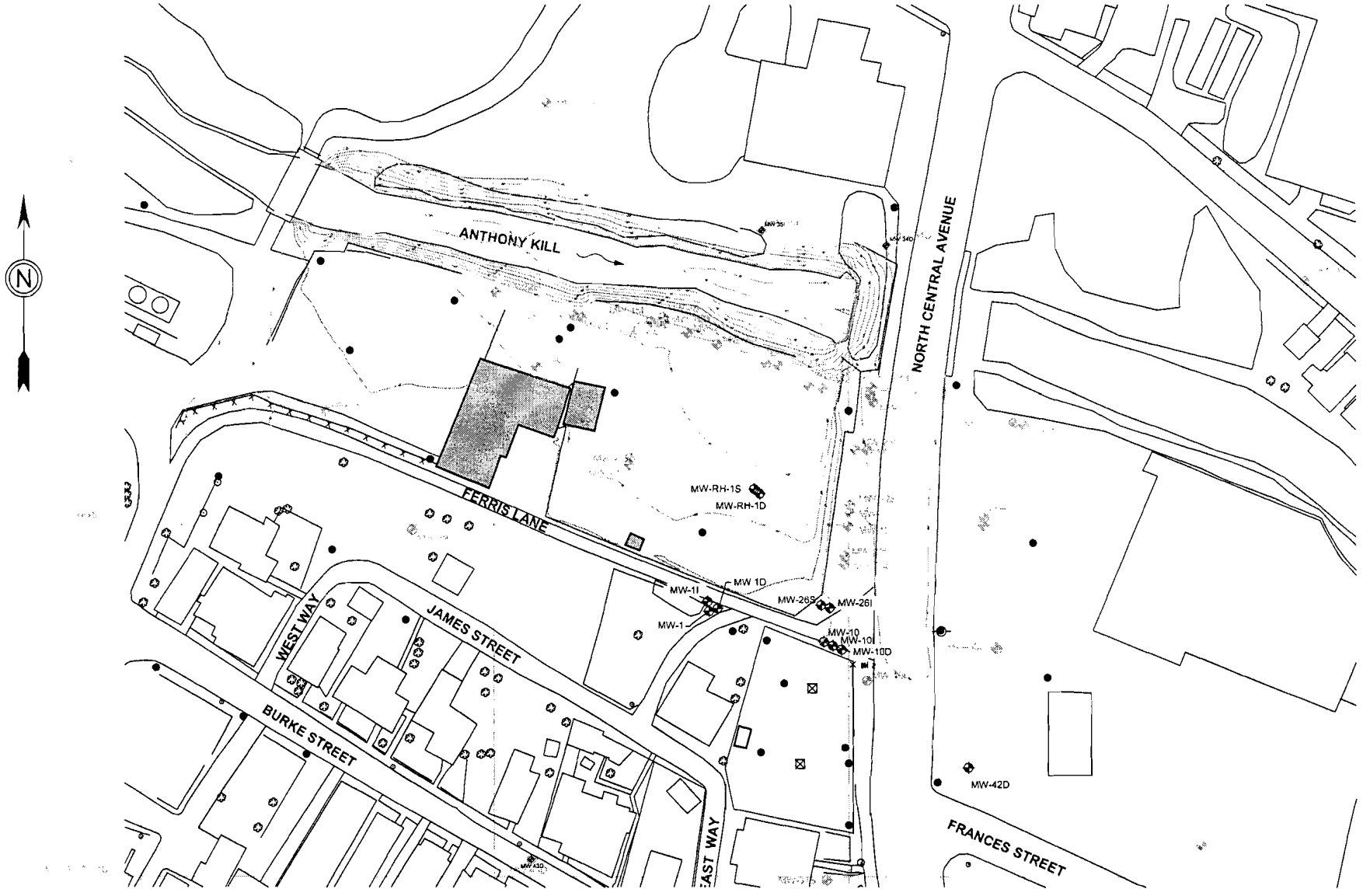
Finally, flowmeter measurements were obtained while maintaining the probe at discrete, fixed depths, which were selected after examining the data from the caliper, fluid temperature and fluid resistivity logs. The flowmeter probe contains a small heating grid with thermistors located above and below the grid. The grid heated a small volume of water and the device measured the length of time required for heated water to reach the upper or lower thermistor. A baffle between the probe and the borehole wall guided water flow through a chamber of known diameter used to determine the flow rate. The instrument can measure flow rates as low as 0.02 gallons per minute (gpm) and can distinguish between upwards and downwards flow.

Initial flowmeter measurements were recorded in ambient conditions without pumping. Subsequent measurements were obtained while pumping water from the well. The ambient measurements indicate if water is flowing through the borehole between two or more zones with different hydraulic heads. Flowmeter measurements recorded while pumping at a low rate (less than 1 gpm) identify fracture zones that allow water to recharge into the well.

All geophysical work was performed on June 4 and 5, 2007. Wells were logged proceeding from the shallowest (MW-26I) to the deepest (MW-42D), which also corresponded to the relative amount of coal tar recovered from each well.

All logging instruments were decontaminated prior to arriving at the site and also after logging each borehole. Decontamination procedures included a citrus cleaner wash followed by a Liquinox wash and tap water rinse. All decontamination water was stored in a 55-gallon drum.

Less than 50 gallons of fluids from the limited pump test and decontamination water were generated during the geophysical investigation. This water was mixed with the fluids generated from the NAPL pump test.



PLAN

Scale in Feet

0 50' 100'

LEGEND

MW-42D — EXISTING MONITORING WELL USED FOR NAPL RECOVERY TEST

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FIGURE 1
NAPL RECOVERY WELL TESTING LOCATION

NEW YORK STATE ELECTRIC AND GAS
FORMER COAL GASIFICATION SITE
MECHANICVILLE, NEW YORK

CAD FILE NAME: 94560\CADD\JAN-2007\94560-NYSEG...\MW-SB.DWG

2.2 RESULTS

All geophysical logs generated are presented in Appendix C. Summary televiewer interpretations are provided in Appendix D. These televiewer-interpretation tables list observed planar-feature depths, down-dip compass directions for each inferred feature (note that these are with respect to magnetic north, and perpendicular to the strike direction), and feature dip angles with respect to horizontal.

Caliper log data are presented in the left conventional log-plot column. Inflections to the right indicate borehole enlargements, for example where the drill bit passed through a fracture zone. Fluid temperature (FTemp) and fluid resistivity (FRes) logs are presented in the next conventional-log plot column. Localized inflections or changes in slope of FTemp or FRes logs typically represent water entering or exiting a borehole. Large inflections at the very bottom of a borehole may represent only accumulated sediments (or coal tar, at this particular site) with temperature or electrical properties that contrast with the water column.

Heat-pulse flowmeter data are presented on the caliper panel (ambient flow measurements) and on the FTemp/FRes panel (flow measurements while pumping). Shaded boxes to the left of centerline on either panel represent downwards water flow, with the box length indicating the flow magnitude in gallons per minute (gpm). Shaded boxes to the right of a panel's centerline represent upwards water flow. Filled circles represent depths where "zero" flow was observed (i.e., flow less than the probe's minimum detectable rate, approximately 0.02 gpm). Flowmeter test depths were selected on-site using field plots of the caliper, fluid temperature, and fluid resistivity logs.

Optical televiewer images are presented in a single column labeled "OBI40 image", where each column represents a cylindrical image sliced down the north edge and laid flat on the printed page. Magnetic north is at the left edge of each OBI40 image column, and the plots progress through east, south, west, and back to north at the right-hand edge. Note that the OBI40 image is presented twice on the same page for each well. Interpreted planar features are indicated by sine curves superimposed on the left OBI40 image column. The right OBI40 image column does not show the interpreted sine curves, to allow the reader to see the unaltered original image.

Optical televiewer data were evaluated using WellCAD's image-processing module, to measure planar feature dip angles and down-dip azimuths. All down-dip azimuths are referenced to magnetic north. Measured feature orientations are indicated by tadpole plots, where each filled-circle indicates a feature's dip angle from horizontal (plotted on a graph that ranges between zero and 90 degrees from left to right). Each tadpole tail points in the feature's down-dip azimuth, assuming that magnetic north is straight up on the printed page. Note that the down-dip azimuth indicated by each tadpole tail is perpendicular to the feature's strike direction

Planar features inferred from optical televiewer logs alone cannot reliably be distinguished as "open" or "less-open", unlike planar features identified on acoustic televiewer logs. Televiewer interpretations from each well are summarized using a rose diagram that indicates the predominant down-dip azimuths of planar features observed crossing a borehole. These rose diagrams are presented with magnetic north oriented straight up on the printed page.

A stereoplot also summarizes the planar feature orientations inferred from the optical televiewer log. Each stereoplot was prepared using an equal-angle (Schmidt) projection of the southern hemisphere, with magnetic north oriented straight up on the printed page. The pole to a horizontal feature would plot at the diagram's center, and a near-vertical feature's pole would plot near the diagram's outer edge, opposite the feature's down-dip compass direction.

Annotations on the conventional log plot describe interpreted hydraulically-active depths, based on correlations between all of the available log data. Selected observations are described below.

2.2.1 MW-11

The borehole caliper log shows small enlargements near 46, 48, 53, 70, and 72 feet deep. A sizeable enlargement was observed between 51 to 52 feet deep. FRes inflections judged likely to represent possible hydraulically active zones were observed near 48, and possibly 51, feet deep.

Ambient flowmeter tests did not disclose measurable water flow, indicating that the fractures encountered by this well have similar hydraulic heads. Pumping flowmeter tests showed inflow originating greater than 65 feet deep, with most inflow entering between 49.5 to 55 feet (probably at the 51 to 52-foot deep caliper enlargement).

The OBI40 image shows the interior of dry casing less than roughly 9.8 feet deep. The water level was near 9.8 feet at the time of logging, and the casing bottom is near 44.3 feet deep. Note the reddish staining inside the casing that may represent coal tar dragged up by sampling pumps or other apparatus. The black feature rose shows that most interpreted planar features dip down towards the west-northwest, with a smaller number of planar features dipping down towards the east-southeast.

The stereoplot shows these two populations of interpreted planar features. The cluster of feature poles plotted near the diagram's right edge represents planes that dip down towards the west-northwest at approximately 45 to 70 degrees from horizontal. The cluster of feature poles near the left side of the stereoplot represents planes that dip down towards the east-southeast, between approximately 50 to 70 degrees from horizontal.

The tadpoles shown on the conventional log plot show that interpreted down-dip feature azimuths vary considerably versus depth in this well. For example, most interpreted planes dip down towards the southeast or east-southeast between 50 to 54 and 66 to 68 feet deep. However, all interpreted feature planes between 55 to 65 feet deep dip down towards the northwest or west-northwest. The bottom-most portion of the OBI40 image recorded in all four wells (including this one) was obscured by soft sediments or tar; note where the OBI40 image becomes solid black in color near the bottom of each televiewer log.

2.2.2 MW-10D

The borehole caliper log shows only one distinct enlargement, immediately below the casing bottom near 82 feet deep. FRes slope changes or inflections judged likely to represent hydraulically active zones were observed near 82, 86, possibly 89, possibly 95, and 98 feet deep. In some instances, the recorded FRes data values appear less than zero; this was caused by the borehole fluids being more conductive than the probe's calibrated range (possibly due to road salt).

The portion of the logging cable that went greater than 97 feet deep in this well exhibited a very strong coal tar odor, suggesting that tar materials may be entering the well near the 98-foot deep FRes inflection. Neither ambient nor pumping flowmeter tests indicated water flow in this borehole.

Floating oil in MW-10D stained the OBI40 probe's lens as that device was initially lowered into the water column, resulting in the vertical stripes that obscure part of this image. Nonetheless, some planar feature orientations (mostly resembling bedding planes) were observed and are summarized in the rose diagram and stereoplot.

Most of the interpreted feature poles are plotted just above the diagram's center, representing planes that dip down mostly towards the south-southeast, south, and south-southwest between 10 to 35 degrees from horizontal.

2.2.3 MW-26I

The borehole caliper log shows two distinct enlargements near 25 and 25.5 feet deep (immediately below the casing bottom), and a few smaller enlargements at greater depth. Numerous FTemp and FRes inflections observed throughout much of the well's depth may represent hydraulically active zones, including the following depths: 25, 28 to 29, 31 to 33, and 37 feet deep.

Upward ambient flow was observed at 32 feet deep. This implies that water may have entered between 32 to 34 feet deep, flowed upward under ambient conditions, and exited at a zone of lower hydraulic head between 28 to 32 feet deep. Pumping flowmeter tests showed upward inflow originating greater than 40 feet deep, possibly at the 43-foot deep minor caliper enlargement. Pumping flowmeter observations at the next three depths were somewhat erratic. Additional inflow apparently entered between 26 to 28 feet deep, and also between the casing bottom and 26 feet deep.

The OBI40 log was attempted three times in this well, with different lamp intensities, in an effort to obtain the best possible image in this murky borehole. The version shown on the OBI40 log plot was the best of the three attempts, but it exhibits numerous vertical black streaks that represent sediments that clung to the probe's lens.

A small number of planar features were inferred from the OBI image. Most dip down towards the south and south-southeast, as indicated by the rose diagram. The stereoplot shows that most of these feature poles plot above the diagram's center, representing planes that dip down towards the south, south-southeast, and south-southwest at dip angles between approximately 10 and 50 degrees from horizontal.

2.2.4 MW-42D

This well has a 6-inch uncased opening in bedrock, but has 4-inch PVC casing to 140 feet deep. There are two distinct enlargements shown on the caliper log, between 142 to 144 feet deep and below 171 feet deep. FRes data values recorded in this borehole were mostly less than zero, indicating that the fluids in this well were more electrically conductive than the probe's calibrated range (similar to the observations at well MW-10d). The FRes log is presented with two log plot scales: the green line represents a broader range of FRes data values, and shows FRes anomalies within the cased portion of the well; the red line represents the recorded data values greater than 84 feet deep in greater detail. FRes inflections that may represent hydraulically active zones were observed near 145, 151, 157 to 158, possibly 167, and 170 feet deep.

Ambient flowmeter tests showed upward flow that originated greater than 165 feet deep, and exited at a zone of lower hydraulic head between 150 to 155 feet deep. Pumping flowmeter observations also showed upward flow originating greater than 165 feet deep, with additional inflow entering between the casing bottom and 146 feet deep. A pumping flowmeter test at 40 feet deep yielded the same flow rate as observed near 135 feet deep, therefore the FRes decreases near 45 and 49 feet deep are not judged likely to represent casing leaks.

This well's OBI40 log shows dry PVC casing less than approximately 13 feet deep. A black horizontal line represents the water level near 12.9 feet deep. Numerous casing joints are visible (e.g. near 23.2, 33.2, and 43.2 feet) in this OBI image. The casing ends at 140 feet deep, and the dark-colored rock (and some light-colored mineral-filled fractures) are visible below 140 feet. Vertical bands represent oil or tar

that was adhered to the probe's lens (especially noticeable in the uncased portion of the well). The OBI40 image appears light-colored and slightly out-of-focus below approximately 168 feet, probably due to suspended sediment in the lower part of the water column.

The black rose diagram shows that most interpreted planar features dip down towards the southeast. The stereoplot diagram shows two distinct clusters of feature poles. The larger cluster, in the diagram's upper left quadrant, represents planes that dip down towards the southeast between 35 to 70 degrees from horizontal. A few additional poles plot in the stereoplot's lower right quadrant, representing planar features that dip down towards the northwest and north-northwest, mostly between 30 to 50 degrees from horizontal.

2.3 SUMMARY

A summary of the logging for each well is provided in the below table.

Table 3 Geophysical Investigation Summary

Well	Geophysical Logging Summary
MW-26I	▪ Two distinct enlargements observed below the bottom of the casing near 25 and 25.5 feet deep ▪ Numerous fluid temperature and fluid resistivity inflections observed throughout the borehole ▪ Ambient flowmeter test at 32 feet depth indicate upward flow, exiting between 28 and 32 feet deep ▪ Pumping flowmeter test indicate upward flow (~0.05 gpm) originating greater than 40 feet deep with additional flow (~0.17 gpm) entering between the bottom of the casing (which is located at 24 feet deep) and 28 feet deep
MW-1I	▪ Sizeable enlargements observed between 51 and 52 feet deep ▪ Small enlargements observed near 46, 48, 53, 70 and 72 feet deep ▪ Ambient flowmeter test indicate no measurable water flow in borehole ▪ Pumping flowmeter test indicate most flow (~0.35 gpm) entering between 49.5 and 55 feet (probably at the 51 to 52 feet deep caliper enlargement)
MW-10D	▪ Only one distinct enlargement observed directly below casing bottom near 82 feet ▪ Neither ambient nor pumping flowmeter tests indicate any water flow in borehole ▪ Presence of coal tar on instruments below 67 feet deep suggests coal tar may be entering near the 68 feet deep fluid resistivity inflection
MW-42	▪ Two distinct enlargements observed between 142 and 144 feet deep and below 171 feet deep ▪ Small enlargements observed near 46, 48, 53, 70 and 72 feet deep ▪ Ambient flowmeter test showed an upward flow originating greater than 165 feet deep and exiting between 150 and 155 feet deep ▪ Pumping flowmeter test indicate upward flow (~0.05 gpm) originating greater than 165 feet deep ▪ Additional flow between the casing bottom and 146 feet deep though the pumping flowmeter test and fluid resistivity measurements suggest this is not from casing leaks

3.0 NAPL RECOVERY PUMP TEST

3.1 FIELD ACTIVITIES

NAPL recovery pump test were performed at each of the four wells identified in Table 2: MW-1I, MW-10D, MW-26I, and MW-42D. Each test involved pumping liquids from the extraction well over a period of 72 hours or until the well went dry.

The NAPL Recovery Pump Test Work Plan (Work Plan) required borehole packers to be installed in each of the four pump test wells. However, following the completion of the geophysical investigation, only MW-1I had an unmistakably defined enlargement with measurable inflow. The remaining three wells did not have a clearly defined fracture zone associated with measurable flow that was correlated with a caliper enlargement. In consultation with the NYSDEC, the Work Plan was modified such that a total of five pump tests were performed: one at MW-1I using a packer system and one at each well with the pump intake installed at the bottom of the borehole.

Due to site logistics (i.e., placement and movement of the frac tank), the NAPL recovery pump tests were performed in the following order:

- MW-42D (September 10-12, 2007)
- MW-10D (September 12, 2007)
- MW-1I with packer (September 17-20, 2007)
- MW-26I (September 24-27, 3007)
- MW-1I without packer (October 1-4, 2007)

A Blackhawk Trident Model 101V pneumatic piston pump capable of flow rates up to 2.0 gpm was used for the pilot test. The technical specifications for the pump can be found in Appendix E. The pump consists of two main components: the above grade pneumatic drive motor and the in-well pipe assembly. The in-well pipe assembly consists of the following items from bottom to top: 5-inch long intake screen, 30-inch foot valve assembly, 1.5-inch diameter HDPE discharge pipe (length varies based on well depth), well seal, and discharge tee. Within the foot valve assembly there is a drive piston with nitrile seals. The drive piston is connected to the above grade drive motor with a 3/8-inch fiberglass drive rod. The fiberglass drive rod must be cut to length based on placement of the foot valve assembly within the borehole.

The installation of the pump consisted first of inserting the fiberglass rod within the borehole and then tapped on the bottom of the well to determine the total depth of the well and if there was sediment at the bottom. The screen, foot valve assembly, HDPE discharge pipe (cut to the depth of the borehole), well seal and discharge tee were then connected and lowered into the well. If a sediment layer was found on the bottom of the well, the thickness was measured and the pump intake was placed slightly above the top of sediment (sediment clogged the piston drive the first time MW-42D was pumped). The fiberglass rod was then connected to the piston drive and inserted into the discharge pipe and foot valve. The fiberglass rod was then connected to the above grade pneumatic drive motor which was then connected to the discharge tee, completing the assembly of the pump.

A 1-HP Kobalt air compressor with a 5.5 gallon tank was used to drive the pump motor. During the test, air requirements for the Trident pump were found to be greater than what the specifications required. The increased air demand resulted in the compressor running continuously during the first two tests (ideally, a compressor should operate no more than 50 percent of the time). The continuous use burned out the motor, so a larger 1.6-HP Kobalt air compressor with a 30 gallon tank was used for the remainder of the test. This compressor cycled on and off at approximately equal intervals.

For the placement of the packer in MW-1I, the drilling firm Parratt-Wolff, Inc. installed a single-stage pneumatic borehole packer was lowered into the lower open rock portion of the well with a wireline cable. The packer was positioned at 55 feet deep. The packer was then inflated with compressed nitrogen to the appropriate pressure for its depth setting, which created a sump immediately beneath the target NAPL yielding fracture zone. The pump was then assembled and lowered into the borehole and positioned with its intake directly on the top of the packer.

To determine the pumping rate used during the test, the following procedure was used. First, water was removed at the pump's minimal flow rate (approx. 0.3 gpm). If operation at this flow rate did not induce drawdown in the well, then the flow rate was increased every 30 minutes at 0.2 gpm increments (the smallest flow increment possible with the pump), until drawdown of the water began. Once drawdown was observed, the pumping flow rate was reduced to a flow that produced a stable water level. Every attempt was made to maintain this pumping rate during the duration of the test. If the water level did not stabilize at the lowest pumping rate, then the test was run at the lowest pumping rate until the well went dry.

Throughout the duration of the test, water level measurements within the recovery well and pumping rates were recorded hourly. Where possible, water level measurements from surrounding monitoring wells were also measured hourly.

Extracted groundwater from the discharge tee was discharged into a 10 gpm oil water separator (OWS) via a garden hose. The OWS was used to separate the NAPL from the water and also was used to quantify the amount of NAPL removed during the individual tests. Water from the OWS was pumped into the 9,000 gallon frac tank; separated oil was drained into 55-gallon drums. Daily grab samples of the influent and effluent of the oil water separator were taken and analyzed for Oil and Grease (O&G). The water samples were sent to TestAmerica in Amherst, New York for analyses. Analytical laboratory reports are presented in Appendix F.

Containerized water was sampled on October 16, 2007 and analyzed for benzene, PCBs, pH and flashpoint by TestAmerica (see Appendix F for laboratory results). On November 5, 2007, Clean Harbors removed all containerized water from the site and disposed of the water to Clean Harbors disposal facility in Bristol, Connecticut (waste manifests are in Appendix G).

The frac tank was delivered to the site on September 6, 2007 and staged on the Getty property for use during the MW-42D recovery pump test. Following completion of the MW-42 recovery pump test, the frac tank was transferred to the NYSEG property on September 13, 2007. The frac tank was emptied and pressure washed by Clean Harbors on November 5, 2007 and removed from the Site on November 8, 2007.

3.2 RESULTS

3.2.1 MW-1I

Recovery Test with Packer

The NAPL recovery test for MW-1I with the packer began on September 17, 2007 at 1150. The baseline depth to water was 10.50 feet. An initial pumping rate of 0.4 gpm was increased slightly until the drawdown in the well stabilized. The final pumping rate used during the duration of the test was 0.5 gpm, which resulted in a drawdown of between 8 and 9 feet. Pumping was ceased on September 20, 2007 at 1200. The total amount of fluids removed during the test was 2,210 gallons, which resulted in an average pumping rate of 0.51 gpm.

The total amount of NAPL recovered during the test was 9.5 liters (2.5 gallons). The quantity of NAPL was determined by first draining the water in the OWS until the separated NAPL became visible on the bottom. The remaining fluids in the OWS were then completely drained into 5 gallon buckets. The amount of NAPL was then determined by decanting off the emulsified NAPL/water mixture and measuring the remaining pure NAPL. (Note: Most of the NAPL sinks, but there is a thin layer of floating NAPL. This makes precise volume estimation very difficult by visual inspection. To get a reliable estimate, the floating NAPL was removed by an absorbent pad and the emulsified/water mixture was decanted off, leaving only the dense NAPL on the bottom.)

Daily water samples from the OWS influent and effluent were collected during the test and analyzed for O&G by TestAmerica. The results for the samples are summarized in Table 4. The influent O&G concentration increased throughout the test. The increase in concentration is likely due to a combination of the NAPL flowing towards the well due to the pumping induced gradient and that the NAPL is highly hydrophobic, therefore as the NAPL was pumped out of the well during the first day, the piping carrying the extracted water– both within the well and above grade – had the NAPL coat the inner surface.

Table 4 Oil and Grease Results for MW-1I (with packer)

Sample Date	Oil and Grease (mg/L)	
	Influent	Effluent
9/17/2007	5.0	5.1
9/18/2007	144	5.2
9/19/2007	316	16.0
9/20/2007	407	15.4

The amount of dissolved/emulsified NAPL leaving the OWS can be estimated by multiplying the concentration of O&G in the OWS effluent by the total amount of water processed. The average concentration of O&G during the 72 hour pump test in the effluent was 10.4 mg/L. The total volume of water extracted was 2,210 gallons. Assuming the NAPL has a density of 1.05, the amount of NAPL dissolved in the water is approximately 0.08 L (0.02 gallons). The majority of NAPL removed from the well during the pumping test was as NAPL (9.5 liters) as opposed to dissolved (0.08 liters).

Water levels were monitored hourly over the length of the NAPL recovery tests. Levels were monitored in MW-1I (shown in Figure 2) and in the surrounding wells MW-1S, MW-10S, MW-10I and MW-26I (shown in Figure 3). No measurements were taken from MW-26S due to the presence of a small layer of LNAPL. Between hour 8 and 12 hour of the test, the pumping rate increased to approximately 1 gpm, which resulted in the water level dropping over 10-ft. The increased pumping rate was due to problems with the pneumatic controls on the piston driver. Once the pump was corrected and the pumping rate stabilized at 0.5 gpm, the water levels remained at approximately 18 to 19 feet below the well casing. The air compressor stopped running between hours 36 and 37; a slight rise in water levels can be noted at this time.

The surrounding shallow monitoring wells did not show any influence from the pumping of MW-1I. Pumping influence can be seen in both of the intermediate monitoring wells MW-10I and MW-26I, with the greater influence on MW-10I. The pumping rate from MW-1I was stabilized at 0.5 gpm at hour 13, however the water levels in both intermediate wells did not rebound until hour 20, suggesting a delayed response of 6 to 7 hours. Drawdown in MW-10I and MW-26I was approximately 0.4 feet and 0.3 feet, respectively, with the 0.5 gpm pumping rate from MW-1I. At hour 37, water levels in MW-10I rose of 0.5 feet when the compressor was off. In this case the rise in water level was almost immediately after the pump was no longer operating. Once the pump was working properly again, the water level in MW-

FIGURE 2
MW-1I WATER LEVELS MEASURED DURING NAPL RECOVERY TEST (with packer)
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK

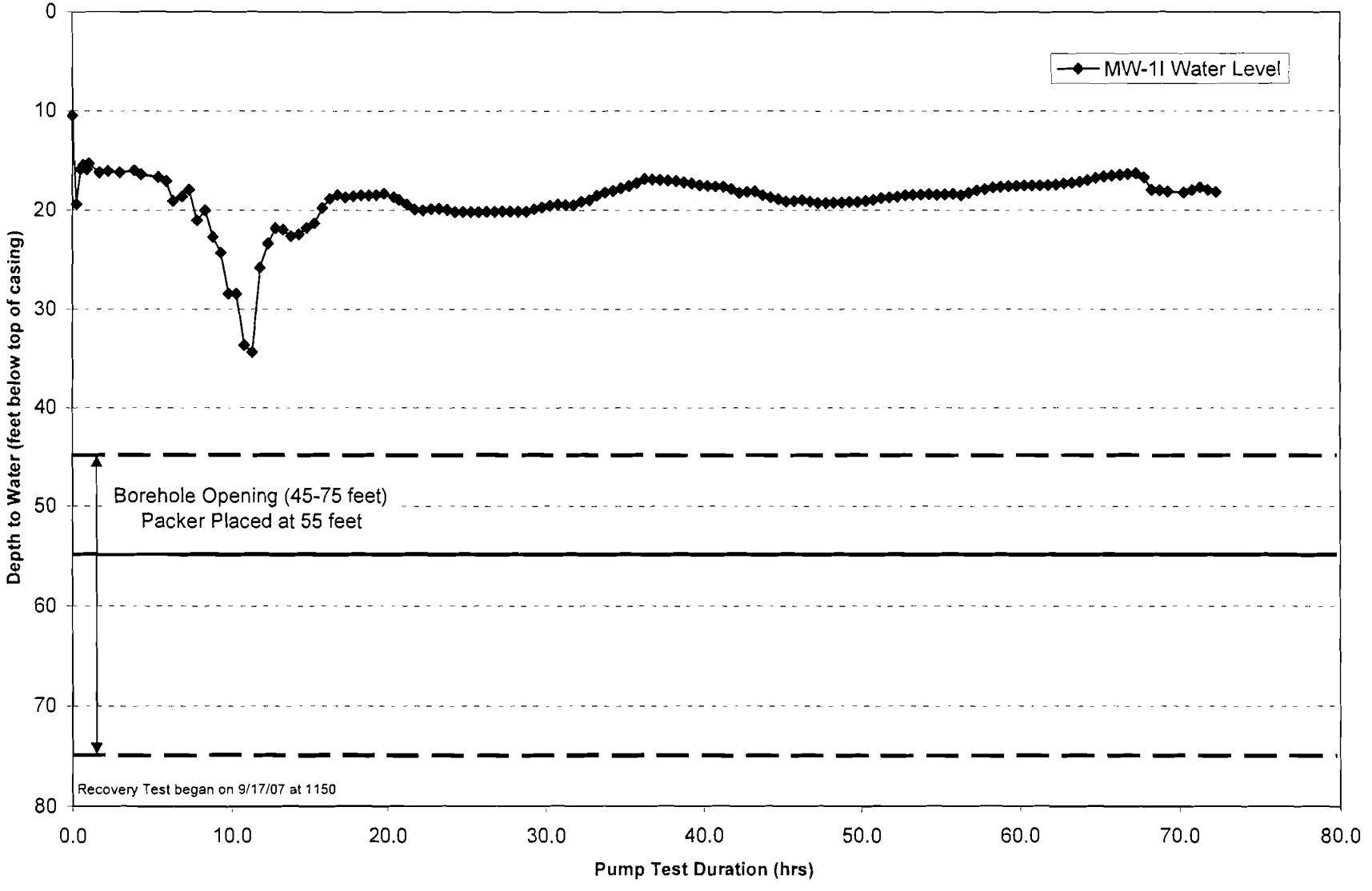
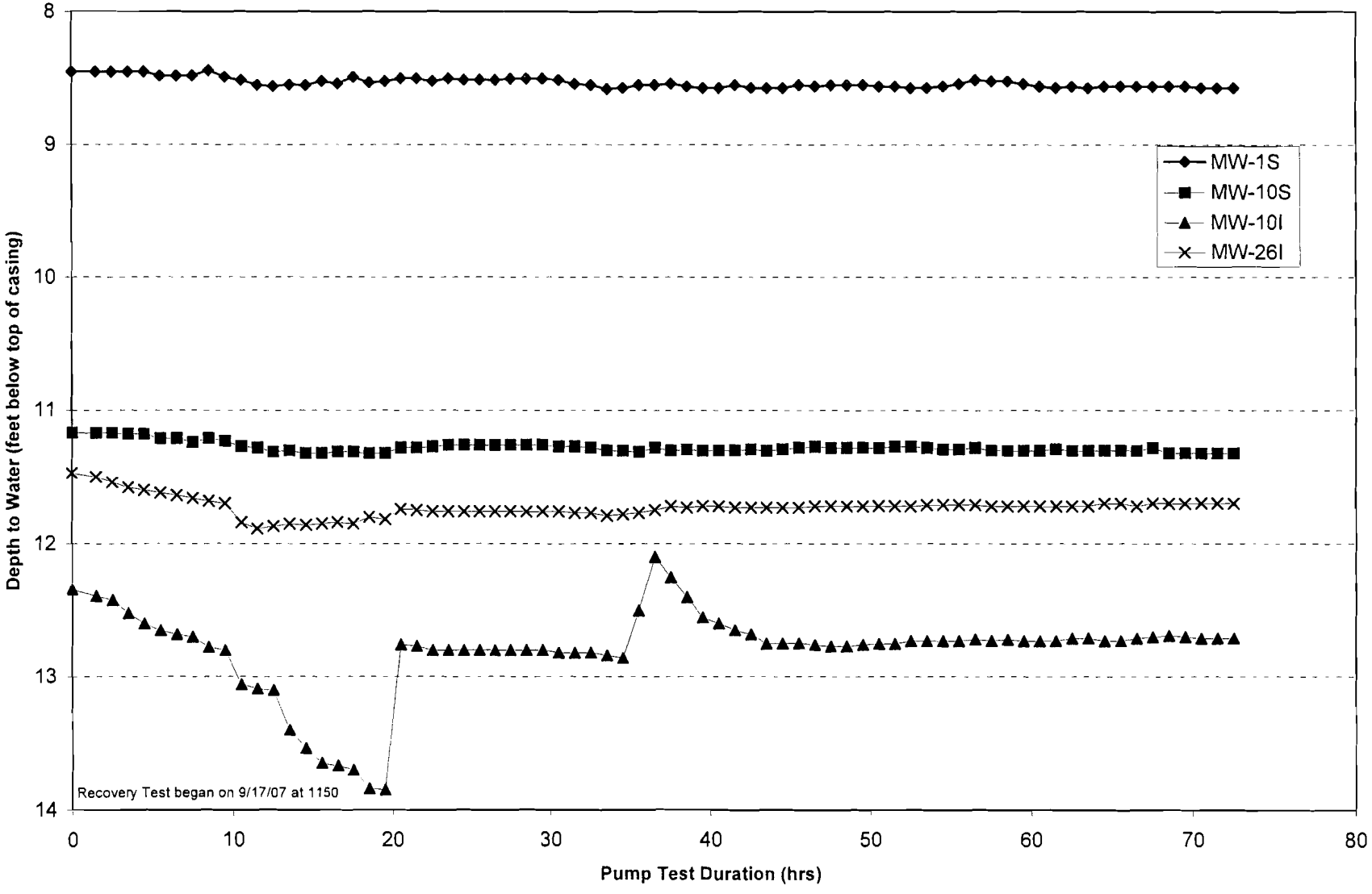


FIGURE 3
WATER LEVELS MONITORED DURING MW-1I NAPL RECOVERY TEST (with packer)
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK



10I went back to its asymptotic state within 8 hours. Well MW-26I showed little change in water levels during this period.

Recovery Test without Packer

The NAPL recovery test for MW-1I without the packer began on October 2, 2007 at 1150. The baseline depth to water was 9.40 feet. The initial pumping rate was set at 0.5 gpm based on the results of the pumping rate from the recovery test with the packer installed. The pumping rate varied slightly from 0.4 gpm to 0.6 gpm. The slight variation in pumping rates resulted in drawdowns of 6 to 8 feet (depth to water of 15.5 to 17.5 feet), which was slightly lower than the drawdown measured during the recovery test with the packer. Pumping was ceased on October 5, 2007 at 1200. The total amount of fluids removed during the test was 2,295 gallons, which resulted in an average pumping rate of 0.53 gpm.

The total amount of NAPL recovered during the test was 12.5 liters (3.3 gallons). Unlike the previous test performed on MW-1I where no NAPL was present in the well prior to pumping (i.e., pumping on the well began on a couple hours after the packer had been set, not enough time for any NAPL to accumulate prior to pumping), residual NAPL existed in the bottom of the well prior to pumping. To determine the amount of NAPL present in the bottom of the borehole prior to pumping (no NAPL had been removed from the well during the previous four weeks), the bottom of the OWS was drained three hours into the recovery test. The volume of NAPL removed during the first three hours was estimated to be 3 liters (0.8 gallons). Following the completion of the test, the volume of NAPL present was estimated as described above where the OWS was completely drained. This volume of NAPL was determined to be 9.5 liters (2.3 gallons). If the volume of NAPL removed during the first three hours of the pump test is assumed to represent the volume in the borehole bottom, then the amount of NAPL recovered from both tests performed on MW-1I was identical. In other words, the 9.5 liters of recovered NAPL flowing into MW-1 came from the fractures above the packer zone (i.e., between 49 and 55 feet).

Daily water samples from the OWS influent and effluent were collected during the test and analyzed for O&G by TestAmerica. The results for the samples are summarized in Table 4. Influent concentrations of O&G decreased during the recovery test. The sample collected on the first day had concentrations an order of magnitude above the results for the samples collected on the remaining three days. This sample was most likely representative of the concentration within the borehole itself, rather than the groundwater flowing within the fractures. The concentration of O&G in the groundwater existing within the fractures is likely around 400 mg/L which can be attested by the last day's results for both MW-1I tests. During the test without the packer, at least two days were required to remove the residual NAPL from the borehole volume, as can be seen by the decreasing concentrations. During the test with the packer, at least three days were required to have the concentration increase to 407 mg/L. In neither test had the concentrations stabilized after 72 hours, but the final results in both tests may represent what would be found in the groundwater flowing within the fractures under pumping conditions.

Table 5 Oil and Grease Results for MW-1I (without packer)

Sample Date	Oil and Grease (mg/L)	
	Influent	Effluent
10/2/2007	3500	< 5
10/3/2007	580	< 5
10/4/2007	691	16.8
10/5/2007	453	14.7

FIGURE 4
MW-1I WATER LEVELS MEASURED DURING NAPL RECOVERY TEST (without packer)
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK

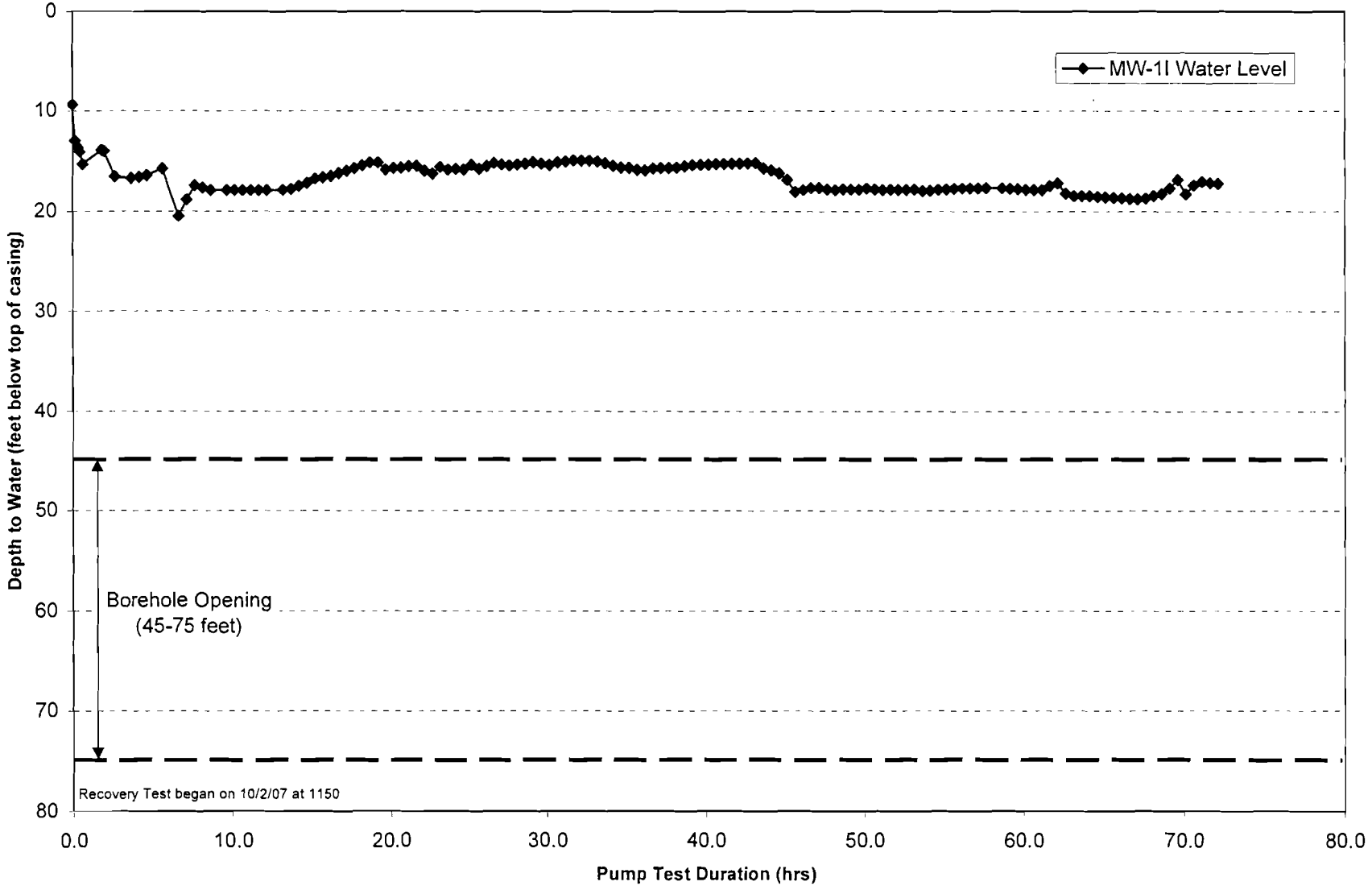
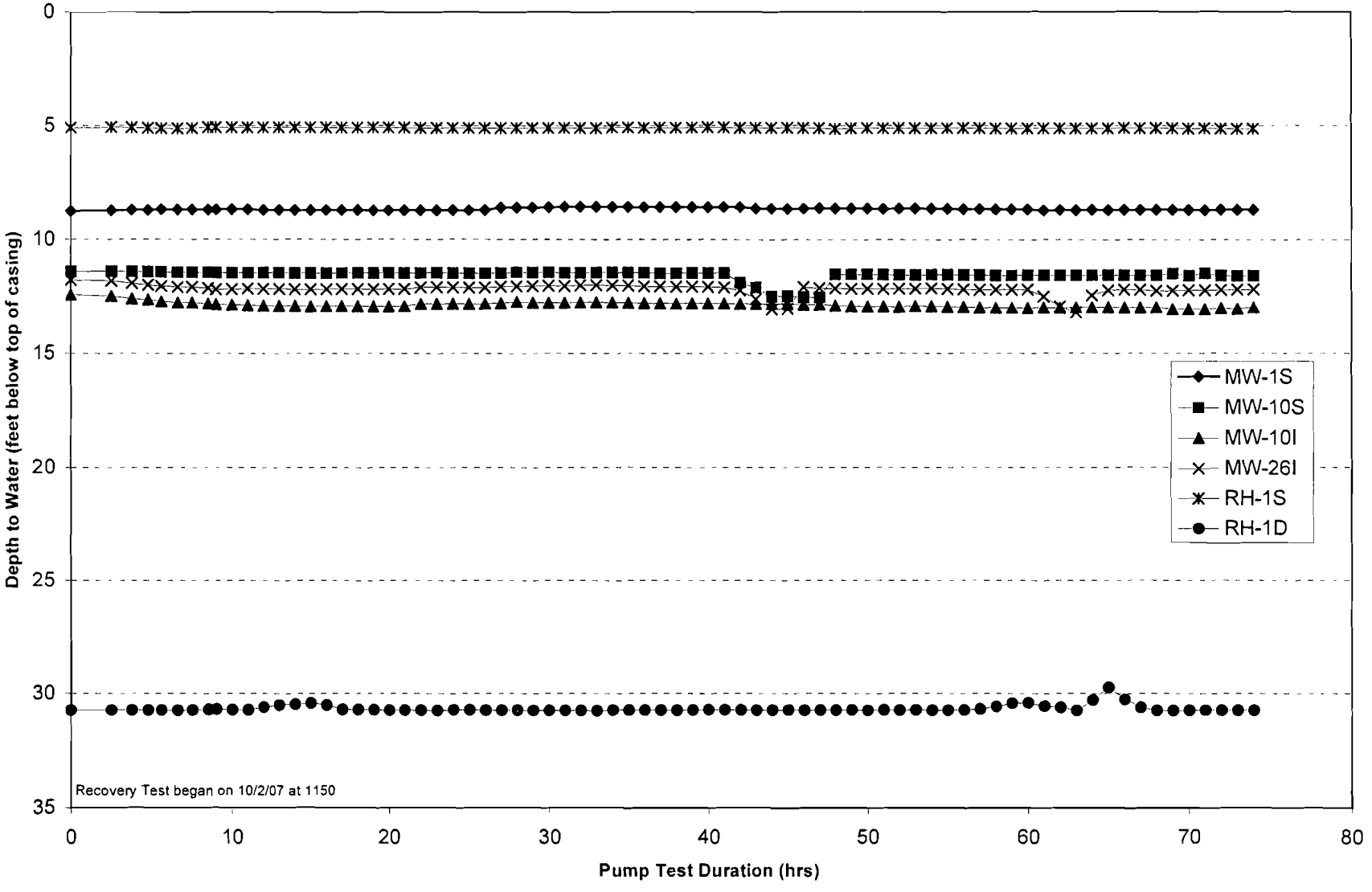


FIGURE 5
WATER LEVELS MONITORED DURING MW-1I NAPL RECOVERY TEST (without packer)
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK



Water levels were monitored over the length of the NAPL recovery test. Levels were monitored in MW-1I (shown in Figure 4) and in the surrounding wells MW-1S, MW-10S, MW-10I and MW-26I (shown in Figure 5). The two recovery wells installed within the holder, RH-1S and RW-1D, were also monitored.

During the first 8 hours of the test, the pumping rate fluctuated between 0.4 and 0.7 gpm resulting in variable water level measurements. After hour 9, the pumping rate varied less, resulting in more stabilized water level readings between 16 and 18 feet. Incremental changes in pumping rate could influence water levels within MW-1I by 1 foot or more. No significant difference was observed between the pumping of MW-1I with and without a packer.

Two of the shallow wells RH-1S and MW-1S did not show any influence during the pumping test. Well MW-10S, which did not show any influence during the pumping test with the packer, showed little influence during this pumping test without the packer except between hours 42 and 48 of the test. The cause for this water level drop is unknown, since the pumping rate during this time stayed consistent. The two intermediate wells MW-10I and MW-26I showed declines in water levels of 0.5 feet and 0.4 feet, respectively. These drops were each 0.1 feet lower than those measured from the test with the packer. The water levels in RH-1D remained relatively constant during the test, through between hours 65 and 68 there was a slight increase in water levels. Since the pumping rate from MW-1I was constant during this period, no explanation can be provided for the rise.

3.2.2 MW-10D

The NAPL recovery pump test for MW-10D began on September 12 at 1330. The depth to water in the well was 73.65 feet prior to the test. Within 15 minutes after starting the pump, the water level had dropped to 88.80 feet and 30 minutes into the test, the well went dry. A total of approximately 20 gallons of fluids were removed from the well; no quantifiable NAPL was recovered. Due to the short duration of the test, no water samples were collected nor were any water level measurements taken in adjacent wells. Based on these results, testing of MW-10D was discontinued.

3.2.3 MW-26I

A short term recovery test had been started on Thursday, September 13 on MW-26I, to see if the well would go dry. After seven hours, the water level stabilized at a depth of 27 feet for a pumping rate between 0.6 and 0.8 gpm. During this test, 300 gallons of fluids were removed, which resulted in an average pumping rate of 0.75 gpm. Since the well produced a sustainable recovery rate, the test was ceased rather than run the test over the weekend. No NAPL was recovered during the short term test. A single influent water sample was collected and analyzed for O&G; no effluent sample was collected for the short term test. Oil and grease was not detected in the influent sample.

The 72 hour NAPL recovery pump test for MW-26I began on September 24, 2007 at 1100. The initial water level was 12.26 feet. The targeted pumping rate was 0.75 gpm, but the flow rate varied from 0.5 gpm to 1.0 gpm due to difficulties in controlling the pump. After about 48 hours, the compressor seized up due to prolonged continuous use, so a larger compressor was purchased and used for the remainder of the test. The test was down for approximately 90 minutes during this transition. With the new compressor in place, the pump operated more consistently at a flow rate of 0.8 gpm was maintained. The water level associated with this flow rate was 25 feet, or a drawdown of approximately 13 feet.

A total of 3040 gallons of fluids were removed from MW-26I during the 72 hour pump test. No NAPL was recovered during the test. The average flow rate was 0.71 gpm.

Daily water samples from the OWS influent and effluent were collected during the test and analyzed for O&G by TestAmerica. The effluent sample for the September 24, 2007 broke during shipment and was therefore not analyzed. The results for the remaining samples are summarized in Table 6. The concentrations of O&G remained below 10 mg/L, with the exception of the final sample, which had a concentration of 36.7 mg/L.

Table 6 Oil and Grease Results for MW-26I

Sample Date	Oil and Grease (mg/L)	
	Influent	Effluent
9/13/2007	< 5	NS
9/24/2007	8.8	NA
9/25/2007	< 5	< 5
9/26/2007	< 5	< 5
9/27/2007	36.7	< 5

NS = not sampled
NA = not analyzed (sample bottle broken)

Water levels were monitored over the length of the NAPL recovery test at MW-26I. Levels were monitored in the pumping well MW-1I (shown in Figure 6) and in the surrounding wells MW-1S, MW-1I, MW-10S and MW-10I (shown in Figure 7). During the first 50 hours of the test, the pumping rate fluctuated between 0.8 and 1.2 gpm resulting in variable water level measurements. The variation in pumping rates was due to the compressor malfunctioning. At hour 50, the compressor broke down and a new compressor was used. With the new compressor on-line, water levels stabilized at approximately 24 feet for the remainder of the test.

The two of the shallow wells, RH-1S and MW-1S, did not show any consistent influence during the pumping test. Well MW-1S had a drop of approximately 0.2 feet between hours 8 and 18, but for the remainder of the test, had the same water levels as those measured prior to pumping. Well MW-10S had water levels drop between 0.2 feet and 0.4 feet, though no clear correlation between pumping rate and draw down could be inferred. The two intermediate wells MW-1I and MW-10I had similar drawdown curves with a maximum decrease in water levels of 0.8 feet and 0.9 feet, respectively. Both wells also show a slight rebound in water levels around hour 50, when the pump test was stopped to change out compressors.

3.2.4 MW-42D

The NAPL recovery pump test for MW-42D was the first performed. The pump was initially placed in the well on September 10. After pumping for approximately 30 minutes, the flow rate dropped from 0.5 gpm to nothing. The following morning, the foot valve assembly was removed from the well and disassembled. Over 10 inches of grey sandy silt had clogged the piston within the foot valve, making water extraction impossible. After cleaning out the foot valve, the entire downhole assembly was reinserted into the well, this time placed approximately 18 inches above the bottom of the well to prevent further clogging of the pump.

The test began at 0900 on September 11, 2007. The depth to water was 43.45 feet and the pumping rate was less than 0.2 gpm. After four hours, the depth to water was 105.65 feet and the pumping rate was less than 0.1 gpm. By 8:00 PM on September 11, the water level in the well had reached 173.60 feet (i.e., the bottom of foot valve assembly). The test was continued through the night and was ceased at 8:45 AM on September 12, since the no additional water could be removed from the well (i.e., well became dry).

FIGURE 6
MW-26I WATER LEVELS MEASURED DURING NAPL RECOVERY TEST
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK

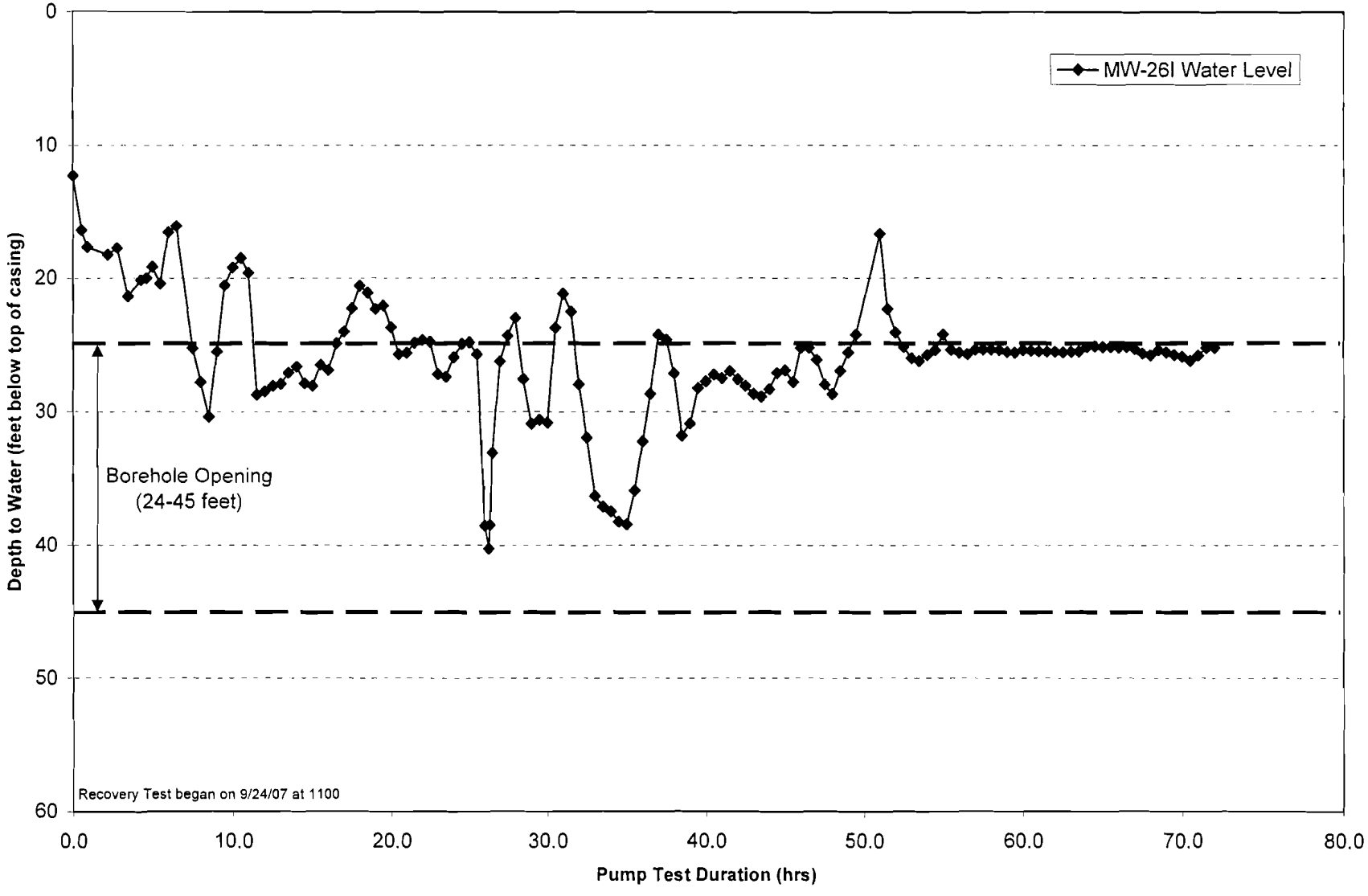


FIGURE 7
WATER LEVELS MONITORED DURING MW-26I NAPL RECOVERY TEST
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK

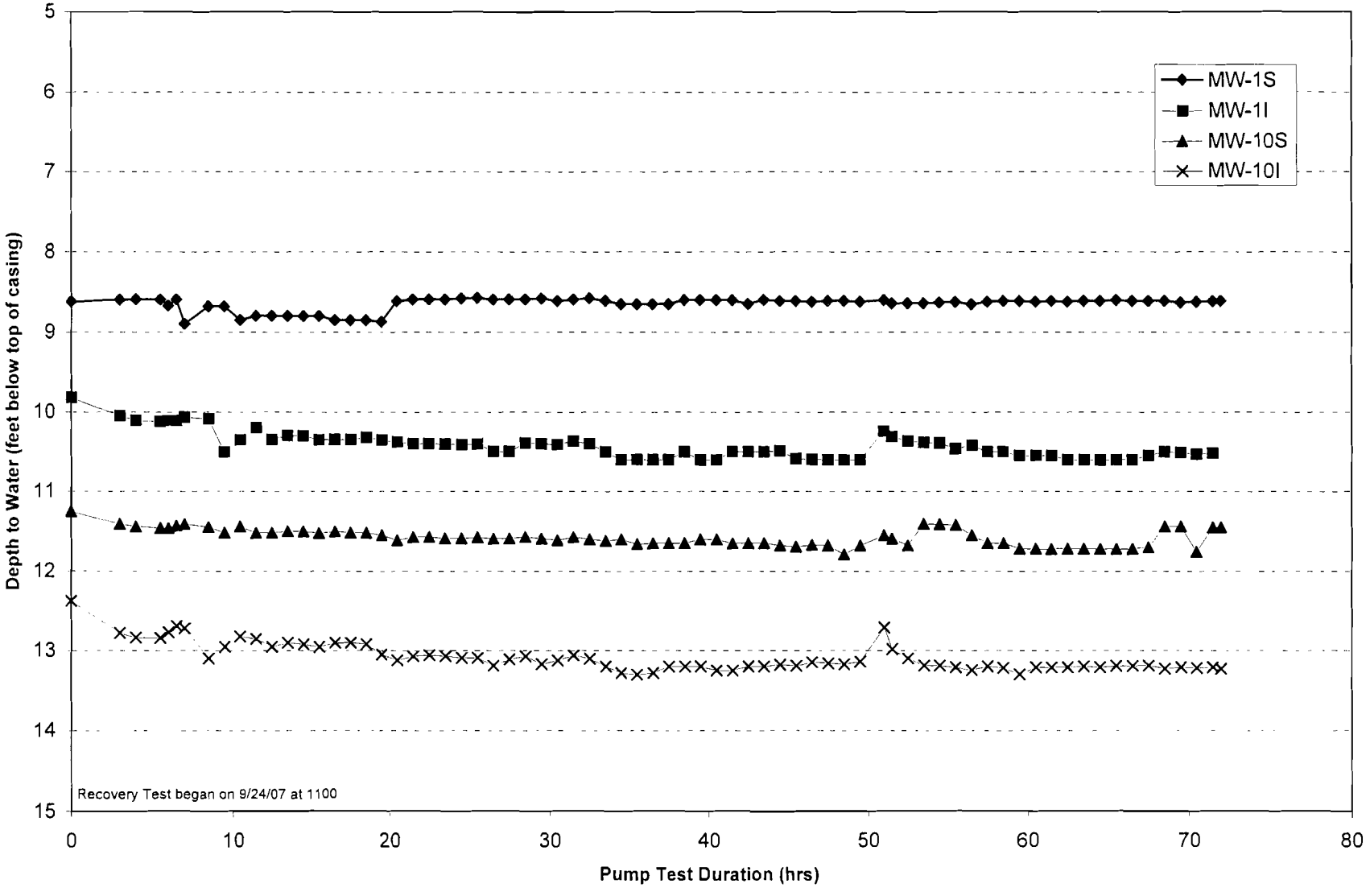
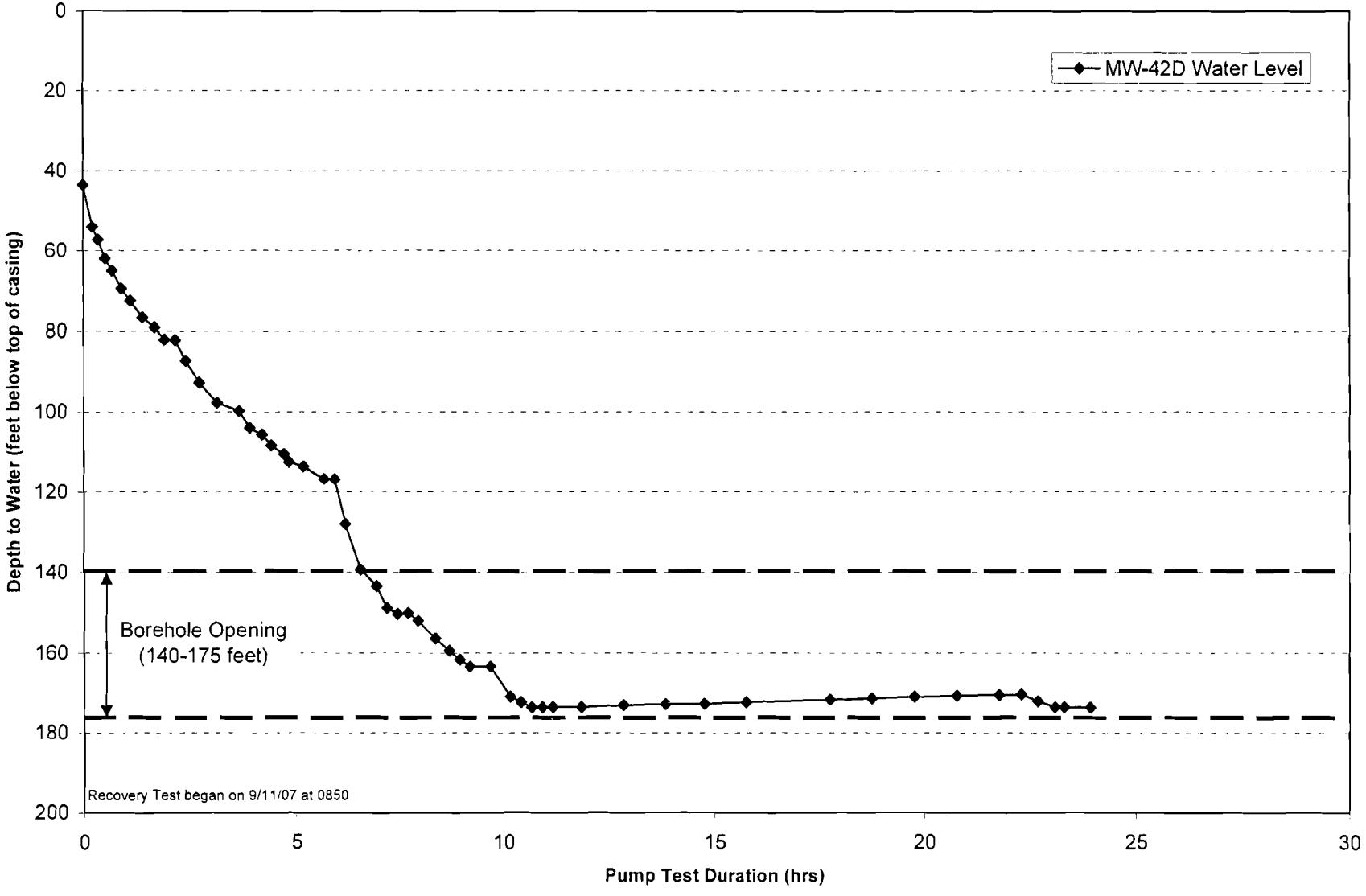


FIGURE 8
MW-42D WATER LEVELS MEASURED DURING NAPL RECOVERY TEST
NYSEG FORMER MGP SITE
MECHANICVILLE, NEW YORK



The total amount of water removed from MW-42D was 120 gallons. The total amount of NAPL recovered was approximately 0.5 Liters. A single water sample was collected from the OWS influent and effluent and sent to TestAmerica for O&G. Due to a laboratory error (the initial weight of the water sample was lost) no results were available for these two samples.

Water levels monitored in MW-42D while the pump was running are shown in Figure 8. Water levels dropped in direct relation to the amount of water withdrawn during the first 10 hours of the pump test. After hour 10, the well went dry with no recovery or additional water removal. After hour 24, the test was ceased. Since no monitoring wells were in close proximity to MW-42D, no additional water level monitoring was performed.

3.3 SUMMARY

A total of five NAPL recovery tests were performed during the period of September 10, 2007 through October 4, 2007 with the results summarized in Table 7. The tests were performed in the following order:

- MW-42D (September 10-12, 2007)
- MW-10D (September 12, 2007)
- MW-1I with packer (September 17-20, 2007)
- MW-26I (September 24-27, 3007)
- MW-1I without packer (October 1-4, 2007)

Table 7 NAPL Recovery Test Summary

Well	Open Interval (feet bgs)	Flow Rate (gpm)	Duration (hrs)	NAPL Recovered (L)	Fluids Recovered (gal)
MW-1I (w/ packer)	45-55	0.51	72	9.5	2,210
MW-1I (w/o packer)	45-75	0.53	72	12.5	2,295
MW-10D	82-114	<0.01 (Dry)	< 1	Trace	20
MW-26I	24-45	0.71	72	None	3,040
MW-42D	140-175	<0.01 (Dry)	24	0.5	120
Total				22.5	7,685

The objective of the pumping tests was to determine if the NAPL present in bedrock fractures underlying the site can be continually recovered through downhole pumping. The tests performed at the four wells indicated that the only well with both a sustainable water yield and NAPL recovery was MW-1I. Two wells had NAPL present within the borehole – MW-10I and MW-42D – but both wells went dry when pumped for a short duration. The fourth well MW-26I had a yield of 0.71 gpm, but did not have any NAPL detected.

Well MW-1I had similar results for both the recovery tests with and without the placement of the packer at a depth of 55 feet. The amount of NAPL recovered from the test without the packer was 0.8 gallons more, but this amount can be attributed to the NAPL stored in the well prior to the initiation of the test; the 2.5 gallons recovered during the remainder of the test was the same amount recovered during the test with the packer. The flow rate for both tests was approximately 0.5 gpm. Water level measurements in adjacent monitoring wells show that pumping on MW-1I had influence on the wells constructed in the intermediate bedrock zone (MW-10I and MW-26I), but not in the overburden (MW-1S, MW-10S, and RH-1S). When coupled with the information gathered during the geophysical survey of MW-1I, this would suggest that the NAPL flowing into the well comes from the fractures in the 45-55 foot interval and there is little or no communication of this zone screen with the shallower wells.

Historically, NAPL recovery has occurred at three of the four wells used during the recovery tests: MW-1I, MW-10D and MW-42D. Monthly NAPL recovery of these wells, in addition to others, has been occurring at the site since 2001. A comparison of the historic recovery amounts against the pilot test recovery amounts are shown in Table 8. The monthly recovery events consist of hand bailing the NAPL from the bottom of the wells and emptying the bailer's contents into a 5-gallon bucket. The amount of NAPL recovered was measured in a graduated container. The bailed fluids consisted of pure NAPL and NAPL/water mixture. The NAPL coats the surface of the container, making it difficult to differentiate between pure the NAPL and the NAPL/water mixture and therefore the historical NAPL recovery volumes are biased low. This makes an unrepresentative comparison of the historical hand bailing amounts with the amounts recovered from the pilot study, since during the recovery test, only pure NAPL was quantified.

Table 8 Comparison of Historic and Pilot Test NAPL Recoveries

Well	Historic Recovery (Hand Bailing)		Pilot Test
	Total since 2001 (L)	Average over past year (L/event)	NAPL Recovery (L)
MW-1I	24.05	3 to 5	9.5/12.5[(1)]
MW-10D	426.54	1 to 3	Trace
MW-26I	Trace	None	None
MW-42D	260.47	0.5 to 3	0.5
Total	711.06	4.5 to 11	22.5

[(1)] 9.5 L is with a packer/12.5 L is without a packer.

Only MW-1I had more NAPL recovered during the pilot test than during an 'average' monthly recovery event. The two wells that went dry during the pilot test both had less amounts recovered than during monthly events. The discrepancy is likely due to the manner in which the amount of NAPL is quantified. The remaining well MW-26I did not have any NAPL recovered which is consistent with the monthly gauging events.

In summary, the shallowest well (MW-26I) had no recoverable NAPL and the two deepest wells (MW-10D and MW-42D) had limited NAPL recovery but no water yield during the NAPL recovery tests. The only well with both a water yield and a recoverable NAPL yield was MW-1I, open from 45 to 75 feet bgs. The two NAPL recovery test performed on MW-1 (one with a packer placed at 55 feet bgs and the other without a packer) indicated a recovery rate of approximately 3 to 4 liters of NAPL per day. Historically, NAPL recovery has only begun to occur at MW-1I since June 2006.

On the basis of the geophysical investigation, NAPL recovery tests, historical NAPL recovery, and a review of the previous remedial investigation work, and rock cores currently residing on site, the following conclusions may be drawn:

- Site is underlain by a dark grey, almost black shale with zones of intense 'pencil' cleavage separated by zones of less intense cleavage (Remedial Investigation Report, URS, 2004);
- Pencil cleavage becomes less pronounced with depth; resulting in less permeable zones;
- Water yields are directly related to the pencil cleavages, or interlocking fractures, and therefore also decrease with depth, unless a larger fracture or fault is intersected;
- NAPL is generally more dense than water and is transported more by density gradient rather than by hydraulic gradient;
- Recoverability of NAPL is dependent on the existence of open fracture zones in the bedrock and ability for the NAPL to flow through the fractures under either natural gradients or pumping conditions;

- Under pumping conditions recovery rates of NAPL from individual wells will likely be no greater than 3 liters per day (MW-11) and more likely less than 0.5 liter per day (MW-42D, MW-10D);
- NAPL recovery rates are not significantly different between monthly hand bailing events and NAPL recovery pumping test; and
- NAPL in the bedrock fractures is not presently in a steady state condition (e.g., NAPL recently recoverable in MW-11).

4.0 RECOMMENDATIONS

Continuous NAPL recovery does not appear to be a cost effective solution at the Mechanicville MGP site. The data indicates that open fracture zones in the shale bedrock are very limited in extent and interconnections between the fracture zones are poor. The limited bedrock fracturing makes it impossible to predict the movement of NAPL and therefore predict the best locations for placements of recovery wells. Out of the four wells evaluated for the NAPL recovery, only one well yielded both NAPL and water; the other three wells either had no water yield or no NAPL yield or both.

Based on the results of the pilot tests, the monthly NAPL gauging and recovery events should continue. The pumping test did not definitively show an increase in NAPL recovery from the monthly events (i.e., 22.5 liters compared to 4.5 to 11 liters) but did produce significantly more fluids (i.e., approximately 8,000 additional gallons). Therefore, the substantial increase in time, energy, waste materials and cost required to install and operate a full scale NAPL recovery system would significantly outweigh the marginal increase the NAPL recovered and monthly gauging and recovery should continue.

APPENDIX A

NAPL Recovery Observation Memorandum

Memorandum - Clifton Park

URS

URS Corporation
28 Corporate Drive, Suite200
Clifton Park, New York 12065
Telephone - (518) 688-0015
Fax - (518) 688-0022

TO: Tracy Blazicek-NYSEG
Michael Gutmann-URS/Buffalo
John Spellman- NYSDEC

FROM: Kerry Anton

DATE: July 13, 2007

SUBJECT: Progress Report – Supplemental Remedial Investigation Field Work
NYSEG-Mechanicville, NY

Tasks Completed During June 2007

Summary of NAPL Observations

URS conducted a synoptic round of NAPL observations and water level measurements for the wells at the Mechanicville site on June 21, 2007. NAPL recovery was conducted on June 22, 2007. Table 1 provides a summary of NAPL observations and recovery amounts for the wells from this event and cumulative product recovery through June 22, 2007. As of June 22, 2007, the cumulative volume of NAPL recovered from the wells is 837.77 liters. Graphs showing periodic product recovery and cumulative product recovery for wells MW-26S, RH-1S, MW-10D, and MW-42D are attached. In addition, 5.4 liters of product was recovered from MW-11 during the June event.

Table 2 provides a summary of water levels collected from the site. In general, the water levels are similar to the last event (within several feet). However, MW-14D, MW-17D, MW-32D, MW-39D, MW-41D and RH-1D had water level fluctuations greater than five feet since the April event.

Tasks to be Completed During the Month of July 2007

URS will continue to check wells for NAPL and recover NAPL as necessary.

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TABLE 1
SUMMARY OF NAPL OBSERVATIONS

NYSEG
MECHANICVILLE, NEW YORK

Well Number	Screen Interval (feet bgs)	Type of Screen	Date Checked	NAPL Observation/Recovery (L)	Total NAPL Recovered To Date (L)
MW-10	8.7 to 19.5	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-12	14.5 to 25.5	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-12S	11 to 26	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-14S	10 to 25	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-15S	5 to 10	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-16[1]	6 to 16	Screen	05-Jul-06	NAPL Not Present	NAPL Not Present
MW-17	13 to 23	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-21S	5 to 10	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-23S	7.5 to 12.5	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-25S	11 to 26	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-26S	7.5 to 22.5	Screen	21-Jun-07	Trace NAPL	20.77
MW-30S	10 to 25	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-31S	8 to 18	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
RH-1S	1.8 to 17.3	Screen	21-Jun-07	1.4	68.835
MW-1	11.6 to 16.85	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-10I	22 to 43	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-11[1]	9.5 to 15	Screen	31-Aug-06	NAPL Not Present	NAPL Not Present
MW-13	44.7 to 55.5	Screen	21-Jun-07	Couldn't open	Trace NAPL
MW-14	30 to 41	Screen	21-Jun-07	Couldn't open	Trace NAPL
MW-15I	12.5 to 22.5	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-17I	23 to 45	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-18	28 to 38	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-19I	18 to 38.5	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-1I	45 to 75	Open Hole	21-Jun-07	5.4	24.05
MW-2	11.2 to 14.35	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-22I	17 to 32	Screen	21-Jun-07	NAPL Not Present	Trace NAPL
MW-25I	27 to 47	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-26I	24.5 to 45.5	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-28I	15 to 25	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-29I	11.5 to 26	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-2I	11.28 to 32.2	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-35I	12.5 to 38	Open Hole	21-Jun-07	Trace NAPL	3.51
MW-36I	20 to 45	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-37I	30 to 50	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-38I	90 to 120	Open Hole	03-Apr-07	NAPL Not Present	Trace NAPL
MW-10D	82 to 114	Open Hole	21-Jun-07	2.1	426.54
MW-14D	91 to 121.7	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-15D	96 to 105.8	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-17D	121 to 142.5	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-1D	121 to 155.2	Open Hole	21-Jun-07	NAPL Not Present	2
MW-20D	90 to 110.1	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-21D	48.7 to 59.4	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-23D	56 to 80	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-29D	90 to 110	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-30D	90 to 121	Open Hole	21-Jun-07	NAPL Not Present	7.82
MW-31D	120 to 150	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-32D	91 to 111.5	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-33D	119.7 to 140.5	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-34D	100 to 120.5	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-36D	140 to 161	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-37D	155 to 185	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-38D	150 to 170.1	Open Hole	21-Jun-07	NAPL Not Present	Trace NAPL
MW-39D	130.4 to 150.4	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-40D	140 to 170	Screen	21-Jun-07	NAPL Not Present	23.771
MW-41D	120 to 140	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present
MW-42D	140 to 175	Open Hole	21-Jun-07	0.5	260.47
MW-43D	120 to 150	Screen	21-Jun-07	NAPL Not Present	NAPL Not Present
RH-1D	86.5 to 107.5	Open Hole	21-Jun-07	NAPL Not Present	NAPL Not Present

Notes:

[1]Well was destroyed.

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TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Level (feet msl)										
	10/10/2001	10/31/2001	12/4/2001	1/7/2002	2/6/2002	3/6/2002	4/3/2002	5/1/2002	6/12/2002	7/2/2002	8/5/2002
MW-10	80.70	80.58	80.79	80.70	81.04	81.07	81.53	81.35	81.11	80.96	80.13
MW-12	80.10	79.99	79.88	79.87	80.14	80.17	80.49	80.51	79.48	80.37	80.13
MW-12S	78.60	78.52	78.59	78.47	78.79	78.83	79.06	79.48	79.70	79.65	79.19
MW-14S	78.30	78.18	78.30	78.12	78.44	78.45	78.70	78.95	79.05	79.05	78.70
MW-15S	79.20	79.54	79.72	79.70	79.86	79.71	80.00	80.06	79.99	79.99	79.76
MW-16	85.78	85.82	86.10	85.95	86.20	86.16	86.47	86.36	86.41	86.23	85.98
MW-17	79.01	78.73	78.68	79.01	79.29	79.39	79.73	79.64	79.67	79.60	79.23
MW-21S	80.19	80.32	80.90	80.59	80.80	80.84	81.28	81.97	80.95	80.94	80.70
MW-23S	77.38	77.25	77.44	77.15	77.51	77.55	77.88	78.10	78.06	78.07	77.77
MW-25S	78.69	78.62	78.79	78.56	79.39	79.40	80.25	80.35	80.30	80.19	75.60
MW-26S	79.80	79.65	79.81	79.68	80.07	80.11	80.51	80.97	80.93	80.83	80.22
MW-30S	79.28	79.02	79.13	79.01	79.38	79.44	79.73	80.20	80.28	80.18	79.70
MW-31S	80.81	80.74	80.67	80.70	80.72	80.94	81.12	80.95	81.10	81.08	80.97
RH-1S	82.09	82.06	81.78	82.24	82.56	82.61	82.87	82.69	82.60	82.49	81.82
MW-1	82.35	82.34	82.60	82.57	82.76	82.80	82.95	82.89	82.78	82.67	82.23
MW-10I	79.35	79.22	79.35	79.29	79.59	79.67	79.93	80.34	80.47	80.40	79.93
MW-11	81.06	81.20	81.67	81.65	81.94	81.87	82.22	82.12	81.90	81.75	81.48
MW-13	78.56	78.49	78.55	78.54	78.76	78.82	79.03	79.47	80.63	79.49	79.12
MW-14	78.24	78.16	78.22	78.09	78.42	78.45	78.70	79.07	79.23	79.15	78.74
MW-15I	78.22	78.23	78.49	78.35	78.54	78.60	78.75	78.85	78.91	78.85	78.59
MW-17I	78.21	78.12	78.19	78.47	78.78	78.85	79.22	79.18	79.23	79.15	78.74
MW-18	78.69	78.54	78.64	78.67	78.92	79.01	79.27	79.64	79.72	79.67	79.23
MW-19I	86.61	86.74	87.15	86.97	87.30	87.30	87.61	87.35	87.38	NM	NM
MW-1I	NI	NI	NI	NI	NI	NI	NI	NI	82.06	81.17	80.56
MW-2	83.35	83.39	83.92	83.58	84.10	84.22	84.58	84.54	84.34	84.23	83.59
MW-22I	74.97	74.99	75.15	74.89	75.24	75.31	75.89	75.81	76.65	76.45	75.81
MW-25I	78.46	78.37	78.43	78.31	78.64	78.69	78.93	79.30	79.47	79.40	79.00
MW-26I	79.49	79.38	79.50	79.38	79.72	79.79	80.03	80.84	80.74	80.67	80.09
MW-28I	73.85	74.10	74.15	73.99	74.25	74.43	74.92	74.85	74.93	74.49	74.02
MW-29I	75.06	75.02	75.09	74.99	75.21	75.22	75.76	75.87	76.02	75.82	75.38
MW-2I	83.34	83.37	83.95	83.57	84.14	84.21	84.70	84.50	84.54	84.25	83.46
MW-35I	NI	74.22	74.78	74.27	74.98	75.00	75.56	75.56	75.57	75.42	74.68
MW-36I	NI	NI	NI	NI	NI	NI	NI	NI	88.63	75.70	81.63
MW-37I	NI	NI	NI	NI	NI	NI	NI	NI	NM	77.53	82.23
MW-38I	NI	NI	NI	NI	NI	NI	NI	NI	73.39	73.07	72.26
MW-10D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-14D	-2.46	22.79	47.02	61.96	67.69	72.14	75.53	77.96	80.15	80.76	81.32
MW-15D	-3.78	18.40	44.22	59.96	67.27	71.24	73.51	74.68	75.82	76.11	76.29
MW-17D	-13.08	35.65	73.71	78.79	79.18	79.47	79.79	79.56	80.22	80.33	80.05
MW-1D	NI	NI	NI	NI	NI	NI	NI	NI	NI	-59.63	-59.33
MW-20D	NI	79.03	79.36	79.72	80.00	80.34	81.19	80.44	80.84	80.39	79.52
MW-21D	76.63	76.69	76.93	76.94	77.17	77.46	77.98	77.89	78.09	77.70	76.98
MW-23D	5.63	7.55	10.60	13.73	16.36	18.77	20.77	22.60	25.33	26.61	28.46
MW-29D	80.25	80.43	80.80	81.12	81.28	81.46	82.13	81.67	81.85	81.43	80.85
MW-30D	22.72	26.58	31.46	36.90	41.29	45.32	49.53	52.84	58.29	60.71	63.96
MW-31D	80.42	80.33	80.52	80.49	80.74	80.77	81.02	80.68	80.68	80.78	80.46
MW-32D	-19.02	-15.78	-12.06	-9.12	-6.85	-4.80	-3.28	-2.13	0.15	1.24	2.98
MW-33D	34.25	51.18	67.43	74.62	77.09	78.35	79.00	80.24	80.56	80.55	79.99
MW-34D	81.05	81.19	81.56	81.86	81.96	82.15	82.88	82.39	82.72	82.28	81.72
MW-36D	NI	NI	NI	NI	NI	NI	NI	NI	82.63	82.50	82.17
MW-37D	NI	NI	NI	NI	NI	NI	NI	NI	NI	88.87	88.25
MW-38D	NI	NI	NI	NI	NI	NI	NI	NI	73.58	72.85	72.52
MW-39D	NI	NI	NI	NI	NI	NI	NI	NI	75.50	75.42	75.28
MW-40D	NI	NI	NI	NI	NI	NI	NI	NI	80.56	80.57	80.03
MW-41D	NI	NI	NI	NI	NI	NI	NI	NI	81.39	78.25	77.00
MW-42D	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-43D	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
RH-1D	-20.65	-19.16	-18.83	-21.31	-20.98	-20.68	-20.37	-19.93	-19.47	-19.22	-18.84
SG-1	72.32	72.40	NM	72.65	73.15	73.32	73.98	73.82	73.82	75.42	72.24
SG-2	73.20	73.27	73.44	73.52	73.87	73.97	74.52	74.37	74.37	73.75	73.19
SG-3	74.22	74.28	74.37	74.57	74.67	74.77	75.22	75.07	75.11	75.68	74.25

Notes

NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

[3] - Water Filling the top of the Casing

[4] - Car parked over the well

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Elevation (feet msl)										
	9/6/2002	10/3/2002	11/7/2002	12/2/2002	1/9/2003	1/30/2003	4/3/2003	5/9/2003	6/5/2003	7/3/2003	8/15/2003
MW-10	80.56	80.90	80.93	80.93	NM	80.25	81.28	80.73	80.90	80.54	81.16
MW-12	80.27	80.56	80.66	80.71	80.39	80.10	80.89	80.53	80.65	80.27	80.88
MW-12S	79.36	79.62	79.77	79.81	79.52	79.23	80.07	79.72	79.88	79.44	79.85
MW-14S	78.81	78.99	79.10	79.07	78.85	78.51	79.27	78.96	79.18	78.82	79.35
MW-15S	79.84	79.92	80.04	80.07	80.10	80.00	80.31	80.18	80.23	80.07	80.53
MW-16	86.34	86.52	86.52	86.60	NM	NM	86.59	86.29	86.36	86.00	86.92
MW-17	79.39	79.68	79.72	79.81	79.59	79.20	79.91	79.73	79.84	79.53	80.03
MW-21S	83.84	80.93	81.82	81.09	77.76	80.66	82.13	80.84	80.98	80.63	81.47
MW-23S	77.37	78.07	78.16	78.04	77.90	77.43	78.35	77.96	78.16	77.88	78.43
MW-25S	80.03	80.32	80.46	80.44	80.18	79.51	80.81	80.33	80.50	79.97	80.74
MW-26S	80.39	80.82	81.05	81.11	NM	80.45	81.50	81.04	81.11	80.68	NM
MW-30S	79.93	80.25	80.32	80.36	80.13	79.78	80.78	80.37	80.49	80.15	80.81
MW-31S	81.08	81.08	81.05	81.13	81.06	81.01	81.18	81.43	81.53	81.34	80.59
RH-1S	81.99	82.46	82.57	82.57	82.49	82.17	NM	82.59	83.65	NM	82.64
MW-1	82.41	82.58	82.78	82.74	82.65	82.33	82.98	82.70	82.72	82.45	82.74
MW-10I	80.11	80.37	80.49	80.44	80.20	79.86	80.70	80.37	80.53	80.12	80.70
MW-11	81.38	82.16	82.36	82.22	NM	NM	81.88	81.83	81.99	81.59	82.64
MW-13	79.37	79.52	79.65	79.73	79.54	79.63	79.90	79.63	79.69	79.35	80.07
MW-14	78.89	79.11	79.28	79.33	79.06	78.75	79.55	79.18	79.37	78.88	79.54
MW-15I	78.84	78.91	79.09	79.05	78.89	77.62	81.96	78.98	78.91	78.66	79.39
MW-17I	78.86	80.53	79.22	79.31	79.17	78.70	81.94	79.33	79.37	79.07	79.57
MW-18	79.44	79.69	79.77	79.85	79.61	79.22	76.64	79.76	79.86	79.50	80.07
MW-19I	87.23	87.47	87.41	87.47	NM	NM	85.21	87.17	87.17	86.81	87.82
MW-1I	80.78	79.96	81.12	81.23	81.02	80.69	81.60	81.09	81.19	80.75	81.43
MW-2	84.03	84.20	84.50	84.38	84.35	83.46	85.01	84.30	84.41	83.90	84.87
MW-22I	75.26	76.23	76.53	76.61	76.26	75.75	76.85	76.33	76.52	75.80	77.16
MW-25I	79.18	79.39	79.52	79.55	79.32	NM	79.78	79.41	79.58	79.17	79.80
MW-26I	80.38	80.67	80.77	80.70	80.45	80.15	80.97	80.55	80.69	80.29	80.93
MW-28I	74.24	74.39	74.73	74.83	74.89	74.48	75.29	74.77	74.78	74.09	75.33
MW-29I	75.49	75.59	75.87	75.84	75.69	75.29	76.19	75.74	75.85	75.29	76.28
MW-2I	84.20	84.48	84.44	84.70	84.33	84.14	85.01	84.47	84.52	83.89	85.06
MW-35I	74.79	75.20	75.42	75.65	76.05	75.19	75.75	75.27	75.50	75.75	76.15
MW-36I	81.80	82.16	82.55	82.71	82.70	82.38	84.11	86.23	85.38	84.27	82.78
MW-37I	82.50	82.64	83.03	83.00	82.67	NM	82.96	82.30	82.48	82.06	82.86
MW-38I	71.84	72.04	72.72	72.82	72.64	NM	73.23	72.82	72.92	72.02	73.30
MW-10D	NM	-18.07	NM	NM	NM	-17.15	NM	NM	NM	NM	NM
MW-14D	81.56	81.79	82.10	82.46	82.56	82.50	61.16	77.61	80.81	81.78	82.29
MW-15D	76.32	76.50	76.87	77.58	77.31	77.01	32.31	51.51	60.93	67.13	71.73
MW-17D	80.09	79.49	80.62	80.84	80.85	80.56	82.28	80.34	80.55	80.19	80.76
MW-1D	-59.16	-58.81	-58.56	-58.38	NM	NM	NM	-50.86	-50.67	-50.45	-49.44
MW-20D	79.63	80.18	80.51	81.13	80.82	80.37	81.44	80.69	80.61	79.88	81.40
MW-21D	76.96	77.91	78.07	78.20	81.10	77.49	78.86	77.95	77.97	77.22	78.57
MW-23D	29.99	31.10	32.48	33.48	34.96	35.69	8.73	11.24	13.36	15.55	18.61
MW-29D	81.16	81.59	81.97	82.46	82.34	81.66	82.28	81.97	81.98	81.45	82.61
MW-30D	66.86	68.97	71.39	72.87	74.46	75.17	80.76	80.44	80.26	79.99	80.17
MW-31D	80.69	80.90	80.78	80.59	80.68	67.69	80.99	80.74	80.75	80.67	81.01
MW-32D	4.36	5.51	6.76	7.59	NM	9.02	NM	-20.94	-19.95	-18.75	-16.79
MW-33D	80.16	80.45	80.53	80.67	80.56	NM	80.81	80.54	75.52	79.76	80.94
MW-34D	82.26	83.00	83.01	83.55	NM	NM	83.04	82.78	82.74	82.19	83.44
MW-36D	82.21	82.45	82.78	82.94	82.77	83.02	83.41	83.02	83.01	NM	83.66
MW-37D	87.60	88.60	88.62	88.55	88.31	88.08	89.19	88.69	88.91	88.46	89.52
MW-38D	72.09	72.37	72.92	73.04	72.82	73.51	73.41	73.04	73.08	72.24	73.45
MW-39D	75.42	75.97	75.68	75.85	75.69	76.59	75.95	75.70	75.79	75.30	76.12
MW-40D	80.20	80.37	80.60	81.01	80.91	NM	79.14	81.05	81.14	80.63	81.28
MW-41D	77.83	78.08	78.43	78.73	78.00	77.82	78.29	78.03	78.18	77.68	78.59
MW-42D	NI	NI	NI	-30.88	50.81	62.74	NM	71.04	NM	NM	NM
MW-43D	NI	NI	NI	87.20	86.07	86.54	87.36	86.79	86.89	86.43	87.55
RH-1D	-18.50	-18.22	-17.79	-17.51	-17.04	-16.78	NM	-15.94	-15.64	-15.31	-14.34
SG-1	72.19	NM	73.37	73.43	NM	NM	74.23	72.77	73.39	72.00	NM
SG-2	73.13	NM	NM	NM	NM	NM	74.87	74.32	74.22	73.29	NM
SG-3	74.17	NM	74.82	74.88	NM	NM	75.57	75.63	74.97	NM	NM

Notes NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

[3] - Water Filling the top of the Casing

[4] - Car parked over the well

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Elevation (feet msl)									
	9/9/2003	10/10/2003	11/7/2003	12/10/2003	1/8/2004	2/2/2004	3/8/2004	4/16/2004	5/6/2004	6/8/2004
MW-10	80.66	80.64	81.01	80.73	80.99	80.27	80.58	80.90	80.87	81.03
MW-12	80.38	80.28	80.70	81.36	80.65	80.19	80.72	79.64	NM	80.48
MW-12S	79.57	79.53	79.96	79.62	79.84	79.23	80.24	80.53	79.55	79.59
MW-14S	78.98	78.92	79.29	79.01	79.19	78.56	79.23	78.98	78.93	79.00
MW-15S	80.16	80.08	80.36	80.21	80.42	80.08	80.46	80.37	80.32	80.25
MW-16	86.12	86.03	86.50	86.23	86.47	85.91	NM	86.12	86.16	86.34
MW-17	79.67	79.59	79.95	79.75	79.96	79.53	80.05	79.79	79.75	79.91
MW-21S	79.79	80.62	81.47	80.75	81.23	80.45	81.43	81.19	81.07	80.78
MW-23S	78.11	77.95	78.34	77.83	78.22	77.43	78.24	77.94	77.91	78.01
MW-25S	80.17	80.04	80.57	80.14	80.54	79.66	80.60	80.35	78.77	80.32
MW-26S	NM	80.63	80.95	NM	81.43	80.51	81.18	NM	81.02	81.19
MW-30S	80.14	80.08	80.55	80.17	80.50	79.82	80.57	80.27	80.18	80.25
MW-31S	81.30	81.22	81.39	81.39	81.50	81.37	81.40	81.38	81.26	81.36
RH-1S	82.27	82.18	82.50	NM	82.69	81.99	83.09	NM	NM	NM
MW-1	82.46	82.38	82.74	82.63	82.84	82.33	82.79	82.73	82.64	82.56
MW-10I	80.20	80.16	80.56	80.33	80.53	79.97	80.57	80.25	80.23	80.23
MW-11	81.78	81.71	82.30	81.86	82.22	81.69	NM	82.06	81.96	81.76
MW-13	79.60	79.48	79.82	79.44	79.88	79.09	79.85	79.48	79.42	79.46
MW-14	79.02	79.01	79.43	79.13	79.38	NM	79.47	79.05	78.99	79.04
MW-15I	80.19	78.90	79.29	78.85	77.97	77.48	79.19	78.90	78.90	79.03
MW-17I	79.19	79.09	79.46	79.24	NM	NM	79.54	79.24	79.21	79.37
MW-18	79.63	79.54	79.94	79.66	79.88	79.26	81.33	79.58	79.51	79.88
MW-19I	86.92	NM	87.36	87.10	87.36	86.73	85.37	87.14	87.07	87.30
MW-1I	80.81	NM	81.18	80.89	81.13	80.41	81.15	80.93	80.88	80.93
MW-2	84.03	83.90	84.46	84.10	84.49	83.89	84.97	84.41	84.32	84.29
MW-22I	76.16	76.01	76.75	75.30	75.61	74.87	76.21	75.45	75.35	75.37
MW-25I	79.32	79.29	79.70	79.35	79.60	78.93	79.58	79.27	NM	NM
MW-26I	80.42	80.36	80.79	80.47	80.68	80.11	80.78	80.49	80.43	80.45
MW-28I	74.16	74.11	74.90	74.39	74.71	73.96	75.45	74.61	74.41	74.37
MW-29I	75.47	75.46	76.04	75.78	75.82	75.10	76.13	75.59	75.48	75.52
MW-2I	83.98	83.89	84.58	84.01	84.57	83.58	84.82	84.33	84.25	84.50
MW-35I	75.14	75.14	75.89	NM	NM	NM	NM	NM	75.15	75.30
MW-36I	82.36	87.71	82.90	82.55	NM	NM	82.06	82.45	82.34	82.55
MW-37I	82.35	82.15	82.73	82.41	82.70	82.13	83.09	82.70	82.64	82.35
MW-38I	72.08	66.62	72.98	72.44	NM	NM	73.24	72.43	72.34	72.46
MW-10D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-14D	82.46	82.28	82.54	82.69	82.88	82.39	82.10	82.55	78.55	82.60
MW-15D	73.17	74.17	74.97	75.62	76.06	76.15	76.24	76.52	76.52	76.65
MW-17D	80.39	80.34	80.86	80.78	81.87	81.18	81.35	81.39	81.29	81.58
MW-1D	-50.09	-49.96	-49.79	-49.64	-49.50	-49.39	-48.20	-48.03	-47.92	-47.58
MW-20D	80.13	79.99	81.09	80.62	80.99	80.04	80.80	80.49	80.37	80.79
MW-21D	77.48	77.40	78.28	76.66	77.82	77.48	78.12	77.58	77.53	77.66
MW-23D	20.37	22.22	23.92	25.87	27.47	28.62	30.12	31.69	32.37	33.51
MW-29D	81.61	81.50	82.33	81.84	82.10	81.14	82.08	81.68	81.72	81.92
MW-30D	80.16	80.02	80.94	79.90	80.45	79.90	79.78	80.05	NM	80.04
MW-31D	80.99	80.95	81.01	80.78	81.12	80.65	80.96	81.09	80.96	80.78
MW-32D	-15.48	-14.16	-13.03	-11.93	-11.15	-10.32	-9.78	-8.87	-8.41	-7.40
MW-33D	79.41	80.25	80.76	80.45	81.59	79.22	80.60	80.31	80.25	80.54
MW-34D	82.40	82.33	83.16	82.71	83.01	82.01	82.93	82.51	82.50	82.80
MW-36D	82.69	87.91	83.40	82.90	NM	NM	83.11	82.87	NM	NM
MW-37D	88.54	88.32	89.06	88.65	88.99	87.84	88.73	88.36	88.48	88.76
MW-38D	72.33	66.93	73.17	72.62	NM	NM	73.39	72.60	72.53	72.63
MW-39D	75.48	75.45	76.04	75.79	75.97	75.36	76.20	75.68	NM	75.84
MW-40D	80.58	80.59	81.14	80.89	81.00	80.28	81.07	80.64	80.61	80.87
MW-41D	77.97	77.94	78.60	78.33	78.61	77.88	78.52	78.15	78.21	78.45
MW-42D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-43D	86.59	86.46	87.12	86.75	87.10	86.55	86.80	86.46	86.48	86.75
RH-1D	-14.02	-11.48	-11.15	-10.80	42.74	-11.08	-2.87	-2.44	-2.32	-1.98
SG-1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-2	NM	NM	NM	NM	NM	NM	NM	74.17	74.22	74.10
SG-3	NM	NM	NM	NM	NM	NM	NM	69.07	68.92	NM

Notes NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

[3] - Water Filling the top of the Casing

[4] - Car parked over the well

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Elevation (feet msl)									
	7/20/2004	8/10/2004	9/23/2004	10/4/2004	11/18/2004	12/14/2004	1/5/2005	2/17/2005	3/22/2005	4/8/2005
MW-10	81.10	80.77	80.88	80.69	80.45	81.14	80.71	81.77	80.96	81.29
MW-12	80.75	80.46	80.67	80.41	80.21	80.76	80.36	NM	80.47	79.75
MW-12S	79.75	79.59	79.80	79.65	79.40	79.92	79.56	79.65	79.66	79.86
MW-14S	79.25	79.15	79.26	79.11	78.83	79.33	78.99	79.17	79.17	79.39
MW-15S	80.47	80.34	80.32	80.32	80.28	80.49	80.46	80.61	80.48	80.46
MW-16	86.46	86.28	86.50	86.20	85.92	86.58	86.12	NM	NM	86.51
MW-17	79.97	79.79	80.00	79.85	79.61	79.98	79.78	79.79	79.93	80.01
MW-21S	82.05	80.88	81.06	80.85	80.62	81.73	81.84	81.10	81.61	81.57
MW-23S	78.39	78.22	78.31	78.14	77.77	78.35	78.05	78.24	78.34	78.30
MW-25S	80.64	80.31	80.48	80.18	79.93	79.58	80.18	80.32	80.33	80.59
MW-26S	81.10	80.95	81.06	80.84	80.66	81.72	81.01	81.02	81.06	81.61
MW-30S	80.63	80.21	80.61	80.39	80.21	80.74	80.30	80.55	80.41	80.77
MW-31S	81.37	81.18	81.32	81.23	81.19	81.46	81.34	81.46	81.49	81.45
RH-1S	NM	NM	NM	82.32	82.11	82.72	NM	NM	NM	82.65
MW-1	82.73	82.50	82.70	82.53	82.39	82.81	82.36	82.76	82.43	82.68
MW-10I	80.46	80.22	80.45	80.26	81.02	80.56	80.21	80.34	80.50	80.48
MW-11	82.33	81.90	82.22	81.97	81.73	82.43	82.16	82.20	NM	82.36
MW-13	79.59	79.47	79.70	79.53	79.29	79.77	79.42	79.49	79.48	79.85
MW-14	79.24	79.13	79.30	79.16	78.91	79.46	79.04	79.19	79.13	79.33
MW-15I	79.42	79.16	78.39	79.22	79.17	79.52	79.40	78.56	78.42	78.33
MW-17I	79.44	79.29	79.57	79.33	79.05	78.66	79.23	79.18	79.39	79.64
MW-18	79.85	79.59	79.88	79.72	79.48	79.93	79.54	79.63	79.68	79.80
MW-19I	87.43	87.19	87.42	87.06	86.73	87.50	86.98	87.07	NM	86.52
MW-1I	81.04	80.86	81.05	80.88	80.62	81.23	80.81	80.97	80.91	81.18
MW-2	84.68	84.14	84.36	84.16	83.86	84.59	83.73	84.49	84.55	84.54
MW-22I	75.64	75.33	75.70	75.33	75.06	76.21	75.46	75.72	75.59	75.89
MW-25I	79.80	79.26	79.55	79.35	79.07	79.62	79.25	79.78	79.36	79.72
MW-26I	80.71	80.43	80.69	80.48	80.23	79.78	80.40	80.48	80.51	80.71
MW-28I	74.70	74.23	74.64	74.24	74.09	75.24	74.64	74.96	74.75	74.98
MW-29I	75.82	75.52	75.79	75.47	75.21	76.12	75.55	75.80	75.64	75.91
MW-2I	84.60	84.51	84.63	84.19	83.84	84.80	84.79	84.23	84.41	85.08
MW-35I	75.68	75.22	75.65	75.19	74.85	76.26	75.32	75.49	75.25	75.76
MW-36I	82.16	82.56	82.67	82.41	82.01	82.03	82.40	82.75	82.75	82.84
MW-37I	83.37	82.32	82.71	82.40	82.14	83.06	82.37	82.73	82.62	82.90
MW-38I	72.52	71.75	72.64	72.19	71.98	73.01	72.39	NM	69.53	72.82
MW-10D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-14D	82.19	81.65	82.73	82.69	82.27	82.62	82.54	83.00	82.46	82.73
MW-15D	76.53	76.70	76.87	76.80	76.52	76.68	76.63	76.69	76.54	76.84
MW-17D	81.41	81.96	81.74	81.66	81.12	82.00	81.49	81.88	81.20	81.85
MW-1D	-47.66	-47.60	-47.46	-47.34	-47.19	-47.12	-46.75	-46.29	-35.22	-34.91
MW-20D	80.33	80.62	80.88	80.49	79.98	81.32	80.34	NM	80.40	81.33
MW-21D	77.67	77.68	77.97	77.60	77.29	78.26	77.59	77.81	77.69	78.01
MW-23D	34.71	35.35	36.78	37.01	38.25	38.93	39.47	40.70	41.43	41.76
MW-29D	81.81	82.04	82.83	81.82	81.51	82.55	81.79	81.93	81.68	82.47
MW-30D	80.13	80.37	80.73	80.22	79.69	80.11	79.84	79.87	79.64	80.08
MW-31D	80.61	80.69	83.23	81.24	81.08	81.12	80.85	81.16	81.10	80.84
MW-32D	NM	-4.74	-3.25	-2.98	-1.78	-1.18	-0.42	0.08	0.59	0.90
MW-33D	80.48	80.39	80.69	80.33	80.04	80.85	80.22	80.25	80.23	80.75
MW-34D	82.62	82.77	83.04	82.71	82.32	83.47	83.94	92.81	83.67	84.97
MW-36D	82.81	83.09	83.16	82.97	82.41	NM	82.75	82.87	82.73	NM
MW-37D	88.85	88.88	89.20	88.98	88.38	89.25	88.63	88.42	88.64	88.91
MW-38D	72.76	72.26	72.85	72.46	72.17	73.19	72.59	NM	69.74	73.05
MW-39D	75.84	75.71	76.07	75.76	75.52	76.23	75.77	75.84	NM	76.15
MW-40D	80.78	80.77	80.98	80.82	80.49	81.07	80.71	80.85	NM	81.07
MW-41D	78.50	78.50	78.81	78.50	78.23	79.03	78.54	81.63	79.92	79.34
MW-42D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-43D	86.98	86.12	87.00	86.67	86.54	87.25	86.73	86.88	86.82	87.26
RH-1D	-1.62	-1.39	-0.97	-0.84	-0.43	-0.21	-0.14	0.25	0.46	0.61
SG-1	NM	NM	NM	NM	NM	NM	72.80	NM	72.56	NM
SG-2	NM	73.75	NM	73.71	74.68	NM	75.04	NM	74.90	NM
SG-3	74.49	NM	74.59	NM	NM	NM	NM	NM	NM	NM

Notes

NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

[3] - Water Filling the top of the Casing

[4] - Car parked over the well

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Elevation (feet msl)							
	5/4/05	5/27/05	6/16/2005	7/27-28/2005	8/18/2005	9/23/2005	10/20/2005	3/1/2006
MW-10	80.79	80.74	80.98	80.49	80.36	80.32	80.76	80.28
MW-12	80.42	80.40	80.46	80.27	80.23	81.10	80.53	80.13
MW-12S	79.50	79.53	79.61	79.39	79.27	78.87	79.47	79.10
MW-14S	78.95	79.03	79.08	78.88	78.87	78.81	79.24	79.60
MW-15S	80.32	80.45	80.38	80.28	80.41	80.33	80.47	80.28
MW-16	86.10	85.99	86.21	86.37	NM	85.88	86.38	NM
MW-17	79.79	79.79	79.98	79.58	79.40	80.34	79.77	79.38
MW-21S	80.82	80.91	80.91	NM	80.76	80.71	81.10	77.17
MW-23S	77.98	78.02	78.17	78.00	78.00	77.93	78.26	77.62
MW-25S	80.22	80.22	80.28	79.89	79.91	79.75	80.40	79.80
MW-26S	81.05	80.96	80.91	80.78	80.33	80.30	81.01	80.63
MW-30S	80.26	80.18	80.36	80.30	80.19	80.09	80.59	79.94
MW-31S	81.29	81.24	81.41	80.97	80.87	80.80	80.47	80.84
RH-1S	NM	NM	NM	82.15	81.95	81.99	81.35	82.12
MW-1	82.53	82.53	82.48	82.11	82.05	82.26	82.58	82.14
MW-10I	80.11	80.21	80.32	79.97	79.83	79.79	80.22	79.77
MW-11	81.88	82.01	82.06	81.57	81.69	81.70	82.16	81.57
MW-13	79.48	79.41	79.58	79.21	79.17	79.11	79.80	78.91
MW-14	79.00	79.00	79.09	78.79	78.74	78.67	79.16	78.58
MW-15I	78.24	78.40	78.44	78.23	78.32	78.24	78.49	78.10
MW-17I	79.30	79.22	79.43	79.08	78.89	78.87	79.39	78.94
MW-18	79.47	79.54	79.70	79.38	79.26	79.22	79.71	79.18
MW-19I	87.08	86.98	87.18	86.87	86.77	86.70	87.29	86.86
MW-1I	80.75	80.77	80.87	80.60	80.41	80.31	80.87	80.36
MW-2	84.16	84.24	84.32	83.79	83.87	83.80	84.24	83.87
MW-22I	75.13	75.27	75.42	74.96	NM	74.76	75.65	75.88
MW-25I	79.22	79.29	79.32	79.12	79.03	78.95	79.43	78.91
MW-26I	80.27	80.37	80.39	80.16	80.08	80.00	80.44	79.95
MW-28I	74.45	74.26	74.61	73.78	73.74	73.76	74.49	74.05
MW-29I	75.44	75.47	75.64	75.21	75.15	75.03	75.65	74.97
MW-2I	84.16	84.11	84.32	83.61	83.84	83.87	84.70	83.87
MW-35I	75.29	75.28	75.42	74.77	74.90	74.68	75.58	74.87
MW-36I	82.73	82.71	82.82	82.66	82.07	81.75	82.69	83.30
MW-37I	82.55	82.77	82.70	82.21	82.38	82.16	82.43	82.07
MW-38I	72.25	72.20	72.53	71.86	71.57	71.54	72.45	71.84
MW-10D	NM	NM	NM	NM	NM	NM	NM	NM
MW-14D	82.64	82.45	82.44	82.46	82.13	81.95	82.30	82.50
MW-15D	76.72	76.53	76.45	76.54	76.32	76.16	76.46	76.77
MW-17D	81.30	81.26	81.49	81.45	81.20	82.21	81.70	81.55
MW-1D	-34.77	-34.94	-34.79	-34.57	-34.48	-34.40	-34.27	-33.85
MW-20D	80.39	80.06	80.29	80.05	79.52	79.50	80.82	80.26
MW-21D	77.34	77.42	77.52	77.18	77.26	76.90	77.99	80.65
MW-23D	42.30	42.77	43.26	43.81	44.13	45.40	45.02	46.82
MW-29D	81.61	81.52	81.87	81.39	81.16	81.17	82.02	81.53
MW-30D	79.87	79.72	80.31	80.18	79.78	79.60	80.30	80.27
MW-31D	80.79	80.58	80.82	80.27	80.14	80.03	80.33	NM
MW-32D	1.39	1.89	2.43	4.08	4.42	5.51	6.34	8.95
MW-33D	80.25	80.12	80.33	80.06	79.96	79.89	80.45	78.89
MW-34D	84.12	85.29	86.09	83.55	84.02	82.28	83.39	82.36
MW-36D	82.83	82.60	82.86	82.66	82.21	82.18	83.28	82.70
MW-37D	88.26	88.33	88.67	88.32	88.34	88.16	89.11	88.32
MW-38D	72.46	72.38	72.74	72.12	71.89	71.77	72.74	72.07
MW-39D	75.62	75.62	75.88	75.47	75.10	75.17	75.86	74.93
MW-40D	80.51	80.55	80.84	NM	80.21	80.26	80.75	80.15
MW-41D	78.45	78.33	78.81	78.44	78.32	78.26	78.81	78.33
MW-42D	NM	NM	NM	NM	NM	NM	NM	NM
MW-43D	86.72	86.64	86.87	86.48	86.37	86.37	87.05	86.52
RH-1D	0.77	0.92	1.04	1.28	1.48	1.69	20.11	43.94
SG-1	NM	NM	NM	NM	NM	NM	NM	NM
SG-2	75.34	75.30	75.14	NM	NM	NM	NM	NM
SG-3	NM	NM	NM	NM	NM	NM	NM	NM

Notes

NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

[3] - Water Filling the top of the Casing

[4] - Car parked over the well

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TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS

NYSEG
MECHANICVILLE, NEW YORK

WELL NUMBER	Water Elevation (feet msl)								
	5/31-6/1 2006	7/5/2006	8/28/2006	9/21/2006	10/19/2006	11/30/2006	1/29-30/2007	4/2-4/3/2007	6/21/2007
MW-10	79.79	81.06	80.64	80.39	80.88	80.64	80.51	81.83	80.6
MW-12	80.37	80.54	80.25	79.32	81.46	80.64	80.73	80.09	80.31
MW-12S	79.36	79.61	79.38	79.23	79.64	79.4	79.24	79.72	79.37
MW-14S	78.98	79.18	79.01	78.91	82.27	78.96	78.85	79.36	79.08
MW-15S	80.4	80.49	79.55	80.55	80.72	80.52	80.4	80.21	80.38
MW-16	NM	NM[1]	NM[1]	NM[1]	NM[1]	NM[1]	NM[1]	NM[1]	NM[1]
MW-17	78.69	79.84	79.58	79.44	79.75	79.54	79.39	79.95	79.62
MW-21S	80.83	80.12	80.91	80.83	81.8	80.84	80.66	81.43	80.82
MW-23S	77.95	78.14	78.03	77.93	78.3	77.88	77.8	78.28	78.02
MW-25S	80.24	80.4	79.76	79.85	80.44	80.02	79.02	80.59	80.15
MW-26S	81.07	81.3	81.02	80.37	81.17	80.98	80.88	81.49	82.08
MW-30S	80.22	81.36	80.12	81.48	80.46	80.23	80.13	80.68	80.12
MW-31S	80.89	81.02	80.87	80.79	80.76	80.89	80.84	80.97	80.91
RH-1S	82.34	82.18	82.25	82.09	82.45	82.2	82.19	82.66	82.23
MW-1	82.58	81.29	82.45	82.13	82.64	82.5	82.22	82.66	82.48
MW-10I	79.91	80.22	80.01	80.76	82.19	80.02	79.35	81.79	80.01
MW-11	80.89	82.88	83.14	NM	NM	NM	NM	NM	NM[1]
MW-13	NM	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]
MW-14	78.79	NM[3]	81.98	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]	NM[2]
MW-15I	79.62	78.46	78.34	78.61	78.54	78.28	78.03	78.28	78.09
MW-17I	79.2	79.49	81.06	78.97	79.28	78.58	79.13	79.7	79.14
MW-18	79.47	79.67	79.43	77.29	79.68	79.46	79.34	79.89	79.42
MW-19I	87.14	86.35	87.02	87.01	87.15	86.85	86.97	86.97	87.02
MW-1I	82.68	82.02	80.54	80.41	80.8	80.67	80.49	81.24	80.6
MW-2	84.21	84.11	83.81	83.97	84.51	84.06	83.93	84.43	84.19
MW-22I	75.54	75.56	75.12	74.89	75.55	75.46	75.12	76.15	75.37
MW-25I	79.27	79.61	79.2	80.42	78.5	79.29	77.37	79.93	79.42
MW-26I	80.31	80.45	80.21	80.06	80.45	80.26	80.12	80.66	80.2
MW-28I	74.54	74.63	73.89	73.9	74.64	74.39	74.16	75.27	74.32
MW-29I	75.51	76.04	75.34	75.18	76.06	75.43	75.25	75.96	75.43
MW-2I	84.38	84.83	84.12	84.02	85.38	84.13	84.07	84.98	84.22
MW-35I	75.22	75.59	75.09	75.21	75.47	75.21	NM[2]	75.86	75.02
MW-36I	82.8	82.8	82.26	81.96	81.99	82.48	82.29	84.52	88.63
MW-37I	82.59	82.67	81.22	82.19	82.62	82.09	81.96	81.64	82.14
MW-38I	72.71	72.58	71.97	71.66	72.33	72.33	72.18	73.12	NM
MW-10D	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-14D	82.65	82.72	80.48	82.1	81.17	82.53	82.55	83.27	92.47
MW-15D	76.83	76.92	76.43	76.31	76.37	76.78	76.73	76.87	76.7
MW-17D	81.74	79.71	79.4	80.35	79.73	81.88	81.98	87.07	80.99
MW-1D	-33.5	-33.42	-33.28	-33.17	-33.08	-32.92	-32.75	-30.2	-29.91
MW-20D	80.6	81.94	80.03	79.91	80.15	80.65	80.58	81.84	80.36
MW-21D	77.86	77.95	76.76	77.15	77.75	77.81	77.53	78.31	77.56
MW-23D	47.85	48.19	48.67	48.88	52.16	49.49	49.97	50.49	51.12
MW-29D	81.54	82.17	81.48	81.16	81.63	82.75	81.82	82.63	81.62
MW-30D	79.86	80.51	80.18	80.12	80.57	81.55	80.33	81.07	81.26
MW-31D	80.83	80.68	80.64	82.66	80.39	83.75	80.24	80.52	NM[3]
MW-32D	11.67	11.95	13.53	14.17	14.52	15.69	16.21	47.1	73.42
MW-33D	79.22	79.27	80.1	79.98	80.37	80.04	80.16	80.71	80.2
MW-34D	82.66	82.97	NM	82.31	NM	82.69	NM[4]	80.93	82.9
MW-36D	83.1	83.03	82.9	82.83	82.66	82.97	82.97	83.85	82.83
MW-37D	88.59	NM[3]	89.35	88.3	88.52	88.46	NM[2]	88.88	88.42
MW-38D	75.44	72.84	72.21	71.89	72.57	72.54	72.44	73.35	72.35
MW-39D	75.77	76.71	75.59	75.59	75.34	75.75	75.66	76.4	85.38
MW-40D	80.39	80.41	80.37	79.4	80.5	80.52	80.28	80.98	80.43
MW-41D	78.74	78.68	78.54	78.5	79.76	78.43	78.45	85.84	78.48
MW-42D	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-43D	86.92	86.87	86.77	87.16	82.35	87.11	86.65	87.29	86.65
RH-1D	69.71	86.59	4.14	4.99	5.27	11.38	12.82	40.42	14.99
SG-1	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-2	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-3	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes

NM - not measured

NI - not installed

[1] - Well destroyed by snow removal equipment

[2] - Could not open the case

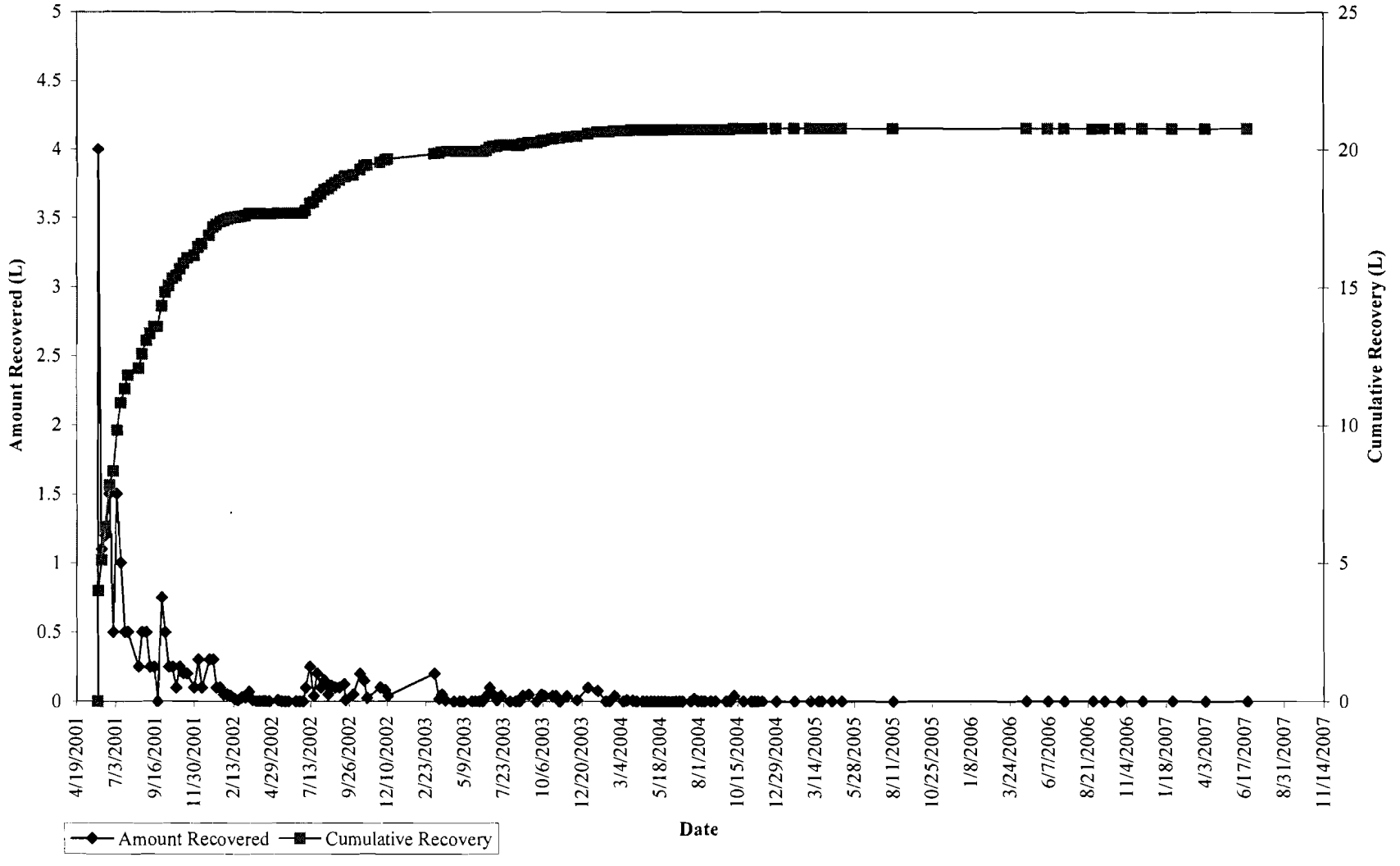
[3] - Water Filling the top of the Casing

[4] - Car parked over the well

SUMMARY OF PRODUCT RECOVERY
MW-26S

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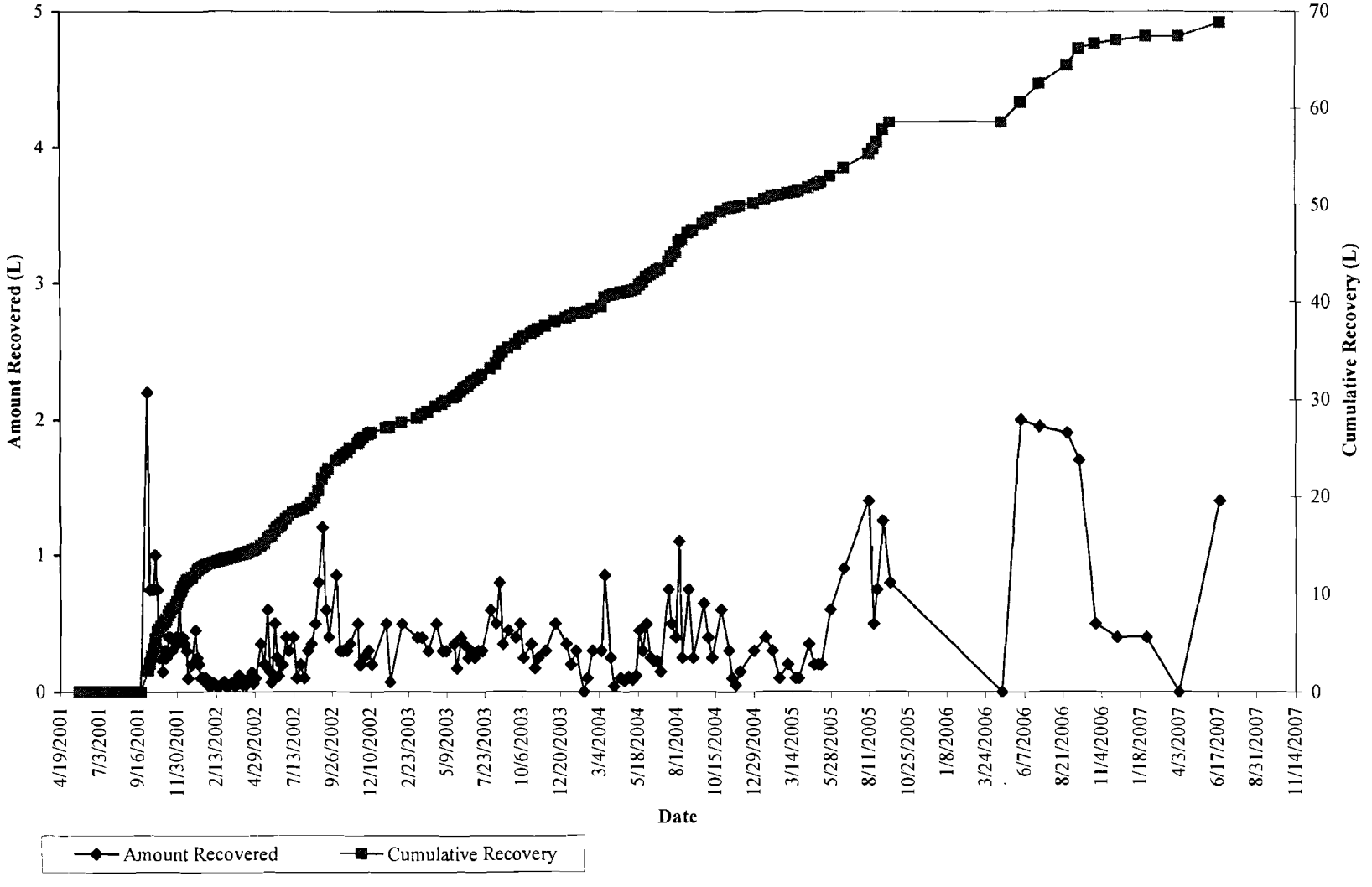
NYSEG
MECHANICVILLE, NEW YORK



SUMMARY OF PRODUCT RECOVERY
RH-1S

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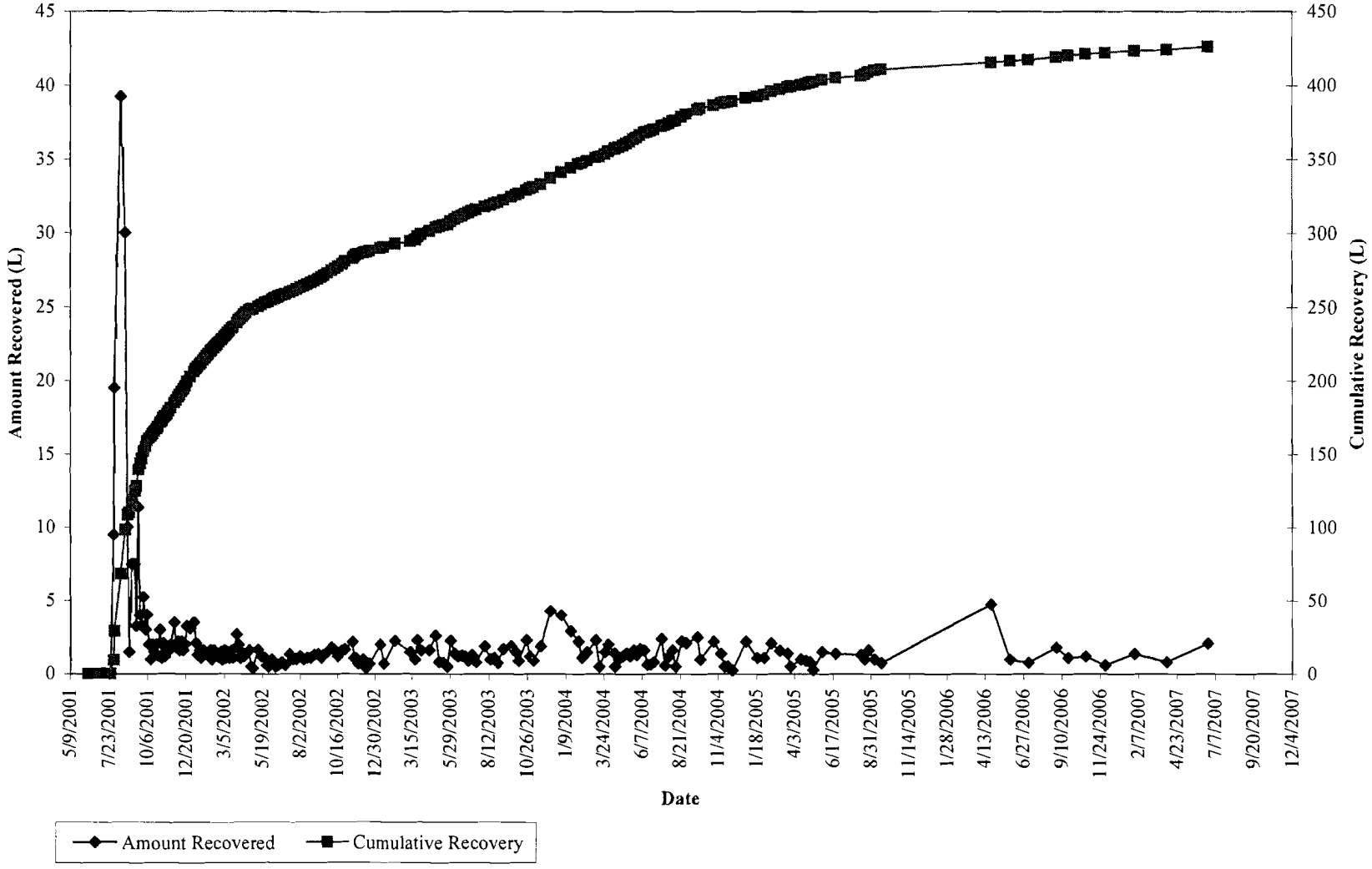
NYSEG
MECHANICVILLE, NEW YORK



SUMMARY OF PRODUCT RECOVERY
MW-10D

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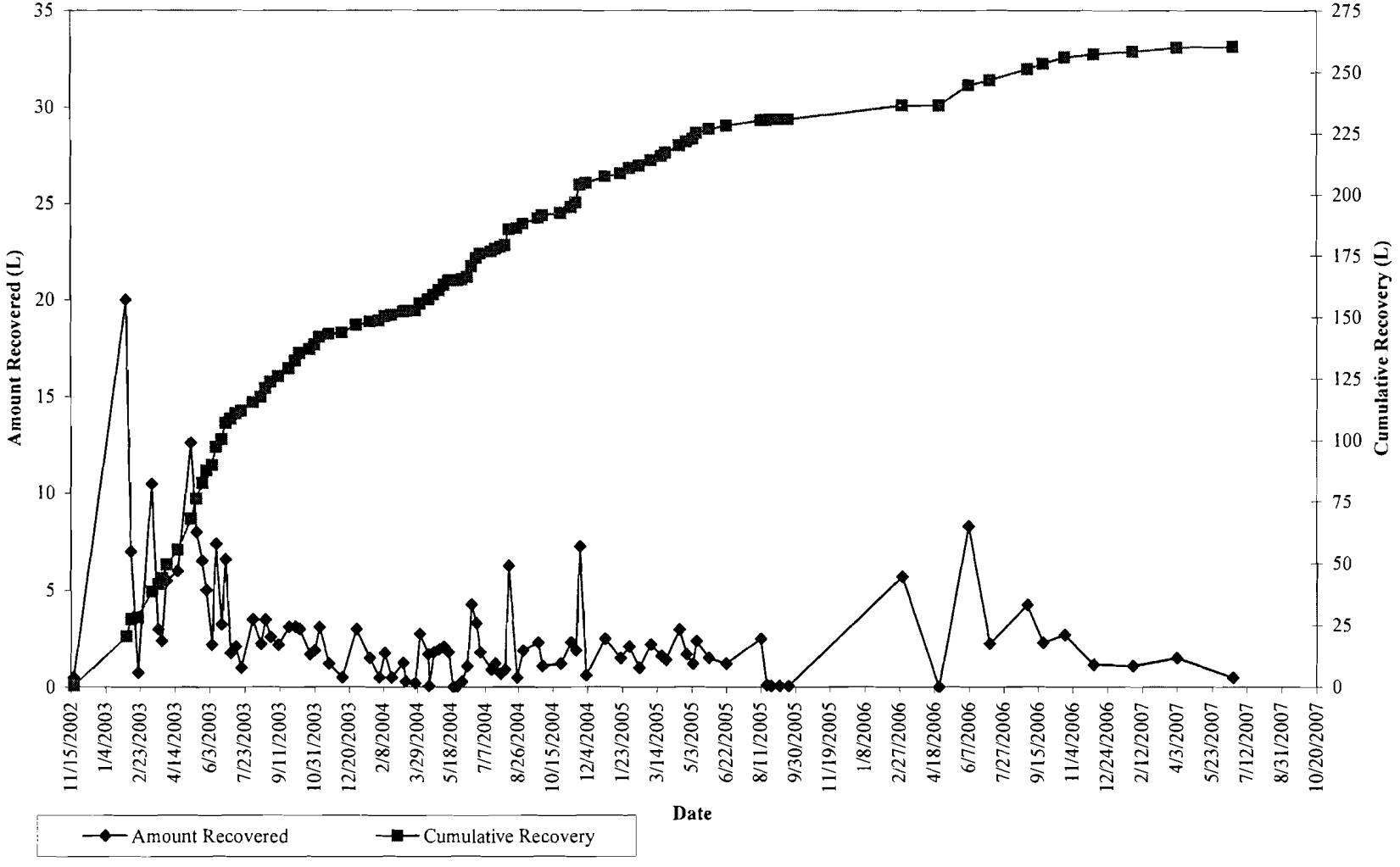
NYSEG
MECHANICVILLE, NEW YORK



SUMMARY OF PRODUCT RECOVERY
MW-42D

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NYSEG
MECHANICVILLE, NEW YORK



APPENDIX B

Well and Borehole Logs from Remedial Investigation

Well 1I

LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 90.45 / GRD 90.83
BORING NO.:	MW-1I	**BORING LOCATION:**	N 1484745.85 / E 709550.55
DATE:	5/20/02	**METHOD OF DRILLING:**	4 inch Spin Casing
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	2' x 2" Split spoons
BORING DEPTH:	75 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
0 – 90		Brown gravel, some medium sand, damp.	0-2	24/18	NA	0		
		Black coarse SAND, some coal granulas, trace ash like material, damp.	2-4	24/12	NA	0		
5 – 85		Black granular coal like material. Some coarse gravel, little brown sand, damp.	4-6	24/12	NA	0		4 inch PVC casing to 45'.
		Same as above with musty mold odor.	6-8	24/0	NA	NA		
		Spoon was wet.						
10 – 80		Brown coarse SAND, wet, musty odor.	8-10	24/8	NA	0		
		Angular dark grey SHALE fragments, trace medium sand, wet.	10-11.2	24/.5	NA	0		
		Weathered shale from 9.5-11.2'. Refusal.						
15 – 75		Air hammered to 17.5'. Tar encountered at 16.5'. Set 6 inch temp steel casing.						
20 – 70		5 3/4 inch air hammered to 45'. Grout 4 inch PVC casing to 45' Removed 6 inch casing.						
25 – 65								
30 – 60								
35 – 55								

LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 90.45 / GRD 90.83
BORING NO.:	MW-1I	**BORING LOCATION:**	N 1484745.85 / E 709550.55
DATE:	5/20/02	**METHOD OF DRILLING:**	4 inch Spin Casing
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	2' x 2" Split spoons
BORING DEPTH:	75 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
40 / 50								
45 / 45		4 inch air hammered to 75'. Significant amounts of DNAPL / LNAPL encoutered. Flushed with fresh water and generated significant amounts of NAPL.						
50 / 40								
55 / 35								4 inch open hole from 45-75'.
60 / 30								
65 / 25								
70 / 20								

LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 90.45 / GRD 90.83
BORING NO.:	MW-1I	**BORING LOCATION:**	N 1484745.85 / E 709550.55
DATE:	5/20/02	**METHOD OF DRILLING:**	4 inch Spin Casing
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	2' x 2" Split spoons
BORING DEPTH:	75 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
75								

Eric Lovenduski
Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D							DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
1	17.5-20.2	73.49-70.79												73.49-[43.01]	Run 1 REC=100% RQD=100%
	18.0	72.99				X	24	24							Iron deposits, weathered, parallel
															to bedding.
	19.1-19.2	71.89-71.79		X			50	24							Slightly weathered, perpendicular
															to bedding.
	20.0	70.99				X	10	20							Weathered, parallel to bedding.
2	20.2-25.2	70.79-65.79													Run 2 REC=100% RQD=94%
	22.6	68.39				X	20	20							Weathered, parallel to bedding.
	24.0	66.99		X			35	25							Parallel to bedding.
	24.9	66.09		X			45	25					66.09-65.79 LI		Weathered, oblique to bedding.
	25.2	65.79					45	25							Weathered, oblique to bedding
															0.05' offset.
3	25.2-30.2	65.79-60.79													Run 3 REC=100% RQD=100%
	26.3	64.69				X	28	28							Weathered, parallel to bedding.
	26.3-27.3	64.69-63.69													Series of offsets (0.05').
	27.7	63.29				X	10	25							Weathered, parallel to bedding.
4	30.2-35.2	60.79-55.79													Run 4 REC=100% RQD=96%
	30.2	60.79				X	25	25							Weathered, parallel to bedding.
	30.9	60.09				X	10	25							Weathered, parallel to bedding.
5	35.2-40.2	55.79-50.79													Run 5 REC=98% RQD=90%
	36.3	54.69				X	20	25							Weathered, parallel to bedding.
	38.5	52.49				X		25							Very weathered.

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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D	DATE LOGGED:	5/14/2003	GRADE = 90.99' TD = 155.2'

RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
	39.9	51.09				X	0	25							Weathered.
6	40.2-45.2	50.79-45.79													Run 6 REC=100% RQD=92%
	42.1-42.5	48.89-48.49											48.89-48.49		Series of open fractures. Rock is
															broken into small pieces.
	44.9	46.09				X	25	25							Weathered, perpendicular to
															bedding.
7	45.2-50.2	45.79-40.79													Run 7 REC=100% RQD=90%
	46.6-47.1	44.39-43.89													Bedding is offset (0.01') and
															deformed, cc.
	47.1	43.89				X	25	30					43.89-43.79		Weathered, oblique to bedding, cc-
															coated.
	47.2	43.79			X		30	30							Bedding is slightly deformed, cc-
															filled fracture.
	47.2-49.1	43.79-41.89													Bedding is slightly deformed, very
															minor offsets.
	49.1-50.0	41.89-40.99											41.89-40.99		Core is broken into small rounded
															pieces.
8	50.2-55.2	40.79-35.79													Run 8 REC=100% RQD=82%
	50.4	40.59				X	15	15							Tight, slightly weathered, parallel to
															bedding.
	50.8	40.19											40.19		Core is broken into small,
															weathered pieces, cc. Bedding

Eric Lovenduski
Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															deformation begins at 51.2' bgs,
															minor offsets (0.05'). NAPL
															observed in core water at 50.9'
															and 51.2'.
	52.5	38.49		X			45								Tight, deformed bedding.
	53.6	37.39				X	15						37.39-37.19 SI		Tight, slightly weathered, deformed
															bedding.
	53.8	37.19				X	15								Tight, deformed bedding.
	55.1	35.89		X			50								Deformed bedding.
9	55.2-60.2	35.79-30.79													Run 9 REC=100% RQD=100%
															Bedding is deformed throughout
															run with 0.01-0.08' offsets.
	56.8	34.19				X	5								Tight, slightly weathered, deformed
															bedding.
	59.0	31.99				X	10								Deformed bedding.
10	60.2-65.2	30.79-25.79													Run 10 REC=100% RQD=92%
															Deformed and offset bedding.
	61.0-62.1	29.99-28.89		X			80						29.99-28.89 SI		Smooth surface, perpendicular to
															deformed bedding planes.
	61.6-61.9	29.39-29.09		X			70								Weathered, oblique to deformed
															beds.
	63.1-63.9	27.89-27.09		X			70	70							Parallel to bedding. Beds are

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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															folded, trace cc.
	64.8-65.1	26.19-25.89											26.19-25.89		Core is broken and rounded,
															weathered edges.
11	65.2-70.2	25.79-20.79													Run 11 REC=100% RQD=92%
	65.4	25.59		X			45	65							Tight, trace pyrite.
	67.6	23.39		X			80	65							Oblique to bedding, cc, weathered.
	68.0-68.5	22.99-22.49													Bedding is deformed, 0.02' offsets.
12	70.2-75.2	20.79-15.79													Run 12 REC=96% RQD=92%
	72.1	18.89			X		35	60					18.89-17.99 LI		Parallel to bedding, cc-filled, minor
															offset (0.01').
	72.4	18.59		X			60	60							Tight, parallel to bedding.
	72.5-73.0	18.49-17.99		X			75	60							Oblique to bedding, weathered, cc.
	74.6	16.39		X			60	60							Parallel to bedding, weathered, cc
13	75.2-80.2	15.79-10.79													Run 13 REC=98% RQD=88%
	77.0	13.99						60							
	78.6	12.39				X	20	60							Tight, perpendicular to bedding.
	79.5-79.9	11.49-11.09											11.49-10.79		Core is broken into small pieces,
															rounded edges.
	80.2	10.79				X	0	60							Parallel to bedding, weathered,
															LNAPL tar during packer test.
14	80.2-83.8	10.79-7.19													Run 14 REC=100% RQD=100%
	81.5	9.49				X	20	60							Weathered, perpendicular to

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Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															bedding.
	82.4	8.59				X	30	60							Tight, oblique to bedding, sharp
															edges.
	83.3	7.69				X	30	60							Tight, oblique to bedding, sharp
															edges.
15	83.8-85.2	7.19-5.79													Run 15 REC=100% RQD=71%
	83.8-84.2	7.19-6.79											7.19-6.79		Extremely weathered core,
															fractured with rounded edges.
	84.2-85.3	6.79-5.69													Very soft olive green ash layer.
16	85.2-90.2	5.79-0.79													Run 16 REC=100% RQD=100%
	85.3-86.2	5.69-4.79											5.69-4.79		Series of cc-filled fractures,
															perpendicular to bedding.
	88.0	2.99						75							
17	90.2-95.2	0.79-[4.21]													Run 17 REC=100% RQD=100%
	90.2	0.79				X		75							Weathered fracture, rounded
															edges.
	95.2	[4.21]				X		75							Weathered fracture, rounded
															edges.
18	95.2-100.2	[4.21]-[9.21]													Run 18 REC=98% RQD=90%
	96.7	[5.71]				X	10	75							Weathered, perpendicular to
															bedding.
	99.6-100.2	[8.61]-[9.21]											[8.61]-[9.21]		Core is broken into small, rounded

Eric Lovenduski
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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															pieces.
	100.2	[9.21]													LNAPL tar during packer test.
19	100.2-105.2	[9.21]-[14.21]													Run 19 REC=100% RQD=92%
	103.1	[12.11]				X	5	70							Tight, perpendicular to bedding.
	103.9-104.3	[12.91]-[13.31]											[12.91]-[13.31]		Core is broken into small, rounded
															pieces.
20	105.2-110.2	[14.21]-[19.21]													Run 20 REC=100% RQD=100%
	109.0	[18.01]						70							
21	110.2-114.0	[19.21]-[23.01]													Run 21 REC=97% RQD=89%
	111.3	[20.31]				X	25	70							Tight, perpendicular to bedding,
															trace cc.
	113.9	[22.91]													Open fracture with rounded
															edges.
22	114.0-118.8	[23.01]-[27.81]													Run 22 REC=100% RQD=100%
	115.0	[24.01]						70							
	116.6	[25.61]	X				70	70							Parallel to bedding, 0.03' cc.
	118.2	[27.21]				X	10	70							Perpendicular to bedding,
															weathered.
23	118.8-120.2	[27.81]-[29.21]													Run 23 REC=100% RQD=100%
	119.9	[28.91]				X	5	70							Perpendicular to bedding,
															weathered.
	119.5-119.7	[28.51]-[28.71]											[28.51]-[28.71]		Series of 10° cc-filled fractures.

Eric Lovenduski
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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003					GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
24	121.3-125.2	[30.31]-[34.21]													Run 24 REC=100% RQD=100%
	123.0-123.5	[32.01]-[32.51]		X			80	65							Tight, parallel to bedding.
25	125.2-130.2	[34.21]-[39.21]													Run 25 REC=100% RQD=100%
	126.1	[35.11]		X			45	60							Weathered, open, parallel to
															bedding.
26	130.2-135.2	[39.21]-[44.21]													Run 26 REC=100% RQD=100%
	131.5	[40.51]													Slightly deformed bedding, cc-filled
															fracture.
	133.4	[42.41]		X			50	70							Parallel to bedding, weathered,
															tight.
	133.2-135.2	[42.21]-[44.21]											[42.21]-[44.21]	[43.01]-[63.01] M	Bedding is deformed with many
															offsets (up to 0.2'), cc-filled and
															open fractures.
27	135.2-140.2	[44.21]-[49.21]													Run 27 REC=100% RQD=83%
															Bedding is deformed throughout
															run.
	135.2-135.7	[44.21]-[44.71]													Core is broken into small pieces
															with sharp edges.
	137.7	[46.71]			X										Deformed bedding and fracture,
															cc.
	138.8	[47.81]				X	20						[47.81]-[48.21] LI		Deformed bedding, slightly
															weathered.

Eric Lovenduski
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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-1D						DATE LOGGED:	5/14/2003				GRADE = 90.99' TD = 155.2'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
	139.2	[48.21]				X	20								Deformed bedding, weathered.
	140.0-140.2	[49.01]-[49.21]											[49.01]-[50.21] LI		Open cavity, rounded edges,
															weathered.
28	140.2-141.2	[49.21]-[50.21]													Run 28 REC=90% RQD=70%
	140.2-141.0	[49.21]-[50.01]		X			70	70							Oblique to bedding, cc.
	141.0	[50.01]				X	0	70							Slightly weathered.
	141.2	[50.21]				X	0	70							Weathered.
29	141.2-145.2	[50.21]-[54.21]													Run 29 REC=100% RQD=100%
								70							Bedding is slightly deformed
															throughout run.
30	145.2-150.2	[54.21]-[59.21]													Run 30 REC=100% RQD=100%
															Bedding is deformed.
	145.2-146.0	[54.21]-[55.01]		X			90	90					[54.21]-[55.01] V		Tight, parallel to bedding, vertical.
	149.8	[58.81]				X	20	90							Weathered, rounded, open cavity.
31	150.2-155.2	[59.21]-[64.21]													Run 31 REC=88% RQD=88%
															Bedding is deformed.
	153.1	[62.11]			X		0	80							Perpendicular to bedding, cc.
	153.8-154.1	[62.81]-[63.11]				X	0								0.3' open fracture, deformed
															bedding.

Well 10D

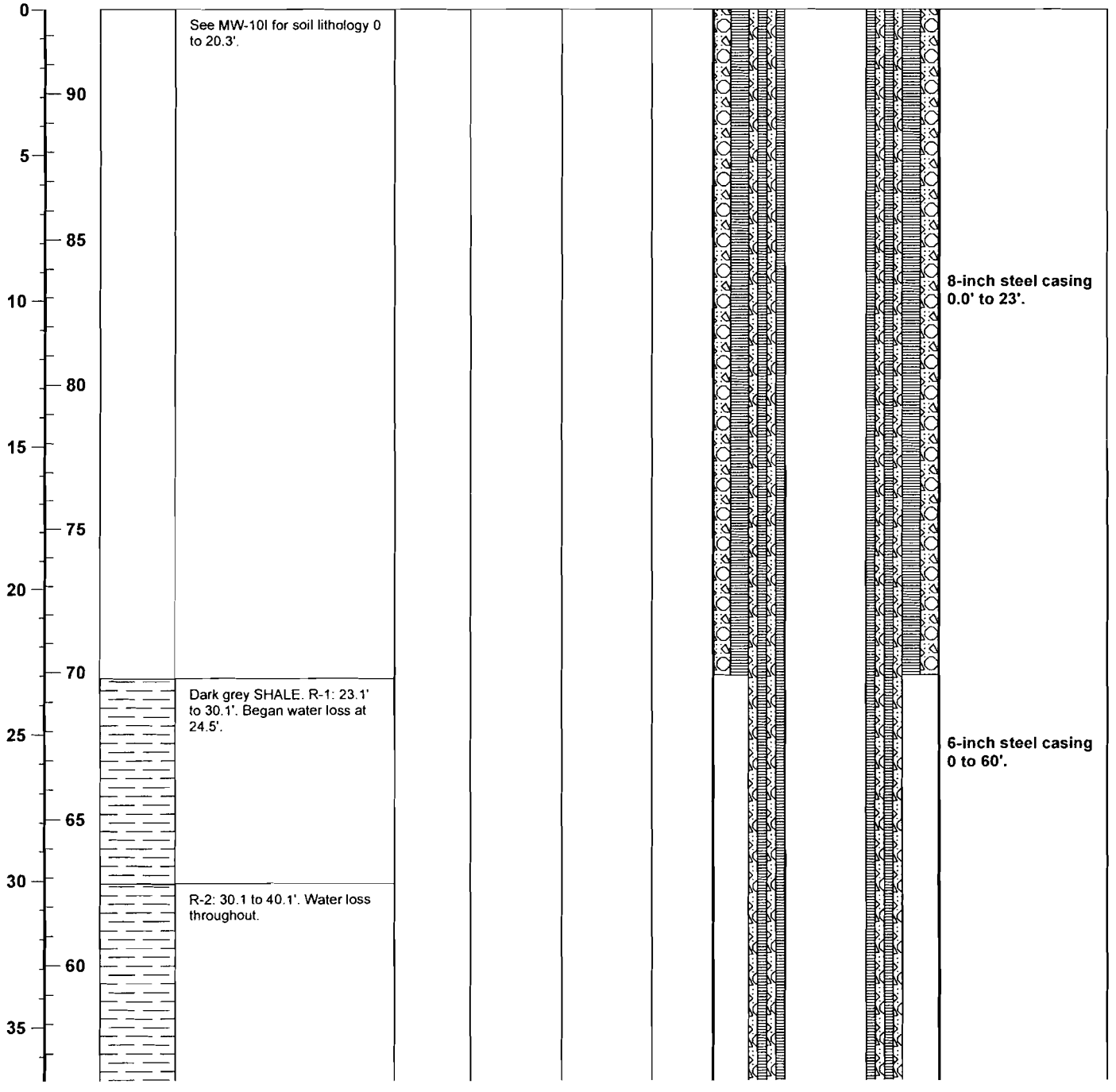
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 92.67 / GRD 92.88
BORING NO.:	MW-10D	**BORING LOCATION:**	N 1,484,711/E 709,645
DATE:	6/6/01	**METHOD OF DRILLING:**	10.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	14.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	114 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



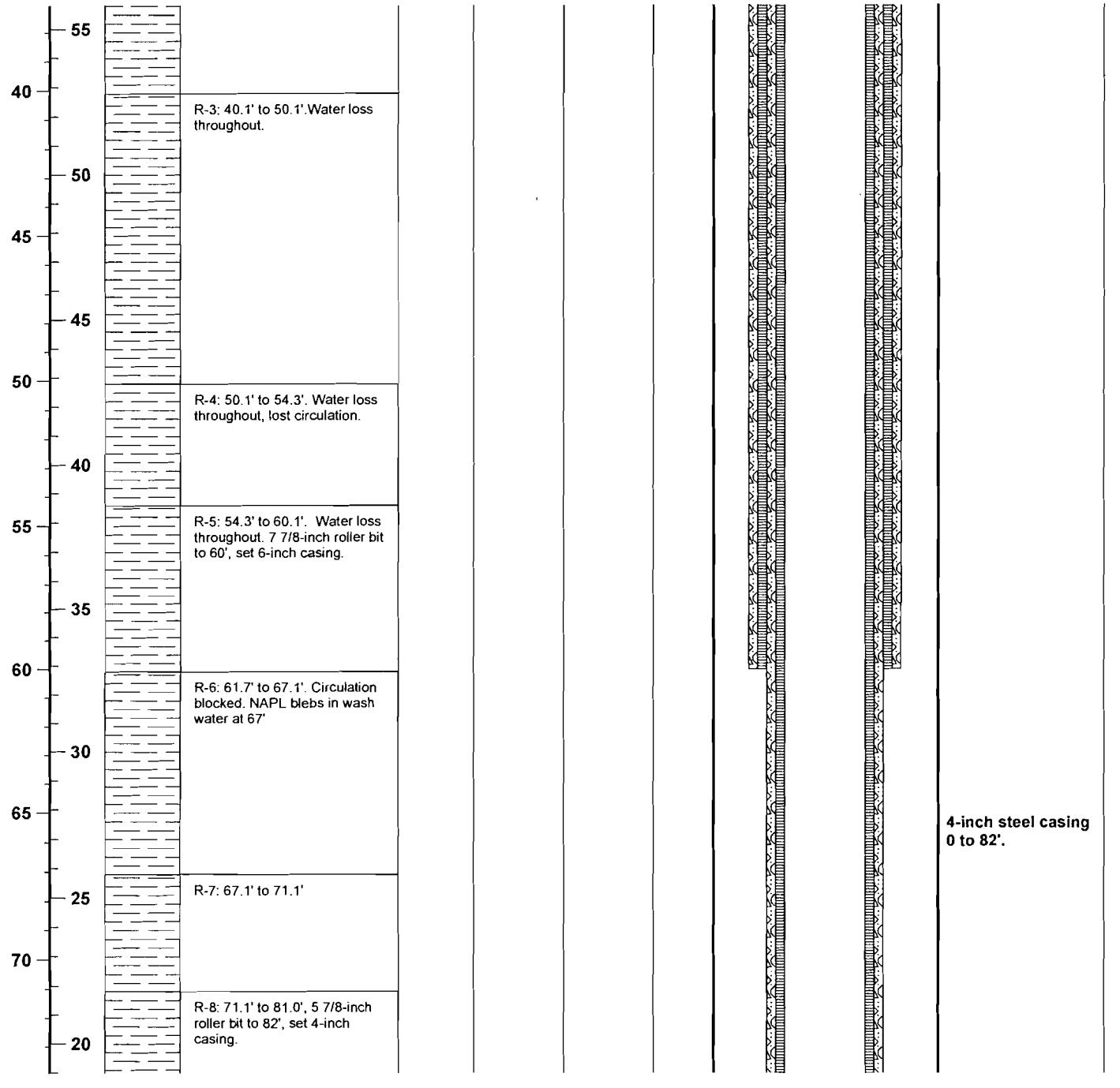
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 92.67 / GRD 92.88
BORING NO.:	MW-10D	**BORING LOCATION:**	N 1,484,711/E 709,645
DATE:	6/6/01	**METHOD OF DRILLING:**	10.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	14.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	114 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



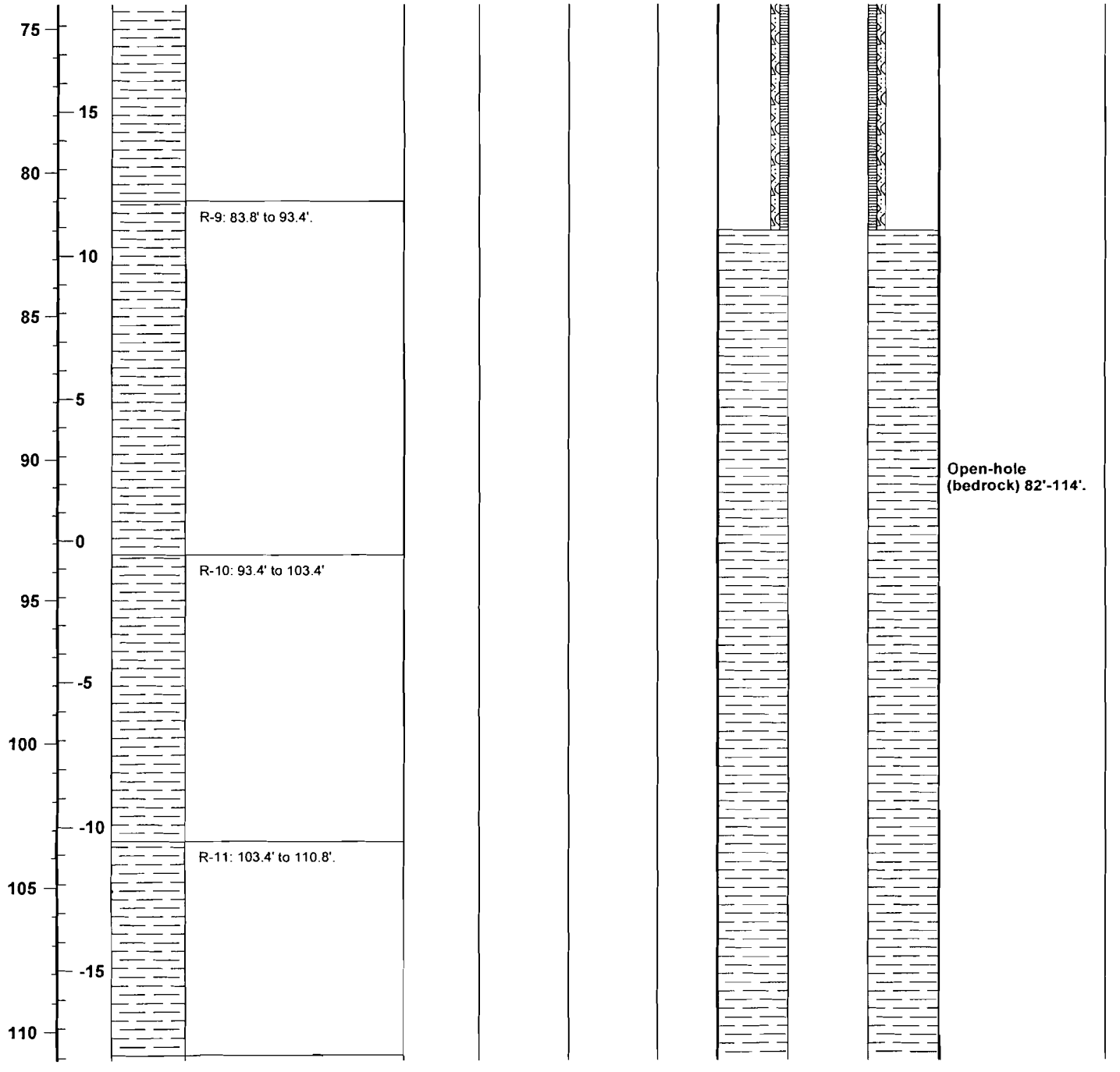
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 92.67 / GRD 92.88
BORING NO.:	MW-10D	**BORING LOCATION:**	N 1,484,711/E 709,645
DATE:	6/6/01	**METHOD OF DRILLING:**	10.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	14.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	114 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 92.67 / GRD 92.88
BORING NO.:	MW-10D	**BORING LOCATION:**	N 1,484,711/E 709,645
DATE:	6/6/01	**METHOD OF DRILLING:**	10.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	14.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	114 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
-20		R-12: 110.8' to 115'						

John Hawley
Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOGGING

WELL NO.:	MW-10D						DATE LOGGED:	7/30/2001					GRADE = 92.88' TD = 114.0'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
1	23.1-30.1	69.78-62.78											67.28-66.58 SI	69.08-27.78 VM	Run 1 REC=100% RQD=95%
	24.0	68.88						18							
	29.5-30.1	63.38-62.78		X			88	18					63.38-62.18		Perpendicular to bedding, open,
													62.18-54.08 SI		discontinued at 30.1'.
2	30.1-40.1	62.78-52.78													Run 2 REC=100% RQD=95%
	34.2	58.68			X		16	16							Parallel to bedding, striations.
	37.0-38.0	55.88-54.88					70								v. thin open fractures.
	37.3-38.0	55.58-54.88													Bedding offset.
	37.9	54.98			X		18	18			X	X			UFP-like feature.
	38.0-39.0	54.88-53.88													v. thin open fractures, some cc,
															offsets and deformation.
	39.0	53.88		X			70								Polished surface, py.
3	40.1-50.1	52.78-42.78													Run 3 REC=100% RQD=71%
	40.0	52.88						32							
	46.0	46.88						30					48.98-46.98 SI		
	47.0-~50.0	45.88-~42.88											45.98-41.48		Zone of deformation and offsets
															with high angle open and filled
															fractures. Some core chewed up
															and missing.
4	50.1-54.3	42.78-38.58											39.88-38.18		Run 4 REC=81% RQD=57%
	51.0	41.88						45							
	53.3-54.0	39.58-38.88													Most of core washed out and

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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOGGING

WELL NO.:	MW-10D						DATE LOGGED:	7/30/2001					GRADE = 92.88' TD = 114.0'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															chewed up.
5	54.3-60.1	38.58-32.78											33.48-27.78		Run 5 REC=97% RQD=95%
	55.0	37.88		X			46	46							Polished (GR) surface.
	59.5	33.38						36							
6	61.7-67.7	31.18-25.18													Run 6 REC=85% RQD=31%
	62.6-64.4	30.28-28.48											27.78-26.18 SI	27.78-22.98	Many core pieces, low RQD.
	66.0-67.0	26.88-25.88											26.18-25.18		Many pieces.
7	67.7-71.7	25.18-21.18											23.18-22.98	22.98-8.48 (M)	Run 7 REC=100% RQD=85%
															At ~67' NAPL in water, lost
															circulation.
	70.0	22.88						17							
8	71.7-81.0	21.18-11.88													Run 8 REC=91% RQD=89%
9	83.8-93.4	9.08-[0.52]												8.48-[22.82]	Run 9 REC=100% RQD=95%
	87.0	5.88						18					5.78-5.38 SI		
	90.0	2.88		X			60	18							Partially filled cc fracture perpendic-
															ular to bedding, polished surface.
10	93.4-103.4	[0.52]-[10.52]													Run 10 REC=100% RQD=94%
	96.4	[3.52]		X			40	25			X				Almost parallel with bedding,
															polished surface, no cc, some ss.
	99.0-99.5	[6.12]-[6.62]				X	20	20					[6.82]-[7.32]		Very smooth, glassy surface.
11	103.4-110.8	[10.52]-[17.92]													Run 11 REC=100% RQD=100%
	106.0	[13.12]						20							

John Hawley
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NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOGGING

WELL NO.:	MW-10D						DATE LOGGED:		7/30/2001				GRADE = 92.88' TD = 114.0'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
12	110.8-115.0	[17.92]-[22.12]													Run 12 REC=74% RQD=100%

Well 26I

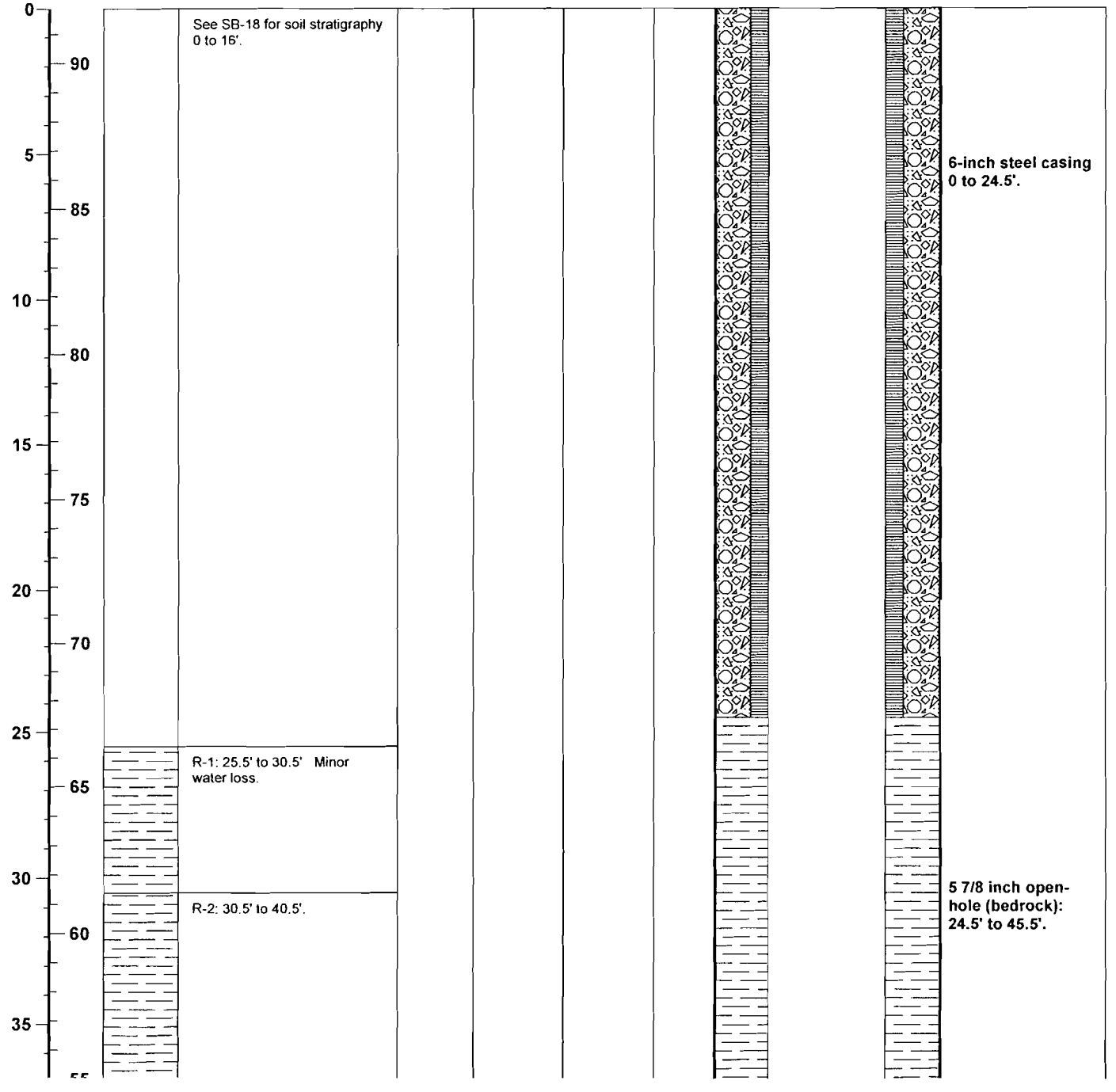
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 91.47 / GRD 91.88
BORING NO.:	MW- 26I	**BORING LOCATION:**	N 1484741.39 / E 709636.66
DATE:	7/11/01	**METHOD OF DRILLING:**	6.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	8.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	45.5 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



URS

Clifton Park, New York

LOG OF BORING

NYSEG

Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 91.47 / GRD 91.88
BORING NO.:	MW- 26I	**BORING LOCATION:**	N 1484741.39 / E 709636.66
DATE:	7/11/01	**METHOD OF DRILLING:**	6.25 inch I.D. Hollow Stem Auger
BORING DIAMETER:	8.25 inches	**SAMPLE TYPE:**	HQ coring
BORING DEPTH:	45.5 feet	**SURFACE CONDITIONS:**	Gravel

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
40 — 50 — 45		R-3: 4.5' to 45.5'. 5 7/8-inch roller bit to 45.5'.						

John Hawley
Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOGGING

WELL NO.:	MW-26I						DATE LOGGED:	7/30/2001					GRADE = 91.88' TD = 45.5'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
1	25.5-30.5	66.38-61.38											66.38-64.38	66.38-52.48	Run 1 REC=100% RQD=74%
	28.0	63.88						33					63.08-61.88		
	28.9	62.98	X				33	33	?						1/16 in. cc.
2	30.5-40.5	61.38-51.38													Run 2 REC=100% RQD=72%
	31.0	60.88						31							
													57.98-57.88		
	35.2-36.8	56.68-55.08		X			70-80	31					56.88-54.88	52.48-46.38 M	Partially filled cc.
													53.58-53.38		
3	40.5-45.5	51.38-46.38											52.48-52.38		Run 3 REC=97% RQD=78%
	41.0	50.88						28							
	42.7-43.1	49.18-48.78		X			85-90	29					49.18-48.18		Partially filled.
	44.7	47.18					31	31					48.18-46.88 SI		1/16 to 1/4 in. cc.
	44.8	47.08					40-45	31							v thin, striations, partially filled cc.

Well 42D

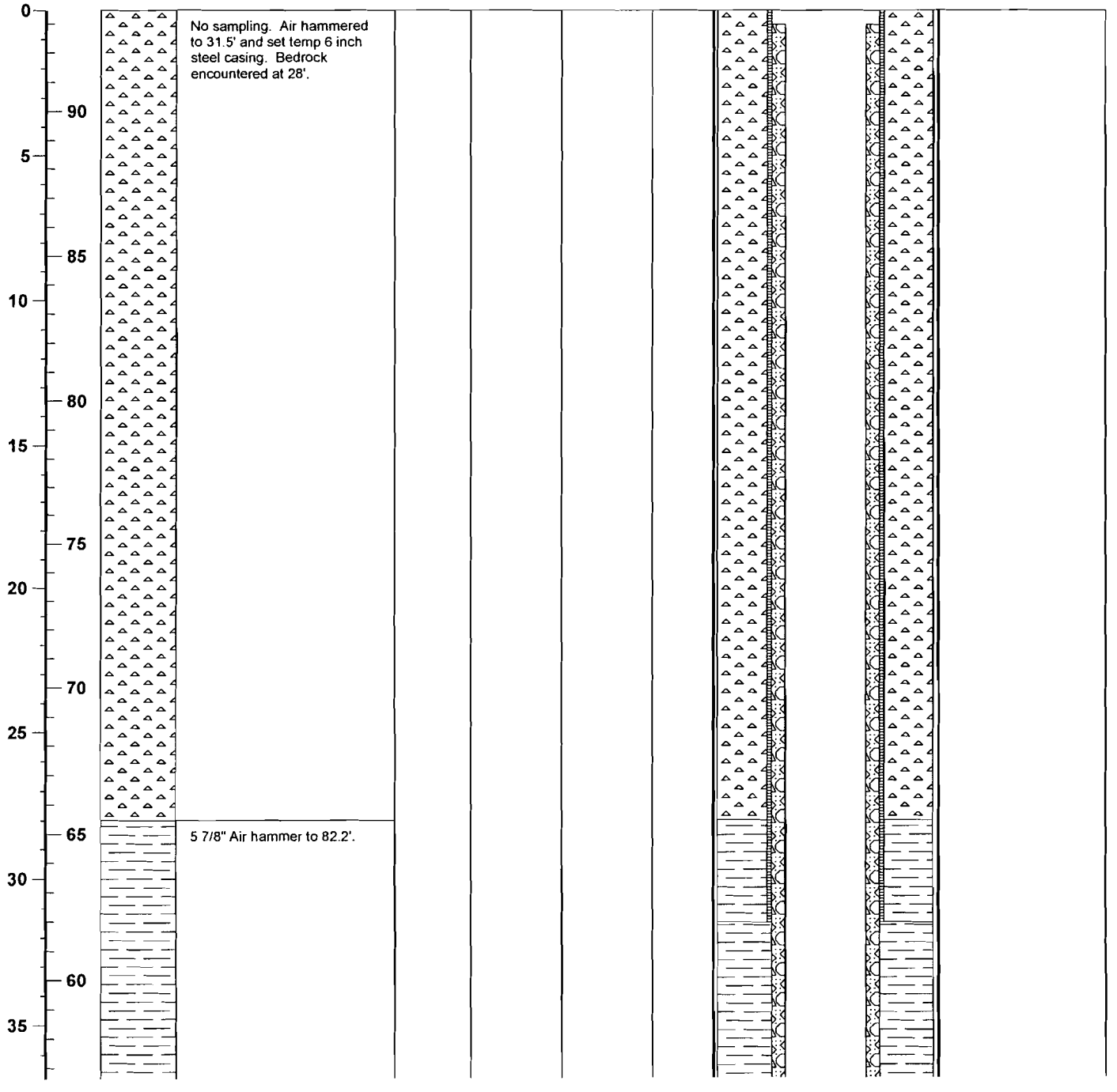
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 93.46 / GRD 93.72
BORING NO.:	MW-42D	**BORING LOCATION:**	N 1484627.59 / E 709733.68
DATE:	11/18/02	**METHOD OF DRILLING:**	7 7/8 Air Hammer
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	HQ Core
BORING DEPTH:	175 Feet	**SURFACE CONDITIONS:**	Asphalt

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



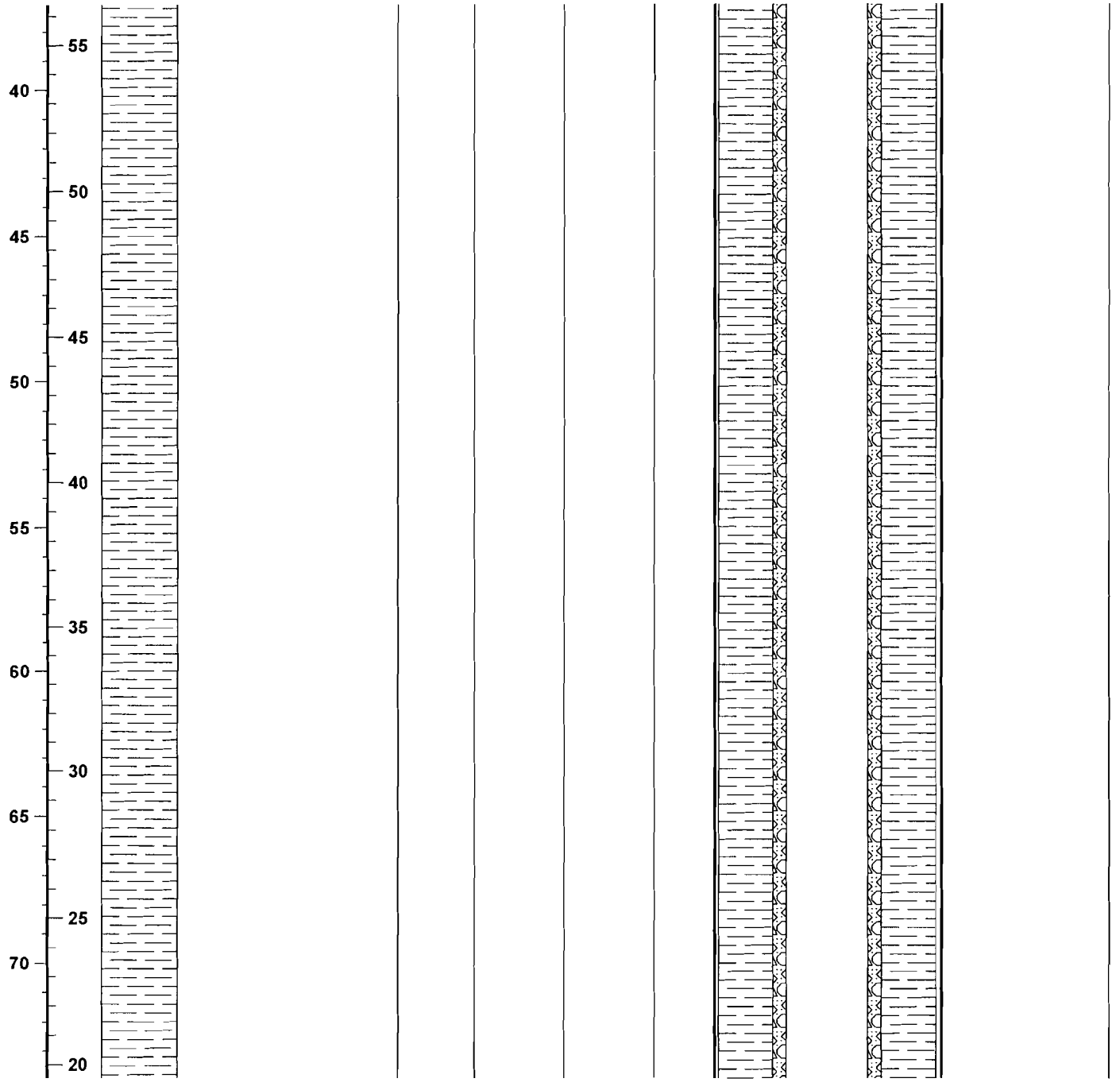
LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 93.46 / GRD 93.72
BORING NO.:	MW-42D	**BORING LOCATION:**	N 1484627.59 / E 709733.68
DATE:	11/18/02	**METHOD OF DRILLING:**	7 7/8 Air Hammer
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	HQ Core
BORING DEPTH:	175 Feet	**SURFACE CONDITIONS:**	Asphalt

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description



LOG OF BORING

URS
Clifton Park, New York

NYSEG
Central Avenue
Mechanicville, New York

PROJECT:	NYSEG	**ELEVATION:**	TOC 93.46 / GRD 93.72
BORING NO.:	MW-42D	**BORING LOCATION:**	N 1484627.59 / E 709733.68
DATE:	11/18/02	**METHOD OF DRILLING:**	7 7/8 Air Hammer
BORING DIAMETER:	7 7/8 inches	**SAMPLE TYPE:**	HQ Core
BORING DEPTH:	175 Feet	**SURFACE CONDITIONS:**	Asphalt

Depth / Elevation	Soil Symbols	Soil Description	Sample Depth (ft bg)	Driven/ Recovery (in.)	Blows per/ (6 in.)	PID (ppm)	Well Construction	Well Description
75 / 15 / 80 / 10 / 85 / 5 / 90 / 0 / 95 / -5 / 100 / -10 / 105 / -15 / 110		R-1: 82.2-84.5'. R-2: 84.5-89.5' R-3: 89.5-94.5'. R-4: 94.5-99.5' R-5: 99.5-104.5'. Packer test from 85-104.5'. Purged dry, recovered 2' in 25 minutes. No MGP indicators. R-6: 104.5-109.5'. R-7: 109.5-114.5'						4 inch PVC casing with packer set at 0-140'.

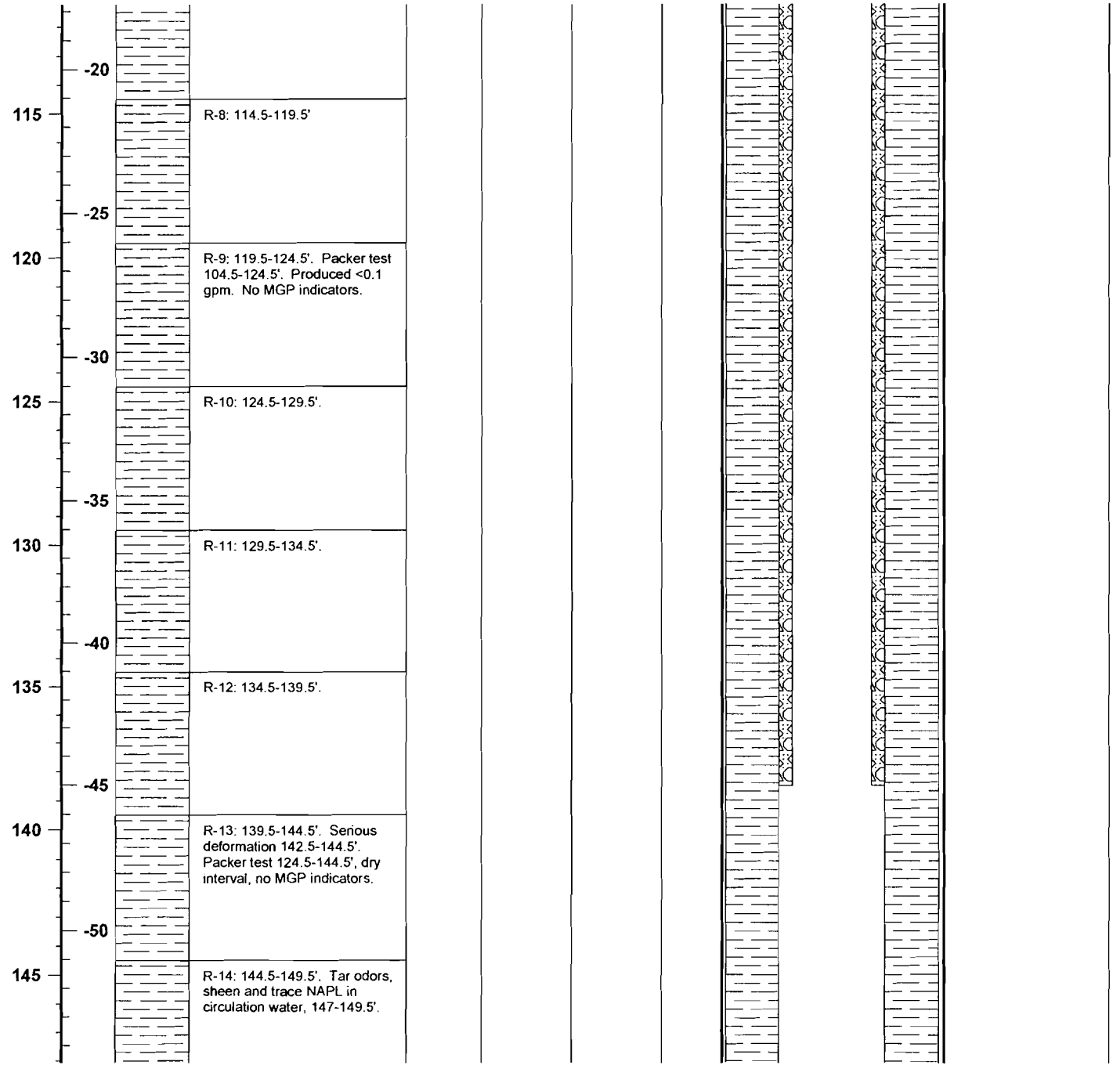
LOG OF BORING

URS
Clifton Park, New York

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Central Avenue
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URS

Clifton Park, New York

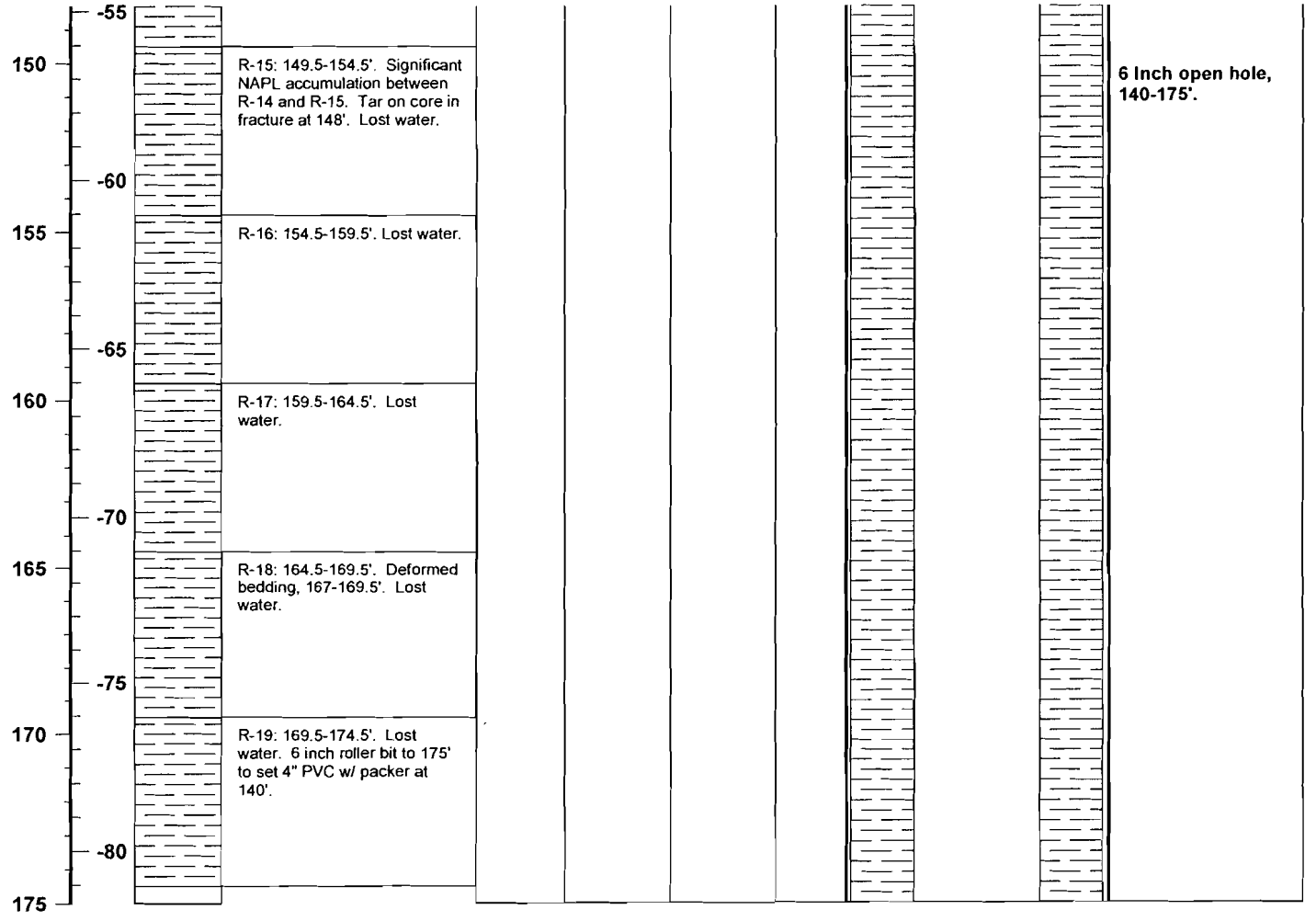
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Eric Lovenduski
Staff Geologist

NEW YORK STATE ELECTRIC & GAS
MECHANICVILLE FORMER MGP SITE

BEDROCK CORE LOG

WELL NO.:	MW-42D						DATE LOGGED:	5/15/2003					GRADE = 93.72' TD = 175.0'		
RUN #	DEPTH (ft. bgs)	ELEVATION (ft. msl)	FRACTURES				ANGLE OF		MARKER		FAULTS		HIF (ft. msl)	IPC (ft. msl)	COMMENTS AND DESCRIPTION
			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
1	82.2-84.5	11.52-9.22												11.52-[80.58]	Run 1 REC=100% RQD=57%
	82.2-82.6	11.52-11.12											11.52-11.12		Core is broken into small rounded
															pieces.
	83.5	10.22						40							
	84.1-84.5	9.62-9.22													Weathered, open, rounded edges.
2	84.5-89.5	9.22-4.22													Run 2 REC=100% RQD=98%
	84.5	9.22		X			40	40							Parallel to bedding, 0.01' cc.
	86.2	7.52		X			40	40							Parallel to bedding, weathered,
															rounded.
	89.3	4.42		X			40	40							Parallel to bedding, open 0.02'.
3	89.5-94.5	4.22-[0.78]													Run 3 REC=100% RQD=100%
	90.0	3.72						40							
	93.6	0.12		X			45	40							Parallel to bedding, slightly
															weathered, tight.
4	94.5-99.5	[0.78]-[5.78]													Run 4 REC=92% RQD=76%
	95.0	[1.28]						40							
	98.5	[4.78]		X			40	40							Parallel to bedding, weathered.
	98.7-99.5	[4.98]-[5.78]													Core is broken, little recovery.
5	99.5-104.5	[5.78]-[10.78]													Run 5 REC=94% RQD=68%
	102.9	[9.18]		X			55	40					[9.18]-[10.78]		Parallel to bedding, smooth
															polished surface.
	103.3-104.5	[9.58]-[10.78]									X				Core is broken, slickensides on

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			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															core fragments.
6	104.5-109.5	[10.78]-[15.78]													Run 6 REC=100% RQD=98%
	105.7	[11.98]		X			40	40							Parallel to bedding, weathered.
	109.2	[15.48]		X			40	40							Parallel to bedding, weathered.
7	109.5-114.5	[15.78]-[20.78]													Run 7 REC=100% RQD=84%
	114.0	[20.28]		X			40	40					[20.28]-[20.48] LI		Parallel to bedding, extremely
															weathered.
	114.2	[20.48]		X				40							Parallel to bedding, extremely
															weathered.
8	114.5-119.5	[20.78]-[25.78]													Run 8 REC=96% RQD=74%
	115.1-115.5	[21.38]-[21.78]											[21.38]-[21.78]		Core is broken into small pieces.
	116.4	[22.68]		X			70	40							Oblique to bedding, sharp edges,
															cc.
	117.0-118.0	[23.28]-[24.28]		X			75	40							Perpendicular to bedding, sharp
															edges, cc.
	119.0	[25.28]		X			65	40							Parallel to bedding, weathered.
9	119.5-124.5	[25.78]-[30.78]													Run 9 REC=100% RQD=94%
	119.5	[25.78]		X			40	40							Parallel to bedding, weathered.
	124.5	[30.78]		X			40	40							Parallel to bedding, weathered.
10	124.5-129.5	[30.78]-[35.78]													Run 10 REC=100% RQD=94%
	124.5	[30.78]		X			40	40							Parallel to bedding, weathered.
	129.2	[35.48]				X									Weathered, open, rounded

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			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															fracture.
11	129.5-134.5	[35.78]-[40.78]													Run 11 REC=100% RQD=96%
	132.9	[39.18]		X			35	35							Parallel to bedding, smooth, slightly
															weathered.
	134.3	[40.58]		X			35	35							Parallel to bedding, weathered.
12	134.5-139.5	[40.78]-[45.78]													Run 12 REC=100% RQD=90%
	134.5-135.0	[40.78]-[41.28]	X				45	35					[40.78]-[41.58] LI		Perpendicular to bedding, at least
															0.5' offset.
	135.3	[41.58]				X	28	28							Parallel to bedding, significant py
															coating.
	136.2	[42.48]			X		15	28							Parallel to bedding, cc.
	137.0	[43.28]			X	X							[43.28]		Filled and open fractures, parallel
															to bedding, ~0.05' offset.
	137.8	[44.08]	X				45	30							Slightly deformed beds,
															perpendicular to bedding, ~0.12'
															offset.
	138.9	[45.18]	X				45	30							Perpendicular to bedding, cc.
13	139.5-144.5	[45.78]-[50.78]													Run 13 REC=100% RQD=72%
	139.5-141.2	[45.78]-[47.48]			X		35	35					[45.78]-[51.78]		Perpendicular to bedding, series of
															thin cc- filled fractures.
	141.2-144.5	[47.48]-[50.78]													Bedding is severely deformed,
															many cc-filled fractures, offsets.

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			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
	141.5	[47.78]		X			60								Smooth polished surface,
															deformed beds, weathered.
	142.5-143.5	[48.78]-[49.78]		X											Arc-shaped open fracture, cc,
															core is broken into angular pieces,
															filled fractures, deformed beds.
	143.5-144.1	[49.78]-[50.38]													Very fragile core, intense filled
															fractures.
14	144.5-149.5	[50.78]-[55.78]													Run 14 REC=100% RQD=76%
	144.5-145.5	[50.78]-[51.78]													Deformed beds, broken core.
	146.1	[52.38]		X			45	45					[52.38]-[52.98]		Open, perpendicular to bedding.
	146.5	[52.78]	X				45	45							Parallel to bedding, cc, thin.
	146.7	[52.98]		X			50	45							Perpendicular to bedding, 0.2'
															open, weathered.
	147.0-149.5	[53.28]-[55.78]													Tar odor, sheen, trace product in
															circulation water.
	148.0	[54.28]		X			60	45							Perpendicular to bedding,
															weathered, minor offset, tar on
															core in fracture, lost water.
15	149.5-154.5	[55.78]-[60.78]													Run 15 REC=100% RQD=90%
															Lost water.
	149.5	[55.78]	X				60	45							Thin, oblique to bedding, cc-filled,
															0.07' offset.

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			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
	151.5-151.8	[57.78]-[58.08]											[57.78]-[58.08]		Series of thick cc-filled fractures,
															0.05' offset, open fracture at
															151.7, cc and py.
	153.5	[59.78]	X				40	45							Perpendicular to bedding, thin, cc-
															filled.
	154.2-154.5	[60.48]-[60.78]		X			85	45					[60.48]-[61.98] V		Near vertical, open.
16	154.5-159.5	[60.78]-[65.78]													Run 16 REC=100% RQD=98%
															Lost water.
	154.5-155.7	[60.78]-[61.98]		X			90	45							Vertical, tight.
	157.0	[63.28]						35							
17	159.5-164.5	[65.78]-[70.78]													Run 17 REC=100% RQD=98%
															Lost water.
	161.0	[67.28]						35							
	161.5	[67.78]											[67.78]		Deformed bedding with filled
															fractures.
18	164.5-169.5	[70.78]-[75.78]													Run 18 REC=100% RQD=76%
	166.1	[72.38]		X			35	35					[72.38]-[80.58] LI		Parallel to bedding, weathered.
	166.5	[72.78]		X			35	35							Parallel to bedding, weathered.
	166.8	[73.08]		X											Core is broken, open fractures.
	167.0-169.5	[73.28]-[75.78]													Deformed beds, cc-filled fractures,
															open 65° fractures every 0.3'.
19	169.5-174.5	[75.78]-[80.78]													Run 19 REC=98% RQD=64%

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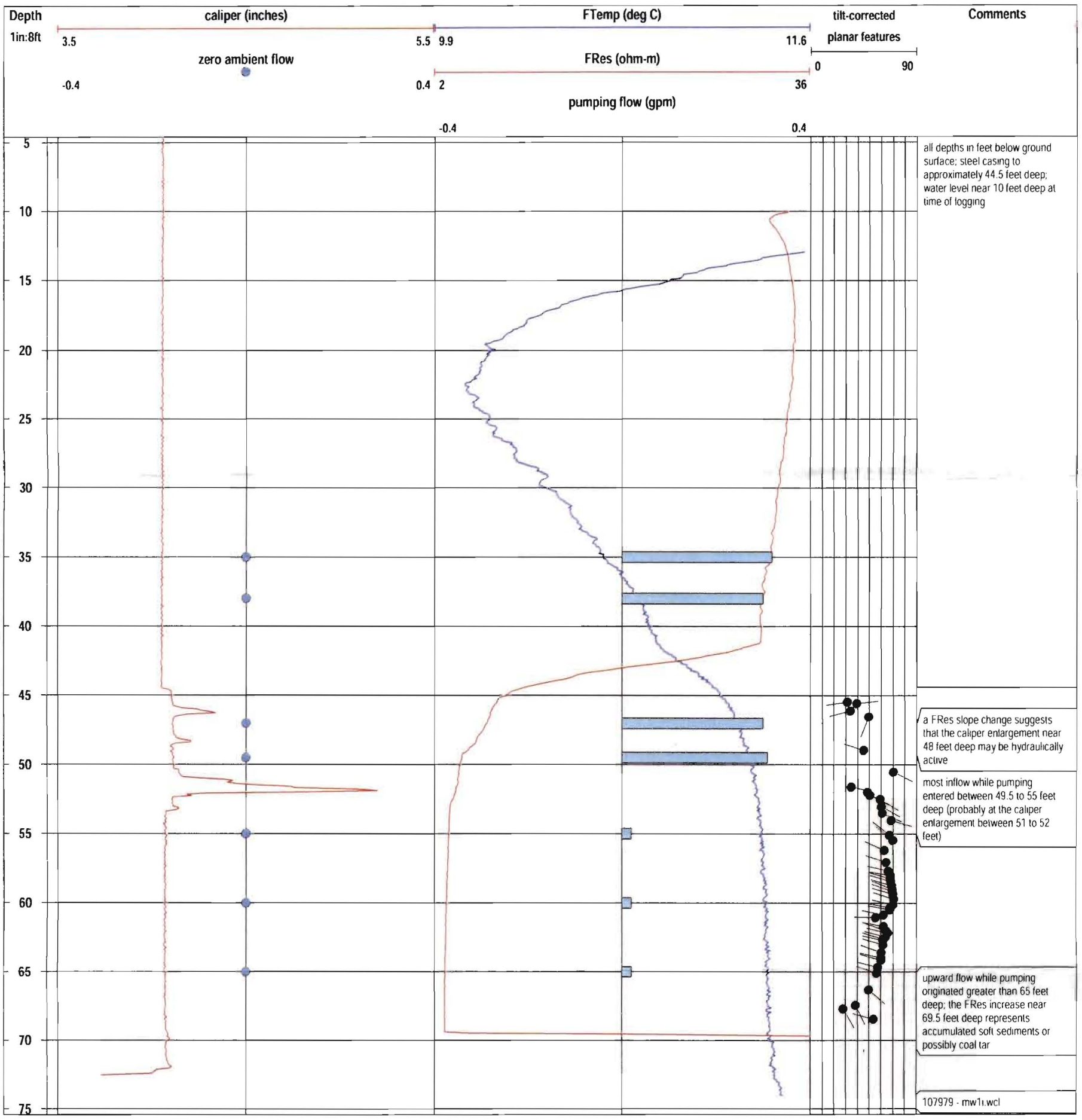
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			HF	HO	LF	LO	Fracture	Bedding	Type	Form	SS	BC			
															Lost water.
	169.5-171.5	[75.78]-[77.78]													Deformed beds, offsets, filled
															fractures, open fractures,
															weathered.
	171.5-172.6	[77.78]-[78.88]													Deformed beds, offsets, filled
															fractures.
	172.6	[78.88]		X			80								Weathered, open.
	172.6-174.3	[78.88]-[80.58]													Deformed beds, offsets, filled
															fractures.

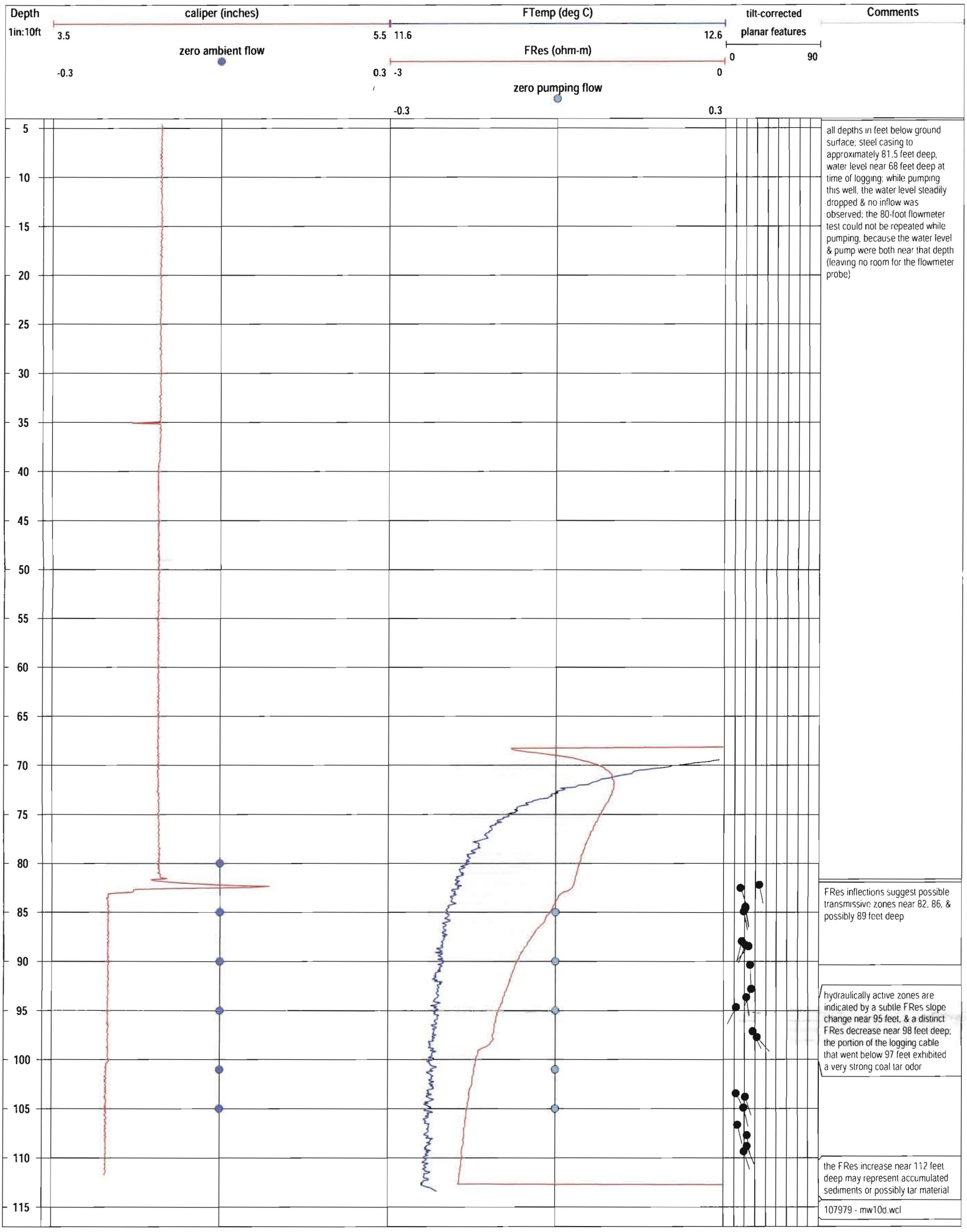
APPENDIX C

Geophysical Logs

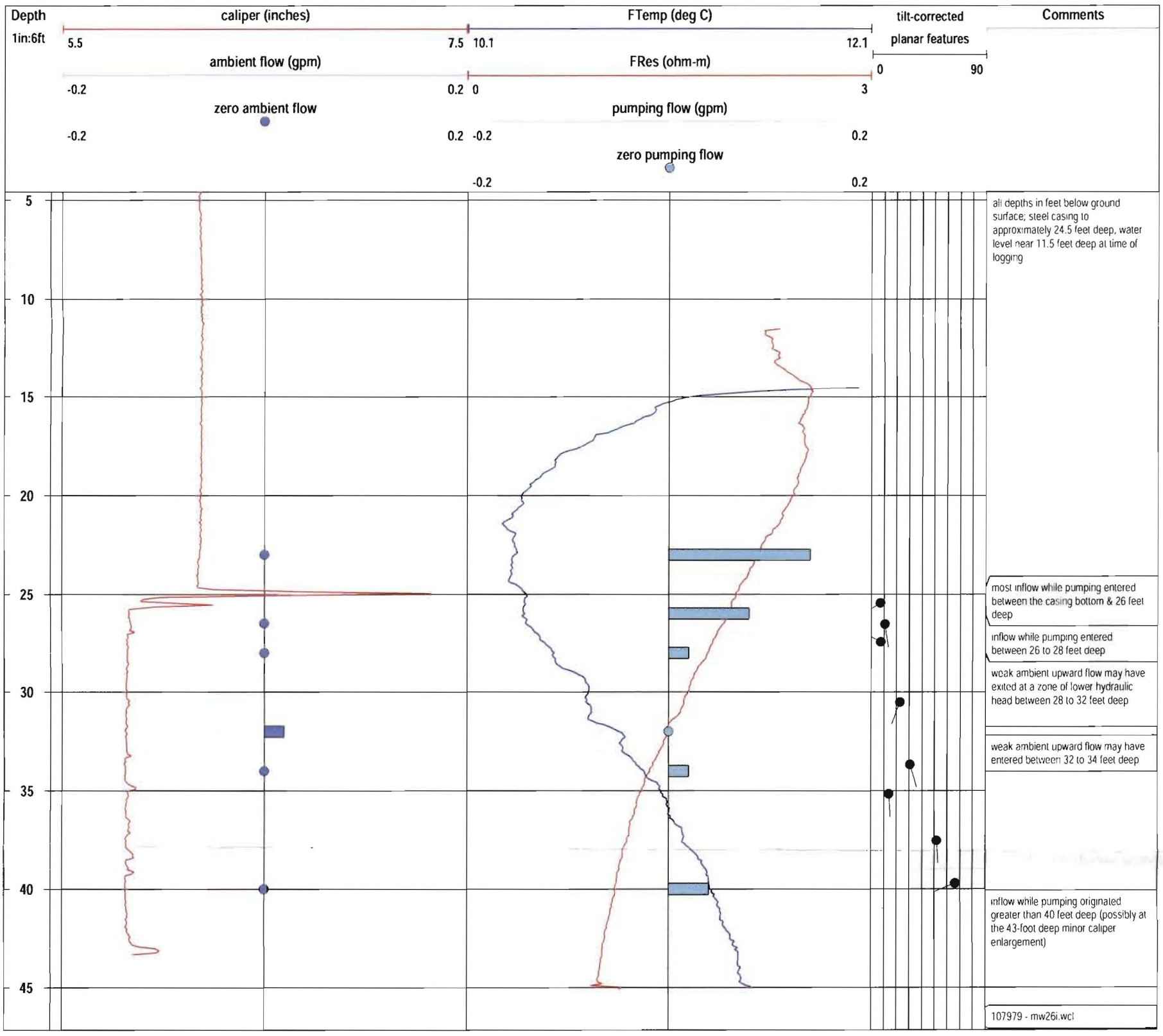
Project: Earth Tech / Mechanicville, NY - MW-1i conventional logs



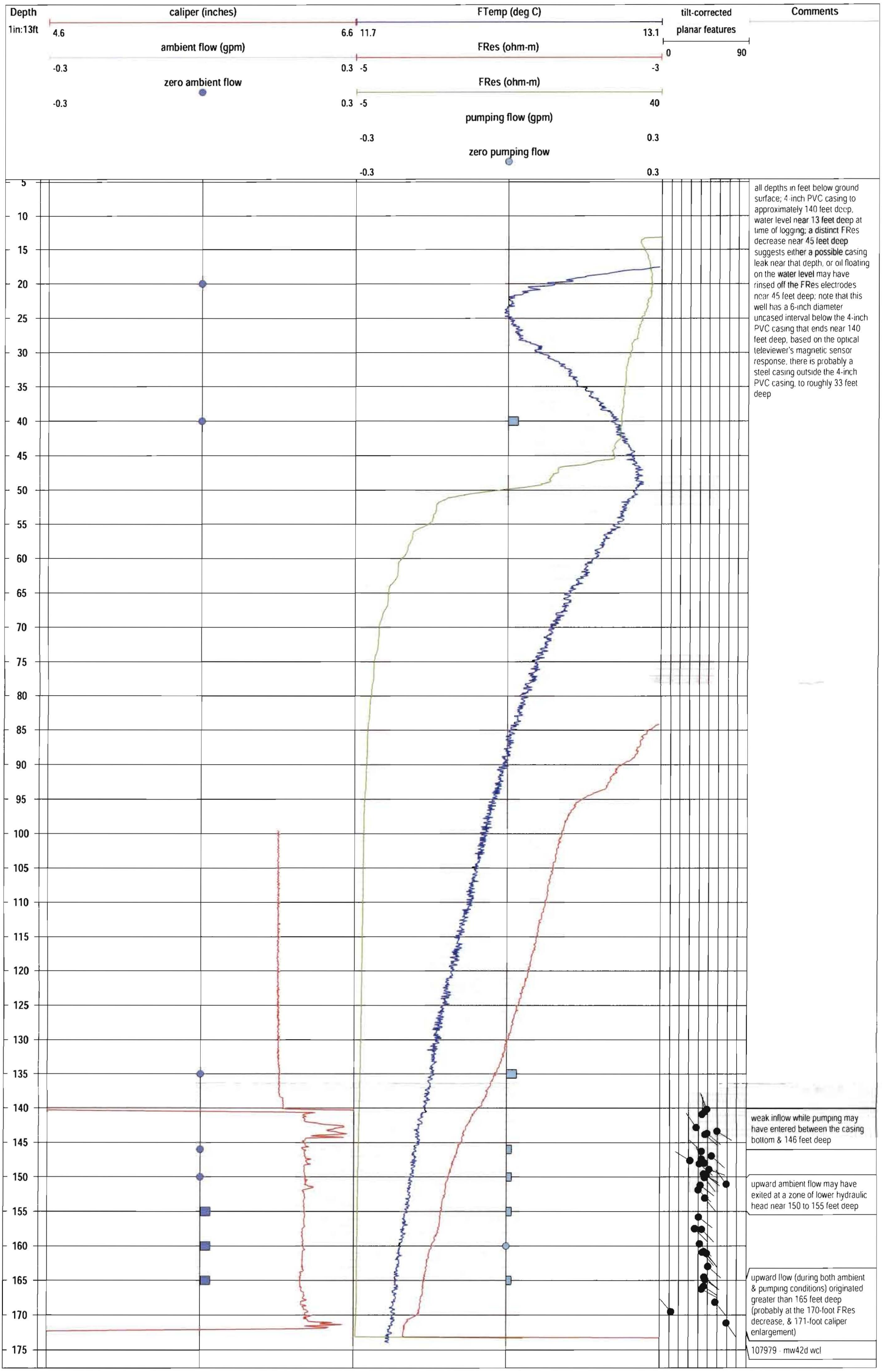
Project: Earth Tech / Mechanicville, NY - MW-10d conventional logs



Project: Earth Tech / Mechanicville, NY - MW-26i conventional logs



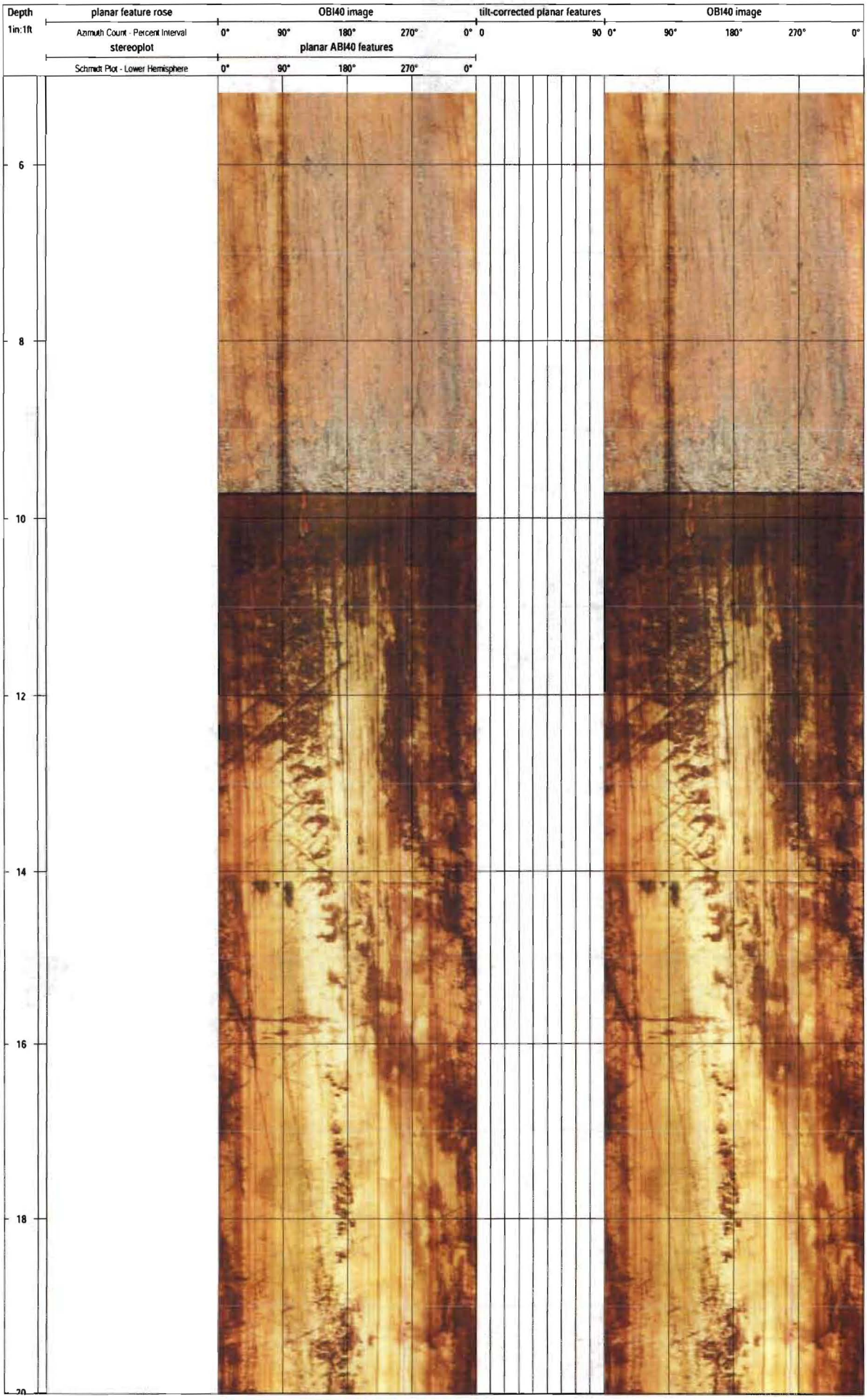
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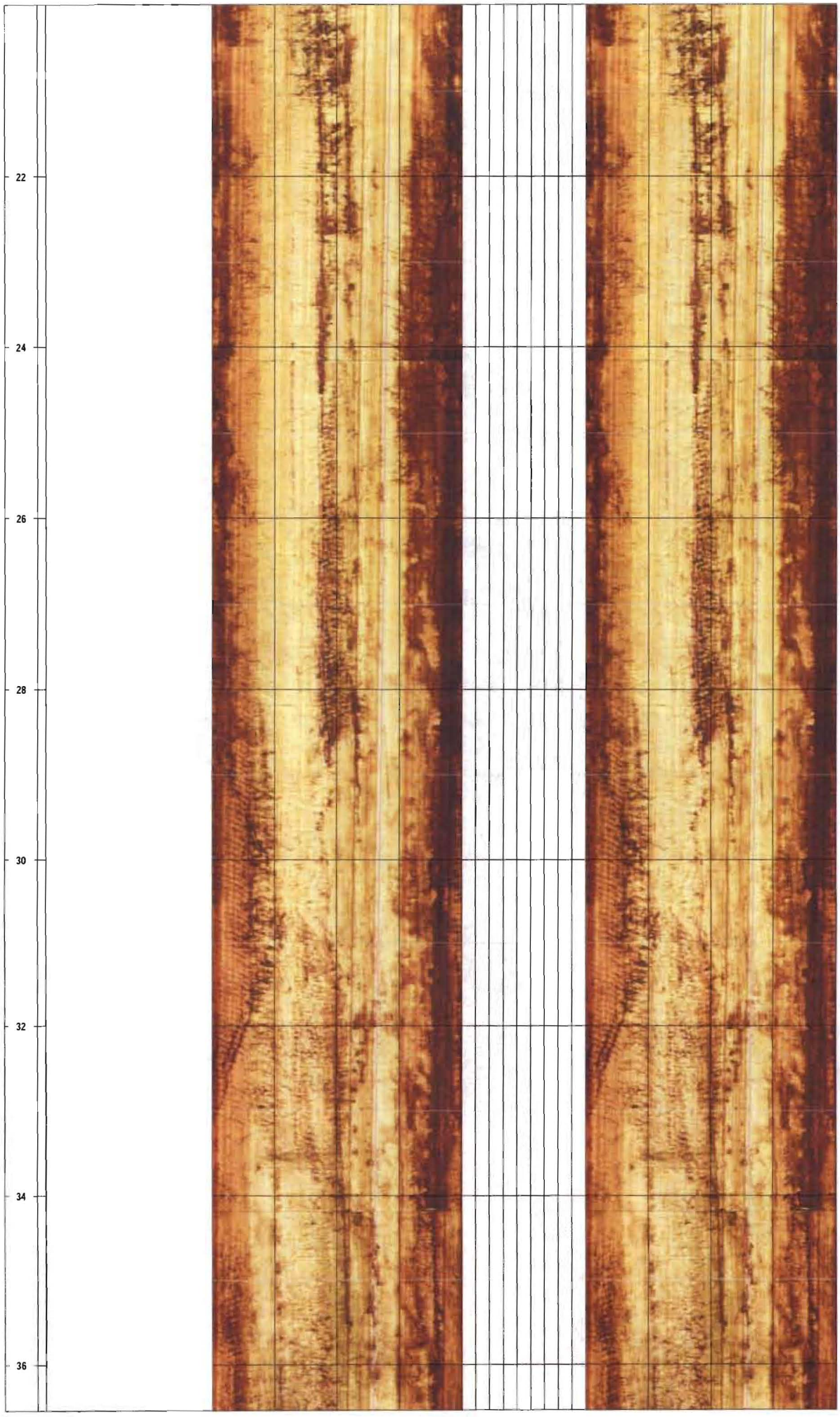


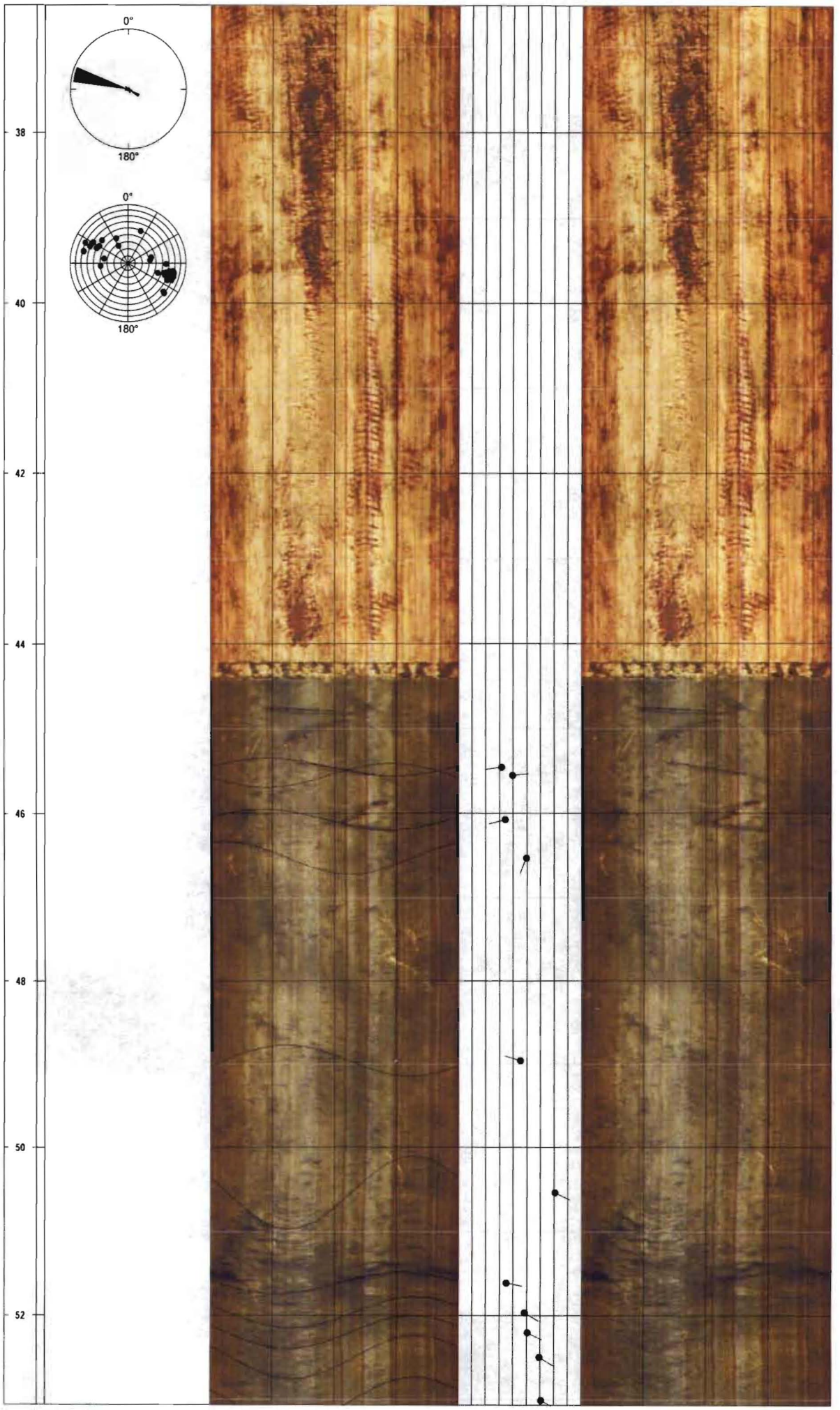
APPENDIX D

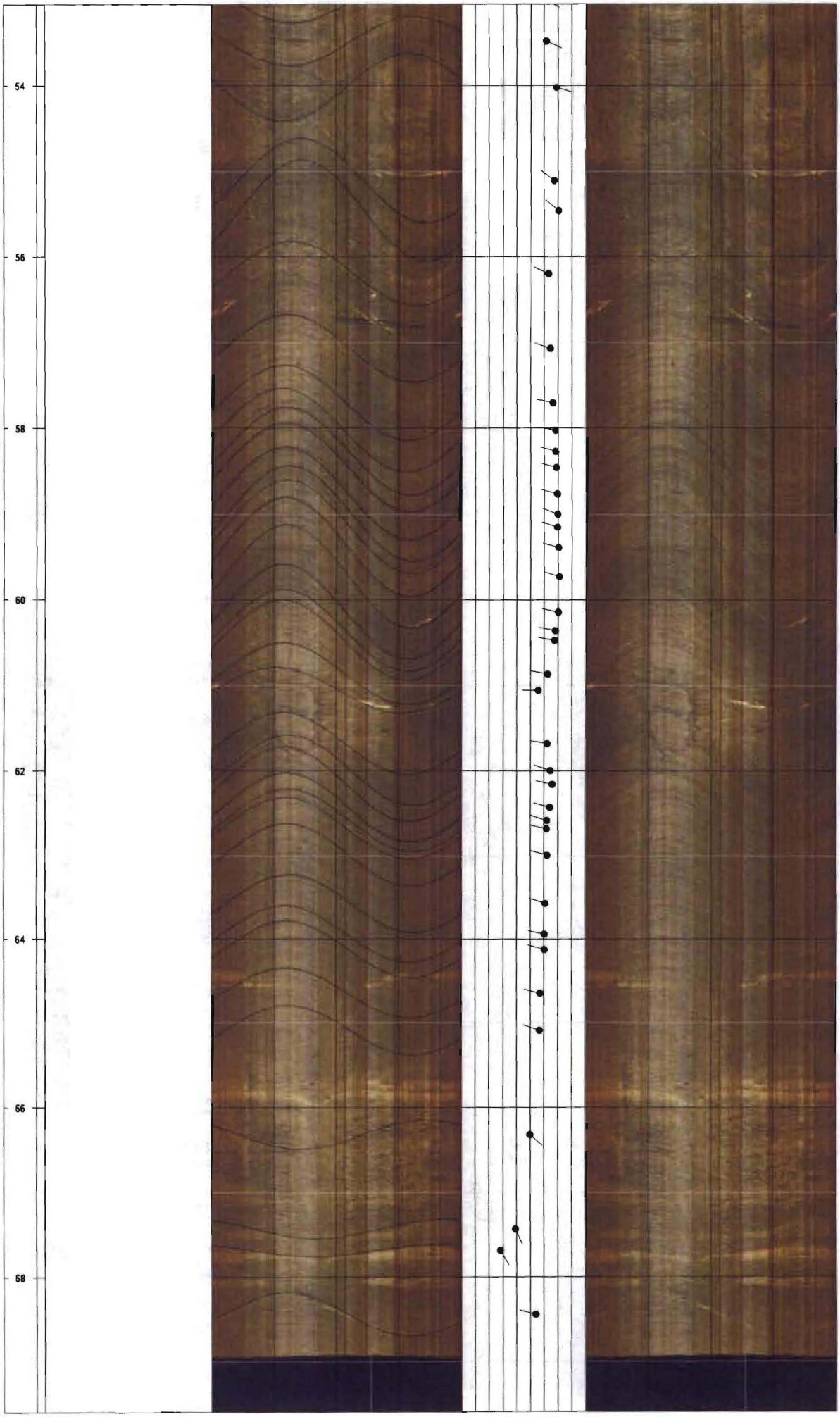
Televiewer Interpretations

Project: Earth Tech / Mechanicville, NY - MW-1i optical televiewer log

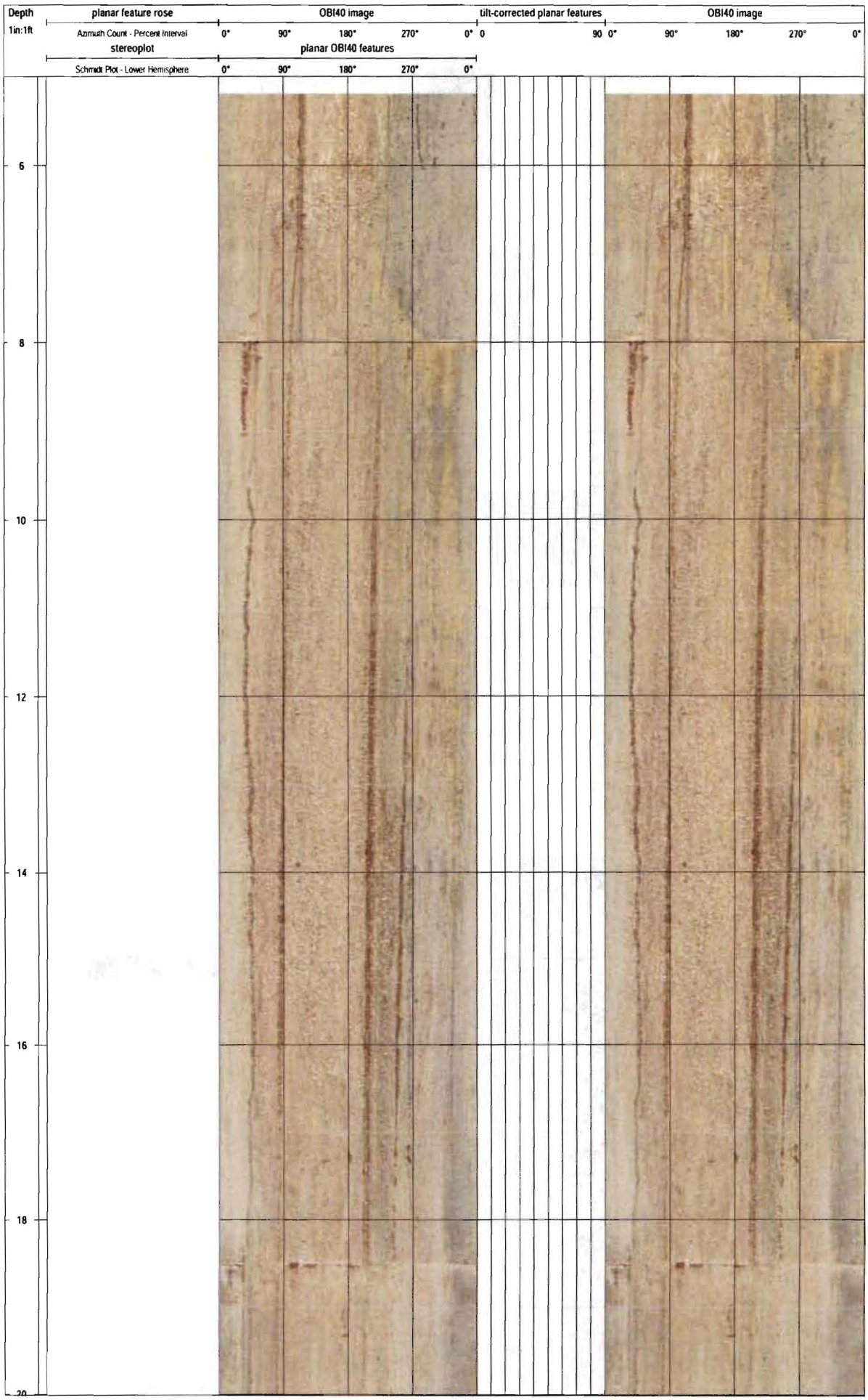


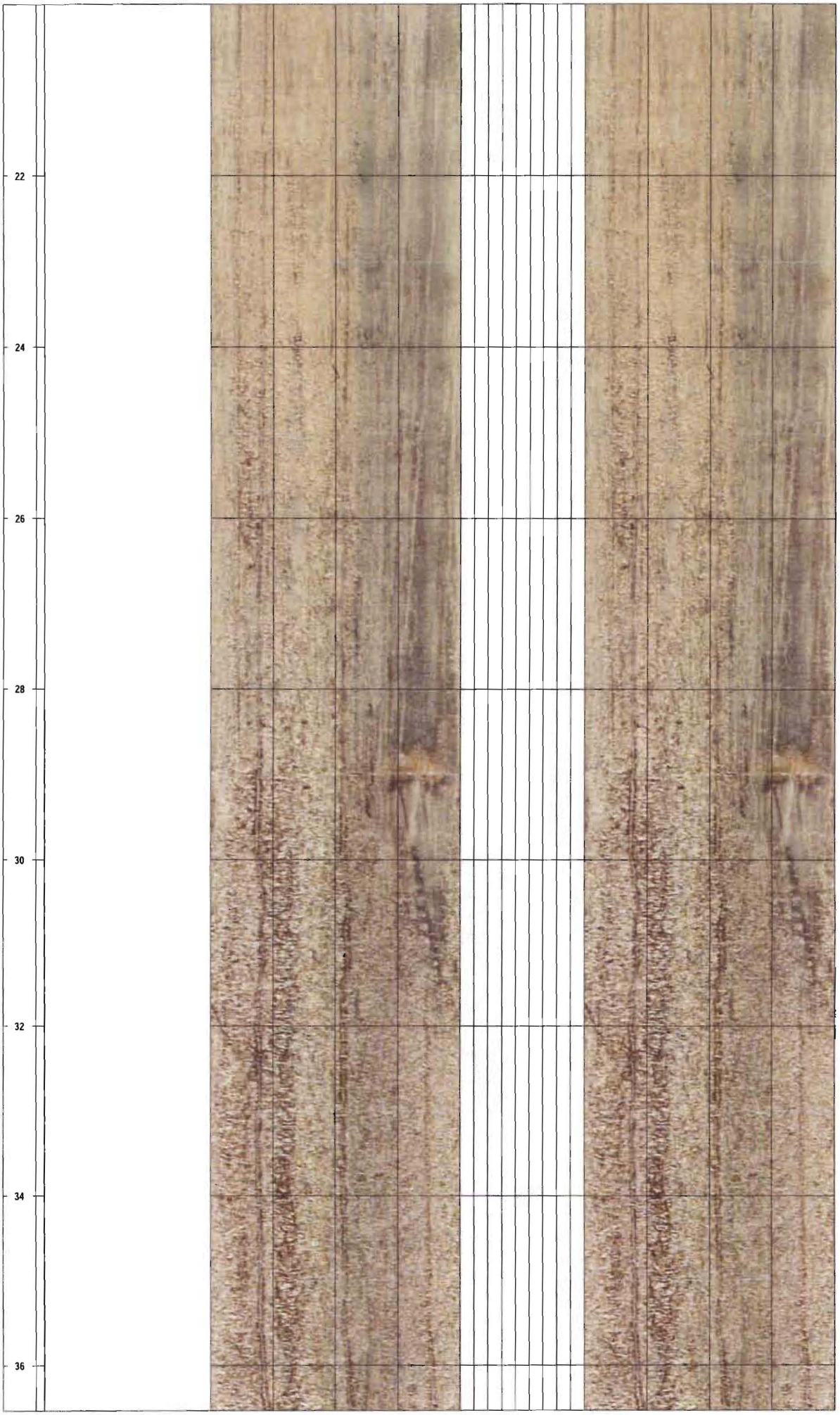

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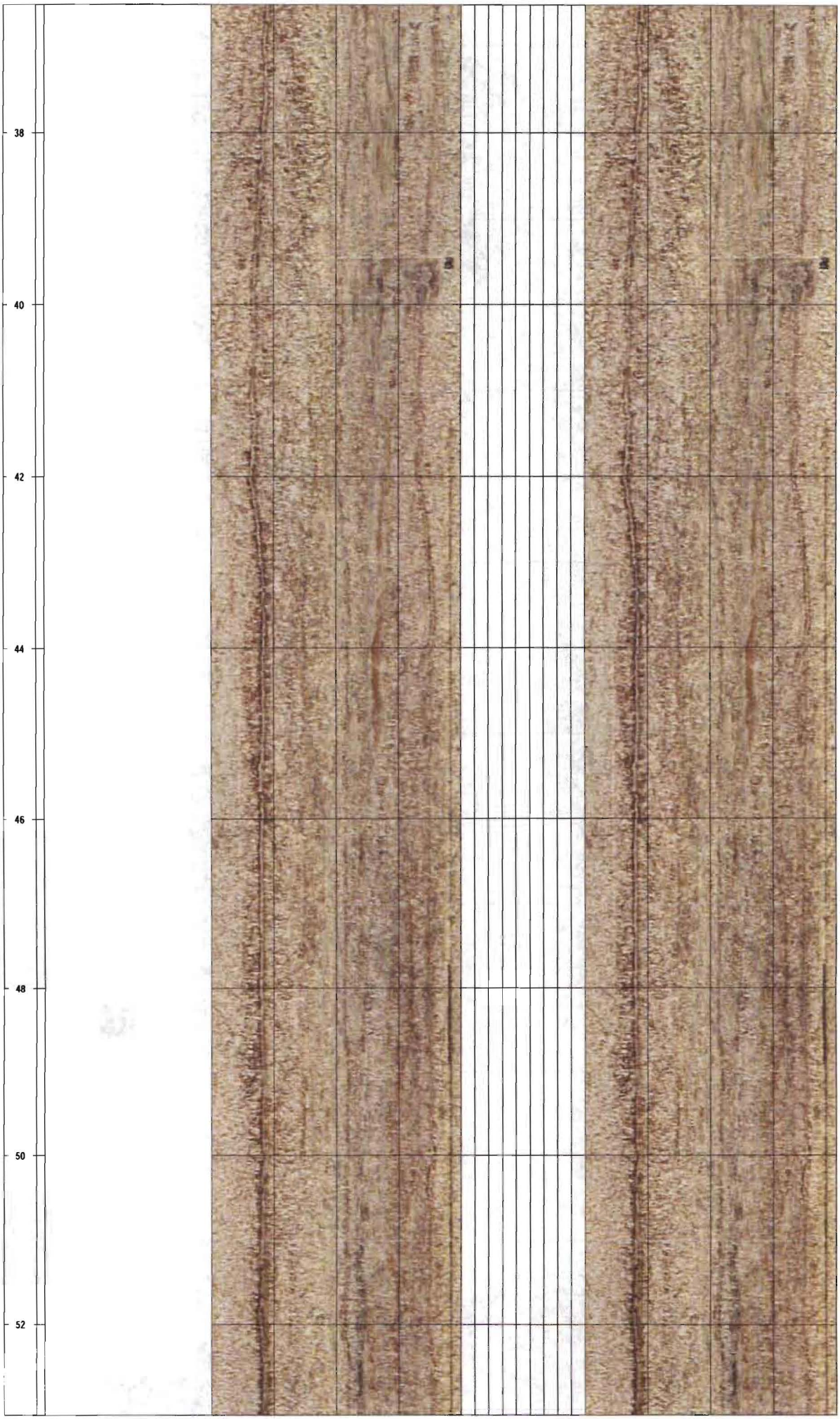

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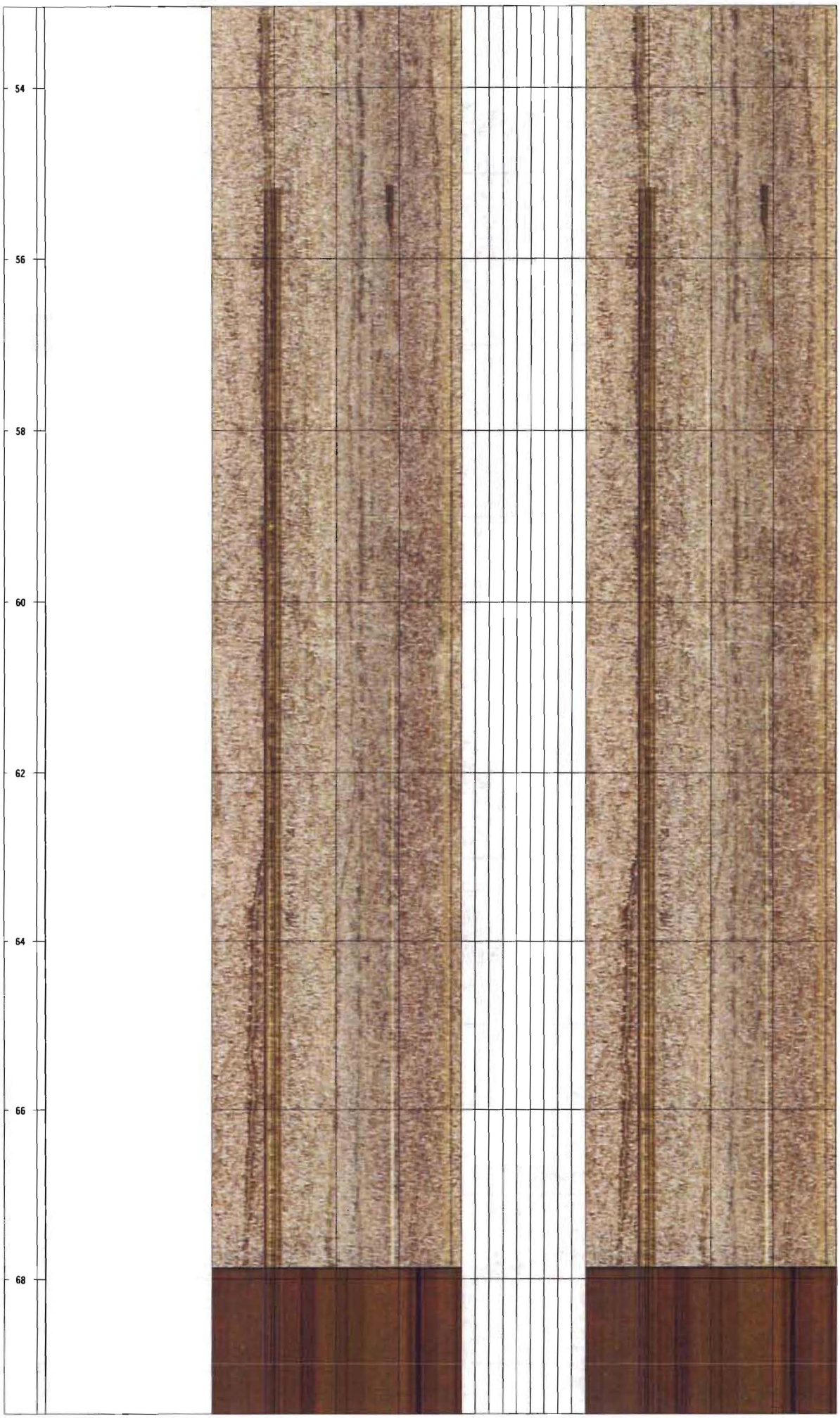

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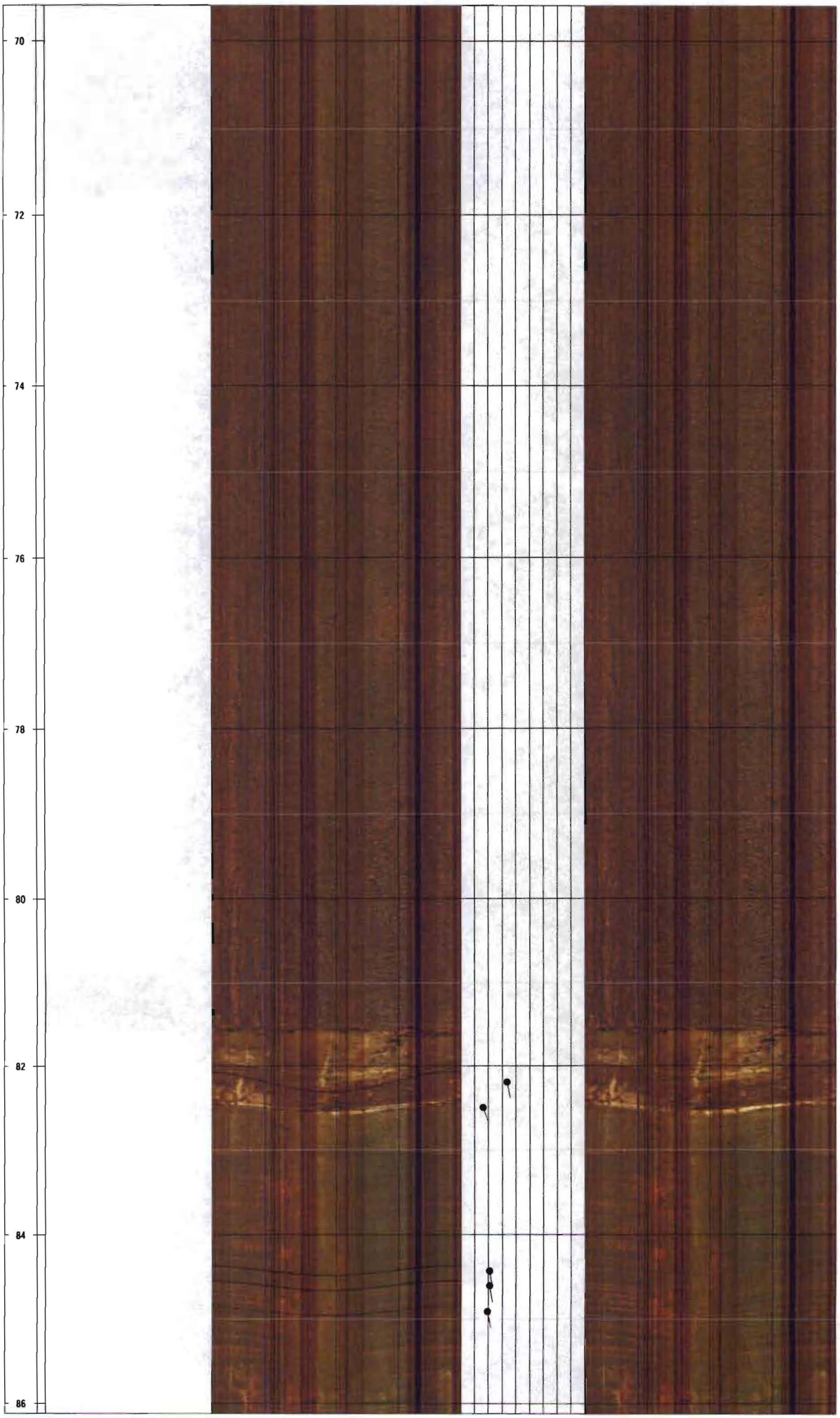
Project: Earth Tech / Mechanicville, NY - MW-10d optical televiewer log

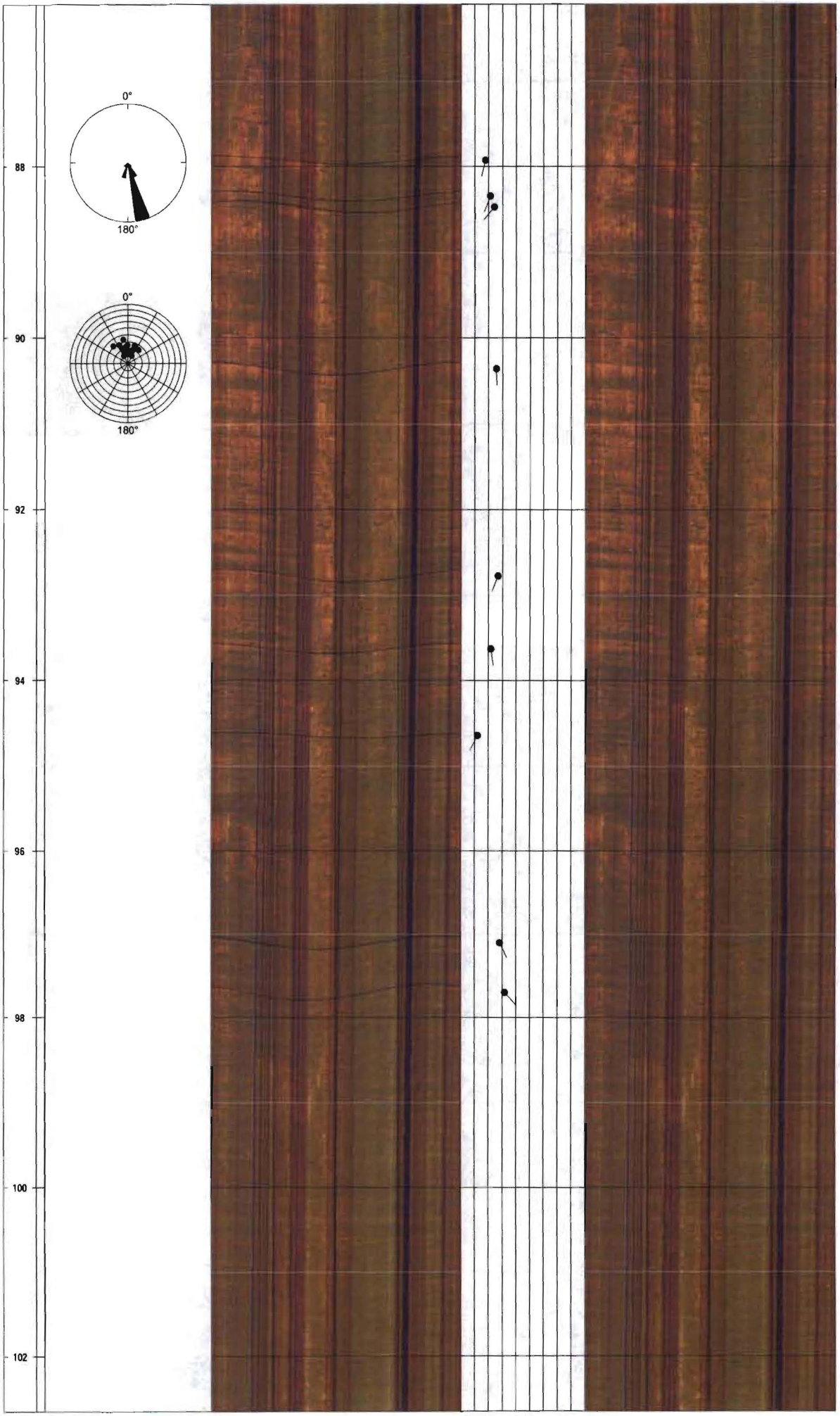


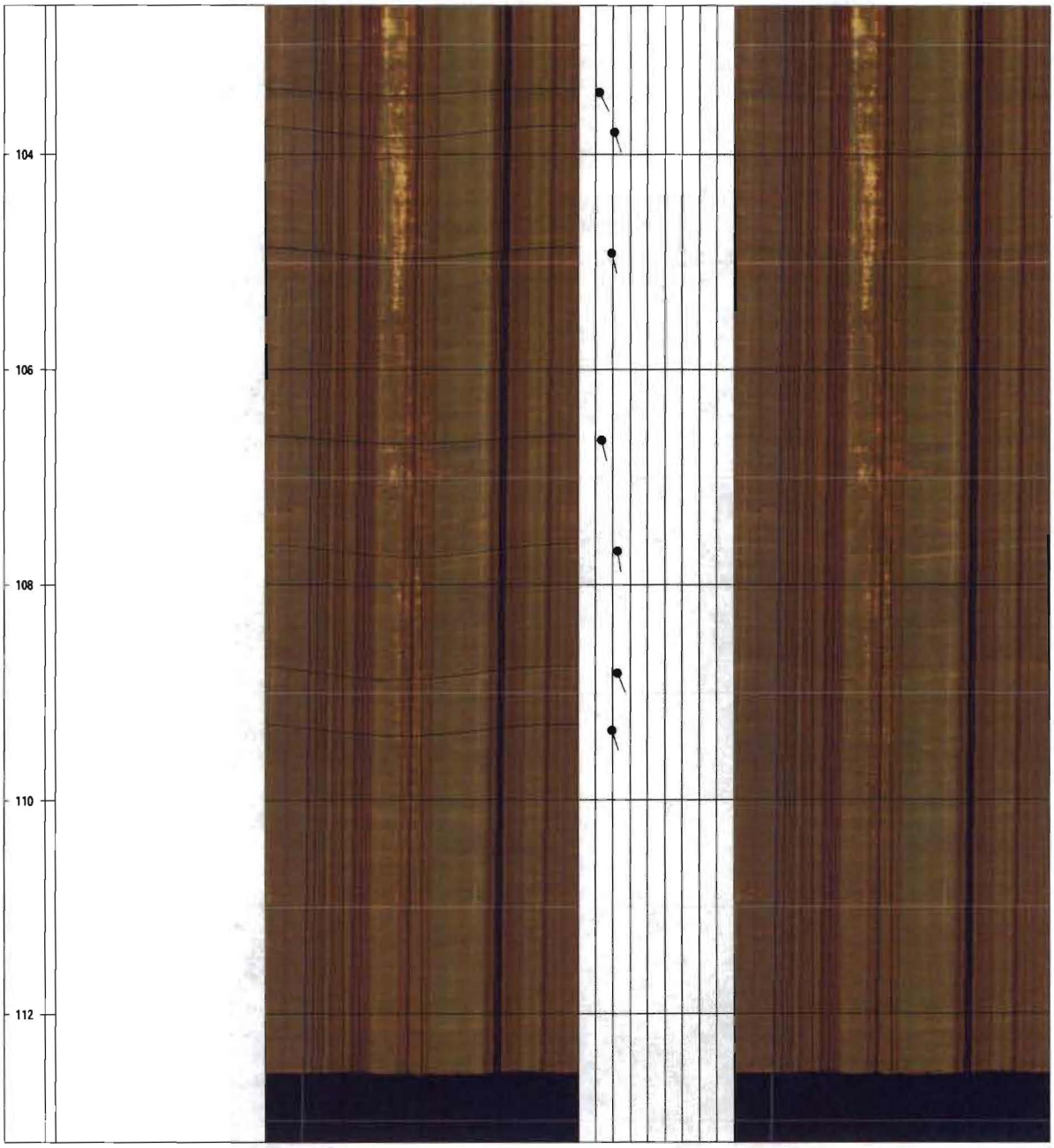

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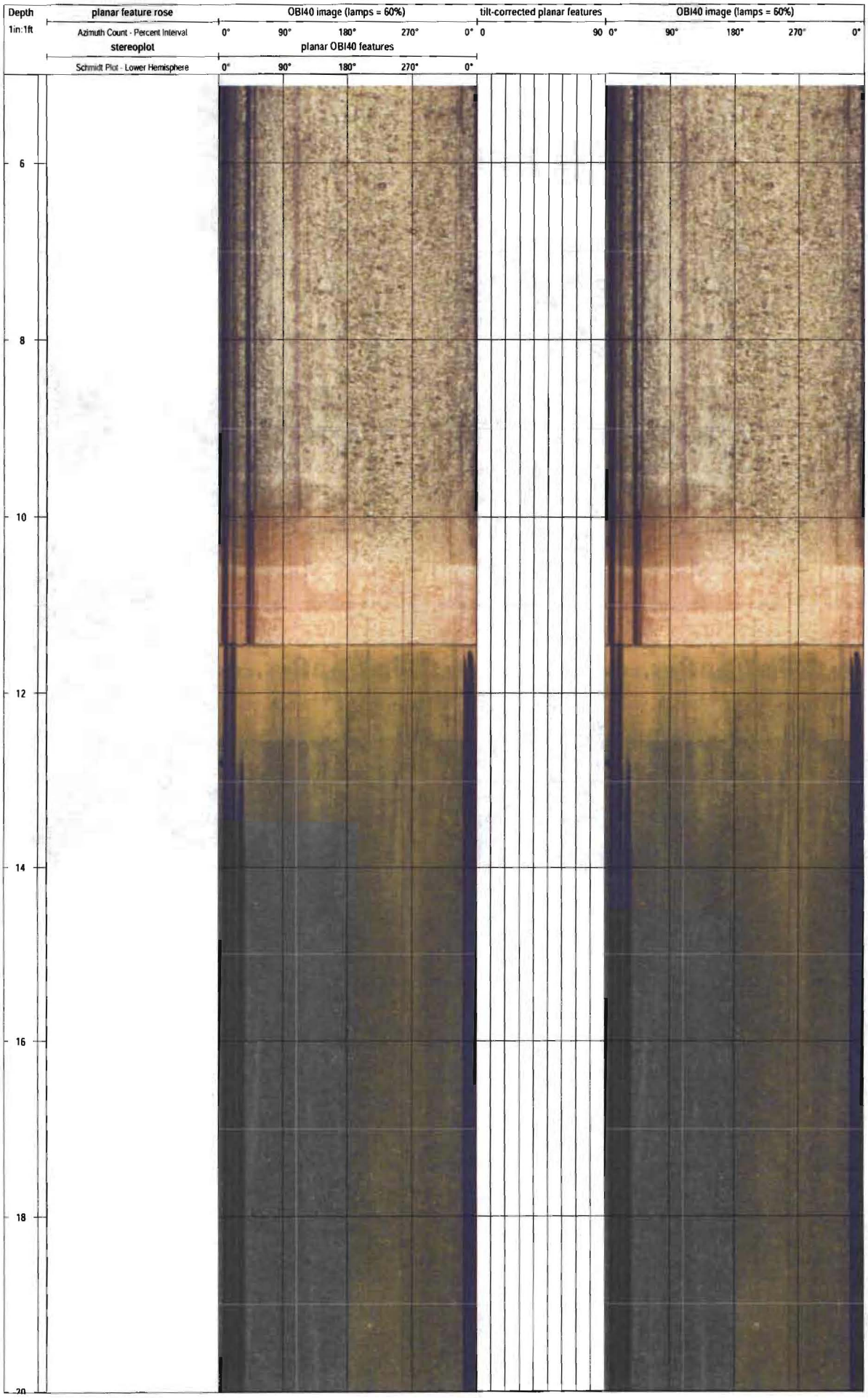

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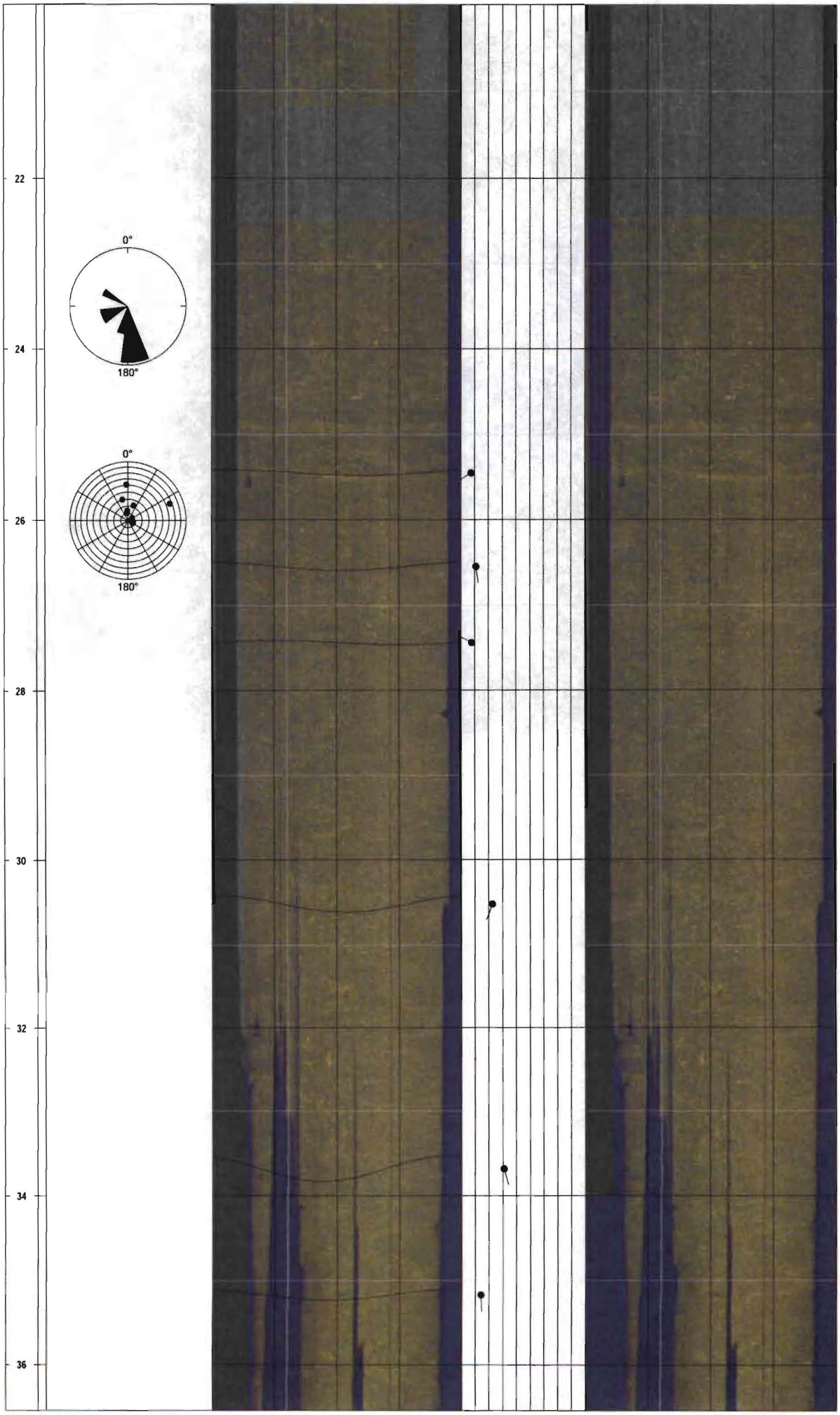

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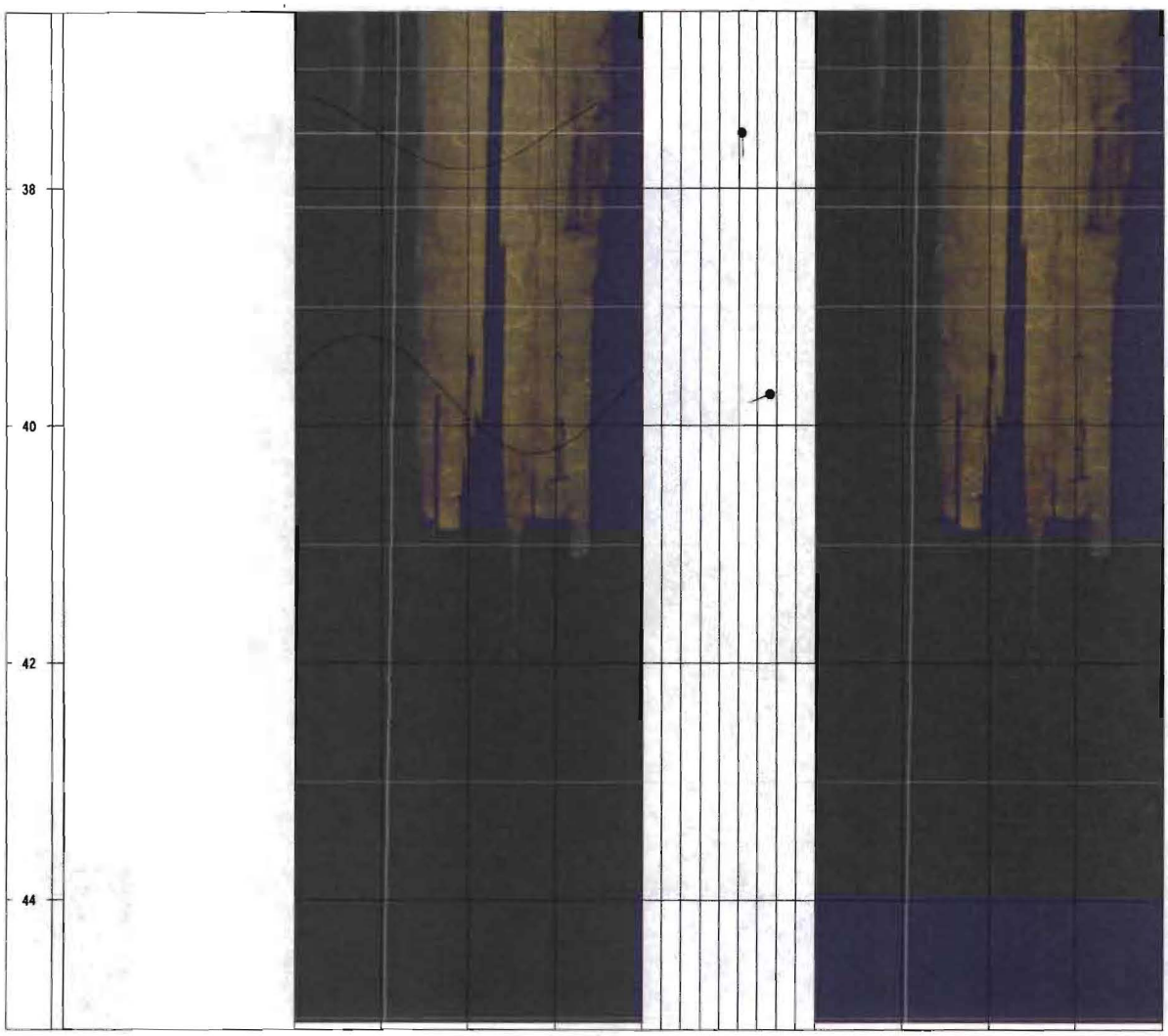

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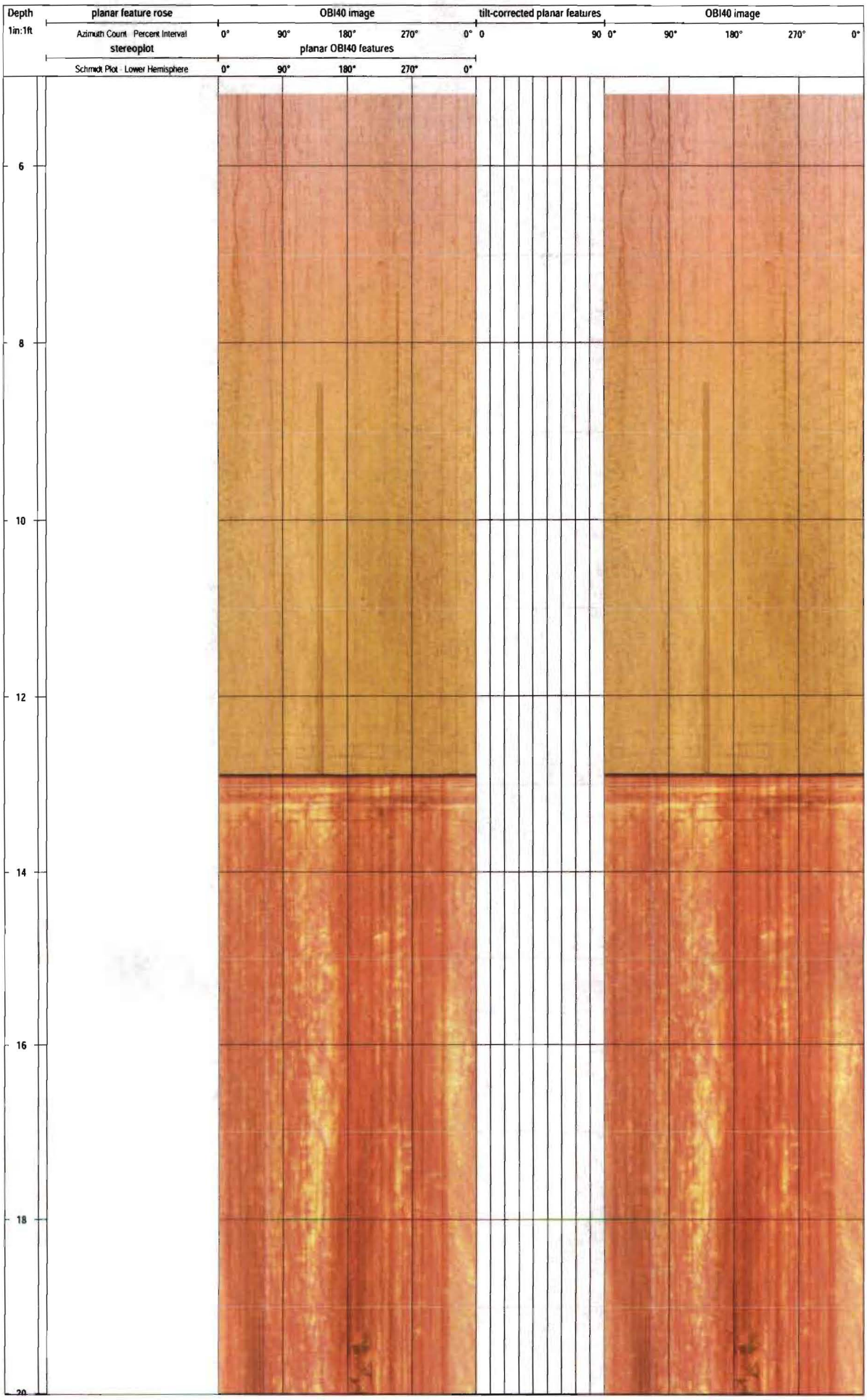
Project: Earth Tech / Mechanicville, NY - MW-26i optical televiewer log

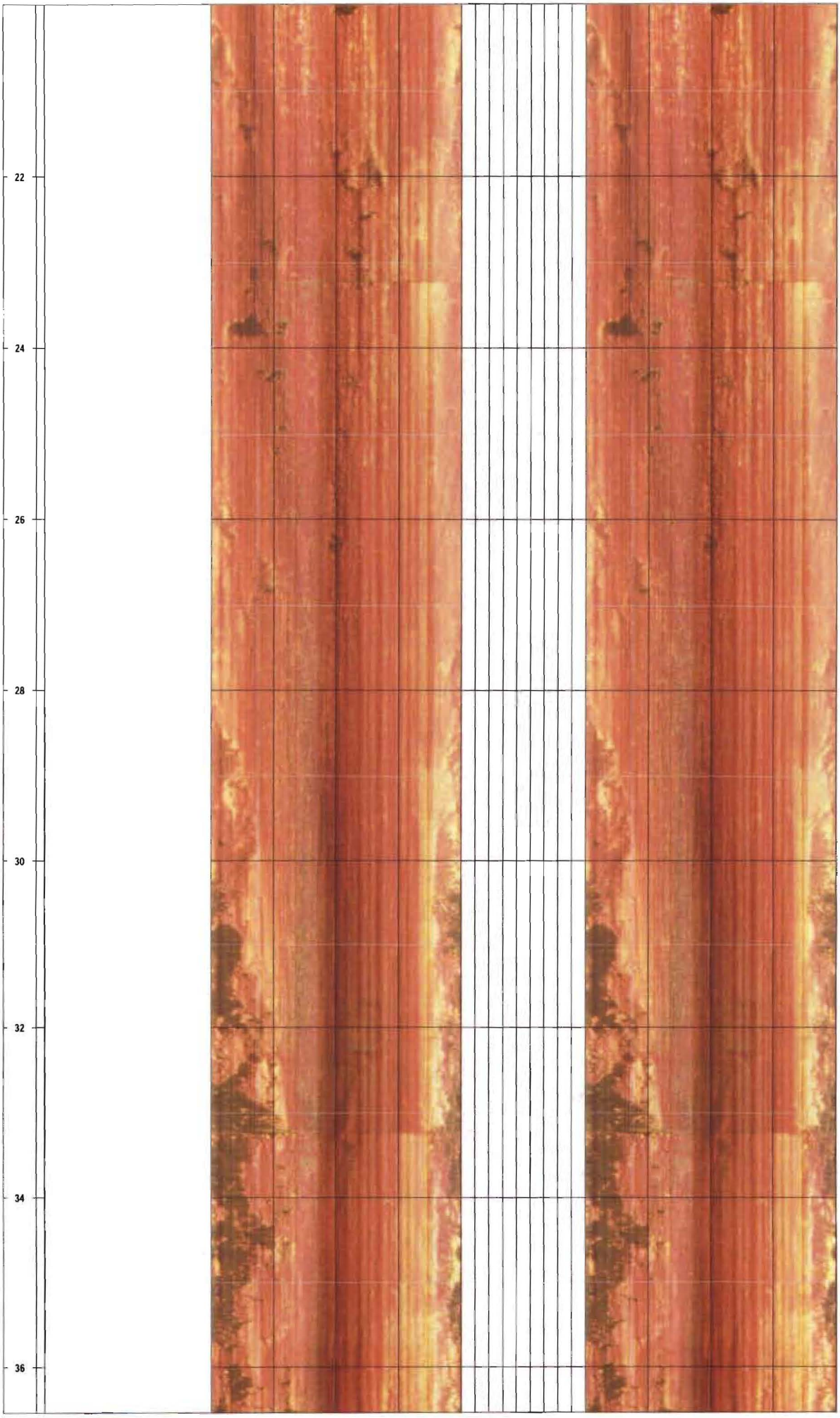


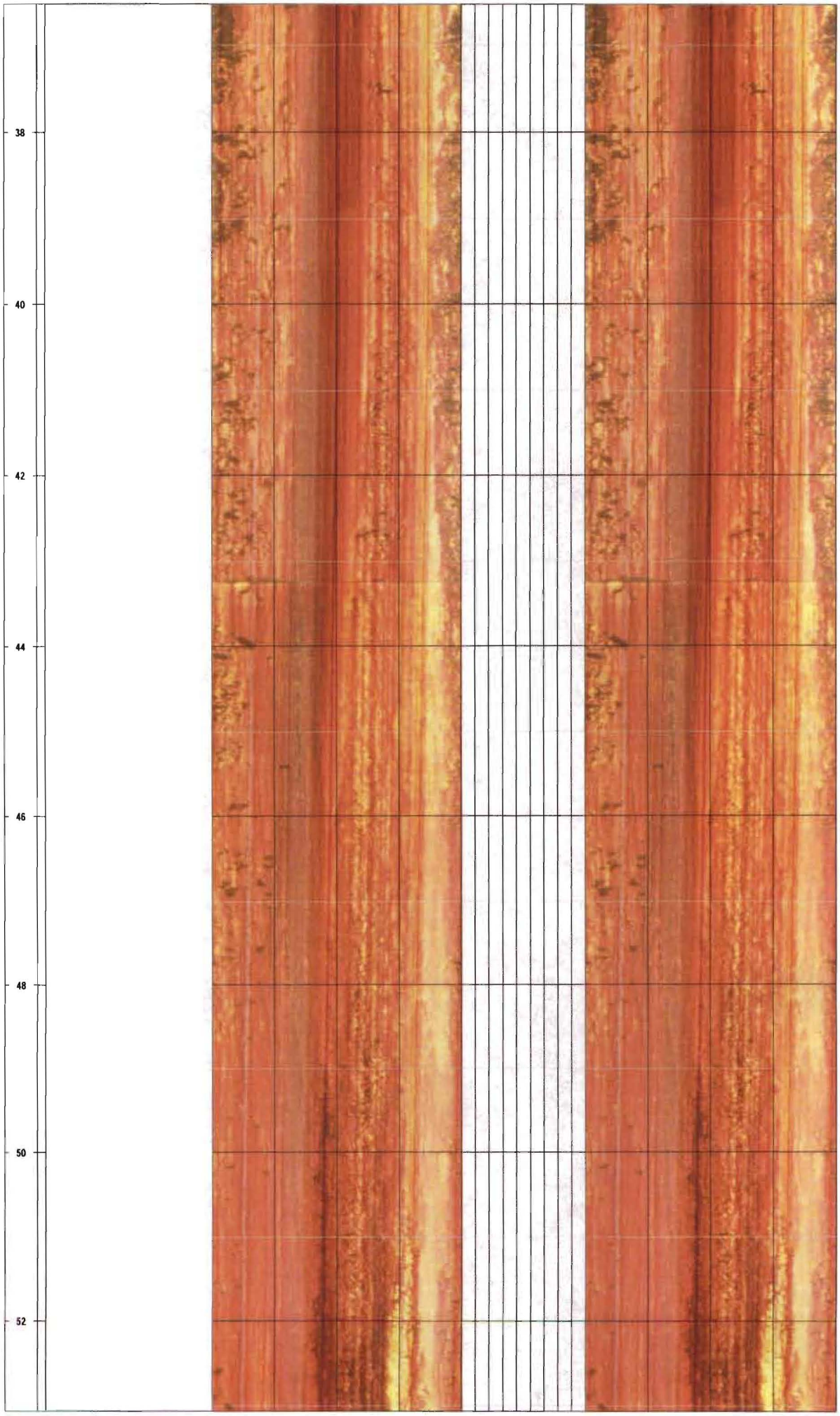

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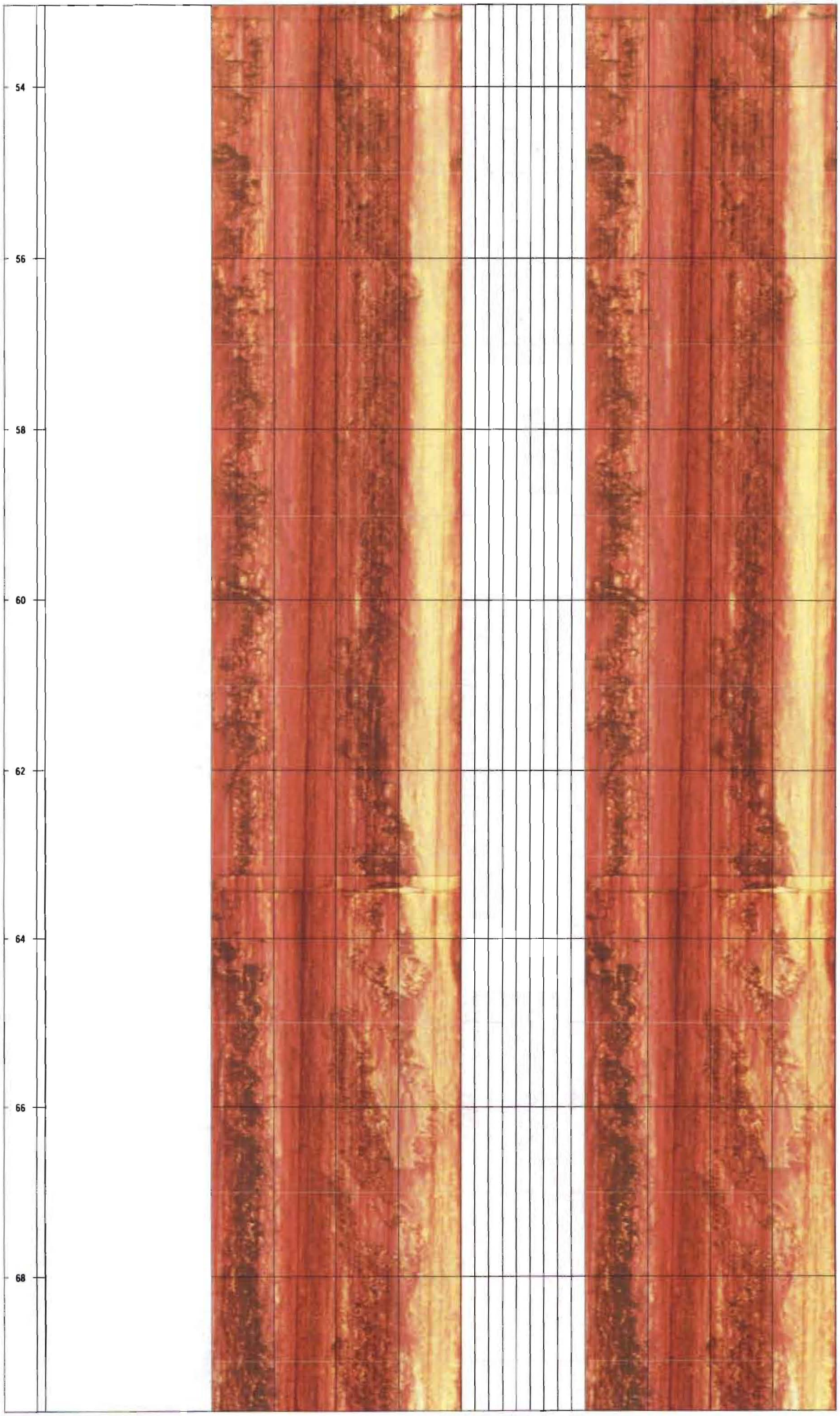

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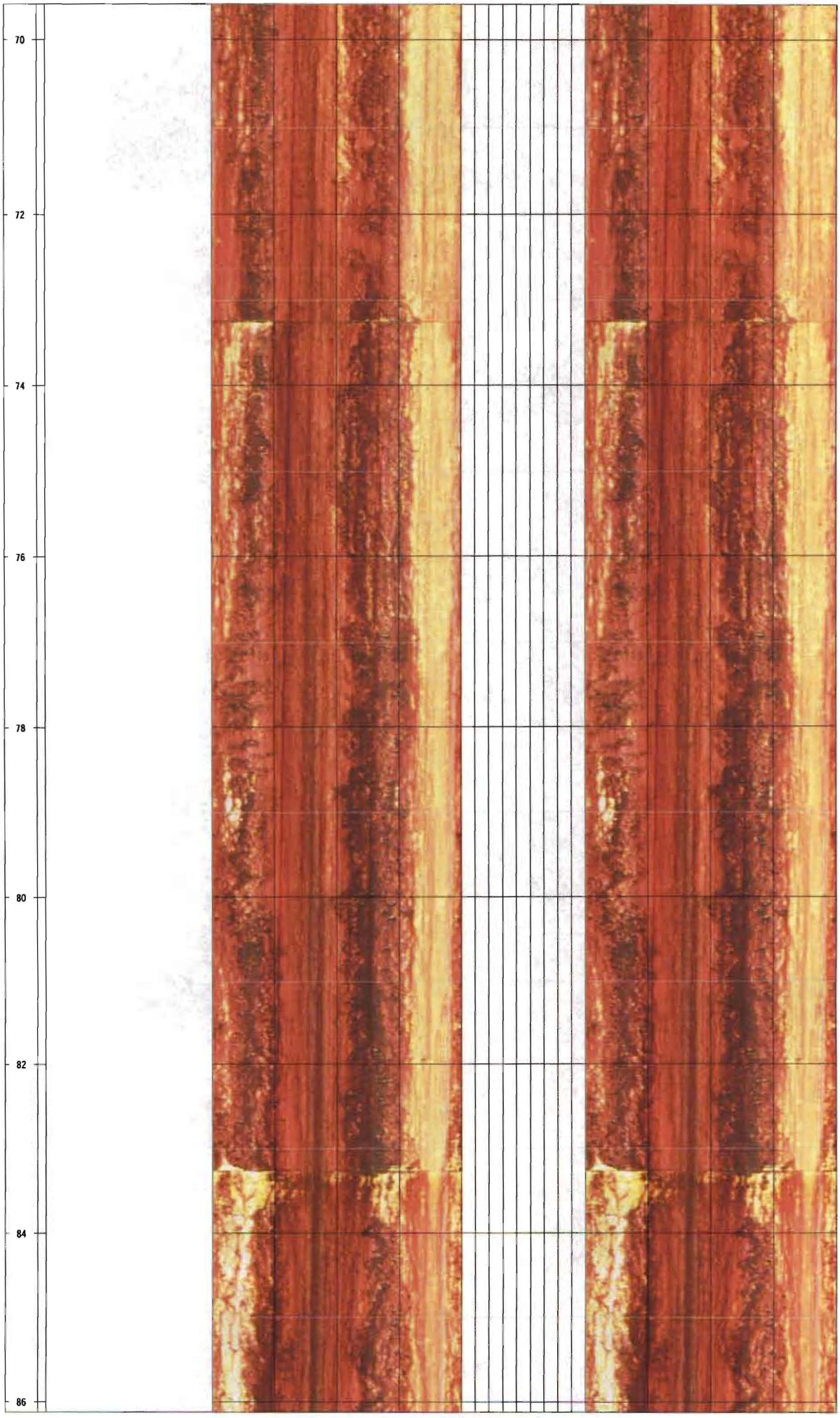
Project: Earth Tech / Mechanicville, NY - MW-42d optical televiewer log

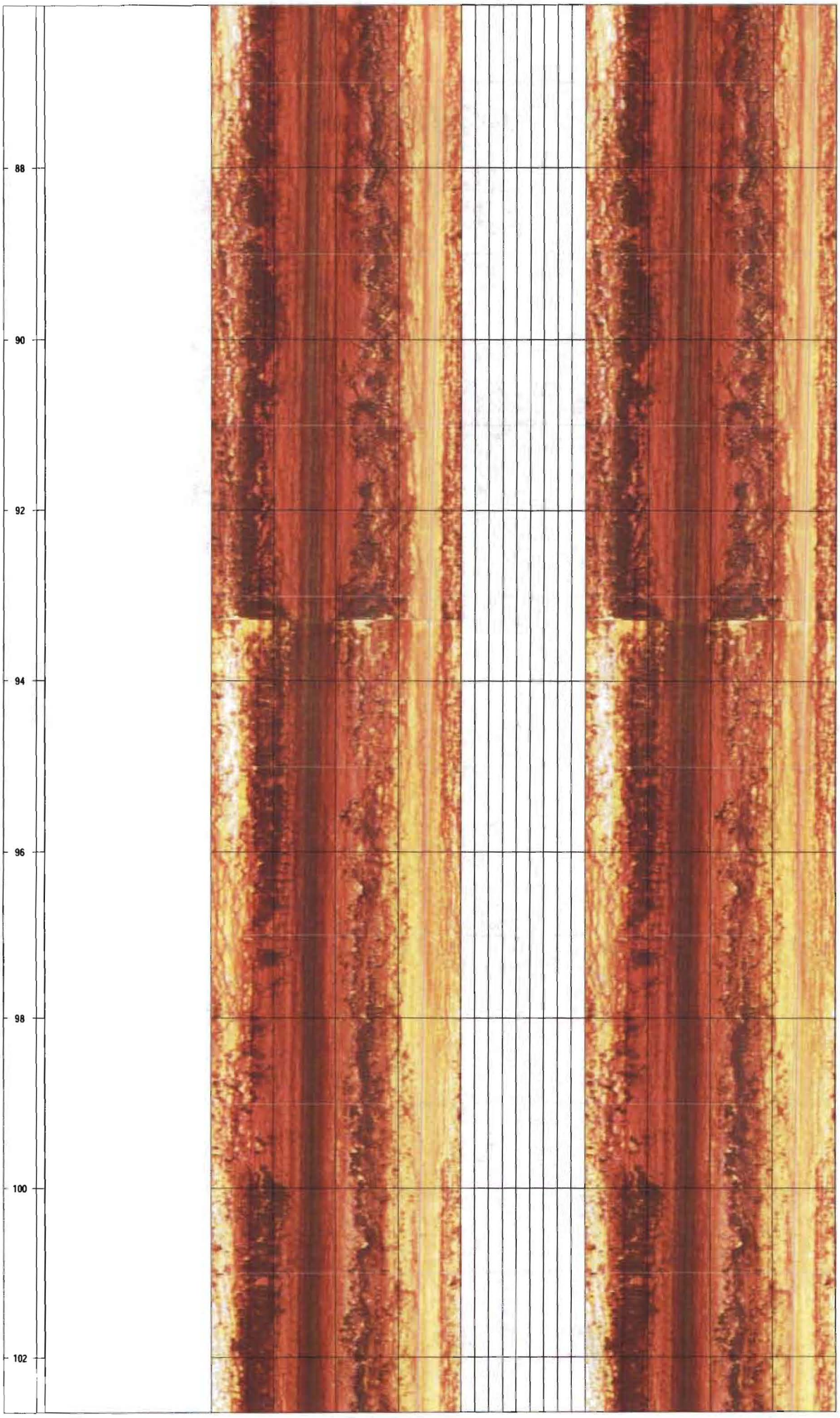


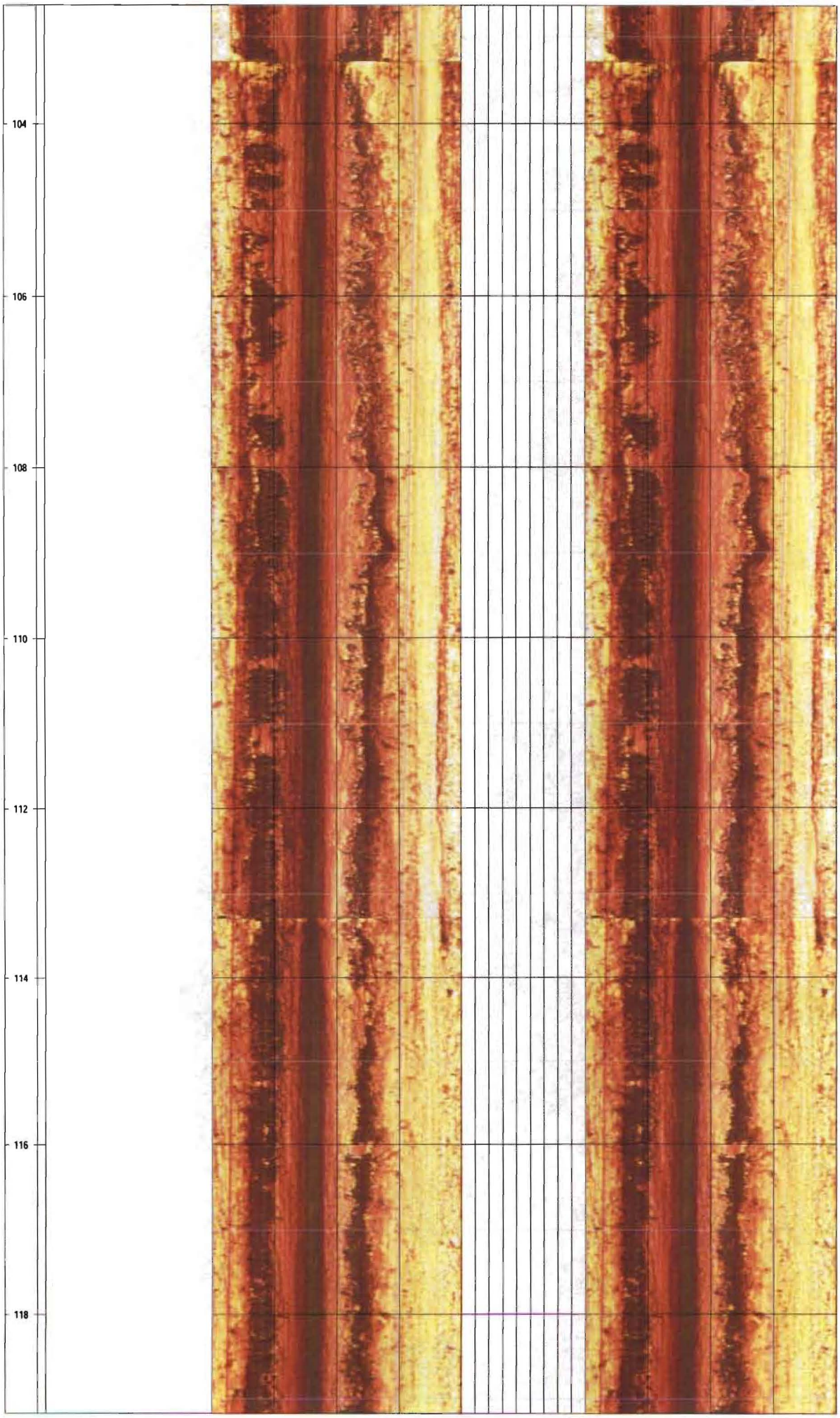

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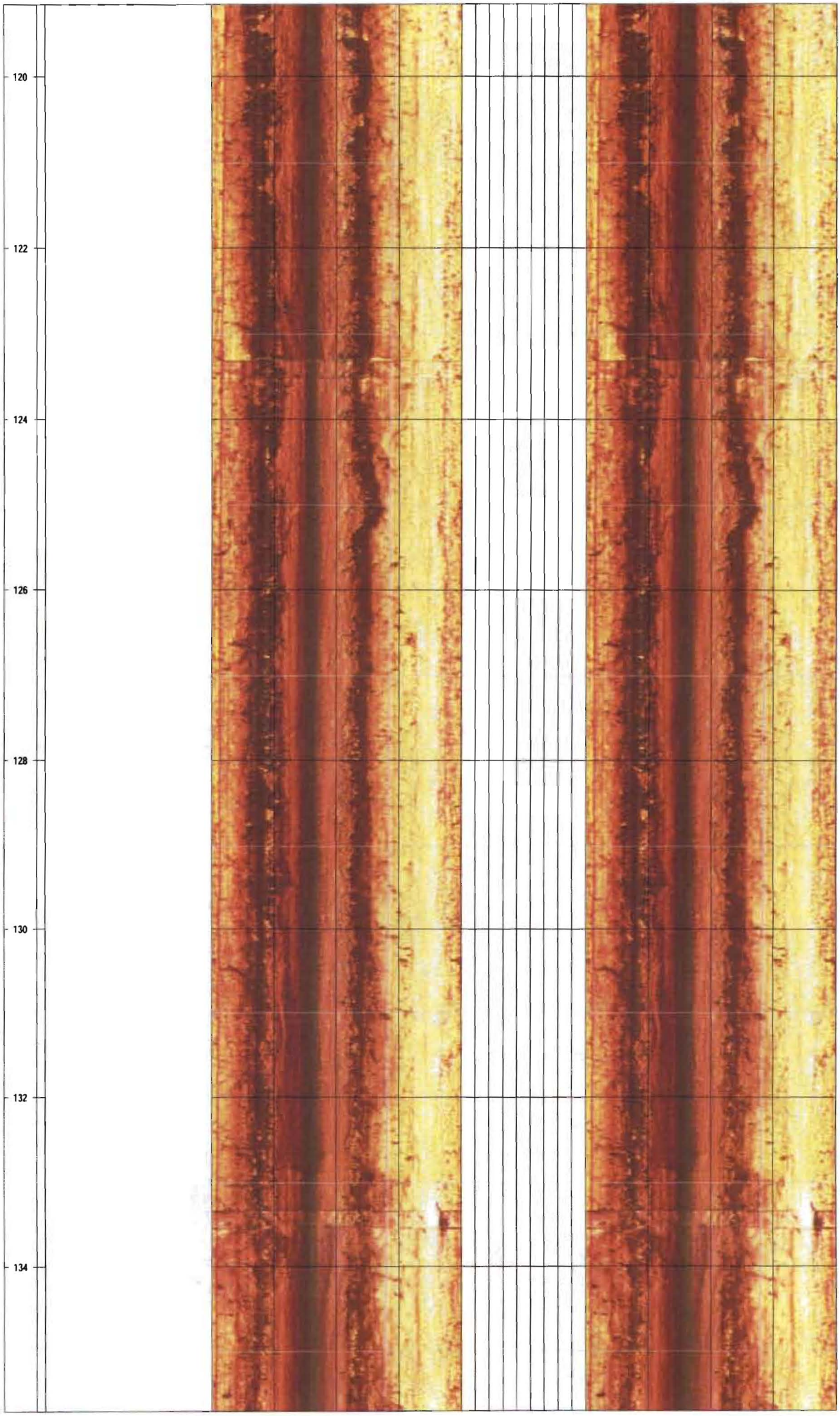

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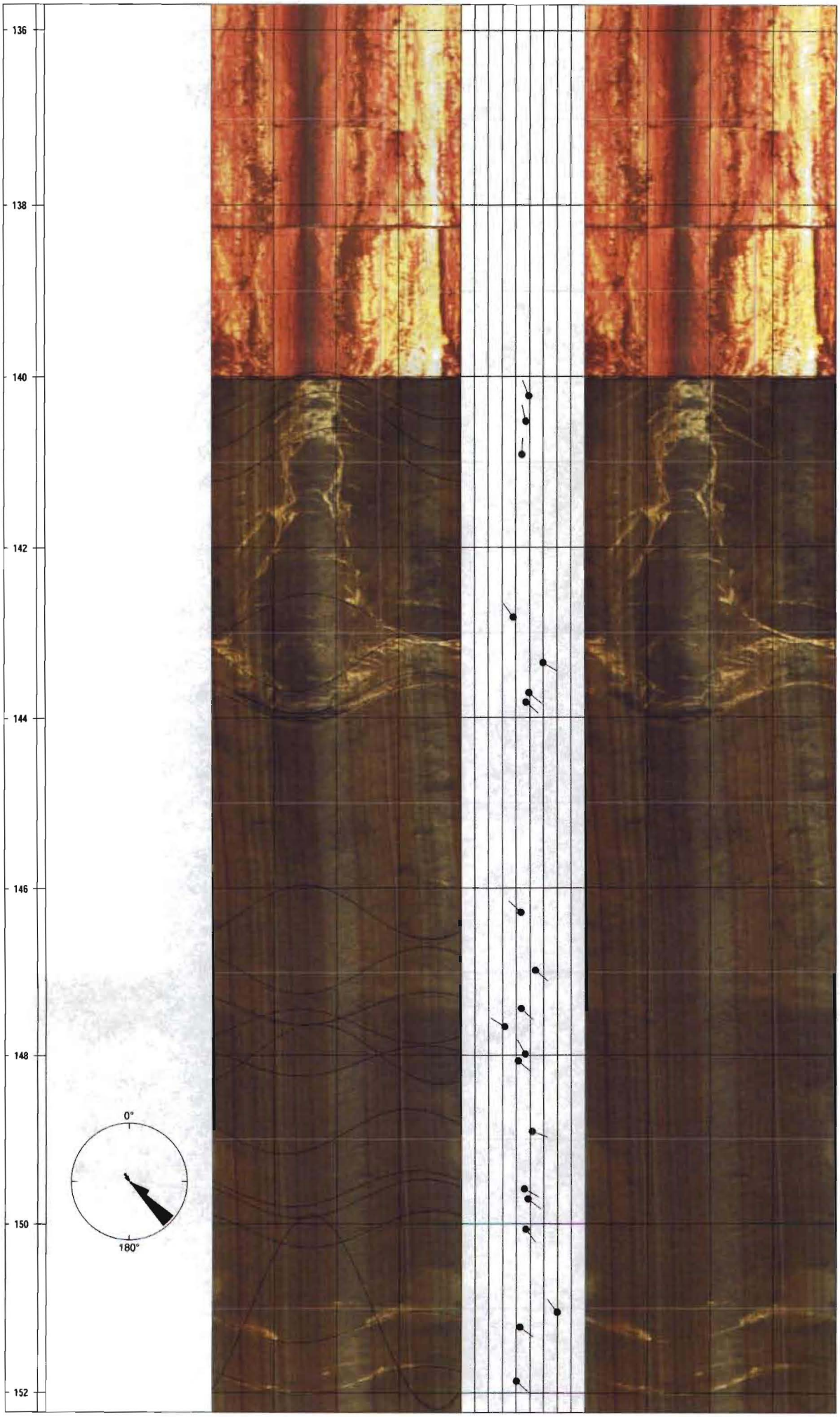

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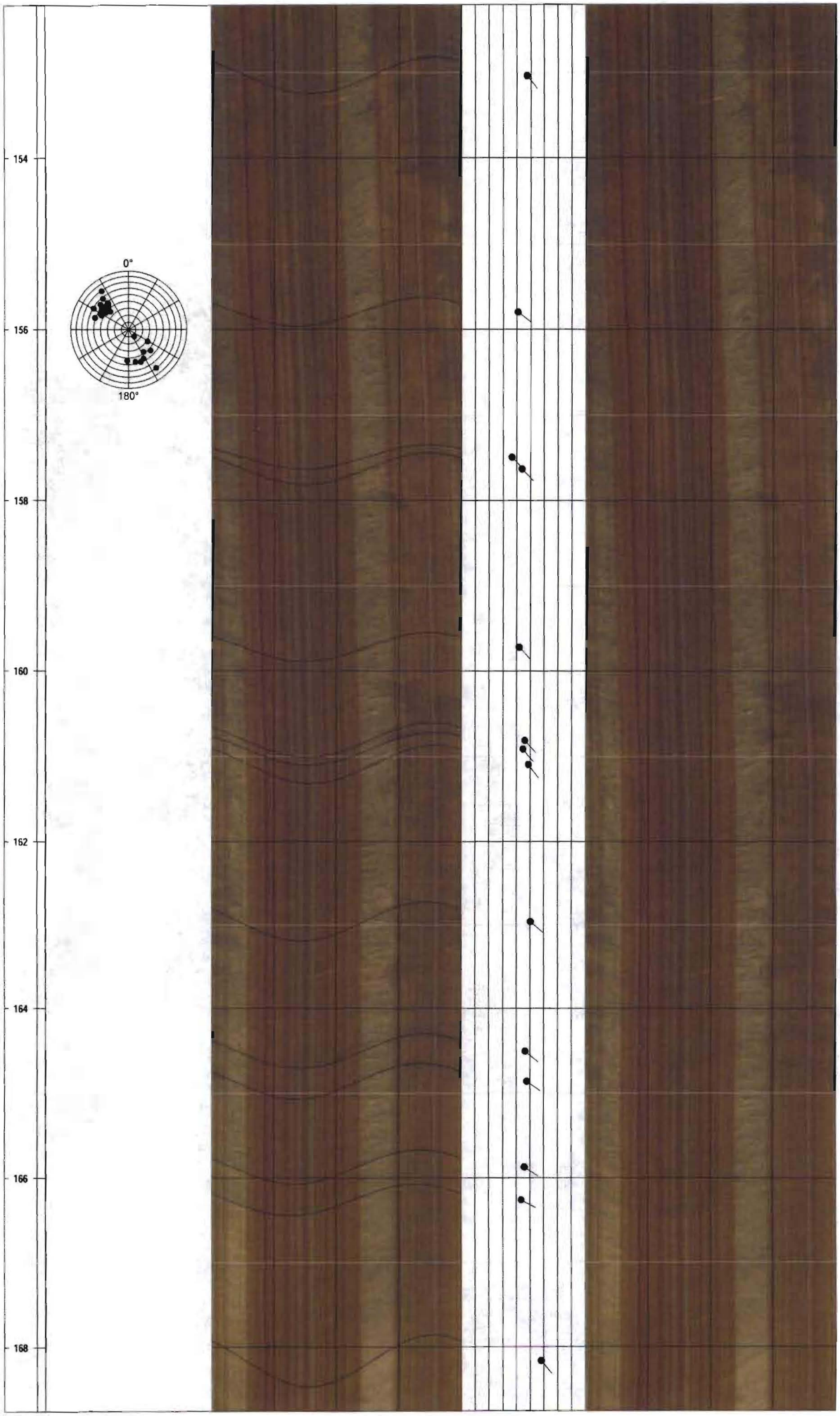

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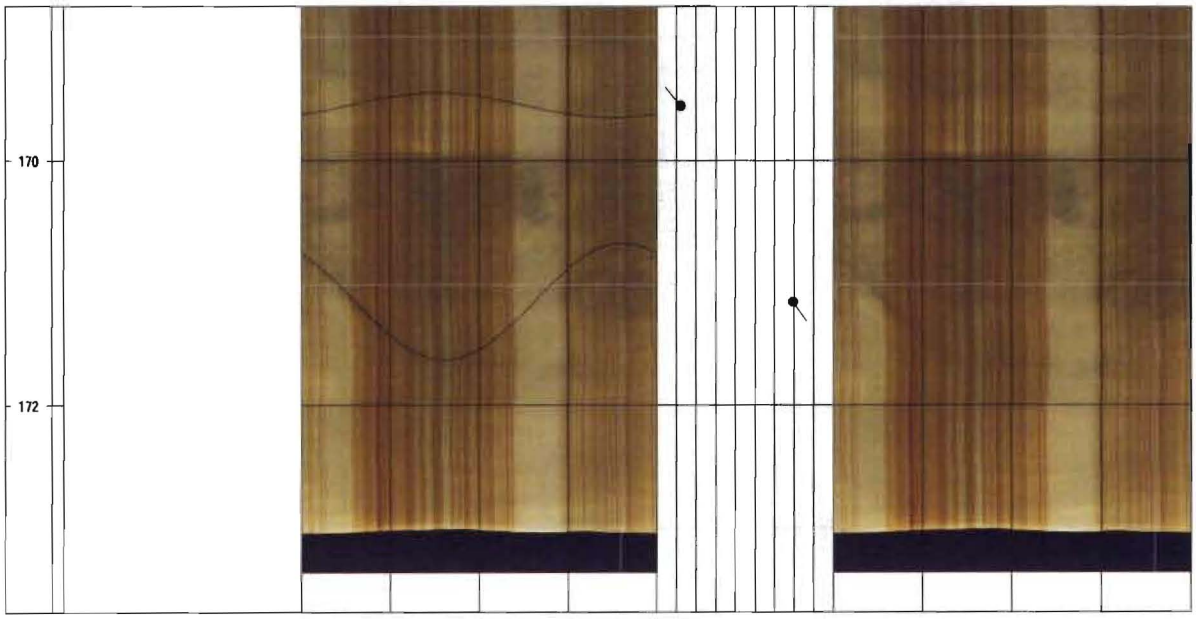

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180°


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APPENDIX E

Blackhawk Trident Model 101V Technical Specifications

Vector Pneumatic Piston Pump®

Patented Top-Head-Drive Piston Pump

Model 101V



Patented, Repairable Vector Pneumatic Drive Motor

Flow Range
0-2 US GPM 7.6 CPM
Operational Depth
Up to 583 Ft. 215 M
Well Casing Size
Minimum 2 In. 4.85 CM

Description

The Vector Pneumatic Piston Pump Model 101V is powered by compressed air. The control motor is located at surface grade for easy installation and maintenance. Industrial-quality air pressure is used to power the pump motor. Power to the pump is direct from grade through the sucker rod assembly. The pump removes water and product (e.g. leachate) from a two (2) inch (4.85 cm) diameter well casing or greater to depths of 583 feet (215 meters). The fluid inlet is located at the bottom of the pump intake cylinder and removes water or product to 0 submergence depth.



Customizable Downhole Pump

Performance and Technical Data

Performance

Operational Depth	583'
Flow Range	0 to 2 US GPM/ 7.6 LPM 2,880 US GPD/ 10,900 LPD
Discharge per Stroke	.05 US Gallons per stroke (.19 liters per stroke) Note: flow does not vary with depth
Strokes per Minute	5 - 40
Maximum Operating Pressures	250 psig (operating pressure based on 120 psi air supply)
Maximum Lift	583 feet of water or 250 psig
Maximum Strokes Per Minute	40 (Variable speed (stroke) control adjusts to well conditions; liquid drawn down to top of strainer.)

Technical

Stroke Length	12" (30.48 cm)
Maximum External Diameter	1.9" (4.85 cm)
Total Cylinder Length	30" (76.2 cm)
Connection of Riser Pipe	1-1/4 " (3.18 cm)
Connection to Sucker Rod	7/16" - 20
Recommended Internal Diameter of Bore Hole	2-3"(4.85 cm - 7.62 cm) or greater diameter
Weight of Cylinder	8 lbs. (3.63 kg)
Discharge Size	1-1/4" NPT
Installation	Unit can be installed vertically or horizontally
Driver Weight	5 lbs.
Driver Rod Weight	12 lbs./100'
Foot Valve Assembly Weight	8 lbs.
Minimum Well Casing Size	2"
Pneumatic Air Connection	3/8" NPT, 3/8" OD Tubing

* Up to 1000 feet.

BLACKHAWK TECHNOLOGY COMPANY • 21W161 HILL AVE., GLEN ELLYN, IL 60137 • P: 630.469.4916 • F: 630.469.4896

www.blackhawkco.com

Vector Pneumatic Piston Pump®

Model 101V

Materials of Construction:
(Materials of construction can be modified to meet specific applications)

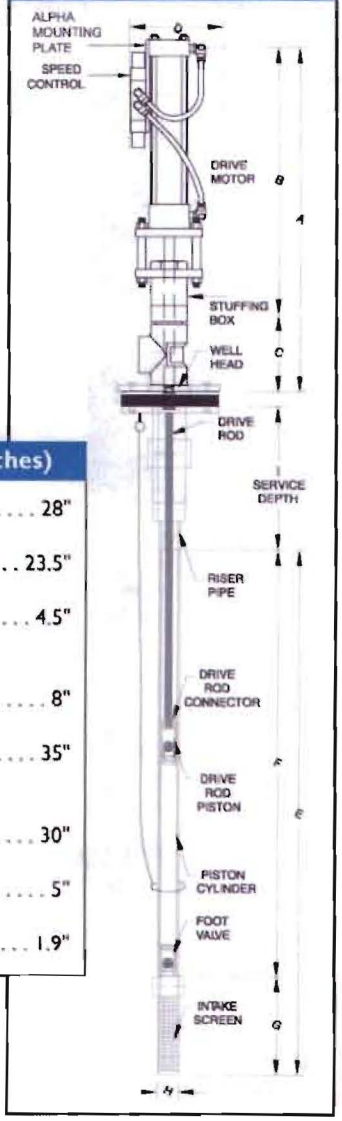
Above Ground

Drive Motor	Stainless Steel/ Aluminum
Stuffing Box Seal	Nitrile/Viton
Stuffing Box	Delrin®
Discharge Tee	Stainless Steel
Well Head	PVC/ABS

Downhole

Drive Rod	Fiberglass
Drive Rod Connector	Stainless Steel
Drive Piston Seal	Nitrile/Viton
Drive Piston Check Ball	Stainless Steel
Drive Piston	Delrin®
Piston Cylinder	Stainless Steel/PVC
Foot Valve Check Ball	Stainless Steel
Foot Valve	Delrin® with Stainless seat
Intake Screen	Stainless Steel/PVC

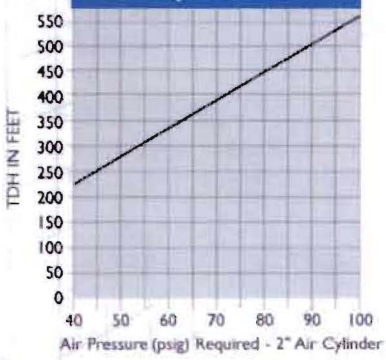
Pump Dimensions



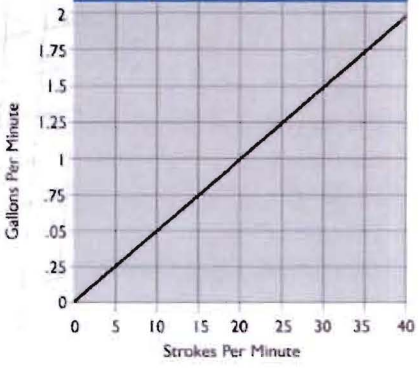
Dimensions (in inches)

A	Above Well Height	28"
B	Driver Height	23.5"
C	Discharge Tee & Well Seal Height	4.5"
D	Driver Diameter	8"
E	Foot Valve Assembly Length	35"
F	Foot Valve Length	30"
G	Intake Screen Length	5"
H	Downhole Diameter	1.9"

Vector 101V Pneumatic Motor Air Pressure Requirements



Vector 101V Pneumatic Pump Flow Performance



* Up to 1000 feet.

BLACKHAWK TECHNOLOGY COMPANY • 21W161 HILL AVE., GLEN ELLYN, IL 60137 • P: 630.469.4916 • F: 630.469.4896

www.blackhawkco.com

APPENDIX F

Analytical Laboratory Reports

STL

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A07-A686

Project#: NY3A9052EP
Site Name: NYSEG
Task: NYSEG- Mechanicville - Pump Test

Mr. Scott Underhill
Earth Tech
40 British American Blvd
Latham, NY 12110

STL Buffalo

Paul R. Morrow
Project Manager

09/28/2007

RECEIVED
OCT 01 2007

STL Buffalo
Current Certifications

As of 5/16/2007

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA,NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	NELAP SDWA, CWA, RCRA	NY455
New York	NELAP AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA, RCRA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7A68605	MW-1I EFF 9/17	WATER	09/17/2007		09/21/2007	09:10
A7A68607	MW-1I EFF 9/18	WATER	09/18/2007		09/21/2007	09:10
A7A68609	MW-1I EFF 9/19	WATER	09/19/2007		09/21/2007	09:10
A7A68611	MW-1I EFF 9/20	WATER	09/20/2007		09/21/2007	09:10
A7A68604	MW-1I INF 9/17	WATER	09/17/2007		09/21/2007	09:10
A7A68606	MW-1I INF 9/18	WATER	09/18/2007		09/21/2007	09:10
A7A68608	MW-1I INF 9/19	WATER	09/19/2007		09/21/2007	09:10
A7A68610	MW-1I INF 9/20	WATER	09/20/2007		09/21/2007	09:10
A7A68603	MW-26I INF	WATER	09/13/2007		09/21/2007	09:10

METHODS SUMMARY

Job#: A07-A686

Project#: NY3A9052EP
Site Name: NYSEG

PARAMETER	ANALYTICAL METHOD
Oil & Grease	MCAWW 1664

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

SDG NARRATIVE

Job#: A07-A686

Project#: NY3A9052EP
Site Name: NYSEG

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-A686
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
G	Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Client ID		MW-1I EFF 9/17		MW-1I EFF 9/18		MW-1I EFF 9/19		MW-1I EFF 9/20	
Job No	Lab ID	A07-A686	A7A68605	A07-A686	A7A68607	A07-A686	A7A68609	A07-A686	A7A68611
Sample Date		09/17/2007		09/18/2007		09/19/2007		09/20/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	5.1	5.0	5.2	5.0	16.0	5.0	15.4	5.0

Client ID		MW-1I INF 9/17		MW-1I INF 9/18		MW-1I INF 9/19		MW-1I INF 9/20	
Job No	Lab ID	A07-A686	A7A68604	A07-A686	A7A68606	A07-A686	A7A68608	A07-A686	A7A68610
Sample Date		09/17/2007		09/18/2007		09/19/2007		09/20/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	5.0	5.0	144	5.0	316	5.0	407	5.0

Client ID		MW-26I INF							
Job No	Lab ID	A07-A686	A7A68603						
Sample Date		09/13/2007							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	NA		NA		NA	

7/14

NA = Not Applicable ND = Not Detected

Chronology and QC Summary Package

Client ID Job No Lab ID Sample Date		Method Blank A07-A686 A7B1497303							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	NA		NA		NA	

9/14

NA = Not Applicable ND = Not Detected

NYSEG- Mechanicville - Pump Test
WET CHEMISTRY ANALYSIS

Client ID Job No Lab ID Sample Date		LCS A07-A686 A7B1497301		Matrix Spike Blank A07-A686 A7B1497302					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	25.6	5.0	17.2	5.0	NA		NA	

10/14

NA = Not Applicable ND = Not Detected

Client Sample ID: Method Blank LCS
Lab Sample ID: A7B1497303 A7B1497301

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 1664 - N-HEXANE EXTRACTABLE MAT	MG/L	25.60	25.00	102	78-114

11/14

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7A68605	MW-1I EFF 9/17	MG/L	Oil & Grease	1664	1.00	09/17/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68607	MW-1I EFF 9/18	MG/L	Oil & Grease	1664	1.00	09/18/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68609	MW-1I EFF 9/19	MG/L	Oil & Grease	1664	1.00	09/19/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68611	MW-1I EFF 9/20	MG/L	Oil & Grease	1664	1.00	09/20/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68604	MW-1I INF 9/17	MG/L	Oil & Grease	1664	1.00	09/17/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68606	MW-1I INF 9/18	MG/L	Oil & Grease	1664	1.00	09/18/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68608	MW-1I INF 9/19	MG/L	Oil & Grease	1664	1.00	09/19/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68610	MW-1I INF 9/20	MG/L	Oil & Grease	1664	1.00	09/20/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER
A7A68603	MW-26I INF	MG/L	Oil & Grease	1664	1.00	09/13/2007	09/21 09:10	NA	NA	09/24 14:00	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B1497302	Matrix Spike Blank	MG/L	Oil & Grease	1664	1.00	-	- 09:10	NA	NA	09/24 14:00	Yes	WATER
A7B1497303	Method Blank	MG/L	Oil & Grease	1664	1.00	-	- 09:10	NA	NA	09/24 14:00	Yes	WATER
A7B1497301	LCS	MG/L	Oil & Grease	1664	1.00	-	- 09:10	NA	NA	09/24 14:00	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
EARTH TECH	SCOTT UNDERHILL	9/20/07	325833
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page ____ of ____**
40 BRITISH AMERICAN BLVD	518-951-2200		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
LATHAM NY. / NY / 12110			
Project Name and Location (State)	**Carrier/Waybill Number**		
NYSEG MECHANICVILLE #94560.05			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: O&G / HEM	Special Instructions/ Conditions of Receipt
MW-42D INF	9/11/07			✓				1					1	
MW-42D EFF	9/11/07			✓				1					1	
MW-26I INF	9/13/07			✓				1					1	
~~MW-26I EFF~~				✓				1						
MW-1I INF 9/17	9/17/07			✓				1					1	
MW-1I EFF 9/17	9/17/07			✓				1					1	
MW-1I INF 9/18	9/18/07			✓				1					1	
MW-1I EFF 9/18	9/18/07			✓				1					1	
MW-1I INF 9/19	9/19/07			✓				1					1	
MW-1I EFF 9/19	9/19/07			✓				1					1	
MW-1I INF 9/20	9/20/07			✓				1					1	
MW-1I EFF 9/20	9/20/07			✓				1					1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	9/20/07		1. Received By	9/20/07	0910
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 2.0 °C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

14/14

STL

STL Buffalo
10 Hazelwood Drive, Suite.106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A07-B303

Project#: NY3A9052EP
Site Name: NYSEG
Task: NYSEG- Mechanicville - Pump Test

Mr. Scott Underhill
Earth Tech
40 British American Blvd
Latham, NY 12110

STL Buffalo

Paul K. Morrow
Project Manager

10/09/2007

OCT 15 2007

STL Buffalo
Current Certifications

As of 5/16/2007

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA,NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	NELAP SDWA, CWA, RCRA	NY455
New York	NELAP AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA, RCRA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7B30304	MW-26I EFF 09/25/07	WATER	09/25/2007		10/04/2007	09:00
A7B30306	MW-26I EFF 09/26/07	WATER	09/26/2007		10/04/2007	09:00
A7B30308	MW-26I EFF 09/27/07	WATER	09/27/2007		10/04/2007	09:00
A7B30301	MW-26I INF 09/24/07	WATER	09/24/2007		10/04/2007	09:00
A7B30303	MW-26I INF 09/25/07	WATER	09/25/2007		10/04/2007	09:00
A7B30305	MW-26I INF 09/26/07	WATER	09/26/2007		10/04/2007	09:00
A7B30307	MW-26I INF 09/27/07	WATER	09/27/2007		10/04/2007	09:00

METHODS SUMMARY

Job#: A07-B303

Project#: NY3A9052EP
Site Name: NYSEG

PARAMETER	ANALYTICAL METHOD
Oil & Grease	MCAWW 1664

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

SDG NARRATIVE

Job#: A07-B303

Project#: NY3A9052EP
Site Name: NYSEG

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-B303
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
Sample point MW-26I EFF 09/24/07 was received broken. There is no volume remaining for that point.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
1	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
G	Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Client ID Job No Lab ID Sample Date		MW-26I EFF 09/25/07 A07-B303 A7B30304 09/25/2007		MW-26I EFF 09/26/07 A07-B303 A7B30306 09/26/2007		MW-26I EFF 09/27/07 A07-B303 A7B30308 09/27/2007		MW-26I INF 09/24/07 A07-B303 A7B30301 09/24/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	ND	5.0	ND	5.0	8.8	5.0

Client ID Job No Lab ID Sample Date		MW-26I INF 09/25/07 A07-B303 A7B30303 09/25/2007		MW-26I INF 09/26/07 A07-B303 A7B30305 09/26/2007		MW-26I INF 09/27/07 A07-B303 A7B30307 09/27/2007			
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	ND	5.0	36.7	5.0	NA	

7/14

NA = Not Applicable ND = Not Detected

Chronology and QC Summary Package

Client ID		Method Blank							
Job No	Lab ID	A07-B303	A7B1572003						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	NA		NA		NA	

9/14

NA = Not Applicable ND = Not Detected

NYSEG- Mechanicville - Pump Test
WET CHEMISTRY ANALYSIS

Client ID Job No Sample Date	Lab ID	LCS A07-B303	A7B1572001	Matrix Spike Blank A07-B303	A7B1572002				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	21.6	5.0	17.8	5.0	NA		NA	

10/14

A = Not Applicable ND = Not Detected

Client Sample ID: Method Blank LCS
Lab Sample ID: A7B1572003 A7B1572001

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 1664 - N-HEXANE EXTRACTABLE MAT	MG/L	21.60	25.00	86	78-114

11/14

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B30304	MW-26I EFF 09/25/07	MG/L	Oil & Grease	1664	1.00	09/25/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30306	MW-26I EFF 09/26/07	MG/L	Oil & Grease	1664	1.00	09/26/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30308	MW-26I EFF 09/27/07	MG/L	Oil & Grease	1664	1.00	09/27/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30301	MW-26I INF 09/24/07	MG/L	Oil & Grease	1664	1.00	09/24/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30303	MW-26I INF 09/25/07	MG/L	Oil & Grease	1664	1.00	09/25/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30305	MW-26I INF 09/26/07	MG/L	Oil & Grease	1664	1.00	09/26/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B30307	MW-26I INF 09/27/07	MG/L	Oil & Grease	1664	1.00	09/27/2007	10/04 09:00	NA	NA	10/05 09:00	Yes	WATER

12/14

HT = Analysis Holding Time Met
HT = TCLP Holding Time Met
A = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B1572002	Matrix Spike Blank	MG/L	Oil & Grease	1664	1.00	-	- 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B1572003	Method Blank	MG/L	Oil & Grease	1664	1.00	-	- 09:00	NA	NA	10/05 09:00	Yes	WATER
A7B1572001	LCS	MG/L	Oil & Grease	1664	1.00	-	- 09:00	NA	NA	10/05 09:00	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
EARTH TECH	SCOTT UNDERHILL	10/2/07	325835
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
40 BRITISH AMERICAN BLVD	(518) 396-7638 / (518) 951-2300		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
LATHAM / NY / 12110			
Project Name and Location (State)	**Carrier/Waybill Number**		
NAPL RECOVERY TEST, MECHANICVILLE, NY			
Contract/Purchase Order/Quote No.			
NYSEG - MECHANICVILLE MGP			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: Oil + Grease	Method 1664	Special Instructions/ Conditions of Receipt
MW-26I INF 9/24/07	9/24/07			X				X					X		
MW-26I EFF 9/24/07	9/24/07														
MW-26I INF 9/25/07	9/25/07														
MW-26I EFF 9/25/07	9/25/07														
MW-26I INF 9/26/07	9/26/07														
MW-26I EFF 9/26/07	9/26/07														
MW-26I INF 9/27/07	9/27/07														
MW-26I EFF 9/27/07	9/27/07			V				V					V		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Scott Underhill	10/3/07	9:00 AM	1. Received By:	10/4/07	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2.0 c

14/14

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job#: A07-B610

Project#: NY3A9052EP
Site Name: NYSEG
Task: NYSEG- Mechanicville - Pump Test

Mr. Scott Underhill
Earth Tech
40 British American Blvd
Latham, NY 12110

TestAmerica Laboratories Inc.

Paul K. Morrow
Project Manager

10/22/2007

STL Buffalo
Current Certifications

As of 12/28/2005

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USACE	USACE	
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C254
West Virginia	CWA,RCRA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7B61002	MWI-10/2/07-EFF	WATER	10/02/2007		10/10/2007	08:40
A7B61001	MWI-10/2/07-INF	WATER	10/02/2007		10/10/2007	08:40
A7B61004	MWI-10/3/07-EFF	WATER	10/03/2007		10/10/2007	08:40
A7B61003	MWI-10/3/07-INF	WATER	10/03/2007		10/10/2007	08:40
A7B61006	MWI-10/4/07-EFF	WATER	10/04/2007		10/10/2007	08:40
A7B61005	MWI-10/4/07-INF	WATER	10/04/2007		10/10/2007	08:40
A7B61008	MWI-10/5/07-EFF	WATER	10/05/2007		10/10/2007	08:40
A7B61007	MWI-10/5/07-INF	WATER	10/05/2007		10/10/2007	08:40

METHODS SUMMARY

Job#: A07-B610

Project#: NY3A9052EP
Site Name: NYSEG

PARAMETER	ANALYTICAL METHOD
Oil & Grease	MCAWW 1664

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

SDG NARRATIVE

Job#: A07-B610

Project#: NY3A9052EP
Site Name: NYSEG

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-B610
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
1	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
G	Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Client ID Job No Lab ID Sample Date		MWI-10/2/07-EFF A07-B610 A7B61002 10/02/2007		MWI-10/2/07-INF A07-B610 A7B61001 10/02/2007		MWI-10/3/07-EFF A07-B610 A7B61004 10/03/2007		MWI-10/3/07-INF A07-B610 A7B61003 10/03/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	3500	5.0	ND	5.0	580	5.0

Client ID Job No Lab ID Sample Date		MWI-10/4/07-EFF A07-B610 A7B61006 10/04/2007		MWI-10/4/07-INF A07-B610 A7B61005 10/04/2007		MWI-10/5/07-EFF A07-B610 A7B61008 10/05/2007		MWI-10/5/07-INF A07-B610 A7B61007 10/05/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	16.8	5.0	691	5.0	14.7	5.0	453	5.0

7/14

Chronology and QC Summary Package

Date: 10/22/2007
Time: 10:06:50

NYSEG
NYSEG- Mechanicville - Pump Test
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID		Method Blank							
Job No	Lab ID	A07-B610	A7B1609403						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	ND	5.0	NA		NA		NA	

9/14

NA = Not Applicable ND = Not Detected

NYSEG- Mechanicville - Pump Test
WET CHEMISTRY ANALYSIS

Client ID Job No Lab ID Sample Date		LCS A07-B610 A7B1609401		Matrix Spike Blank A07-B610 A7B1609402					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Oil & Grease	MG/L	23.5	5.0	19.3	5.0	NA		NA	

10/14

NA = Not Applicable ND = Not Detected

Client Sample ID: Method Blank LCS
Lab Sample ID: A7B1609403 A7B1609401

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 1664 - N-HEXANE EXTRACTABLE MAT	MG/L	23.50	25.00	94	78-114

11/14

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

NEW YORK STATE ELECTRIC & GAS
SAMPLE CHRONOLOGY

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B61002	MWI-10/2/07-EFF	MG/L	Oil & Grease	1664	1.00	10/02/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61001	MWI-10/2/07-INF	MG/L	Oil & Grease	1664	1.00	10/02/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61004	MWI-10/3/07-EFF	MG/L	Oil & Grease	1664	1.00	10/03/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61003	MWI-10/3/07-INF	MG/L	Oil & Grease	1664	1.00	10/03/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61006	MWI-10/4/07-EFF	MG/L	Oil & Grease	1664	1.00	10/04/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61005	MWI-10/4/07-INF	MG/L	Oil & Grease	1664	1.00	10/04/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61008	MWI-10/5/07-EFF	MG/L	Oil & Grease	1664	1.00	10/05/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B61007	MWI-10/5/07-INF	MG/L	Oil & Grease	1664	1.00	10/05/2007	10/10 08:40	NA	NA	10/11 12:45	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B1609402	Matrix Spike Blank	MG/L	Oil & Grease	1664	1.00	-	- 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B1609403	Method Blank	MG/L	Oil & Grease	1664	1.00	-	- 08:40	NA	NA	10/11 12:45	Yes	WATER
A7B1609401	LCS	MG/L	Oil & Grease	1664	1.00	-	- 08:40	NA	NA	10/11 12:45	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
EARTH TECH	SCOTT UNDERHILL	10/9/07	325836
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
40 BRITISH AMERICAN BLVD	(518) 396-7638 (518) 951-2300		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
LATHAM / NY / 12110			
Project Name and Location (State)	**Carrier/Waybill Number**		
NYSEG - MECHANICVILLE MGP, NY			
Contract/Purchase Order/Quote No.			
MECHANICVILLE MGP			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	OIL & GREASE	Special Instructions/ Conditions of Receipt
MW I - 10/2/07 - INF				X				X					X	
MW I - 10/2/07 - EFF				↓				↓					↓	
MW I - 10/3/07 - INF				↓				↓					↓	
MW I - 10/3/07 - EFF				↓				↓					↓	
MW I - 10/4/07 - INF				↓				↓					↓	
MW I - 10/4/07 - EFF				↓				↓					↓	
MW I - 10/5/07 - INF				↓				↓					↓	
MW I - 10/5/07 - EFF				↓				↓					↓	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Scott Underhill	10/9/07	9:00		10/10/07	0840
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2.0°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

14/14

Sample ID: PUMP TEST CONTAINER
Lab Sample ID: A7B92501
Date Collected: 10/16/2007
Time Collected: 09:00

Date Received: 10/17/2007
Project No: NY3A9052EP
Client No: L11252
Site No: NYSEG

Parameter	Result	Flag	Detection Limit	Units	Method	Date/Time Analyzed	Analyst
AQUEOUS-SW8463 8021 - BENZENE ONLY							
BENZENE	200		10	UG/L	8021	10/18/2007 14:35	LMW
AQUEOUS-SW8463 8082 - PCBS							
PCB-1016	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1221	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1232	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1242	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1248	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1254	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
PCB-1260	ND		0.47	UG/L	8082	10/19/2007 13:02	DW
Wet Chemistry Analysis							
Flashpoint	>176		0	°F	1010	10/19/2007 13:00	RMM
PH-FIELD	7.75		0.500	S.U.	150.1	10/17/2007 23:01	DRP

Sample ID: Trip Blank
Lab Sample ID: A7B92502
Date Collected: 10/16/2007
Time Collected:

Date Received: 10/17/2007
Project No: NY3A9052EP
Client No: L11252
Site No: NYSEG

Parameter	Result	Flag	Detection Limit	Units	Method	Date/Time Analyzed	Analyst
AQUEOUS-SW8463 8021 - BENZENE ONLY							
BENZENE	ND		0.20	UG/L	8021	10/18/2007 16:29	LMW

APPENDIX G

Waste Manifests

Page # 1 of 1

CleanHarbors
ENVIRONMENTAL SERVICES®
1-800-444-4244

Bulk Load Worksheet

Run #: PNI	Sales Order #: 2164929	Tractor #: 1323	Trailer #: 3134
Job Date: 11-5-7	Customer / Generator Name: NYSEG		
Expected Arrival Time: 900	Address: Machias Ville NY		
Start Odometer:	Manifest #: 001 038236		Gallons/ Pounds/Tons: 4875
End Odometer:	Container Drop: #	#	# #
Employee ID#: 3449	Container Pick Up: #	#	# #
Driver Name: R VanCamp			Total Number of Liners Used:

Please Use Military Hrs for Start/End Times

Activity Code	Start Time	End Time	Reason Code	Hours (H)	Minutes (M)	Comments:
15						
17						
79	900	1100		2.0		

Customer's signature verifies arrival and departure times and authorizes any demurrage charges to be billed by Clean Harbors when applicable as outlined in your quote or contract.

Customer's Signature: [signature] Date: 11-5-7

Driver's Signature: [signature] Date: 11-5-7

CUSTOMER COPY

Rev. 08/06

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD986531404	1	(800) 482-3718	001038235 FLE

GENERATOR

5. Generator's Name and Mailing Address

New York State Electric & Gas
PO Box 5224
Binghamton, NY 13902
Generator's Phone: 607 762 7747 ATTN: Debbie Dunlap

Generator's Site Address (if different than mailing address)

85 North Central Avenue
Mechanicville, NY 12118

6. Transporter 1 Company Name — U.S. EPA ID Number

Clean Harbors Env Services Inc — MAD039372250

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Clean Harbors of Conn Inc
51 Broderick Road
Bristol, CT 06010
Facility's Phone: (860) 583-8937 — CTD000604458

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, N/A, NONE, NONE					CR04	NONE	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

CH281488

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Page # 1 of 1

Clean Harbors
ENVIRONMENTAL SERVICES®
1-800-444-4244

Bulk Load Worksheet

Run #: NY - CTC	**Sales Order #:** 02166.3982	**Tractor #:** 1192	**Trailer #:** 3107
Job Date: 11/5/07	**Customer / Generator Name:** New York State Electric + Gas		
Expected Arrival Time:	**Address:** 0010.38233 FLE		
Start Odometer:	**Manifest #:**		**Gallons/ Pounds/Tons:**
End Odometer:	**Container Drop:** #	#	# #
Employee ID#: 4105	**Container Pick Up:** #	#	# #
Driver Name: Jeff Carpenter			**Total Number of Liners Used:**

Please Use Military Hrs for Start/End Times

Activity Code	Start Time	End Time	Reason Code	Hours (H)	Minutes (M)	Comments:
015	730	800				1/2
017	800	845				3/4
			022	1	30	
079	845	1042				2

Customer's signature verifies arrival and departure times and authorizes any demurrage charges to be billed by Clean Harbors when applicable as outlined in your quote or contract.

Customer's Signature:	**Date:** 11/5/07
Driver's Signature: Jeff Carpenter	**Date:** 11/5/07

CUSTOMER COPY

Rev. 08/06

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D2166208? DEC/06/21/2007 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD982053484	1	(800) 483-3718	001038233 FLE

5. Generator's Name and Mailing Address
New York State Electric & Gas
PO Box 5224
Binghamton, NY 13902
Generator's Phone: 607 762-7742 ATTN: Debbie Eardley

Generator's Site Address (if different than mailing address)
86 North Central Avenue
Mechanicville, NY 12118

6. Transporter 1 Company Name — U.S. EPA ID Number
Clean Harbors Env Services Inc — MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number
Clean Harbors of Conn Inc
51 Broderick Road
Bristol, CT 06010
Facility's Phone: (860) 583-6711 — CTD000604488

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL N.A. NONE, NONE	1	DT	2640	—	CR04	NONE	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information CR04 NONE

1 UNIT MANIFEST

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year
12 05 07

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping