51778

Hart & Hickman
A Professional Corporation
Our Clients Demand A Smarter Solution

2923 South Tryon Street
Suite 100 Charlotte, NC
28203-5449

704-586-0007 phone
704-586-0373 fax
www.harthickman.com

Via Federal Express

October 17, 2007

South Carolina Department of Health
and Environmental Control
Groundwater Quality Section
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201

Attention: Ms. Addie Walker

RECEIVED
OCT 10 2007
Water Monitoring, Assessment & Protection Division

Re: Additional Assessment Work Plan – Revision 1
Delavan Spray Technologies Site
Bamberg, South Carolina
Site ID #02211
H&H Job No. GDR-006

Dear Ms. Walker:

On behalf of Delavan Spray Technologies, Hart & Hickman, PC (H&H) is providing SCDHEC with the attached revised work plan for additional ground water assessment activities at the Delavan site in Bamberg, Bamberg County, South Carolina.

Should you have any questions or require any additional information, please feel free to contact me at (704) 586-0007.

Very truly yours,

Hart & Hickman, PC

Steven C. Hart, PG
Principal

Shannon L. Cottrill
Senior Project Geologist

cc: Richard Kearse (Via U.S. Mail)
Bruce Amig (Via U.S. Mail)

Additional Assessment
Work Plan Revision 1
Delavan Spray Technologies Facility
Bamberg, South Carolina
DHEC Site ID #02211

October 17, 2007

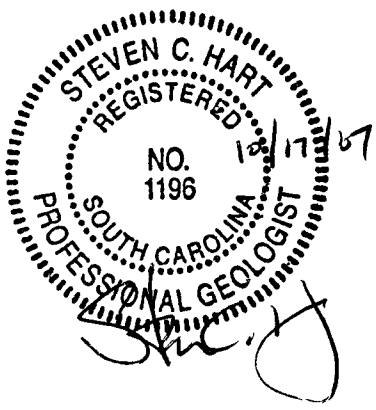
H&H Job No. GDR-006

RECEIVED
OCT 18 2007
Water Monitoring, Assessment & Protection Division

Hart & Hickman

Hart & Hickman, PC
2923 S. Tryon Street
Suite 100
Charlotte, NC 28203

704
586-0007 phone
586-0373 fax



Additional Assessment Work Plan – Revision 1
Delavan Spray Technologies Facility
Bamberg, South Carolina
DHEC Site ID #02211
H&H Job No. GDR-006

List of Tables

List of Figures

Additional Assessment Work Plan – Revision 1
Delevan Spray Technologies Facility
Bamberg, South Carolina
DHEC Site ID #02211
H&H Job No. GDR-006

1.0 Introduction and Background

On behalf of Delavan Spray Technologies (Delavan), Hart & Hickman, PC (H&H) is submitting this work plan for additional assessment activities at the Delevan facility on US Highway 301 South in Bamberg, Bamberg County, South Carolina. Delavan manufactures fuel metering equipment and various spray-type nozzles at the facility. A site location map is provided as Figure 1, and a site layout is provided as Figure 2.

Previous assessment activities indicate the presence of chlorinated volatile organic compounds (VOCs) in ground water at the Delavan facility. The primary constituent of concern is tetrachloroethene (PCE). Other analytes historically detected in ground water samples include trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) which are biodegradation products of PCE.

The results of previous ground water assessment activities are summarized in a Ground Water Assessment report dated March 15, 2004. Following submittal of the March 2004 Ground Water Assessment report, the South Carolina Department of Health and Environmental Control (DHEC) requested that Delavan prepare a remedial plan to address PCE presence in ground water at three locations in the vicinity of monitor wells MW-1, MW-9, and MW-10. Delavan submitted a Work Plan for Remedial Activities on August 11, 2004 proposing the implementation of enhanced biodegradation using Hydrogen Release Compound (HRC). The Work Plan was approved by DHEC on October 27, 2004.

Prior to conducting the injection of HRC, H&H submitted an Underground Injection Control (UIC) permit application to DHEC's Underground Injection Control (UIC) Section on January

31, 2005. The UIC Section issued an injection permit (Permit No. 816) for the site on February 11, 2005.

The HRC injection was conducted on March 15 and 16, 2005. A HRC injection boring diagram is included as Figure 3. Since the HRC injection in March 2005, quarterly post-injection monitoring events have been conducted in accordance with the DHEC approved-sampling scheme. A comprehensive sampling event was conducted in March 2006 which included the sampling of each site monitoring well. Subsequent to the March 2006 sampling, an additional quarterly sampling event of MW-1, MW-9, and MW-10 was conducted in June 2006. The results of this sampling were presented in an October 10, 2006 monitoring report.

In accordance with DHEC's request, H&H completed a water supply well survey for the residential area located to the east of the Delavan facility on January 12, 2007 by performing site reconnaissance and door-to-door inquiry. Although municipal water service is available to the neighborhood to the east of the facility, H&H identified two water supply wells on properties in this neighborhood which were not connected to the municipal water source (Figure 2). The two water supply wells were identified as the Frazier water supply well (WSW) and the Thomas WSW. Information pertinent to the two identified WSWs is summarized on Table 1. Based on information obtained from the City of Bamberg Public Works Department, a water account had been set up for the Frazier WSW address, however the account was inactive. No account information was on record for the Thomas WSW address. According to the site residents, the supply wells are approximately 500 ft in depth. Both of the identified wells were observed to be 6-inch diameter steel-cased bored wells. No additional well construction information was available for the water supply wells. The Frazier WSW reportedly supplies potable water to two residences located on tax parcel ID No. 0072-08-02-1. No additional water supply wells were identified in the neighborhood to the east of the facility.

In accordance with DHEC's request, water samples were collected from each of these water supply wells in January 2007. The samples were collected from spigots located at the wellheads after allowing the water to run for approximately 5 to 10 minutes. The collected water samples were analyzed for VOCs by EPA Method 8260B.

The results of the supply well sampling indicated VOCs in the Thomas WSW at concentrations below the DHEC maximum contaminant levels (MCLs) (Table 2). The Thomas WSW sample contained 1,2-dichloroethane (2.27 µg/l), cis-1,2-dichloropropene (1.14 µg/l), trans-1,2-dichloropropene (1.91 µg/l), PCE (4.44 µg/l), and 1,2,4-trichlorobenzene (2.00 µg/l). No VOCs were detected in the ground water sample collected from the Frazier well.

Although no compounds were detected above MCLs in either WSW, Delavan (as a precautionary measure) contacted the owners of the water supply wells and offered to connect the residences served by the wells to municipal water at no charge to the well owner. The owner of the Thomas WSW responded to Delavan's offer to connect to the municipal supply, and Delavan secured written permission to make the municipal connection and to abandon the well. The Frazier property already has a connection.

Based on the results of the water supply well survey, Delavan proposed to resample the wells and continue to include them in the quarterly sampling program. The results of the water supply well survey and associated ground water sampling activities were presented in a Ground Water Monitoring report dated January 30, 2007.

Following review of the January 2007 monitoring report, DHEC requested additional ground water assessment be conducted in a letter dated May 1, 2009. Specifically, DHEC requested that Delavan:

- determine the vertical extent of ground water impacts at the site;
- continue the quarterly monitoring program with the next monitoring report to be a comprehensive event (inclusive of sampling all site monitoring wells);
- re-sample the off-site Thomas and Frazier water supply wells for VOCs;
- provide an update on the municipal water connection for the Thomas WSW;
- determine the total depths of the off-site private water supply wells; and

- submit a work plan for re-sampling the Thomas WSW and vertical delineation of ground water impacts for the site.

In accordance with DHEC's request, H&H and Delavan submitted an Additional Assessment Work Plan on July 17, 2007 to address DHEC's request for additional ground water assessment activities. Following DHEC's review of the Additional Assessment Work Plan, DHEC recommended that Delavan consider the following suggestions for inclusion in the work plan:

- re-sample the off-site Thomas water supply well prior to abandonment;
- conduct a geophysical survey of the Thomas water supply well prior to abandonment;
- install one stratigraphic boring to the top of rock in an upgradient location to correlate lithological units and to determine the top of rock depth in the site area prior to drilling in the three impacted downgradient locations;
- conduct a soil gas survey along the service sewer lines at the plant to determine if wastewater is discharging to shallow ground water; and
- relocate the proposed deeper well planned in the vicinity of MW-1 to the MW-3 location which appears to be located in a more downgradient location.

After consideration of DHEC's most recent suggestions for inclusion into the work plan, Delavan's revised scope of work is provided in the following sections.

2.0 Municipal Water Connection Update

Delavan arranged for two municipal water connections and a sewer connection to be set at the Connelly property. Between June 13 and 15, 2007, the City of Bamberg Public Works Department installed the two municipal water taps and sewer tap in the right-of-way which fronts this property.

Thomas Well

After the municipal taps were installed, Delavan arranged for a private plumbing contractor to install service lines from the municipal taps and make the necessary connections to the residences on the Connelly property on June 20, 2007. Delavan's plumbing contractor capped the supply well service lines to these residences and made the final municipal water and associated sewer connections on June 22, 2007. Mrs. Connelly granted Delavan permission to abandon her well, and Delavan is in the process of abandoning this supply well.

Prior to the abandonment of the Thomas well, H&H will determine the static water level using an electronic water level meter. Concurrent with the static water level measurement, H&H will conduct a down-hole camera survey of the Thomas water supply well to provide additional construction details (including total well depth, casing depth, and well screen intervals) and to determine integrity of the surface casing seal and the well screen.

In their most recent comments, DHEC suggested performing a down-hole geophysical survey of the Thomas well prior to its abandonment. However, H&H does not believe that this is warranted because it would principally provide stratigraphic information which would not be possible to corroborate with actual strata. Further, a stratigraphic boring will be conducted at the site to further evaluate site stratigraphy as discussed in Section 3.2.

Following completion of the down-hole camera survey, H&H and Delevan will abandon the Thomas WSW. In their recent comments, DHEC requested that the Thomas WSW be re-sampled prior to abandonment. H&H and Delavan do not believe that additional sampling of the Thomas well is warranted because it has already been sampled, is out-of-service, and will be abandoned. Moreover, the aquifer will be assessed using properly constructed monitoring wells.

To date the owner of the Frazier WSW property has not responded to Delavan's request to connect the property to municipal water. In accordance with DHEC's request, Delavan will attempt to re-sample the Frazier WSW as part of the routine monitoring program with the owner's permission (see discussion in Section 4.0).

To determine construction details of the Thomas and Frazier WSWs, H&H visited the site to inspect the wells for well tags and visited the Bamberg County Environmental Health Department to review water well completion records on June 1, 2007. No well tags were observed on or in the vicinity of the supply wells and no records of well completion were found at the Bamberg County Environmental Health Department for these wells. The depth of the Thomas WSW will be determined prior to its abandonment as mentioned above.

3.0 Proposed Ground Water Assessment

3.1 Ground Water Flow

Previous ground water elevation data indicates the shallow ground water flow direction is dependent upon location at the site (Figures 4 and 5). Ground water in the eastern and western portions of the site flows toward the center of the site and then moves generally north and south along a ground water low (or trough). The flow direction in the central and north-central part of the site appears to be toward the north while flow in the south-central portion of the site appears to be toward the south. This north-south ground water divide appears to be located just south of the former PCE containment area near MW-1. It is likely that the location of the north-south ground water divide shifts slightly during the year due to water level fluctuations.

Based on the historical ground water elevation data, it appears that the apparent remnant Carolina Bay upon which the site is located effects the flow regime in the vicinity of the Delavan plant. Carolina Bays are characterized by flow geometries similar to that at the Delavan site. The flow regime appears to be characterized by a ground water trough in the center of the site with ground water flowing both to the north and, to a lesser degree, to the south along the ground water trough. The water level fluctuations are less pronounced within the central portion of the ground water trough (MW-1, MW-3, MW-7, and MW-8) than in the wells along the flanks (MW-2, MW-4, MW-5, MW-6, and MW-10). The net result is a seasonal shifting of flow direction and gradients in the central portion of the site.

3.2 Additional Monitoring Wells

In their letter of May 1, 2007, DHEC requested evaluation of the vertical extent of the ground water impacts. Although no wells have been installed in deeper ground water, H&H anticipates that deeper ground water flow will not be affected by the Carolina Bay feature. As such, we anticipate ground water flow is with regional topography to the west and northwest. Considering the compound distribution and flow direction information, H&H proposes to install three Type III deeper monitoring wells using either hollow-stem auger and mud-rotary and/or sonic drilling

techniques. The deeper wells will generally be installed regionally downgradient of monitor wells MW-1, MW-9, and MW-10. In consideration of DHEC's recent comments, the deeper well proposed downgradient of MW-1 will be installed near MW-3 which appears to be located in a more downgradient location. The locations of the proposed wells are indicated in Figure 6.

Prior to drilling in the three deeper well locations, H&H will advance and sample one stratigraphic boring to the top of rock in an upgradient location. The purpose of the stratigraphic boring will be to determine overall site stratigraphy to the top of rock, evaluate likely construction details for the deeper wells prior to their installation, and correlating stratigraphy across the site. During the advancement of the stratigraphic boring, soil samples will be collected continuously to the top of bedrock. The location of the stratigraphic boring is shown in Figure 6.

Based upon a review of regional geology, the site area is underlain by undifferentiated muddy fine to coarse sand, with rare clay beds. Regional boring logs indicate that calcareous sandstone containing shells and/or sandy limestone may be encountered at approximately 50 ft below ground surface. Based on this information, H&H estimates that the deeper Type III wells will be drilled to depths of approximately 50 ft with 6-inch diameter PVC surface casings to approximate depths of 25 ft. These deeper Type III wells will be completed as 2-inch diameter monitoring wells with 5 ft sections of 10 slot well screen. A typical deeper Type III monitor well diagram is included as Figure 7.

During the installation of the deeper monitoring wells, split-spoon soil samples will be collected at 5 ft intervals for soil lithology classification. Boring logs and well construction records will be prepared and included with the report submittal. To develop deeper ground water flow and cross-section maps, H&H will determine monitoring well top of casing and ground surface elevations for these wells relative to the existing site well network using surveying techniques.

3.3 General Field Procedures

Monitoring well drill cuttings, development water, and purge water will be containerized in labeled 55-gallon drums. For waste characterization purposes, H&H will collect one composite sample each from the drummed drill cuttings, development water, and purge water for analysis of toxicity characteristic leaching procedure (TCLP) VOCs and TCLP metals. Following receipt of characterization data, the investigation derived waste materials will be properly disposed.

Laboratory-supplied sample bottles will be used for sample collection. A chain-of-custody record will be completed for samples collected and will include sample description, date collected, time collected, matrix, sample container information, and analyses required. The chain-of-custody will be signed by H&H field personnel prior to placement in an iced cooler for shipment to the laboratory. Prior to shipment, a custody seal will be placed on the cooler so that any tampering or opening of the cooler could be detected by the laboratory. The samples will be analyzed by a laboratory certified in South Carolina.

3.4 Soil Gas Survey Evaluation

DHEC recently suggested that H&H and Delavan consider conducting a soil gas survey along the sewer lines at the plant to determine if the source of ground water impacts is associated with the sanitary sewer lines. Two sanitary sewer lines are present at the Delavan plant (Figure 2). One sanitary sewer line exits the Delavan plant near the southeast corner and receives domestic wastewater from two restrooms situated in the southeastern portion of the plant. After exiting the plant, this line runs in an east-northeasterly direction toward the southeastern corner of the parking lot then turns north and connects with the main plant sanitary sewer line at a manhole located in the north-central portion of the site.

The main sanitary sewer line exits the Delavan plant near the northwest corner of the building and receives wastewater from the pre-treatment wastewater plant located just north of the Delavan plant. The pre-treatment plant has reportedly been in operation since at the site since

approximately 1989 and receives the majority of the plant's waste stream with the exception of domestic waste from the two aforementioned restrooms located in the southeast portion of the plant. Delavan routinely samples pre-treatment wastewater for analyses of cyanide, oil and grease, biological oxygen demand (BOD), pH, and metals nickel, zinc, chromium, and lead. In addition to the aforementioned parameters, Delavan has also sampled the pre-treatment wastewater for PCE on an annual basis since approximately 2002. PCE has not been detected in Delavan's pre-treatment waste stream.

As indicated in Figure 2, there is no correlation between the location of the sanitary sewer lines and the ground water impacts (the PCE impacts at the southeast corner of the building are likely associated with the PCE containment area and not the restroom sewer lines). As such, H&H and Delavan do not believe that a soil gas survey is warranted along these sanitary sewer lines.

4.0 Ground Water Monitoring Program

In accordance with DHEC's request, the ground water monitoring program will be continued to evaluate the effect of the HRC injection and to monitor ground water contaminant trends. The ground water sampling program will consist of an annual comprehensive sampling event and quarterly monitoring events. The annual comprehensive and quarterly sampling events are discussed below in further detail.

4.1 Annual Comprehensive Sampling Event

Following DHEC's approval of this work plan and installation of the deeper Type III wells, a comprehensive ground water sampling event will be conducted at the site. Each of the existing 11 on-site monitoring wells and the three newly installed deeper wells will be sampled for VOCs by EPA Method 8260B (reporting the EPA 601 list only). In addition to the monitoring well samples, a surface water sample will be collected from the stream located northwest of the Delavan facility in the location of previous surface water sample SW-1 (Figure 2). The surface water sample will be sampled for VOCs by the aforementioned method.

To further evaluate the effect of previous remedial actions, the ground water samples from select shallow wells in the area of the HRC injections (MW-1, MW-9, and MW-10) will be analyzed for geochemical parameters in addition to the VOCs mentioned above. Field geochemical parameters collected from these wells will include dissolved oxygen, oxidation reduction potential (ORP), specific conductivity, pH, and temperature. In addition, laboratory analysis of the samples for total organic carbon (TOC) will be conducted to evaluate potential residual effects of the HRC injection.

H&H will seek permission from the well owner to re-sample the Frazier WSW during the annual comprehensive ground water sampling event. Consistent with the previous supply well sampling, the collected water supply well sample will be analyzed for VOCs using EPA Method

8260B. For quality control purposes, a trip blank will accompany the water supply well sample which will also be analyzed for VOCs.

4.2 Quarterly Sampling

In accordance with DHEC's request, Delavan will continue to monitor the three wells in the HRC injection areas and the off-site Frazier water supply well on a quarterly basis (approximately three, six, and nine months following the comprehensive sampling event). Monitoring wells MW-1, MW-9, and MW-10 will be analyzed for VOCs by EPA Method 8260B (reporting the EPA Method 601 list only) and the geochemical parameters and TOC as described in the previous section.

Consistent with the initial water supply well sampling, the off-site Frazier WSW will be analyzed for VOCs using EPA Method 8260B during each quarterly monitoring event. For quality control purposes, a trip blank will accompany the water supply well sample and will also be analyzed for VOCs.

5.0 Data Compilation, Schedule and Reporting

Following DHEC's approval of this work plan, the installation of the three deeper Type III wells, and completion of the comprehensive monitoring event, H&H will prepare an assessment report which describes the method and results of ground water assessment activities conducted at the site since the last submittal in January 2007. The report will include a description of monitoring well installations, ground water sample locations, well construction records, boring logs, laboratory analytical results, tabular summaries of the data, ground water flow maps, figures depicting sample and well locations, figures depicting the extent of ground water impacts, cross-sections, and data evaluation. vert. hydraulic grad.

A proposed schedule for completion of the activities outlined in this work plan is provided as Figure 8.

Table 1
Water Supply Well Inventory
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

WSW ID	Tax Parcel	Well Address	Owner Information	Well Use	Municipal Water Status
Frazier WSW	#0072-08-02-1	527 Log Branch Road Bamberg, SC 29003	Lorrine Frazier 623 Calhoun Street Bamberg, SC 29003 (803) 245-4364	All Purposes	Available. Water Account Inactive
Thomas WSW	#0072-08-02-16	589 Log Branch Road Bamberg, SC 29003	Robert A. Thomas c/o Mamie Connelly 1450 Capernaum Road Bamberg, SC 29003 (803) 245-0555	All Purposes	Available. No Water Account

Notes:
Water supply wells are shown on Figure 2
Information from on-site interview, Bamberg County Tax Assessor, and City of Bamberg Public Works

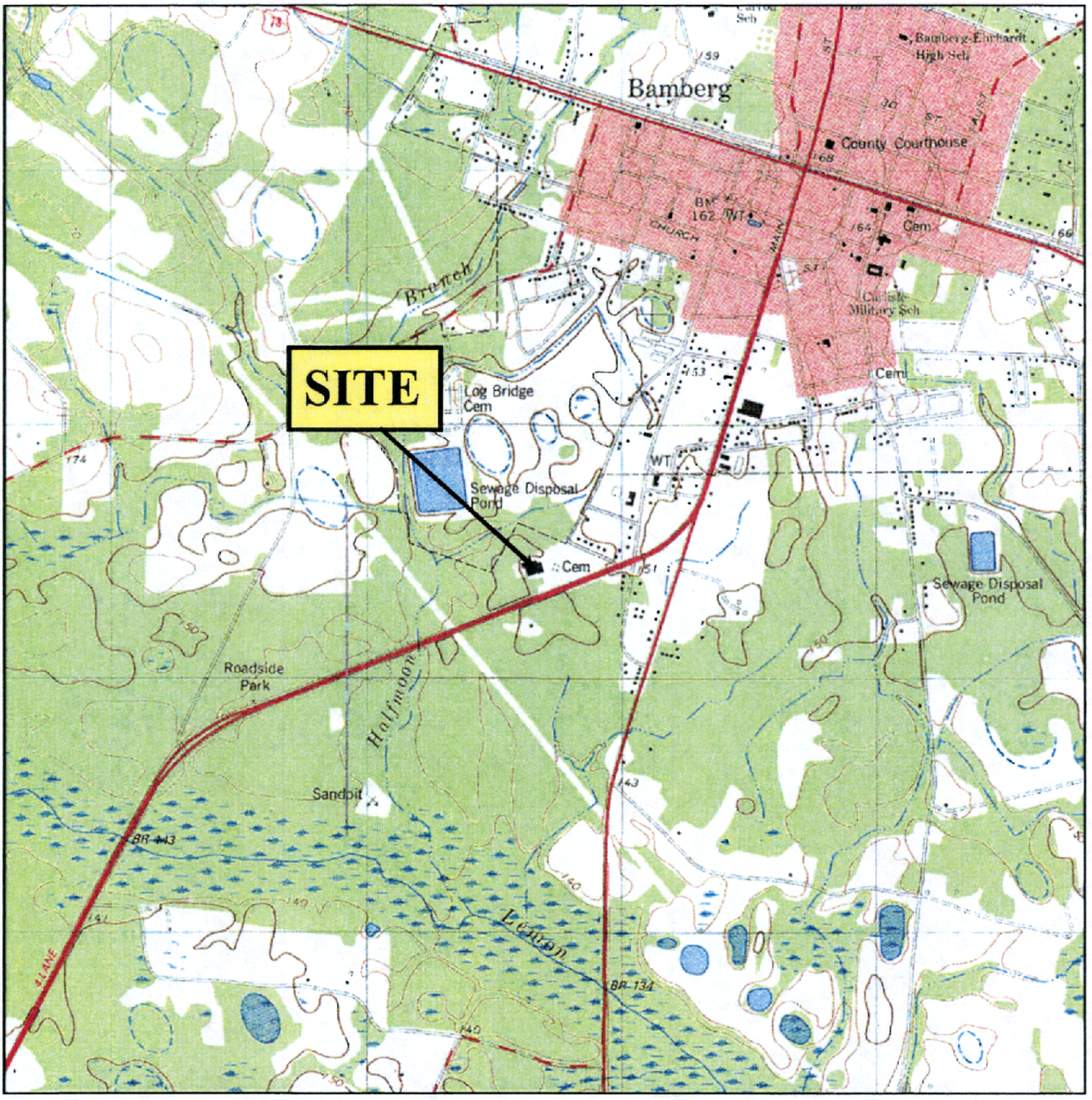
File:Data Tables,WSWs
Date:10/17/2007

Table 2
Water Supply Well Analytical Summary
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Sample ID Sample Date Units	Frazier WSW 1/12/2007 (µg/l)	Thomas WSW 1/12/2007 (µg/l)	DHEC MCL (µg/l)
VOCs (8260B)			
1,2-Dichloroethane	<1.00	2.27	5
cis-1,3-Dichloropropene	<1.00	1.14	NS
trans-1,3-Dichloropropene	<1.00	1.91	NS
Tetrachloroethene	<1.00	4.44	5
1,2,4-Trichlorobenzene	<1.00	2.00	70

Notes:
Samples analyzed by EPA Method 8260B
Only analytes detected in at least one sample indicated above
MCL = DHEC Maximum Contaminant Level
NS = Not Specified

File: Data Tables, WSW Data
Date: 10/17/2007



N

APPROXIMATE

0 2000 4000

SCALE IN FEET

U.S.G.S. QUADRANGLE MAP

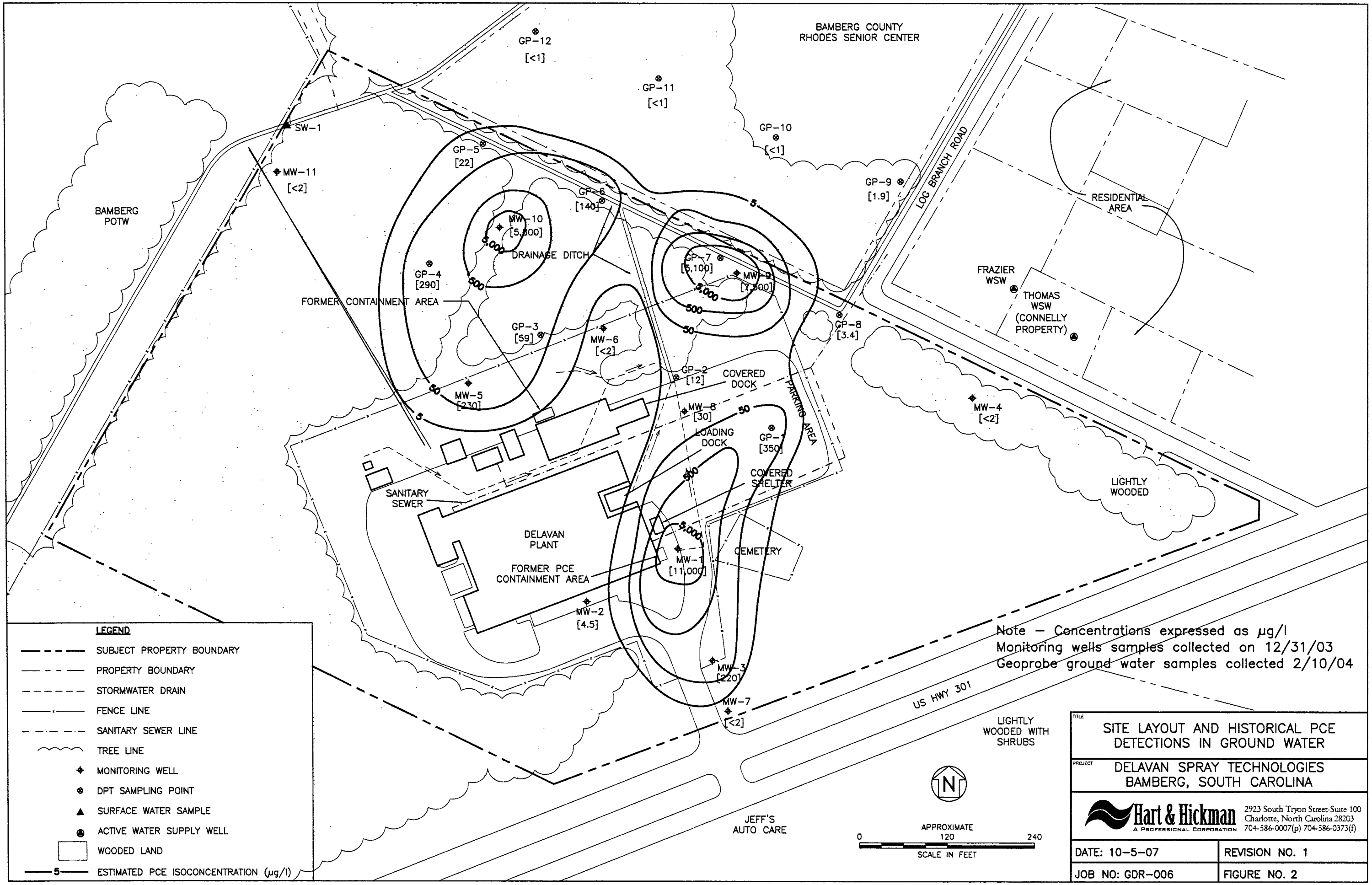
BAMBERG, NC 1979 (PHOTO REVISED 1987)

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP
PROJECT	DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

Hart & Hickman
A Professional Corporation
501 Minuet Lane-Suite 101
Charlotte, North Carolina 28217
(704)-586-0007 (704)-586-0373 fax

DATE:	10-17-07	REVISION NO:	0
JOB NO:	GDR-006	FIGURE NO:	1



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- STORMWATER DRAIN
- FENCE LINE
- SANITARY SEWER LINE
- TREE LINE
- MONITORING WELL
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- ACTIVE WATER SUPPLY WELL
- WOODED LAND
- 5 — ESTIMATED PCE ISOCONCENTRATION (µg/l)

Note – Concentrations expressed as µg/l
Monitoring wells samples collected on 12/31/03
Geoprobe ground water samples collected 2/10/04

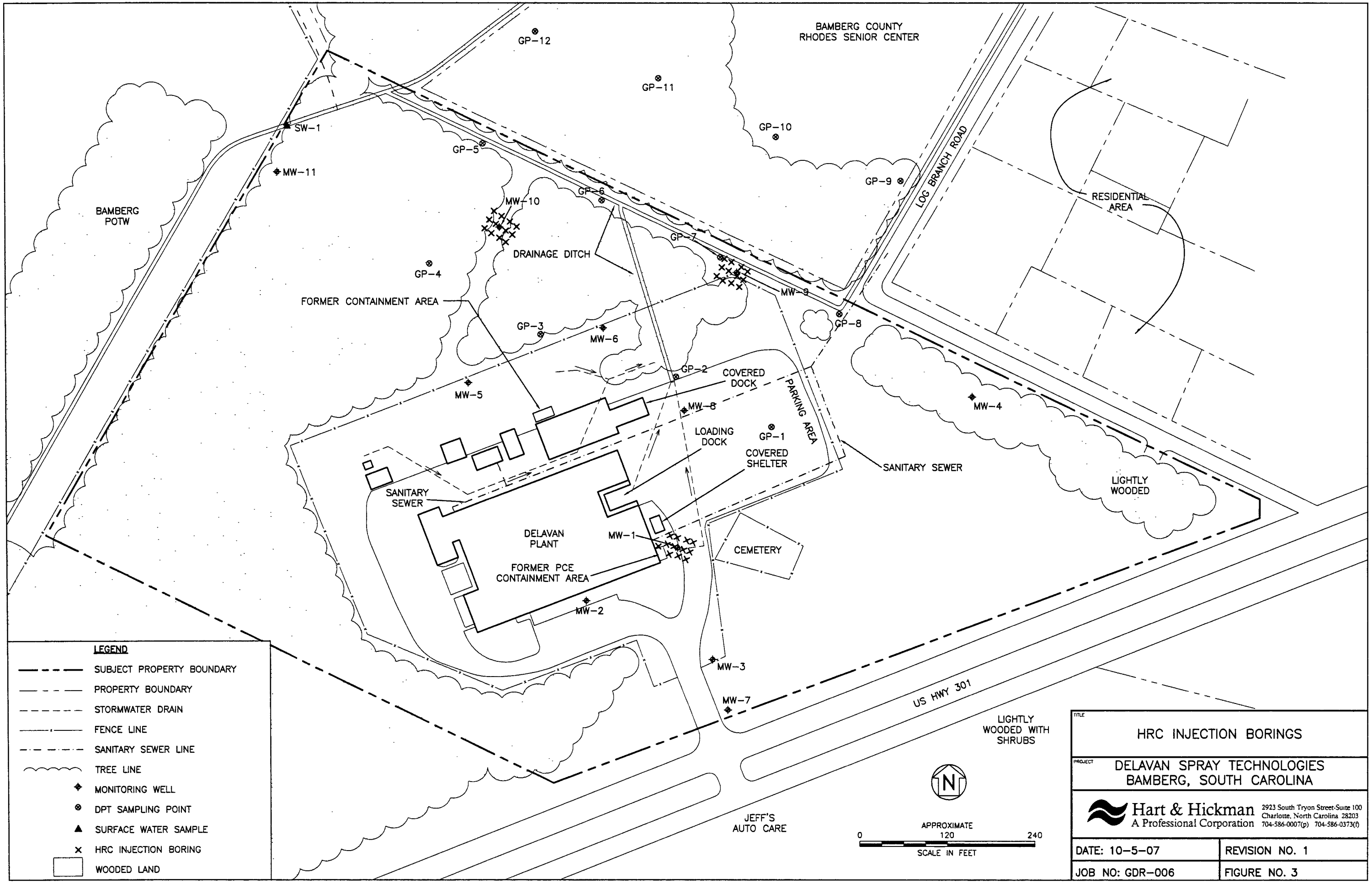
TITLE: SITE LAYOUT AND HISTORICAL PCE DETECTIONS IN GROUND WATER

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A PROFESSIONAL CORPORATION
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

DATE: 10-5-07	REVISION NO. 1
JOB NO: GDR-006	FIGURE NO. 2

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\DHEC WP Oct 2007 Rev 1\Figures\Figures\FIG-02 SITE LAYOUT wPCE_REV.dwg, 10/17/2007 11:39:12 AM, JS 4:120



TITLE

HRC INJECTION BORINGS

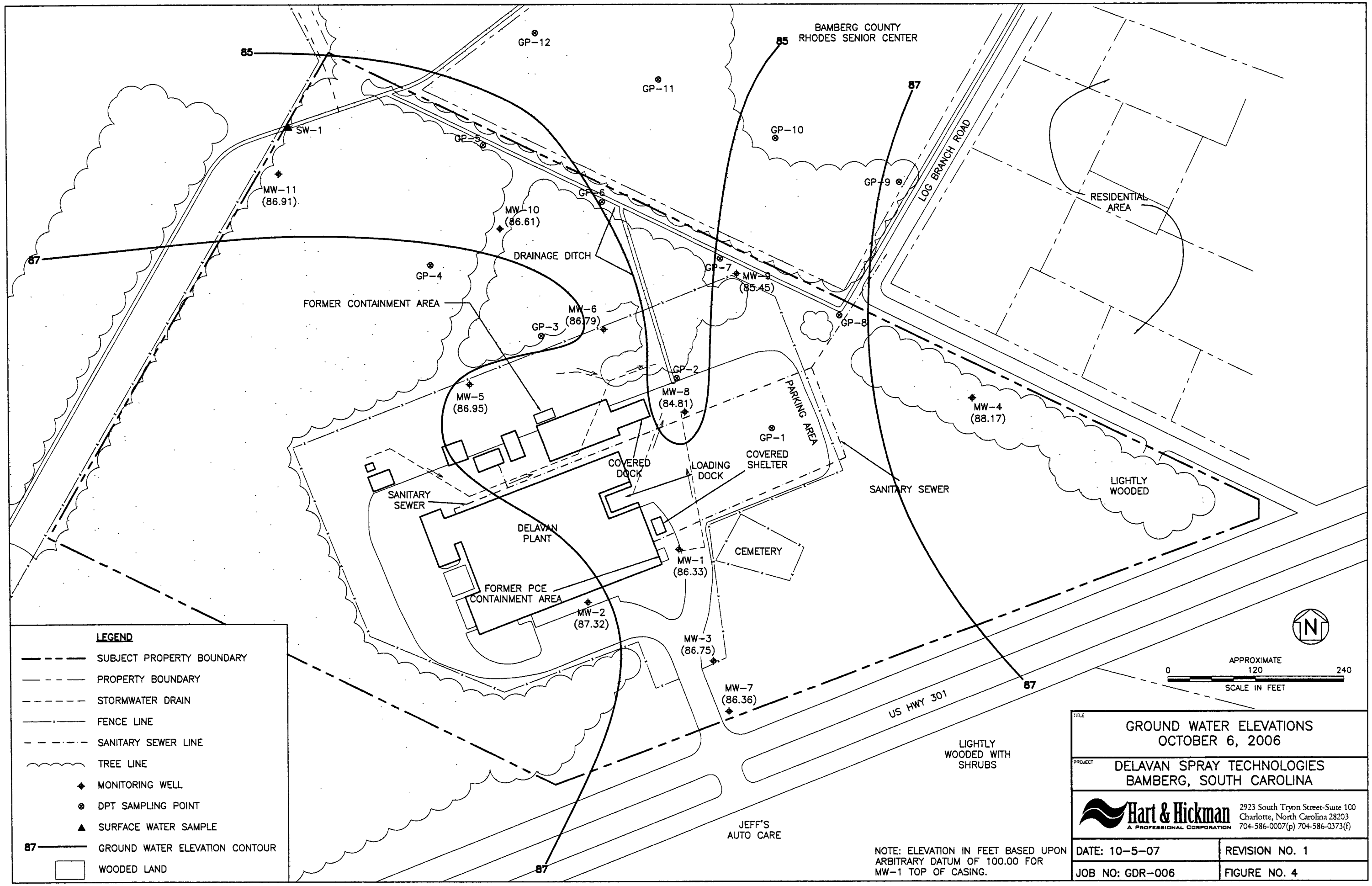
PROJECT

DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A Professional Corporation
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

DATE: 10-5-07	REVISION NO. 1
JOB NO: GDR-006	FIGURE NO. 3

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\DHEC WP Oct 2007 Rev 1\Figures\Figures\FIG-03 injections_REV.dwg, 10/17/2007 11:39:43 AM, 1:120



NOTE: ELEVATION IN FEET BASED UPON ARBITRARY DATUM OF 100.00 FOR MW-1 TOP OF CASING.

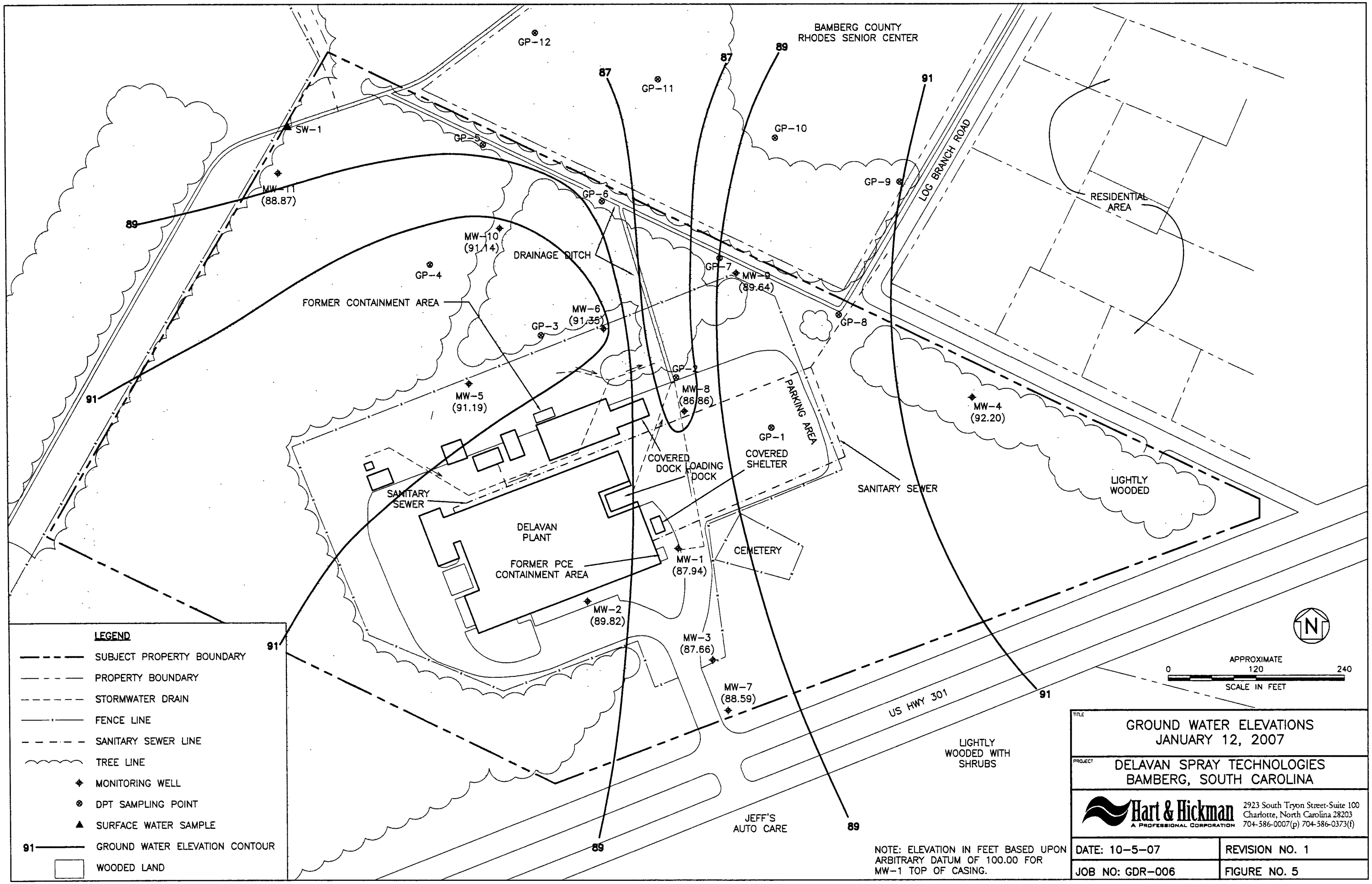
TITLE
GROUND WATER ELEVATIONS
OCTOBER 6, 2006

PROJECT
DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A PROFESSIONAL CORPORATION
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

DATE: 10-5-07	REVISION NO. 1
JOB NO: GDR-006	FIGURE NO. 4

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\DHEC WP Oct 2007 Rev 1\Figures\FIG-04 WL_REV.dwg, 10/17/2007 11:40:21 AM, 1:120



NOTE: ELEVATION IN FEET BASED UPON ARBITRARY DATUM OF 100.00 FOR MW-1 TOP OF CASING.

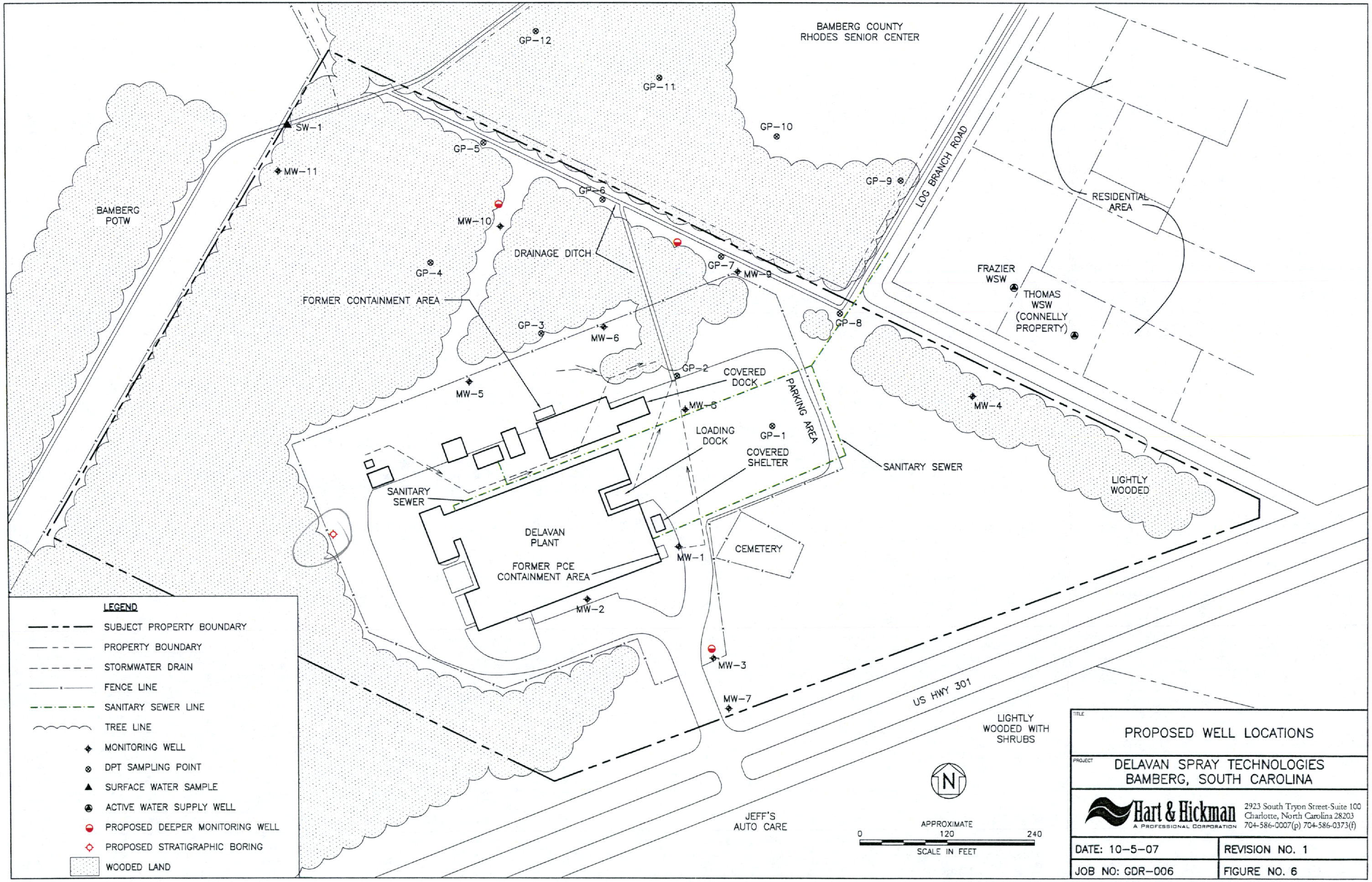
TITLE
GROUND WATER ELEVATIONS
JANUARY 12, 2007

PROJECT
DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A PROFESSIONAL CORPORATION
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

DATE: 10-5-07	REVISION NO. 1
JOB NO: GDR-006	FIGURE NO. 5

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\DHEC WP Oct 2007 Rev 1\Figures\Figures\FIG-05 WL_REV.dwg, 10/17/2007 11:40:46 AM, 1:120



TITLE

PROPOSED WELL LOCATIONS

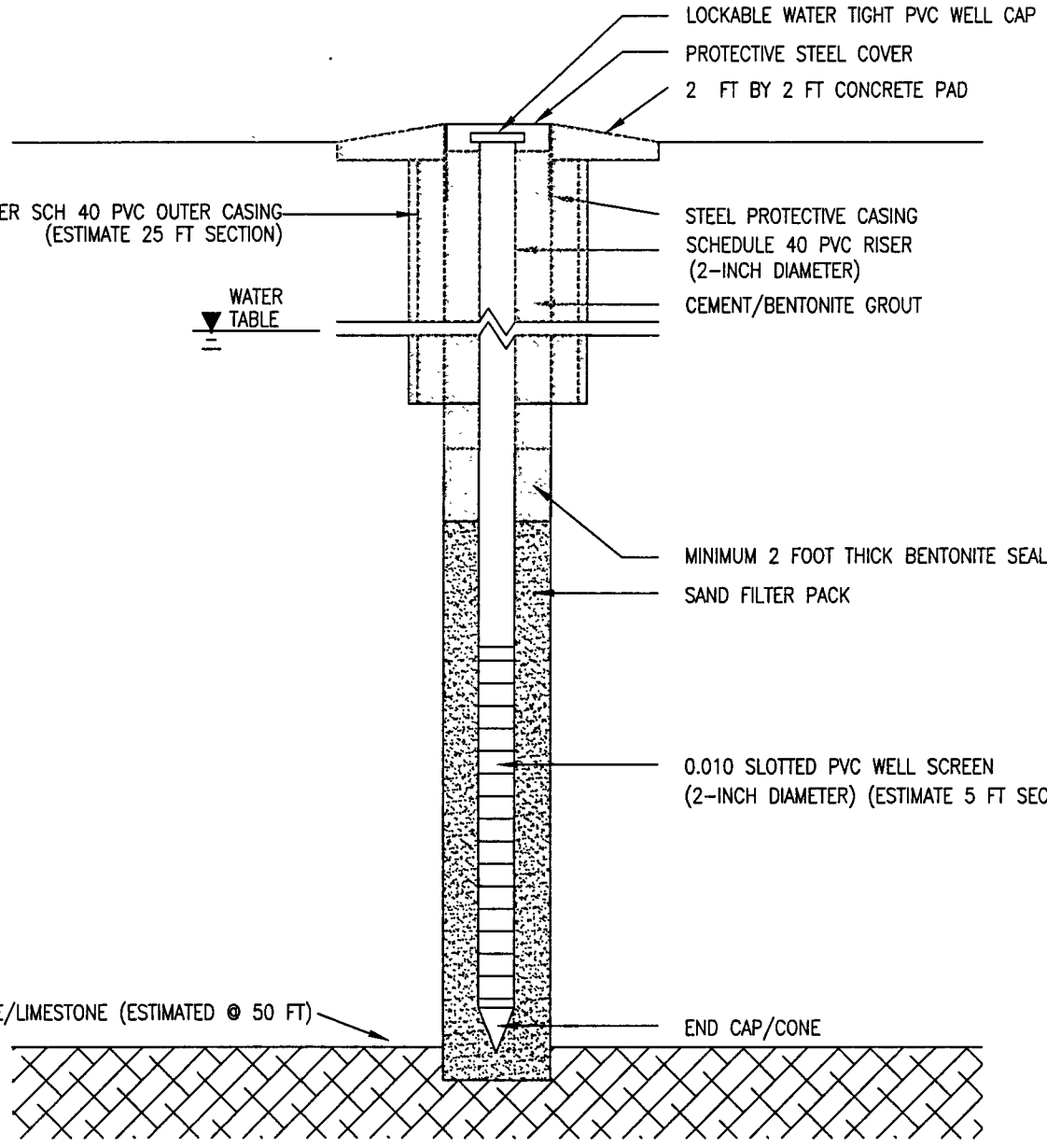
PROJECT

DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A PROFESSIONAL CORPORATION
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

DATE: 10-5-07	REVISION NO. 1
JOB NO: GDR-006	FIGURE NO. 6

S:\AAA-Master Projects\Goodrich - Gunsmoke\Bamberg\DELEV WP Oct 2007 Rev.1\Fig... 10/17/2007 ... 13 AM



NOT TO SCALE

TITLE: TYPICAL DEEPER TYPE III MONITOR WELL DIAGRAM

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

Hart & Hickman
A Professional Corporation
2923 South Tryon Street, Ste 100
Charlotte, North Carolina
(704)586-0007 (704)586-0373-fax

DATE: 6-27-07	REVISION NO. 0
JOB NO: GDR-006	FIGURE NO. 7

FILENAME

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\DHEC WP Oct 2007 Rev 1\Figures\Figures\FIG-07.dwg, 10/17/2007 11:41:41 AM, 1:1

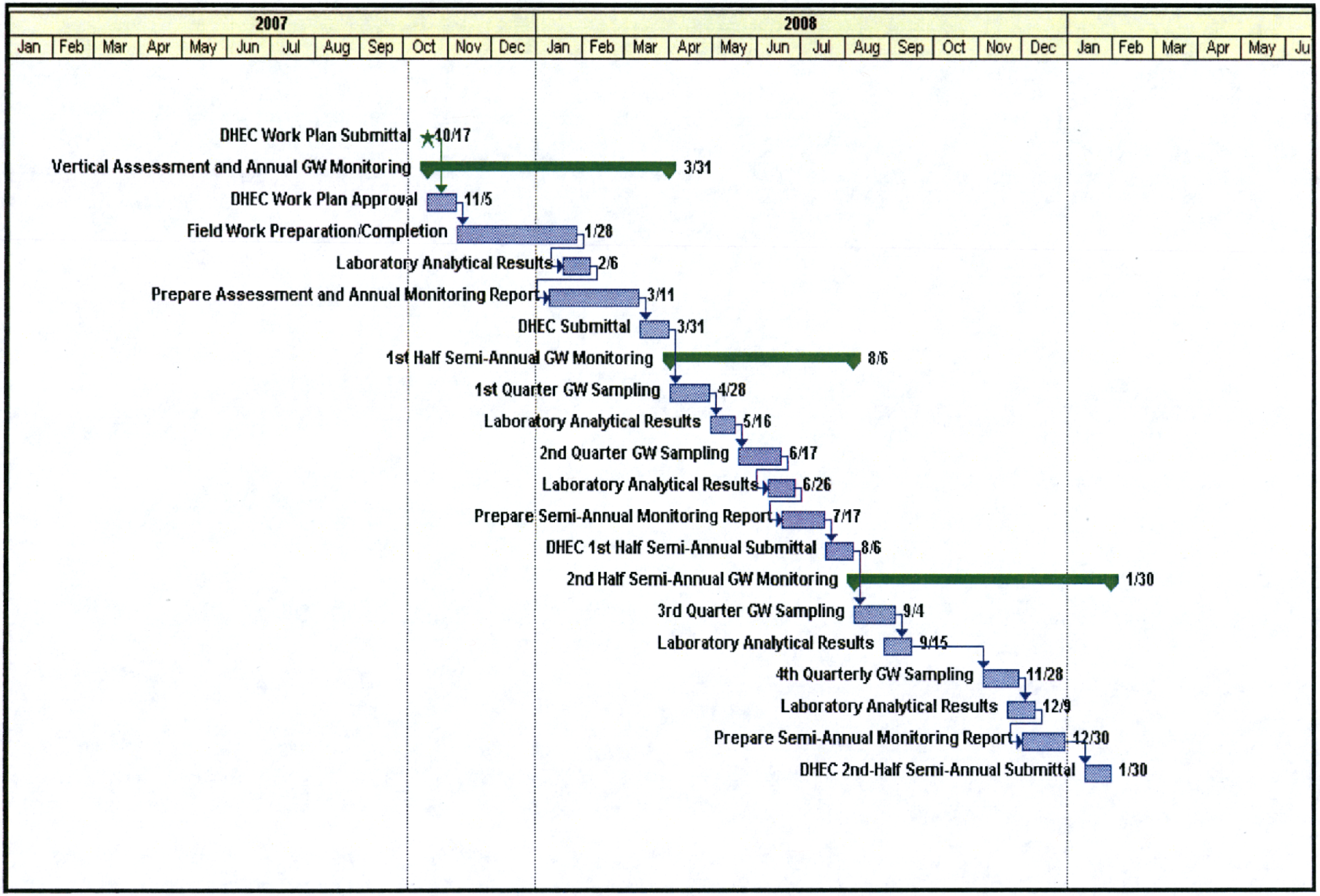


Figure 8: Schedule for Completion