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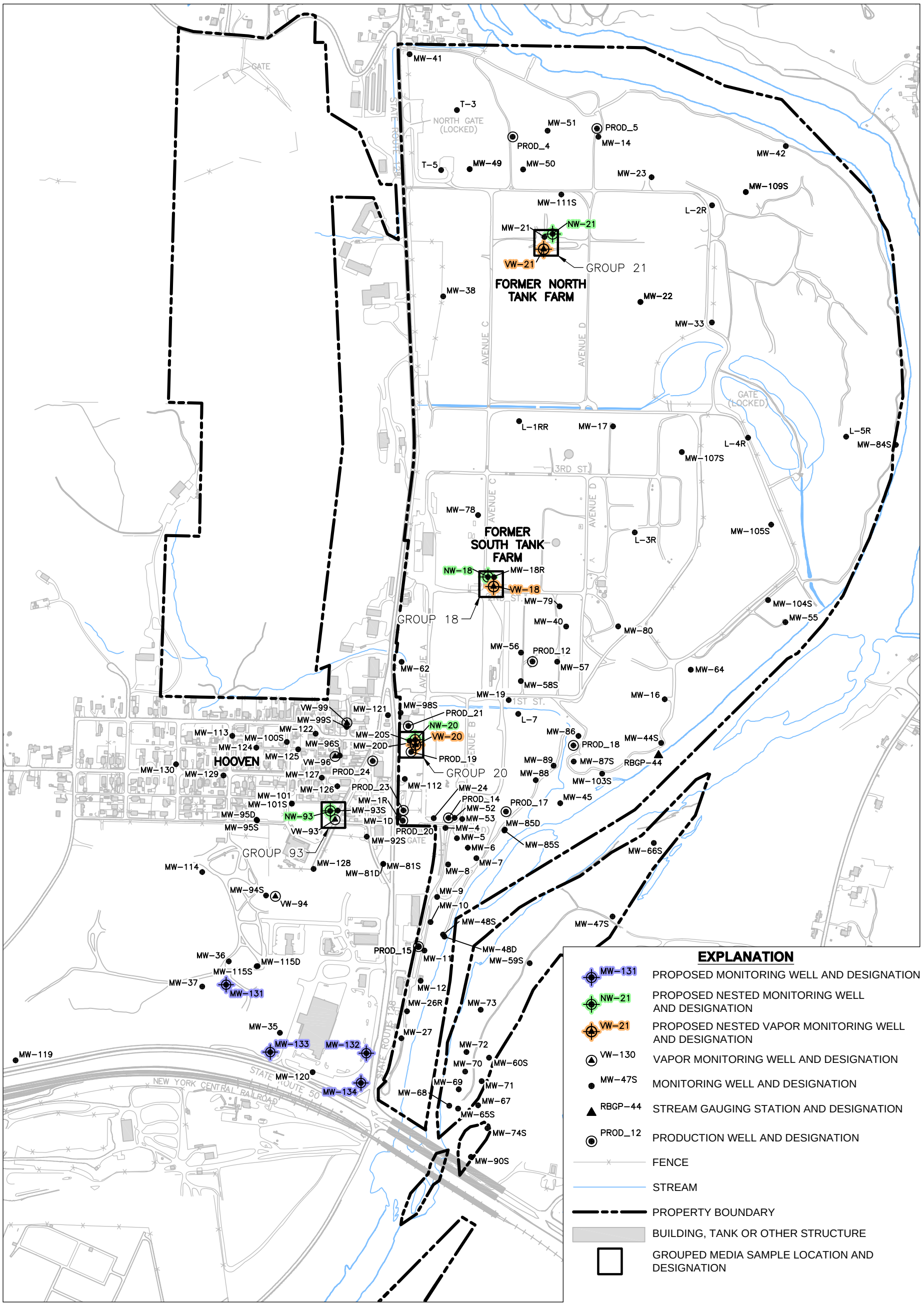

EXPLANATION

- MW-131 — PROPOSED MONITORING WELL AND DESIGNATION
- NW-21 — PROPOSED NESTED MONITORING WELL AND DESIGNATION
- VW-21 — PROPOSED NESTED VAPOR MONITORING WELL AND DESIGNATION
- VW-130 — VAPOR MONITORING WELL AND DESIGNATION
- MW-47S — MONITORING WELL AND DESIGNATION
- RBGP-44 — STREAM GAUGING STATION AND DESIGNATION
- PROD_12 — PRODUCTION WELL AND DESIGNATION
- FENCE
- STREAM
- PROPERTY BOUNDARY
- BUILDING, TANK OR OTHER STRUCTURE
- GROUPED MEDIA SAMPLE LOCATION AND DESIGNATION

N

0 650'

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FIGURE 2-1

SITE LAYOUT MAP

CHEVRON CINCINNATI FACILITY
HOOVEN, OHIO

Drawn By: REP	Checked By: DR	Scale: 1" = 650'	Date: 11/12/07	File: 500FACILITYMAP_RIP-OMM

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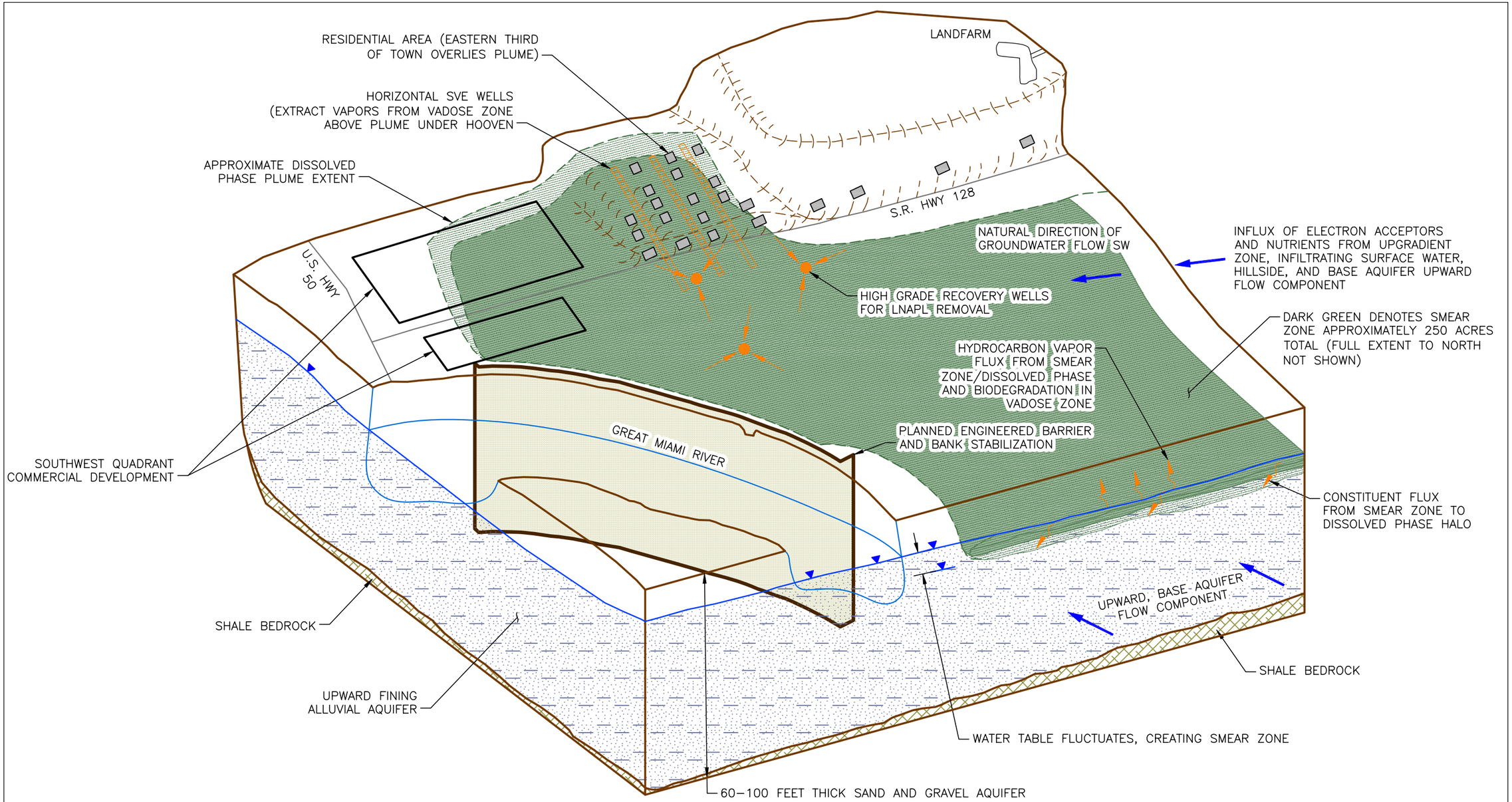

Source: Provided by Chevron Cincinnati.

EXPLANATION

- HIGH-GRADE PUMPING TARGETED AREAS WITH HIGHEST RESIDUAL LNAPL SATURATION.
- WATER LEVEL
- DISSOLVED PHASE PLUME EXTENT
- SMEAR ZONE EXTENT

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FIGURE 2-2

GROUNDWATER CONCEPTUAL SITE MODEL

CHEVRON CINCINNATI FACILITY
HOOVE, OHIO

Drawn By: REP	Checked By: KR	Scale: NONE	Date: 8/22/07	File: 500GWCONCSITEMODEL

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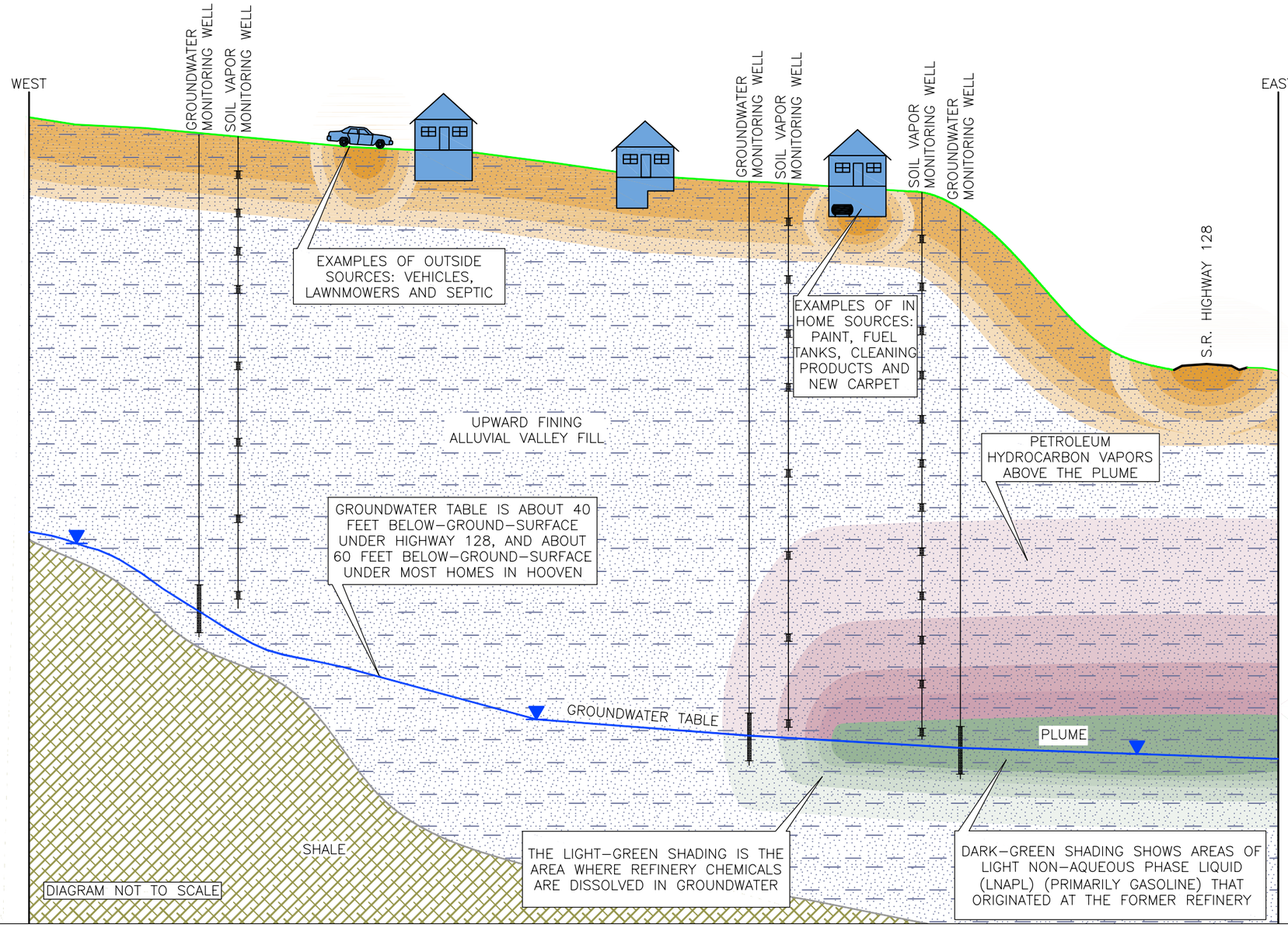

NOTES:

1. THIS DIAGRAM SHOWS THE GENERAL CONDITIONS UNDER HOOVEN IN CROSS SECTION, INCLUDING THE GENERALIZED GEOLOGY, DEPTH TO THE WATER TABLE AND DISTRIBUTION OF HYDROCARBONS ATTRIBUTABLE TO THE FORMER REFINERY.
2. BOTH THE DISSOLVED CHEMICAL AND THE VAPOR CONCENTRATIONS DECREASE TO BELOW DETECTABLE LEVELS BEFORE THEY MOVE VERY FAR FROM THE LNAPL. FOR THE VAPORS, CONCENTRATIONS DECREASE TO BELOW HEALTH-BASED SCREENING LEVELS A SUBSTANTIAL DISTANCE BELOW THE GROUND SURFACE.
3. THE ORANGE SHADING AT VARIOUS AREAS NEAR THE GROUND SURFACE REPRESENTS THE ZONE OF LOW CONCENTRATION VAPORS THAT RESULT FROM COMMON HUMAN ACTIVITIES AT THE SURFACE. THESE ACTIVITIES INCLUDE THE USE OF GASOLINE IN VEHICLES AND SMALL ENGINES AS WELL AS FUEL OIL TO HEAT HOMES.

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FIGURE 2-3

HOOVEN SUBSURFACE CONCEPTUAL SITE MODEL
WEST - EAST CROSS-SECTION

CHEVRON CINCINNATI FACILITY
HOOVEN, OHIO

Drawn By: REP	Checked By: DR	Scale: NONE	Date: 8/22/07	File: 500HOOVENCONCSITEX-SEC

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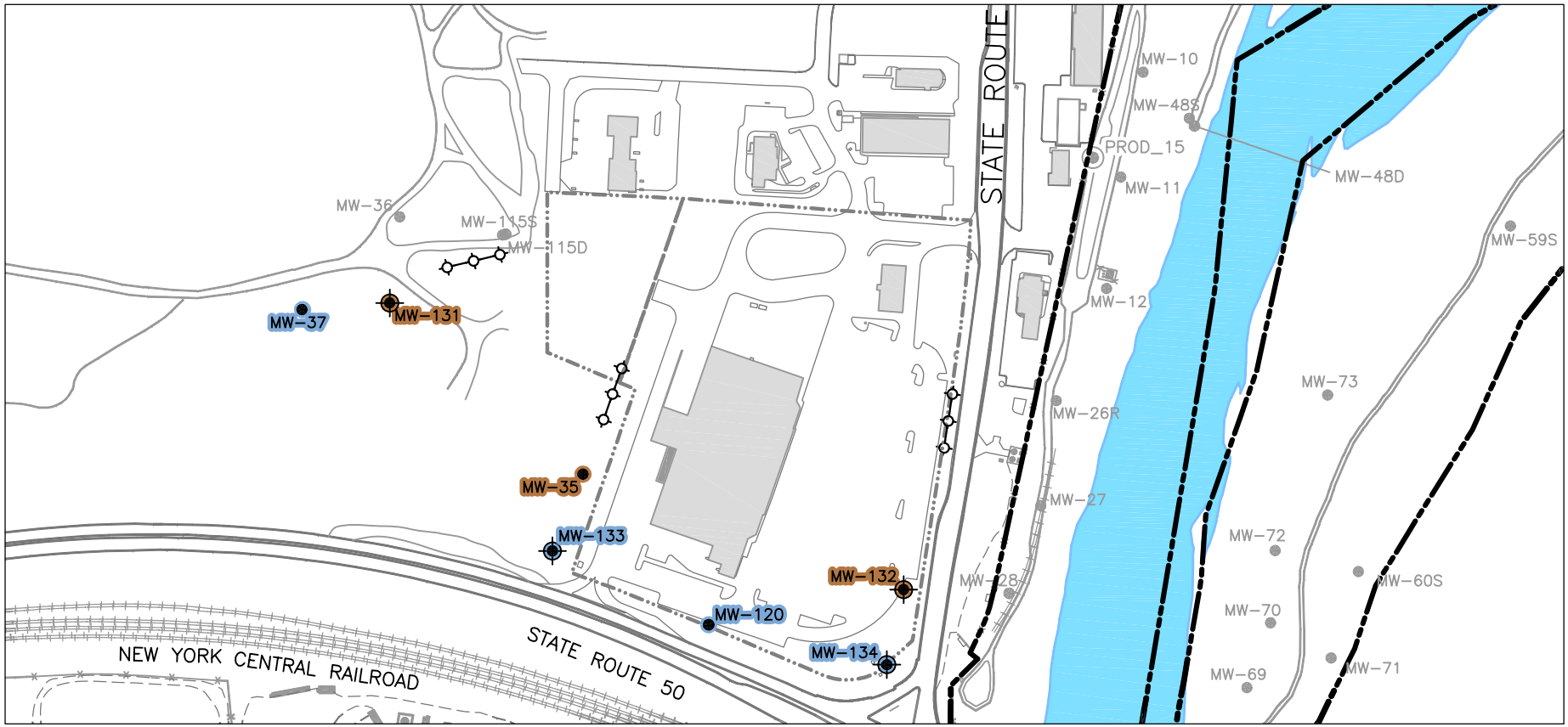

EXPLANATION

- PROPOSED PERMANENT ROST TRANSECT
- MW-133 — PROPOSED POINT OF COMPLIANCE MONITORING WELL AND DESIGNATION
- MW-131 — PROPOSED SENTINEL MONITORING WELL AND DESIGNATION
- MW-37 — POINT OF COMPLIANCE MONITORING WELL AND DESIGNATION
- MW-35 — SENTINEL MONITORING WELL AND DESIGNATION
- MW-119 — MONITORING WELL AND DESIGNATION
- PROD_15 — PRODUCTION WELL AND DESIGNATION
- BUILDING, TANK OR OTHER STRUCTURE
- FENCE
- CHEVRON PROPERTY BOUNDARY
- GOLSCH PROPERTY (LEASED)

N

0 300'

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FIGURE 4-1

SENTINEL, POC AND ROST TRANSECT MONITORING WELLS

CHEVRON CINCINNATI FACILITY HOOVEN, OHIO

Drawn By: VLP	Checked By: DR	Scale: 1"=300'	Date: 1/26/07	File: 500SWQROST

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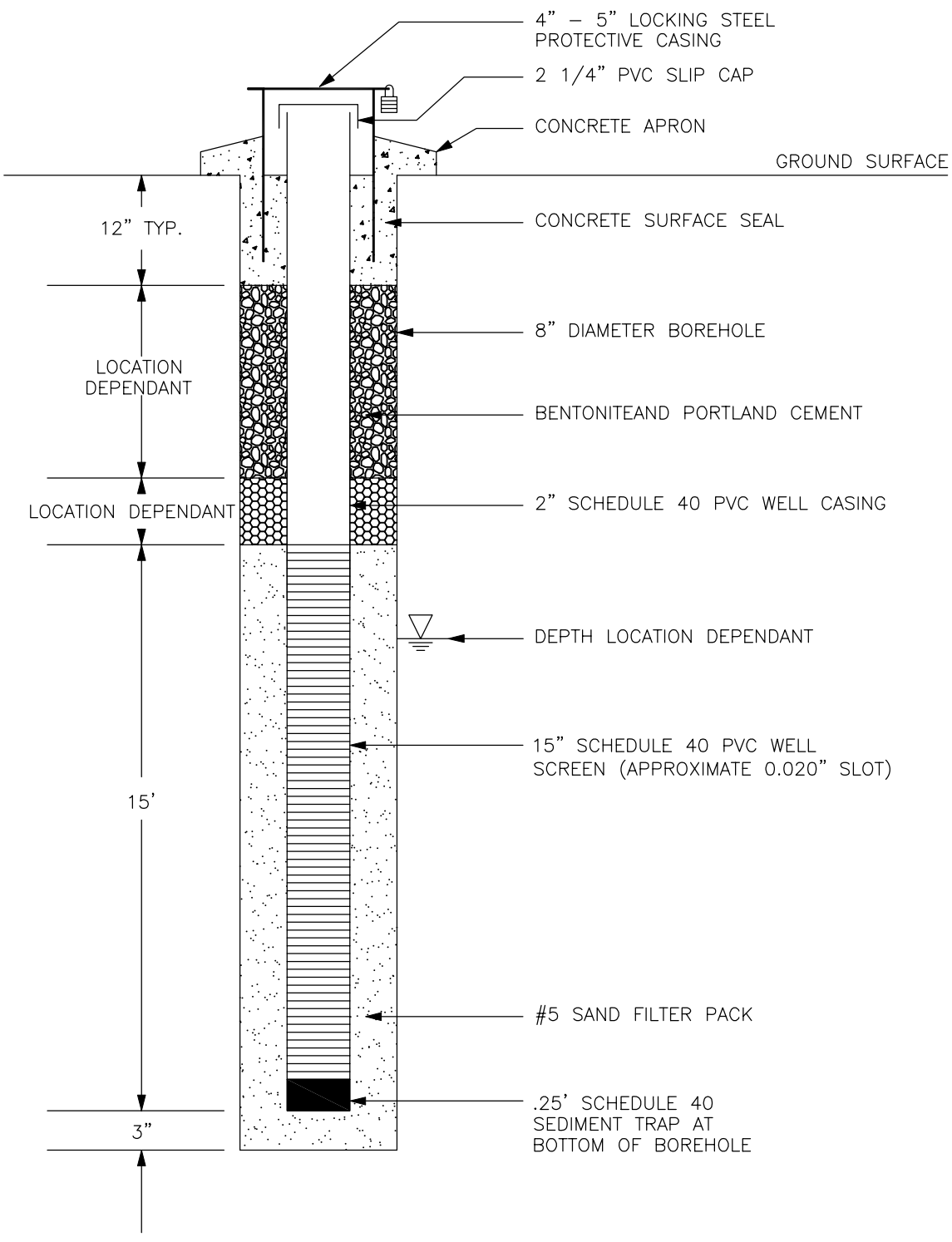

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FIGURE 4-2

MONITORING WELL COMPLETION DETAIL

CHEVRON CINCINNATI FACILITY HOOVEN, OHIO

Drawn By: TWB	Checked By: DR	Scale: NONE	Date: 8/24/07	File: 500MONITORWELLDETAIL

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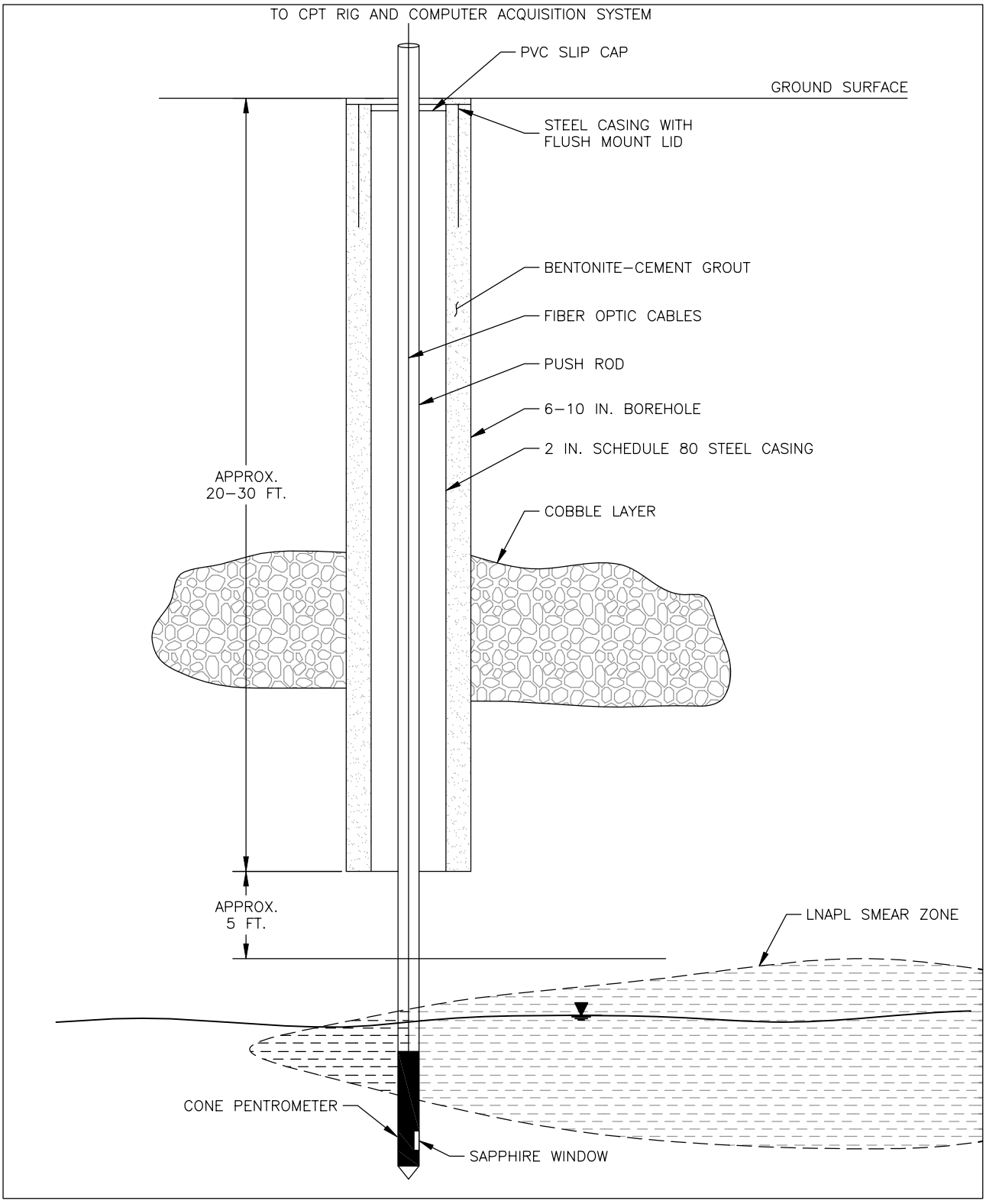

NOTE:

1. ANNUAL ROST TESTING CAN BE DONE USING THE SAME CASING HOLE EACH YEAR.
2. PUSH ROD AND CASING DIAMETERS TO BE DETERMINED BY ROST CONTRACTOR BASED ON AVAILABLE TECHNOLOGY.

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FIGURE 4-3

ROST WELL COMPLETION DETAIL

CHEVRON CINCINNATI FACILITY
HOOVEN, OHIO

Drawn By: REP	Checked By: DR	Scale: NONE	Date: 12/3/07	File: 500ROSTWELL

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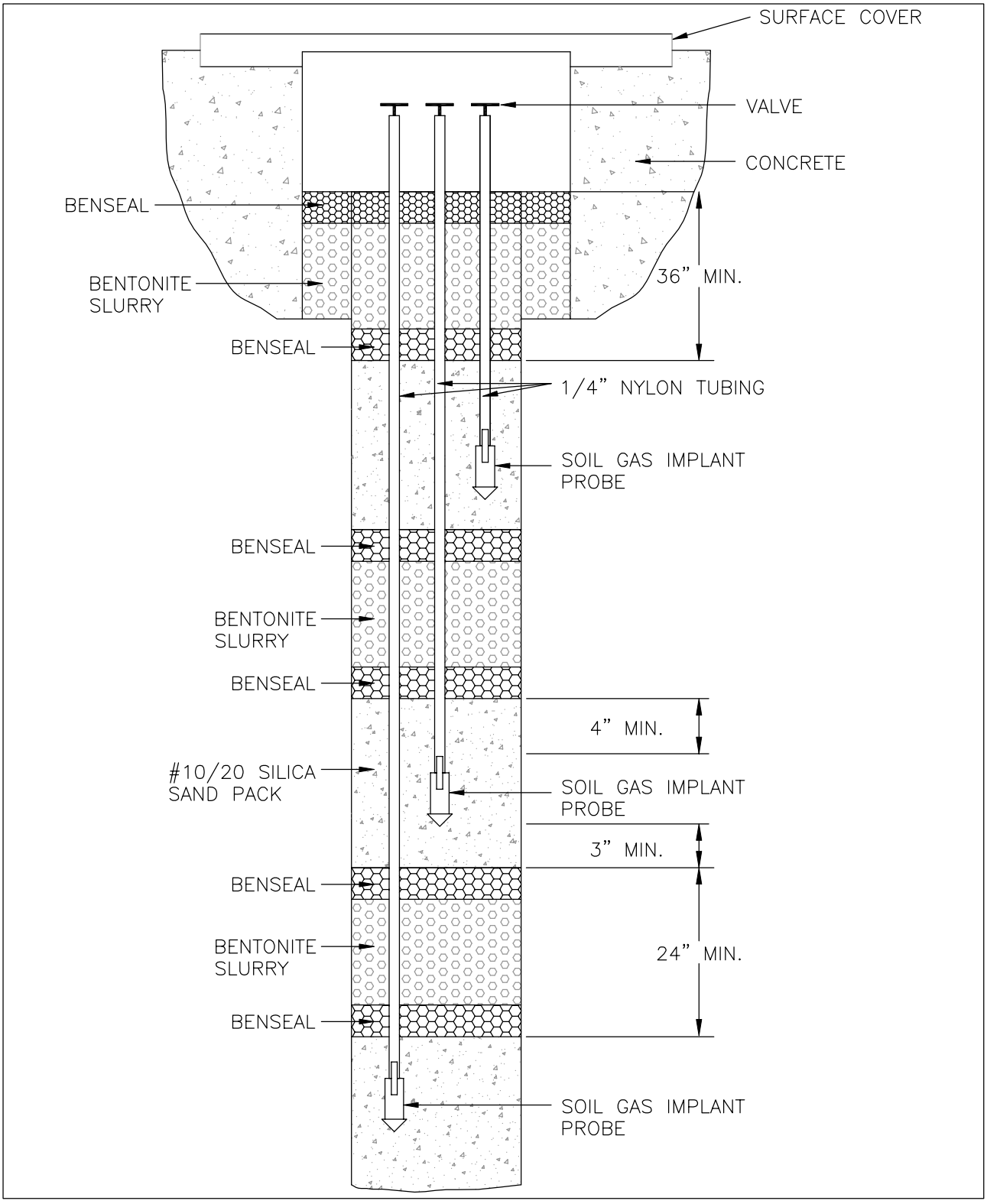

NOTE:

ACTUAL NUMBER OF SAMPLING POINTS WITHIN THE NEST MAY VARY UP TO SEVEN DEPENDING ON DEPTH TO GROUNDWATER, VERTICAL SPACING AND LITHOLOGY. APPROXIMATE SPACING BETWEEN SAMPLING POINTS IS 5 TO 10 FEET.

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FIGURE 8-1

NESTED VAPOR MONITORING WELL DETAIL

CHEVRON CINCINNATI FACILITY
HOOVEN, OHIO

Drawn By: REP	Checked By: DR	Scale: NONE	Date: 8/21/07	File: 500NESTVAPORWELL

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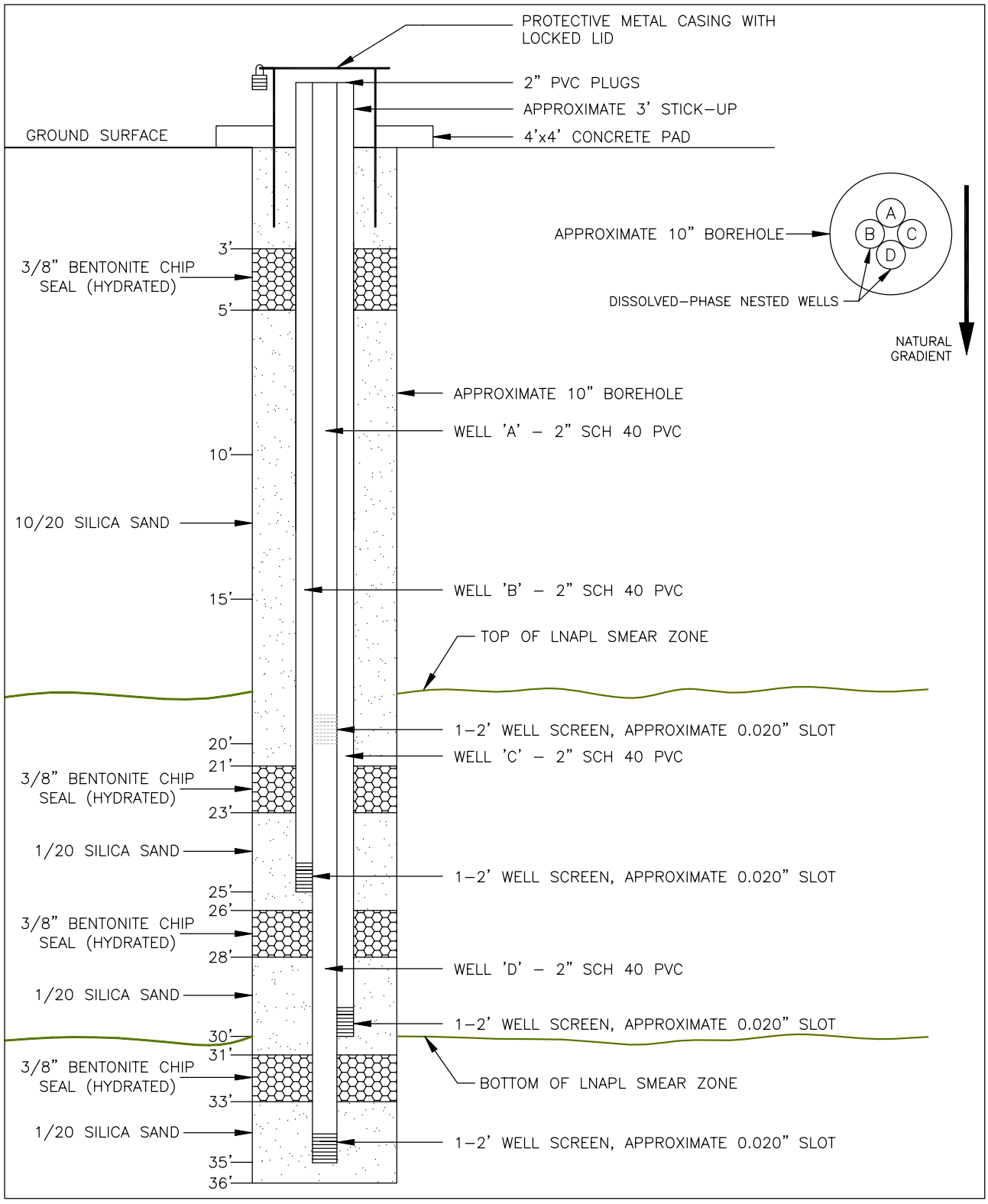

NOTES:

1. SAMPLING INTERVALS MAY CHANGE AS NEEDED TO TARGET SPECIFIC LOCATIONS WITHIN THE SMEAR ZONE.

2. INSTALL NESTED WELL SO THAT SHALLOWEST WELL 'A' IS UP-GRADIENT OF NATURAL GROUNDWATER FLOW

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FIGURE 8-2

NESTED GROUNDWATER MONITORING WELL DETAIL

CHEVRON CINCINNATI FACILITY
HOOVEN, OHIO

Drawn By: TWB	Checked By: DR	Scale: NONE	Date: 4/10/07	File: 500DISSPHASEWELLDETAIL

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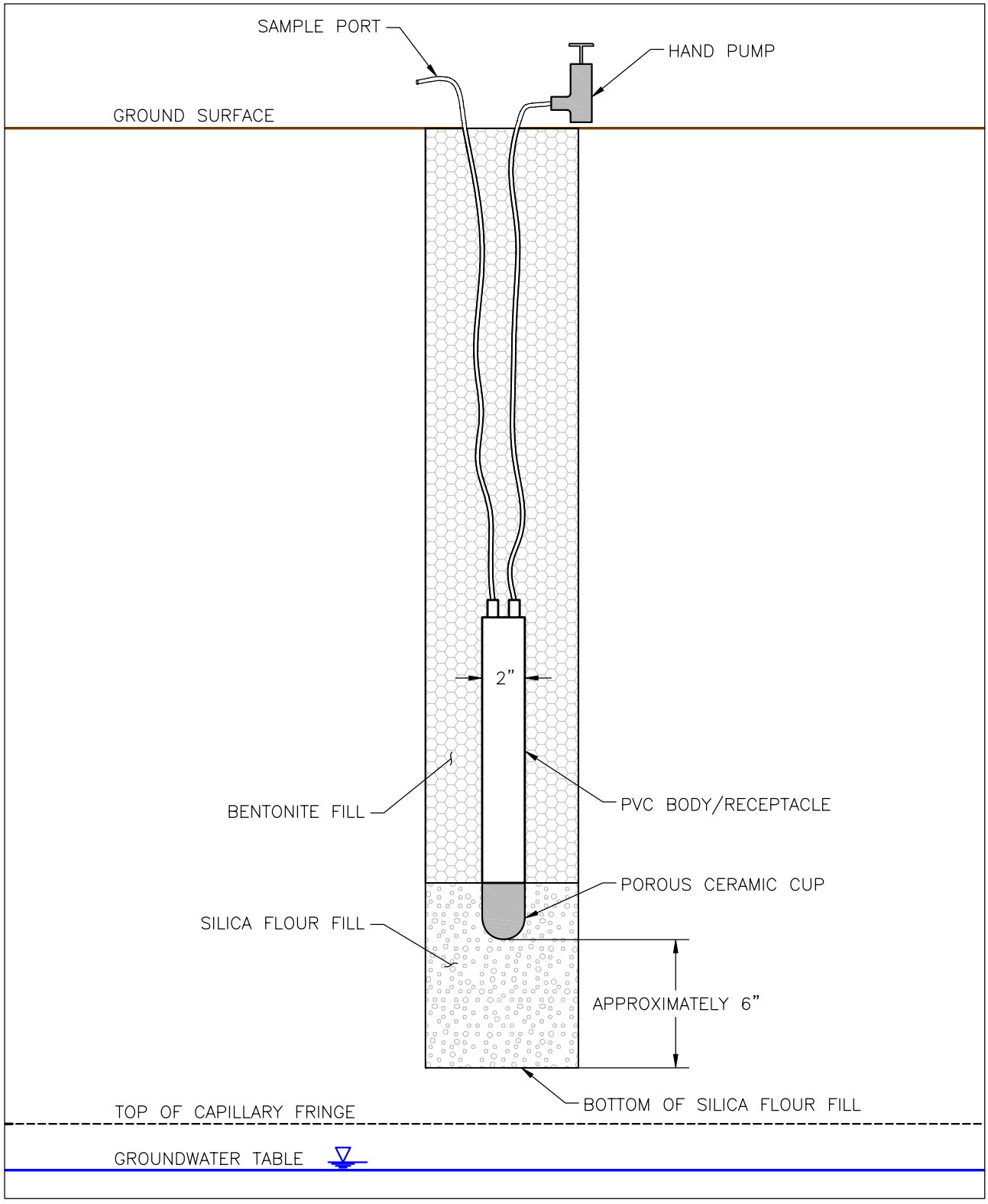

FIGURE 8-3

LYSIMETER DETAIL

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HOOVEN, OHIO

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Drawn By: REP	Checked By: DR	Scale: NONE	Date: 8/22/07	File: 500LYSIMETERWELL