

Steven Scharf - Northrop Grumman OU3 Soil Gas IRM West Leg PCT

From: "Stern, David" <David.Stern@arcadis-us.com>
To: "Steven Scharf" <sxscharf@gw.dec.state.ny.us>
Date: 5/29/2007 3:05 PM
Subject: Northrop Grumman OU3 Soil Gas IRM West Leg PCT
CC: "Cofman, John" <john.cofman@ngc.com>, "San Giovanni, Carlo" <Carlo.SanGi...>
Attachments: 0420_0001.pdf; 0414_0001.pdf

Steve:

Attached for your information is the plan for the pneumatic conductivity test (PCT) for the evaluation of the area along the proposed west leg of the Soil Gas

IRM. The work is scheduled to commence the week of June 4.

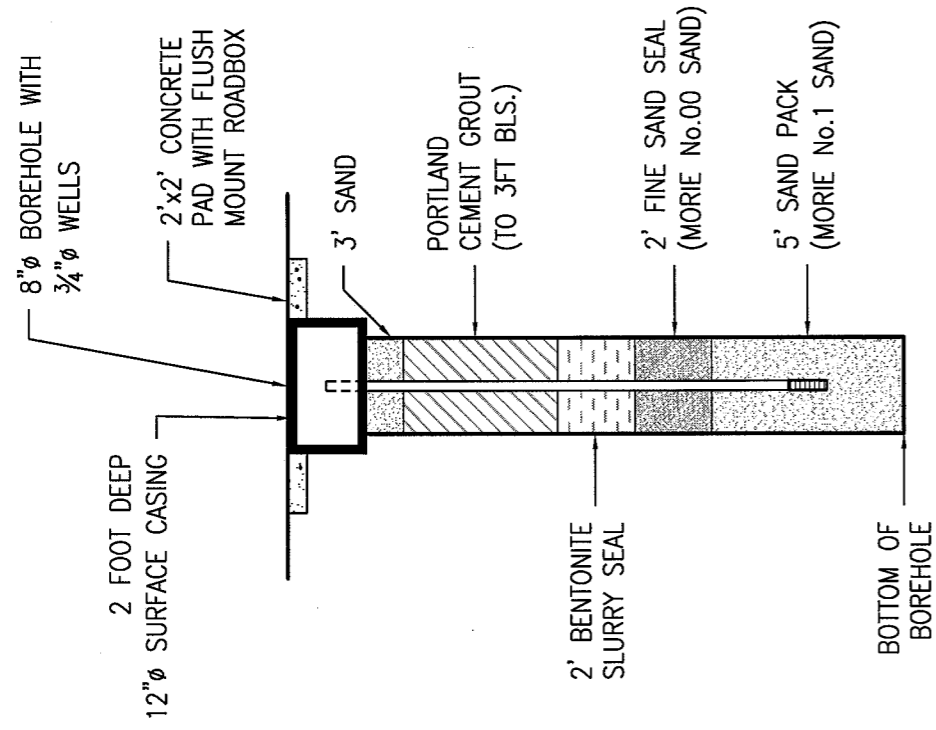
Thanks.

<<0420_0001.pdf>> <<0414_0001.pdf>>

David E. Stern, LEP
Associate Project Manager/Hydrogeologist
ARCADIS of New York, Inc.

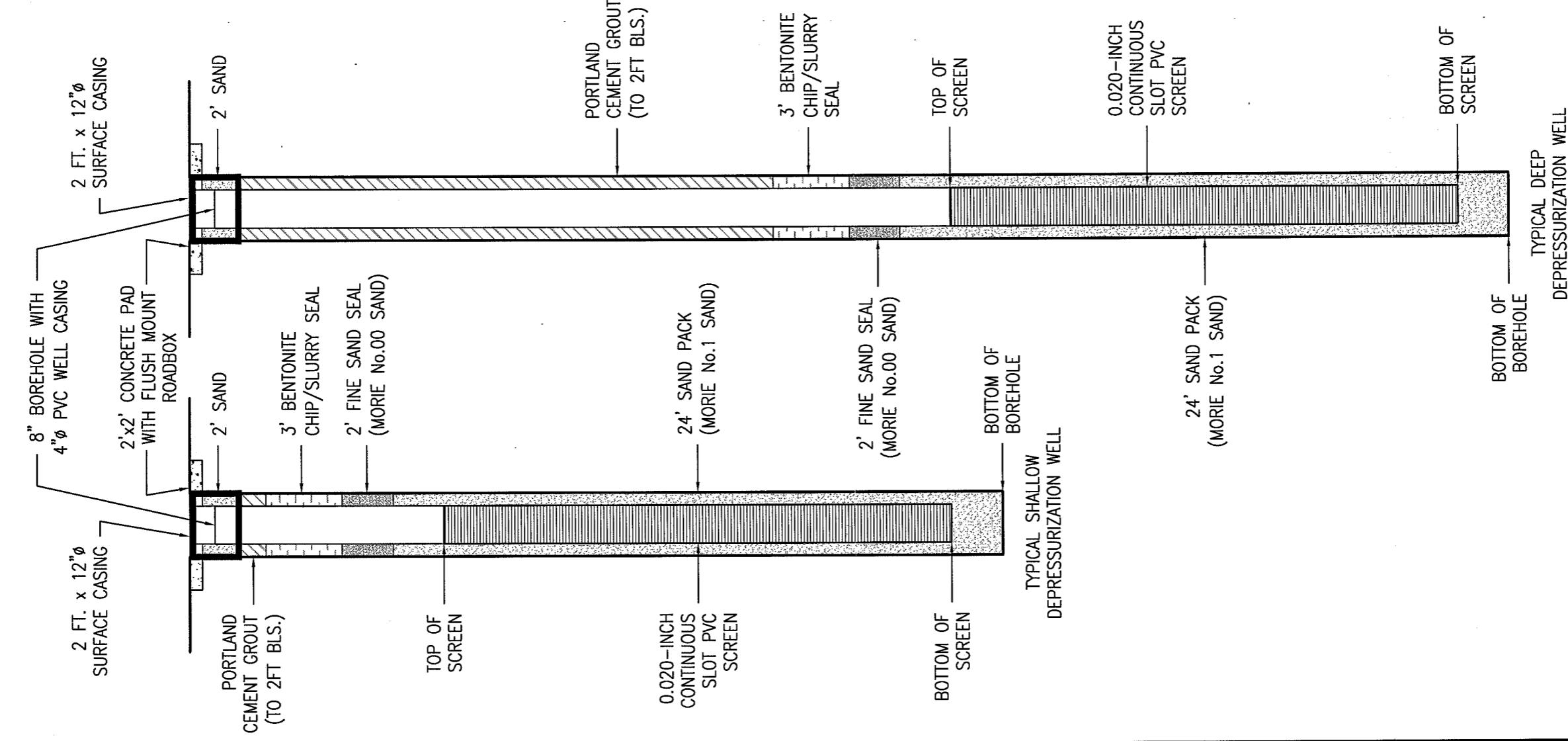
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**TYPICAL VACUUM
MONITORING WELL CLUSTER
CONSTRUCTION DETAIL**

N.T.S.



**TYPICAL DEPRESSURIZATION
WELL CONSTRUCTION DETAIL**

N.T.S.

NOTES:

1. DEPRESSURIZATION WELL (DW) AND VACUUM MONITORING WELL (VMWC), CONSTRUCTION DETAILS MAY BE MODIFIED DUE TO FIELD CONDITIONS.
2. REFER TO TABLE 1 FOR ADDITIONAL DETAILS.
3. EACH 3-WELL VMWC WILL BE DRILLED AS SEPARATE BORE HOLES TO THE DEPTHS SPECIFIED IN TABLE 1.

ARCADIS OF NEW YORK, INC.	NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CD



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PROJECT TITLE
**NORTHROP GRUMMAN
OPERABLE UNIT 3
SOIL GAS INTERIM REMEDIAL MEASURE
BETHPAGE, NEW YORK**

PROJECT MANAGER
C. SAN GIOVANNI

DEPARTMENT MANAGER
M. WOLPERT

SHEET TITLE
**TYPICAL DEPRESSURIZATION
AND VACUUM MONITORING
WELL DETAIL**

LEAD DESIGN PROF.
K. PERDES

TASK/PHASE NUMBER
00002

PROJECT NUMBER
NY001646.1407

CHECKED BY
C. TUOHY/ D. STERN

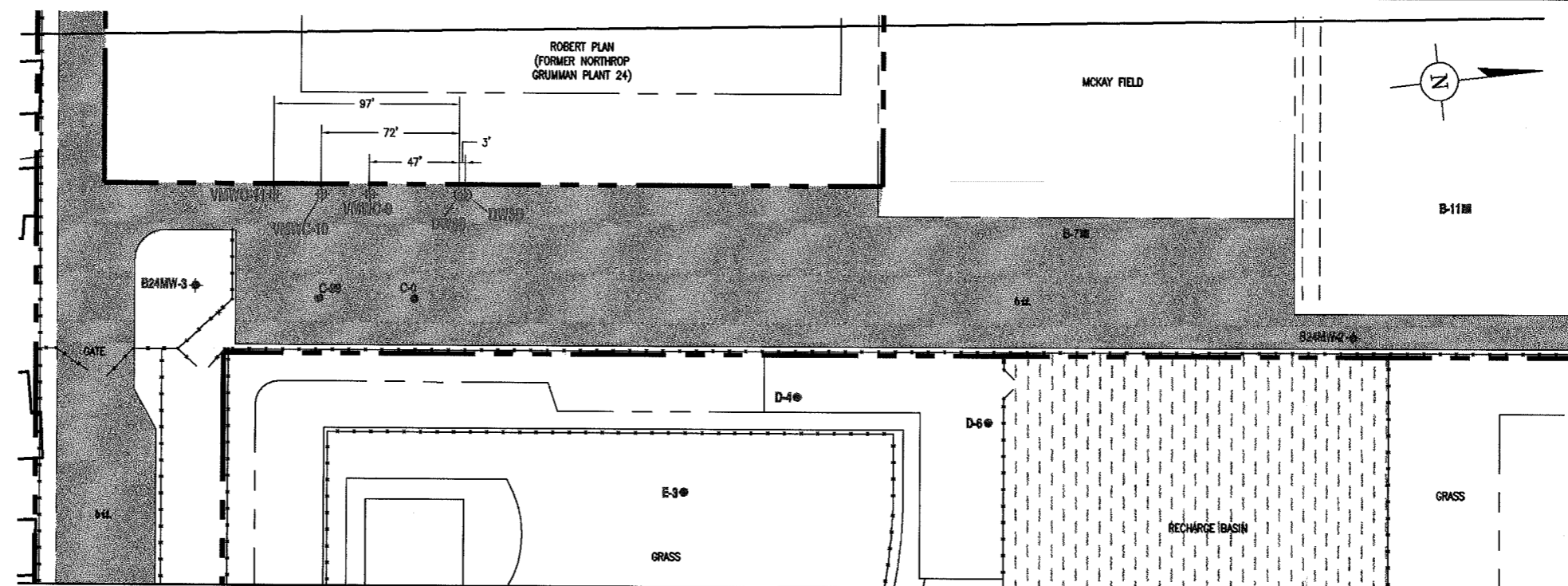
DRAWN BY
A. SANCHEZ

DRAWING NUMBER
2

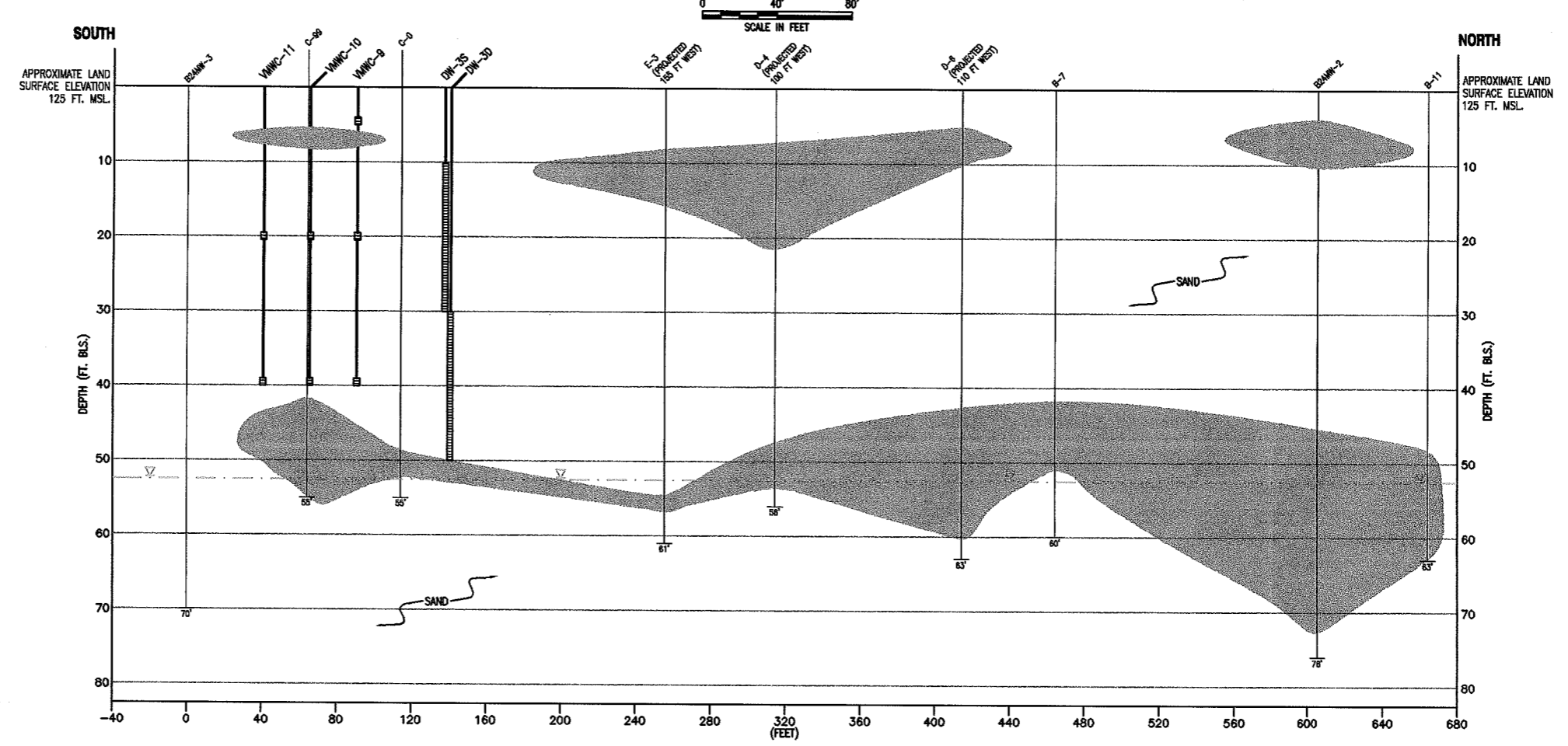
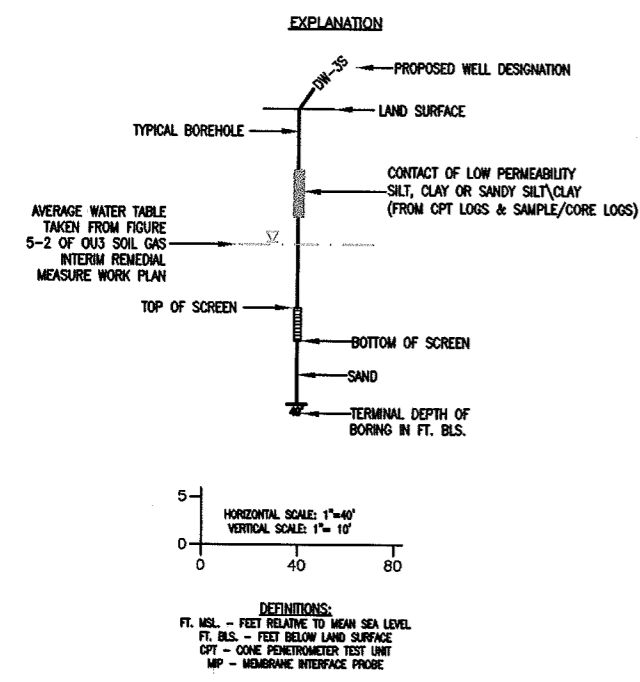
- LEGEND:**
- NORTHROP GRUMMAN PROPERTY LINE
 - - - - - FENCE
 - BITUMINOUS PAVEMENT
 - BCP-MW-4.2 ◊ MONITORING WELLS
 - C-00 ● MIP BORING
 - B-11 ■ CPT BORING
 - DW39/DW3D ⊙ PROPOSED DEPRESSURIZATION WELL (DW)
 - VMWC-0 ◊ PROPOSED VACUUM MONITORING WELL CLUSTER (VMWC)

NOTES:

1. WATER TABLE MEASUREMENT WAS OBTAINED FROM FIGURE 5-2 OF SOIL GAS IRM WORKPLAN.



DEPRESSURIZATION WELLS DW39/DW3D AND ASSOCIATED VACUUM MONITORING WELL CLUSTERS (VMWC)



Acad Version : R17.0a (LMS Tech) Date/Time : Thu, 24 May 2007 10:56am User Name : abianchiz Path Name : G:\PROJECT\Northrop Grumman\Superfund\2007\GIS\NY01464.1407_VCS_IRM\Soil_Vapor_IRM_Workplan\PT_Addendum\Pneumatics_Conductivity_Test\dw39.dwg: half size

© 2007 ARCADIS OF NEW YORK, INC.		KEYPLAN	SEAL		PROJECT TITLE NORTHROP GRUMMAN OPERABLE UNIT 3 SOIL GAS INTERIM REMEDIAL MEASURE BETHPAGE, NEW YORK	PROJECT MANAGER C. SAN GIOVANNI	DEPARTMENT MANAGER M. WOLFERT	LEAD DESIGN PROF. K. PIERIDES	CHECKED BY C. TUOHY/ D. STERN
						SHEET TITLE PROPOSED PNEUMATIC CONDUCTIVITY TEST LOCATIONS AND WELL CONFIGURATIONS	TASK/PHASE NUMBER 00002	PROJECT NUMBER NY001464.1407	DRAWN BY A. SANCHEZ
NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD						
0	05-18-07	PROPOSED DW & VMWC LOCATIONS	CT/DS						

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Table 1. Summary of Western Leg Pneumatic Conductivity Test Depressurization and Monitoring Wells and Additional Eastern Area Monitoring Wells, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Well Designation	Well Purpose	Nominal Well Diameter (inches)	Approximate Screened Interval(s) (feet bis)	Approximate Total Borehole Depth (feet bis)	Approximate Distance from Shallow/Deep Extraction Point ⁽¹⁾ (feet)
Western Area					
<u>Extraction Wells</u>					
DW-3S	Depressurization Well	4	10 to 30	32	NA
DW-3D ⁽²⁾	Depressurization Well	4	30 to 50	52	NA
<u>Vacuum Monitoring Wells</u>					
VMWC-9A	Vacuum Monitoring	0.75	6 to 7	9	25/50
VMWC-9B	Vacuum Monitoring	0.75	18 to 19	20	25/50
VMWC-9C	Vacuum Monitoring	0.75	38 to 39	40	25/50
VMWC-10A	Vacuum Monitoring	0.75	18 to 19	20	50/75
VMWC-10B	Vacuum Monitoring	0.75	38 to 39	40	50/75
VMWC-11A	Vacuum Monitoring	0.75	18 to 19	20	75/100
VMWC-11B	Vacuum Monitoring	0.75	38 to 39	40	75/100
Eastern Area					
<u>Extraction/Observation Wells</u>					
DW-4D	Vacuum Monitoring / Potential Depressurization Well	4	27 to 47	49	230 (3)
DW-5D ⁽²⁾	Vacuum Monitoring / Potential Depressurization Well	4	27 to 47	49	320 (3)

Table 1. Summary of Western Leg Pneumatic Conductivity Test Depressurization and Monitoring Wells and Additional Eastern Area Monitoring Wells, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Notes & Abbreviations:

- (1) - Distances of vacuum monitoring wells are measured from DW-3S and 3D for VMWC-9 through VMWC-11.
 - (2) - In the event perched water is encountered above the low permeability zone (LPZ), then before drilling through the LPZ a steel casing will be installed and grouted into the LPZ to case-off the perched water and the well that penetrates the LPZ will be installed in a separate borehole.
 - (3) - DW-4D installed 230 ft east of DW-2D; DW-5D installed 320 ft west of DW-2D
- NA - Not Applicable/Not Determined