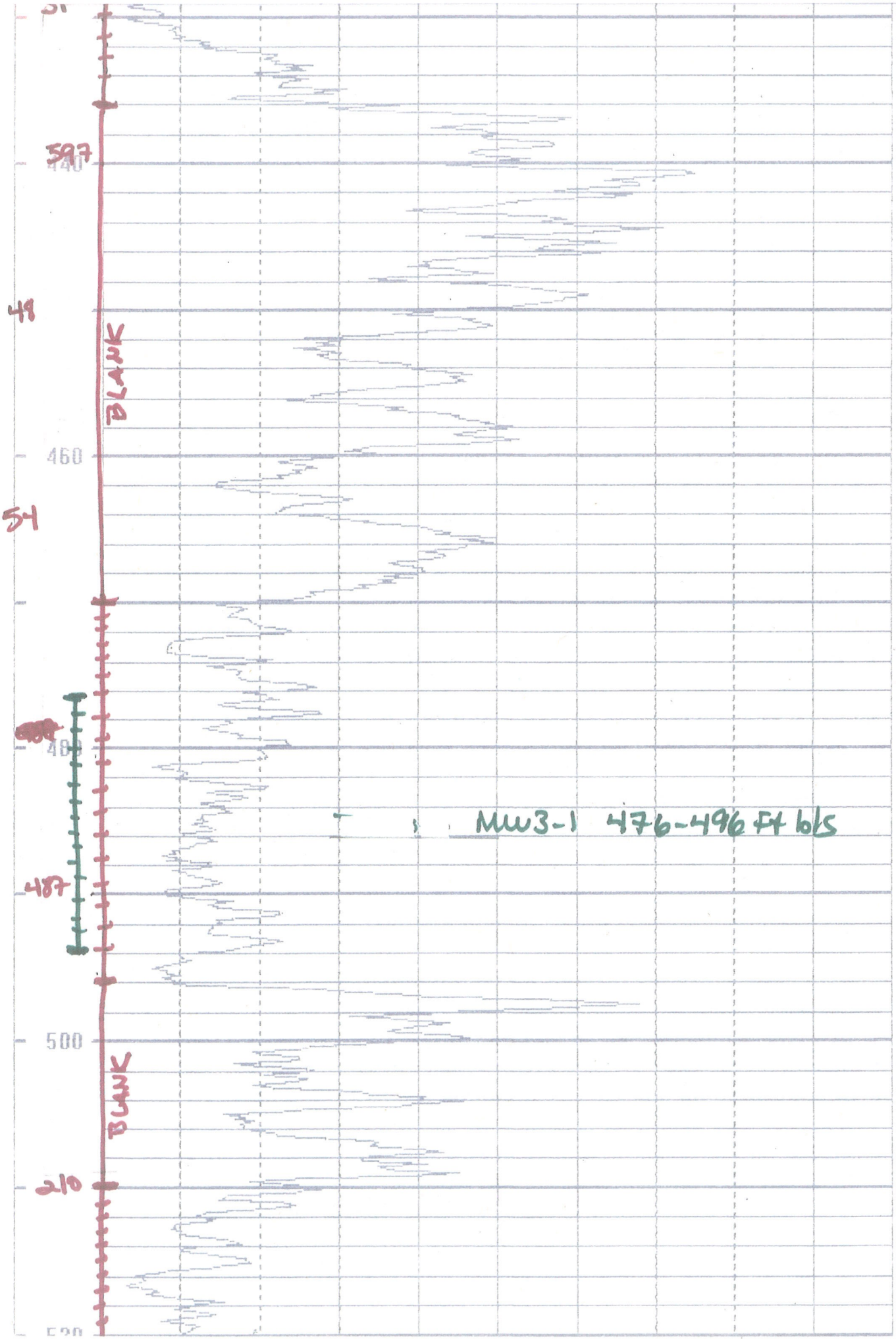
ARCADIS

ATTACHMENT 2: WELL 3R - DIAGRAM OF PROPOSED DESIGN


597
49
BLANK
460
54
487
MW3-1 476-496 Ft bls
500
BLANK
210

	COMPANY: DELTA WELL & PUMP CO., INC.			
	Location: NGC RW2			
Well	VP-3R		Depth Driller	
			Depth Logger	
Date	02/23/12	BH Fluid	Logged by: CWC	
File Name	724		Witness: DAVE	

DRAFT

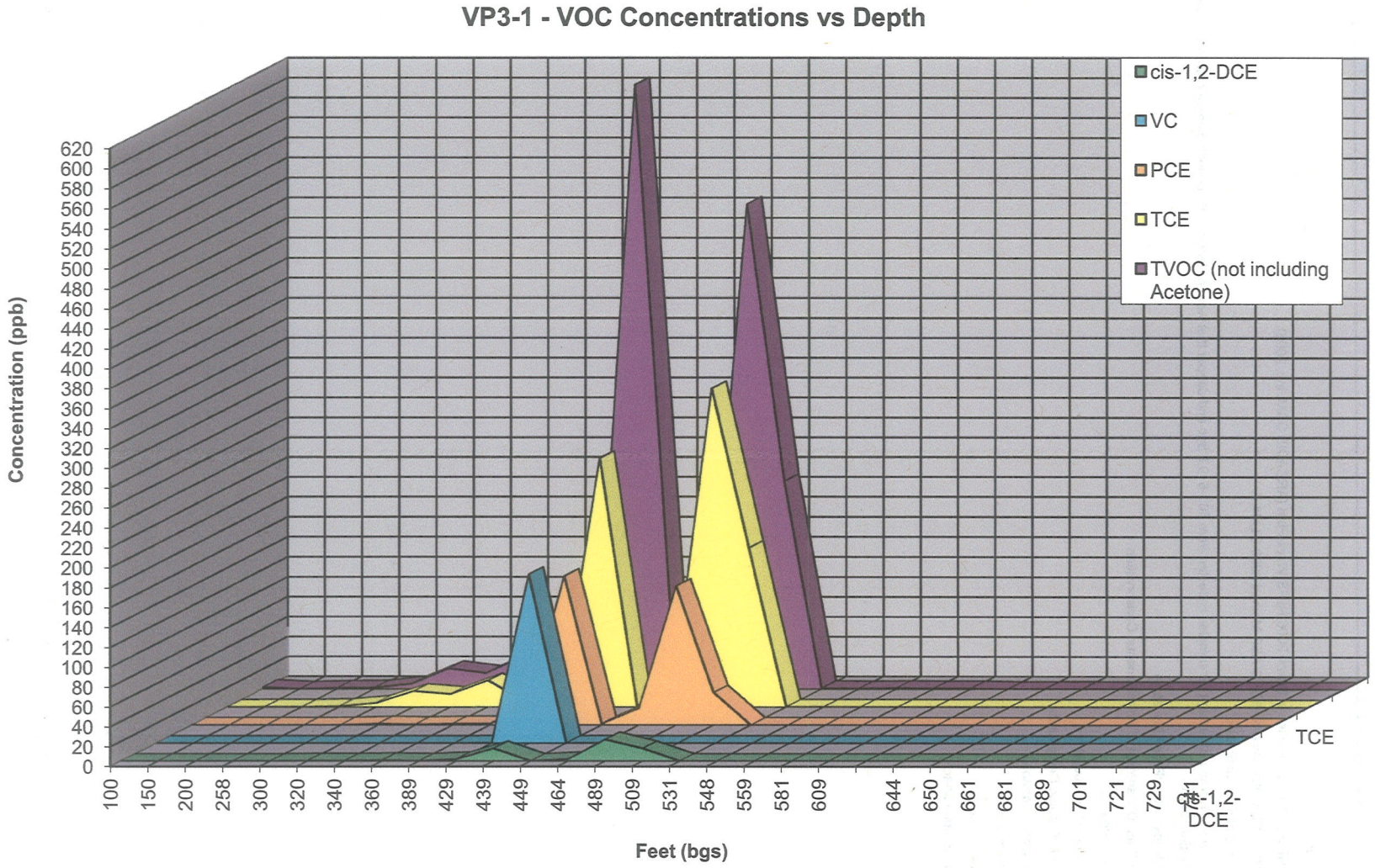


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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from VP3-1, Northrop Grumman Systems Corporation, Bethpage, New York.

Location ID:	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1	VP3-1
Sample Depth (ft bgs)	464	489	509	531	548	559	581	609-619	650-660	689-699	729-739
Sample Date:	1/31/2012	2/1/2012	2/2/2012	2/7/2012	2/7/2012	2/11/2012	2/13/2012	3/14/2012	3/12/2012	3/9/2012	3/7/2012
Constituent Name (units in ug/L)											
1,1,1-Trichloroethane	**0.4**	**0.81**	**0.37**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	**0.42**	**1.5**	**1.1**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	**1.1**	**1.7**	**1**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	**2.4**	**2.5**	**1.5**	**2.7**	**5.5**	**4.8**	**8.9**	< 50	< 50	< 50	< 5
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 5	**0.85**	**0.58**	**0.98**	**0.69**	**0.75**	**0.26**	< 5	< 5
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 5	**0.24**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	**2**	**22**	**13**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl tert-Butyl Ether	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	**17**	**140**	**33**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	**26**	**320**	**160**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane (CFC-11)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	**1.7**	**0.29**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	**0.43**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Xylene-o	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOCs	**52**	**490**	**210**	**3.6**	**6**	**5.8**	**9.6**	**0.75**	**0.26**	**0**	**0**

Notes and Abbreviations on last page.

Recommendation

Based on the above data, the recommended screen interval for proposed Remedial Well 3R is 420 to 530 ft bls with blank sections as provided in the table below. The monitoring well that has been installed that is associated with proposed Well 3R (Monitoring Well MW3-1) has been screened from 476 to 496 ft bls (Attachment 1).

Screen, ft bls and (length, ft)	Blank, ft bls and (length, ft) [1]
420 – 436 (16)	
	436 – 470 (34)
470 – 496 (26)	
	496 – 510 (14)
510 – 530 (20)	
Total Length of Screen: 62	Total Length of Blank: 48

[1] Blank sections are to be constructed of 12"Ø stainless steel casing. See recommended well construction diagram (Attachment 2).

2) Gamma log and split spoon samples indicate generally favorable geologic conditions (i.e., varying size sands) within the impacted zone (see Attachment 1 and Item 3 below). TVOC concentrations from Hydropunch samples obtained from VP3-1 are plotted along the left side of the attached gamma log.
3) Sieve results (based on results received from Delta Well & Pump on February 16 and March 2, 2012):

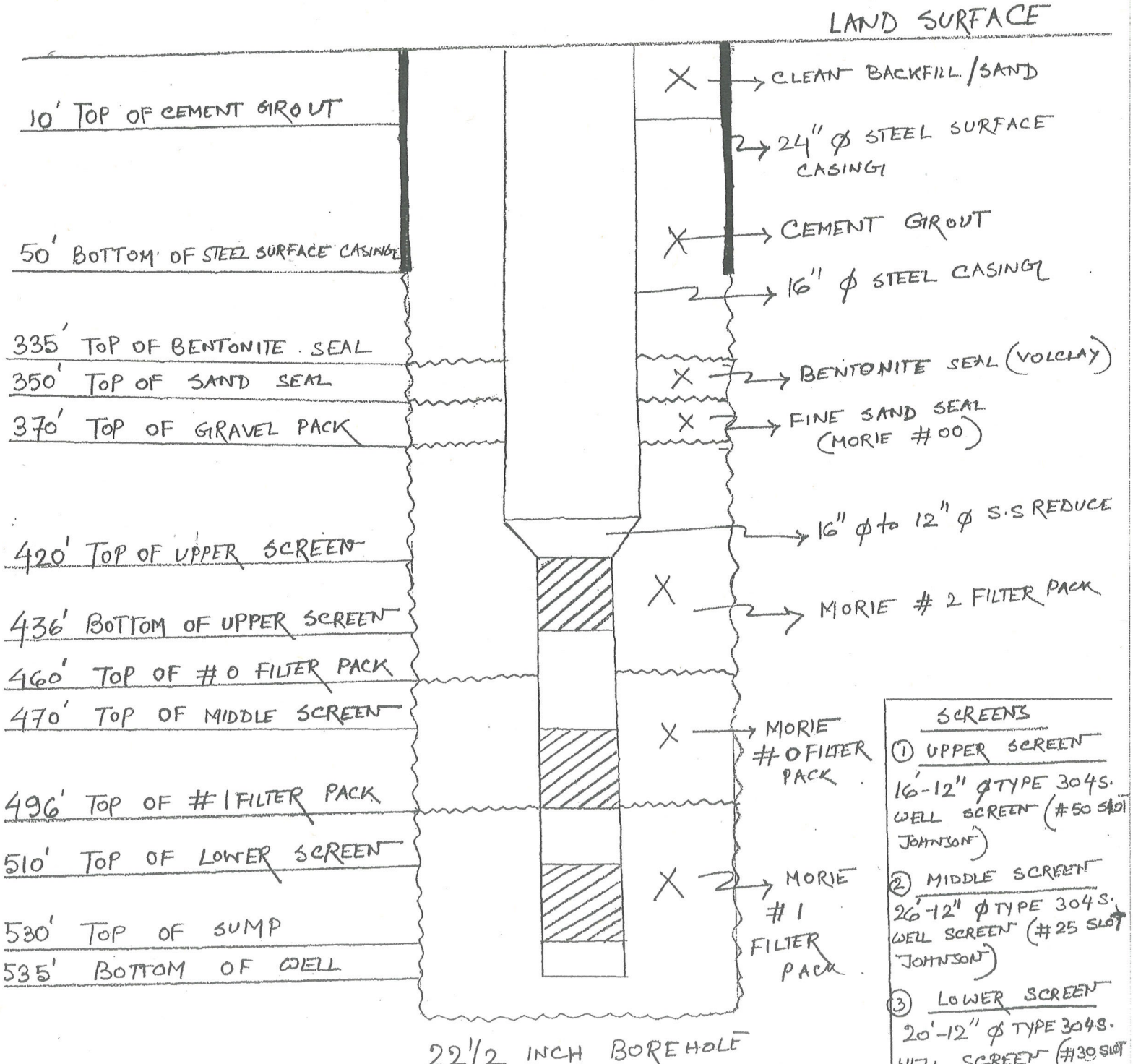
Depth (ft bls)	General Lithologic Description (from split spoon samples)	70% retained size, inches
435	Coarse sand with medium to fine sand	0.018
440 – 460	clay	--
465 – 485	Poorly sorted strata increasing in coarseness with depth: medium sand, fine sand, very fine sand, silt, and clay.	0.005, 0.008, 0.013, 0.015, 0.014
490	clay	--
495	Medium to very fine sand	0.004
500	clay	--
505 – 543	Poorly sorted strata exhibiting varying coarseness over this interval, including medium sand, fine sand, and sandy clay.	0.010, 0.010, 0.012, 0.012, 0.012, 0.013

Notes:
VOC-impacted Zone is 429 ft bls to 509 ft bls
-- Sample not sieved due to clayey characteristics

WELL - 3R

(PROPOSED WELL DESIGN 3-19-12)

(1st REVISION 3-26-12)



SCREENS

① UPPER SCREEN
16'-12" ϕ TYPE 304S. WELL SCREEN (#50 SLOT JOHNSON)

② MIDDLE SCREEN
26'-12" ϕ TYPE 304S. WELL SCREEN (#25 SLOT JOHNSON)

③ LOWER SCREEN
20'-12" ϕ TYPE 304S. WELL SCREEN (#30 SLOT JOHNSON)

SUMP / BLANK
12" ϕ TYPE 304SS

DRAWING NOT TO SCALE