

MONITORING WELL INSTALLATION REPORT

BONNARD & GARDEL Ingénieurs-conseils SAS		Project: HYDRAULIC CONTAINMENT - DU PONT		log-15-eng/181001.dsf Borehole N°: PC1	
Project N°: FF0211.06		Drilling company: Hettmannsperger		Page N° 1/1	
Site location: CERNAY		Driller: Johann Aiswert		Well depth (m): 13.30	
Logged by: A. Paillard		Rig type:		Total boring depth (m): 14.50	
Checked by:		Drilling method:		Static groundwater depth (m):	
Date started: 25.6.08 - 08h00		Single flight auger from 0-6m, mechanical bailer from 6-14.50m.		Steel casing elevation (m):	
Date finished: 23.6.08				PVC casing elevation (m):	
				Static groundwater elevation (m):	

SOIL SYMBOL	SOIL DESCRIPTION	SOIL SAMPLE	SAMPLE DEPTH (m)	PID READING (ppm)	REMARKS	WELL DIAGRAM
0	TOP SOIL: silt, some sand, loose, brown, dry.				Well pumping At ~400 l/min. for 2 min., drawdown of 30 cm Lifted pump by 2 m, at 400 l/min. for 2 1/2 min. drawdown of 40 cm	
0.5	GRAVELLY SAND, some COBBLES: fine to coarse, well graded, dense, brown, dry.					
1	At approx. 1.50 m, increase in amount and size of cobbles (5-25 cm Ø), sand becomes corser, grey, dry.					
1.5						
2						
2.5						
3						
3.5						
4	GRAVELLY SAND, some COBBLES: medium to coarse sand, fine to coarse gravel, well graded, dense, pinkish, damp to moist, brown.					
4.5						
5						
5.5						
6	GRAVELLY SAND to SANDY GRAVEL and COBBLES: (up to 25 cm Ø) trace clay, medium to coarse sand, fine to coarse gravel, well graded, very dense, brown, wet.					
6.5						
7						
7.5						
8						
8.5	At approx. 850 m, increase of sand.					
9	At approx. 9.00 m, increase in amount and size of cobbles (up to 25 cm Ø), very dense and hard.					
9.5						
10						
10.5	SANDY GRAVEL and COBBLES: fine to coarse gravel, cobbles up to 25 cm Ø, well graded, very dense, wet.					
11	At 11.50 m, encountered a boulder, great difficulty to break it, one piece of the boulder measures 31 cm.					
11.5						
12						
12.5						
13						
13.5	CLAYEY SAND: some gravel, fine to coarse sand, well graded, dense, mottled reddish brown and yellow, moist.					
14	Mixture orf highly weathered cobbles, loose sand, clay and silt, fine gravel, very dense.					
14.5	End of hole at 14.50 m					
15						

PROTECTIVE CASING TYPE AND Ø: J & J stainless steel
 PERMANENT CASING TYPE AND Ø: J & J stainless steel
 BACKFILL TYPE: Betonite cement grout, Schwenk Füllbinder H, special binding material, 50 kg : 30 l water
 WELL SEAL TYPE: 5/10 Wetronit Stüwa Brunnenfilter Bohrdedarf, d-33384 Rietberg
 SCREEN TYPE, Ø AND SLOT SIZE: J & J stainless steel (pieces 5-1-2 m = 9.20m)
 FILTER PACK TYPE AND SIZE: 2-3 mm siliceous sand
 CENTRALIZERS: 4 placed at 0.5 m above well bottom and 4 at 1.0 m below top of screen

REMARKS:

- FIRST ENCOUNTERED GROUNDWATER
- STATIC GROUNDWATER DEPTH

04131X0657/PC01