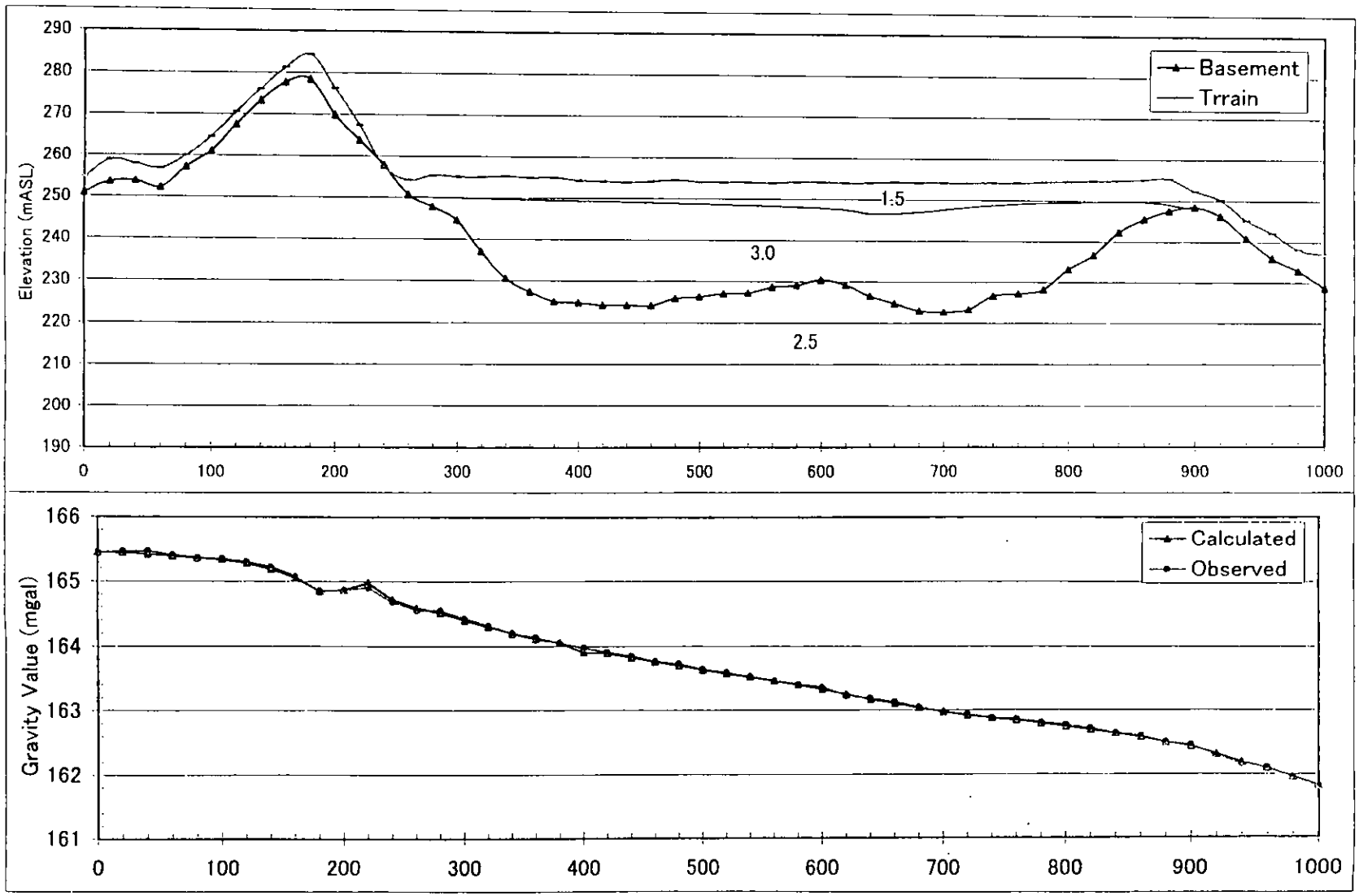
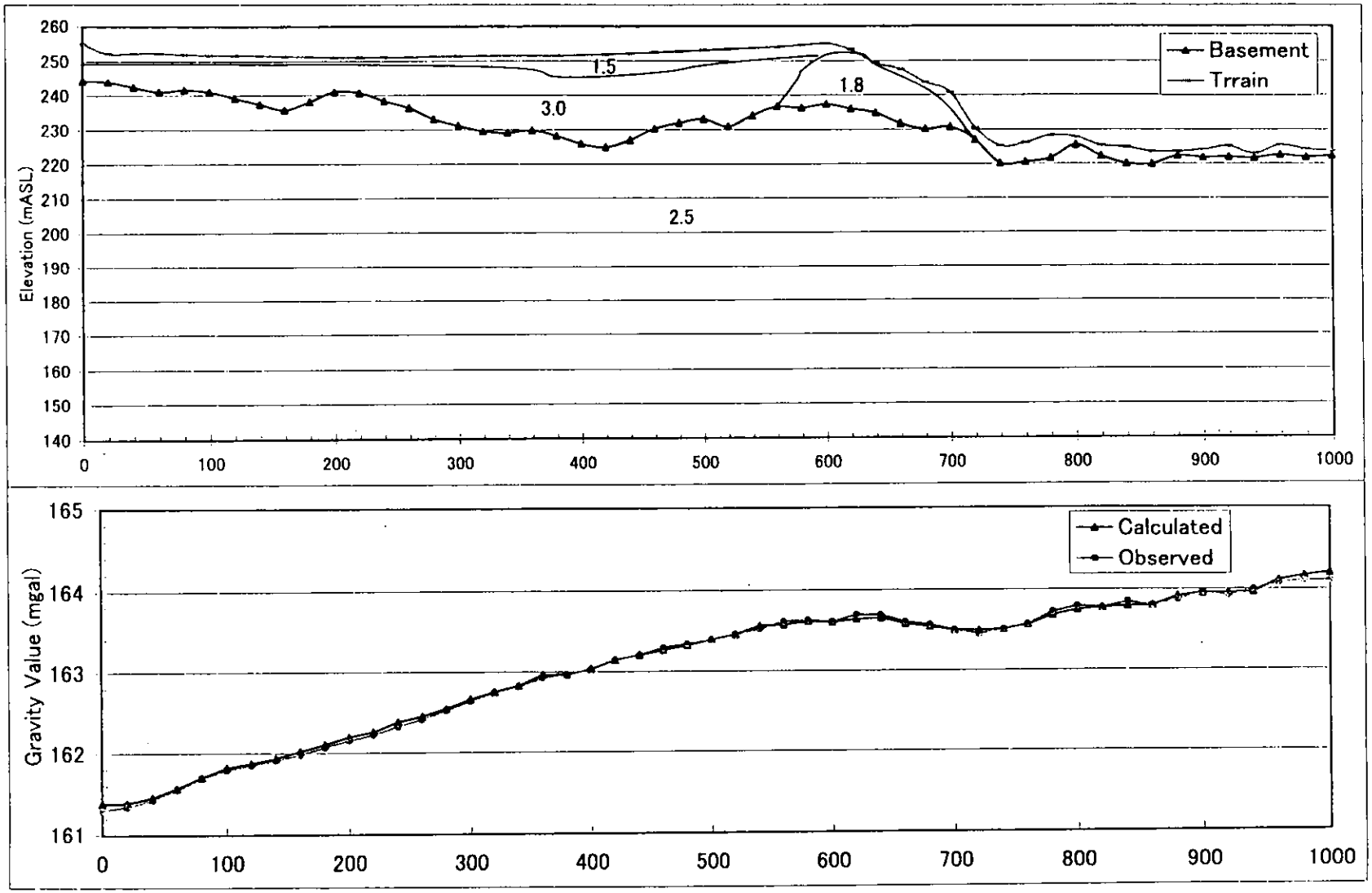
Appendix-3 Gravity Section (1) to (12)

LINE-1



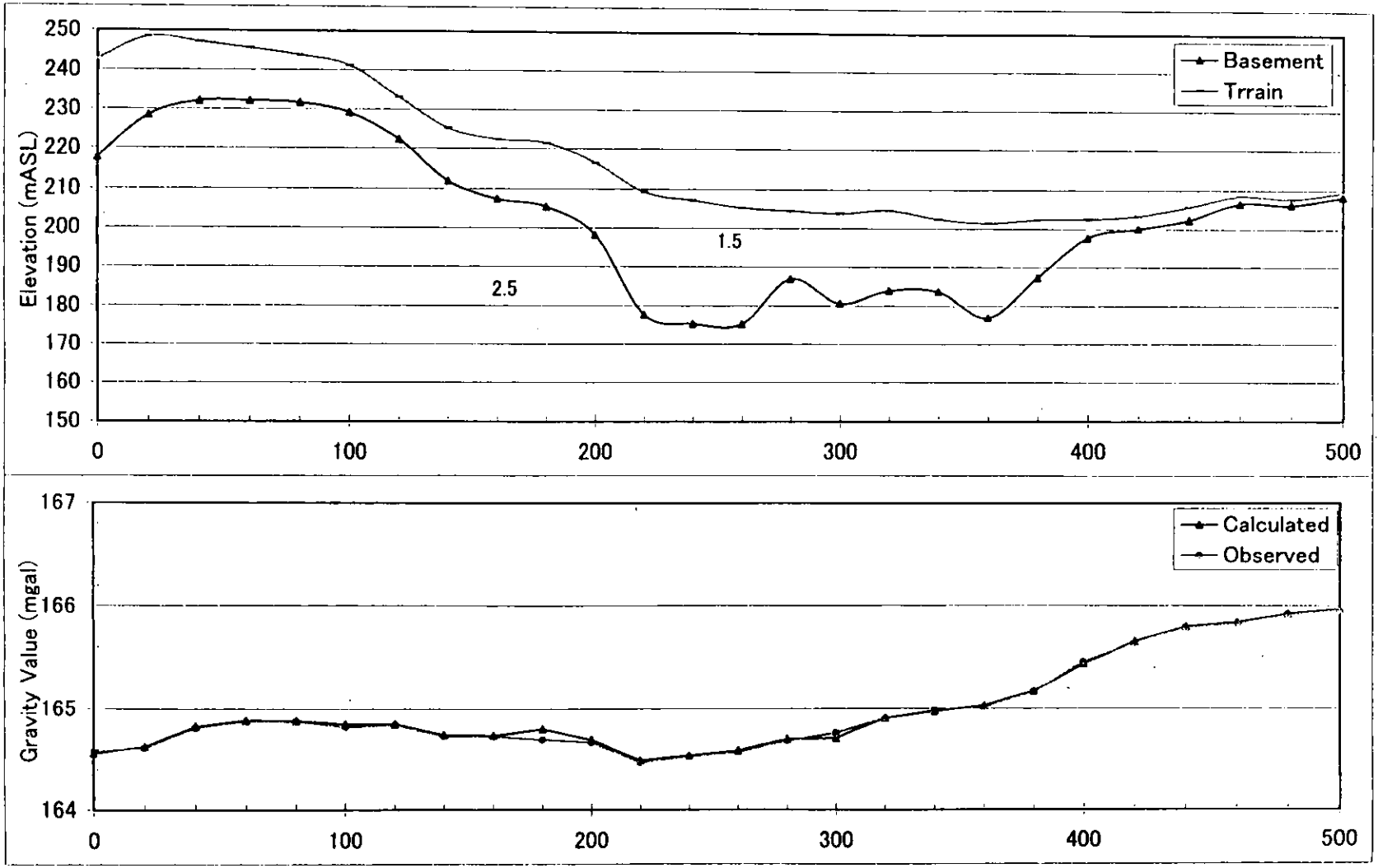
Gravity Section (1)

LINE-2



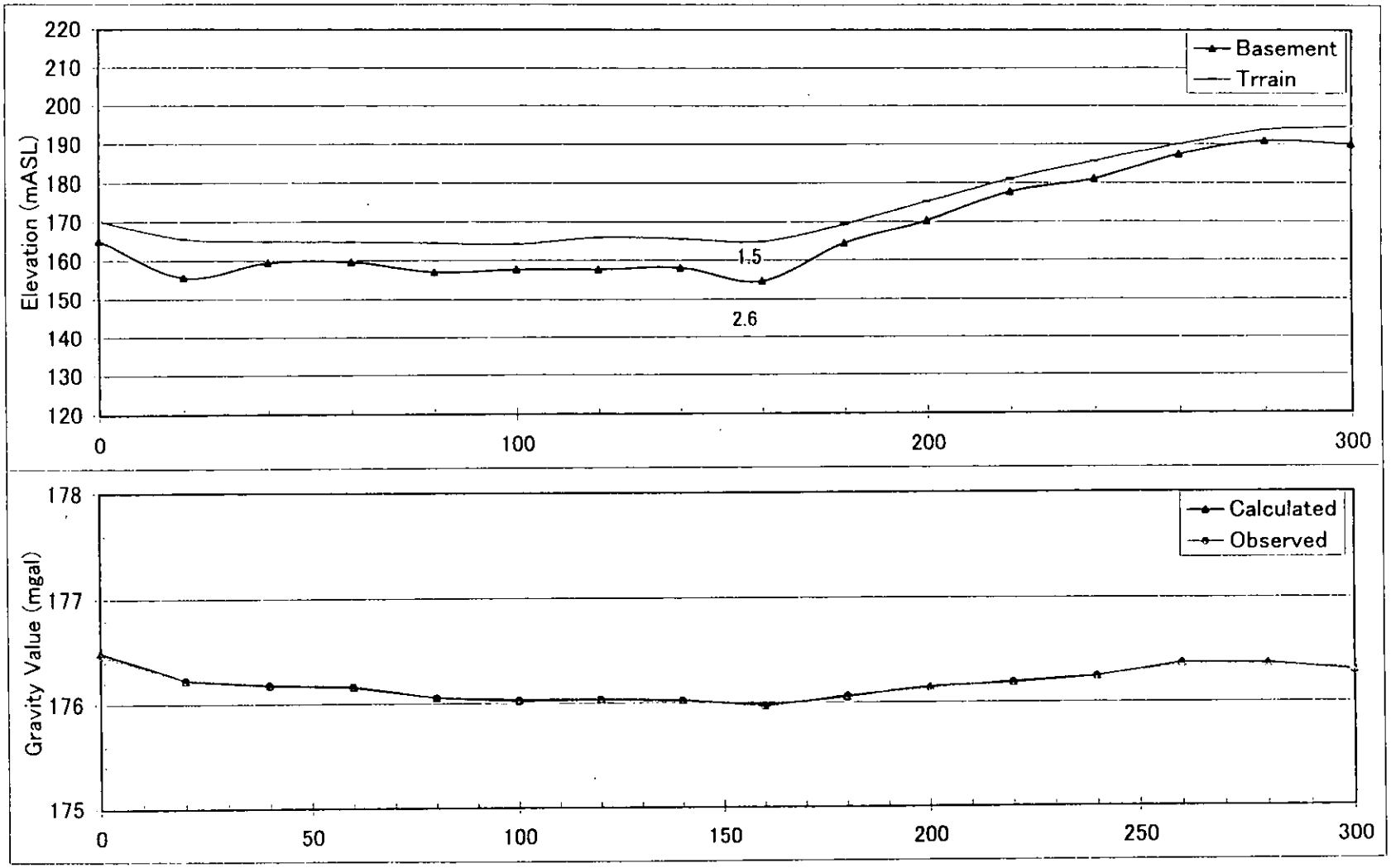
Gravity Section (2)

LINE-3



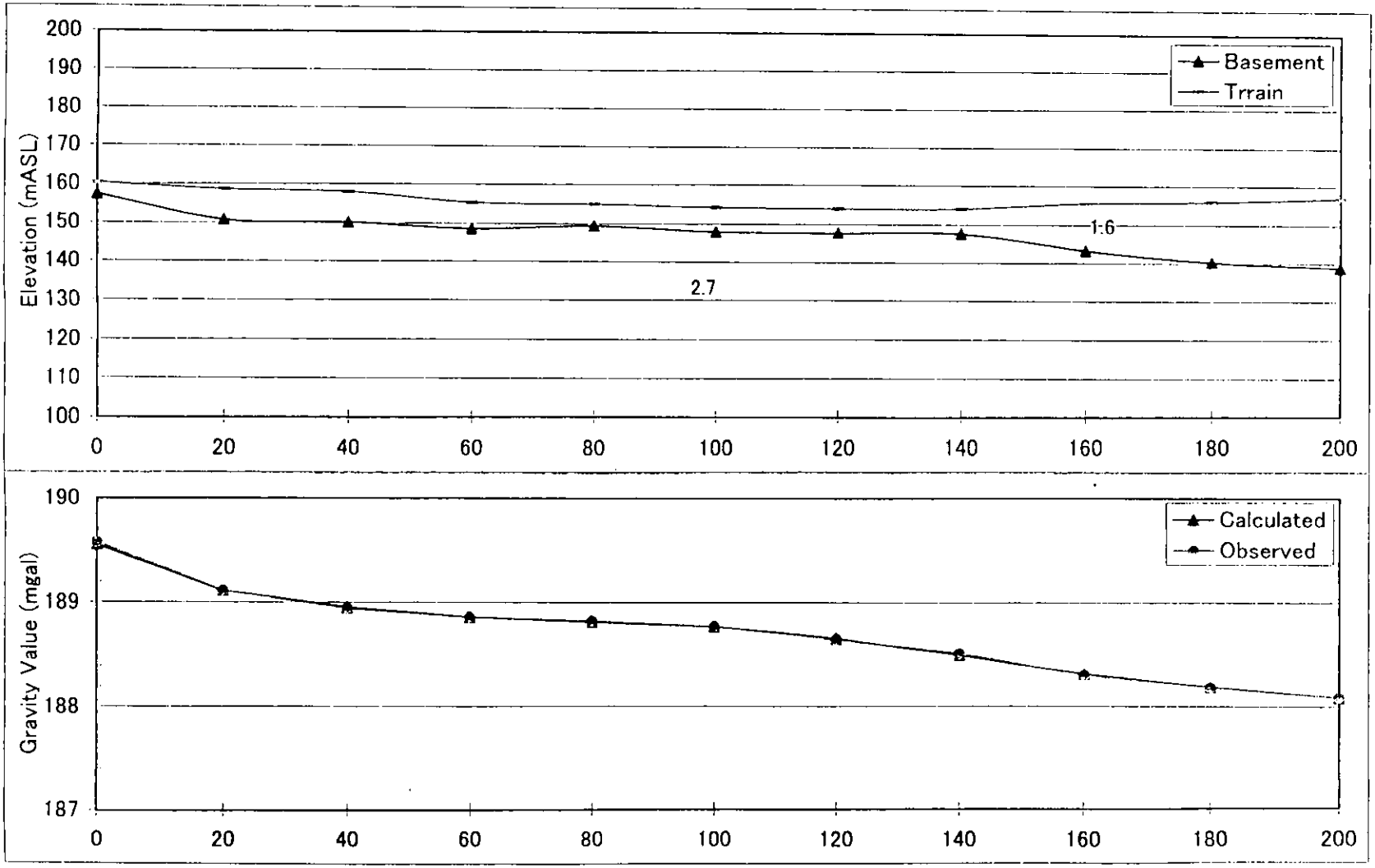
Gravity Section (3)

LINE-4



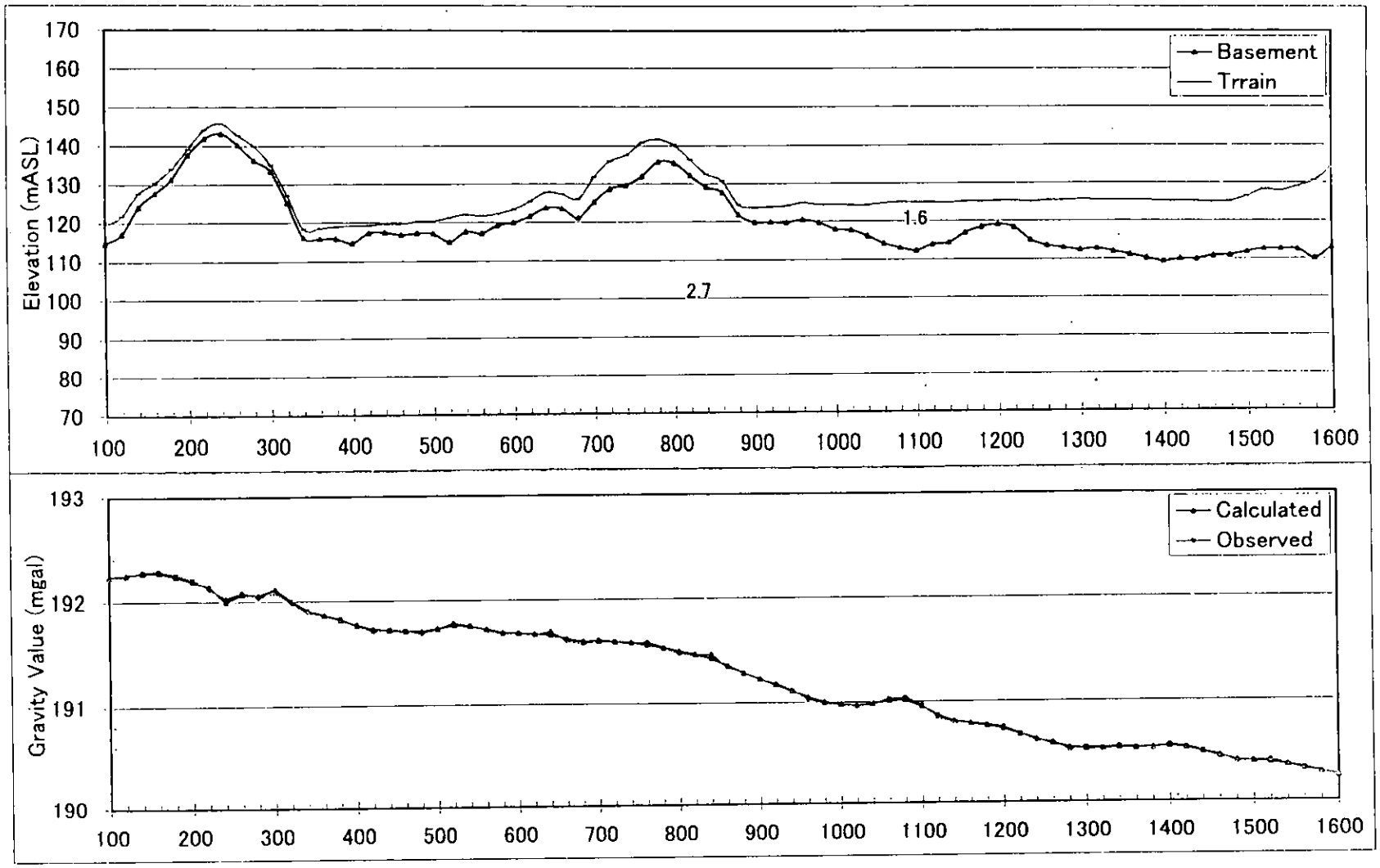
Gravity Section (4)

LINE-5



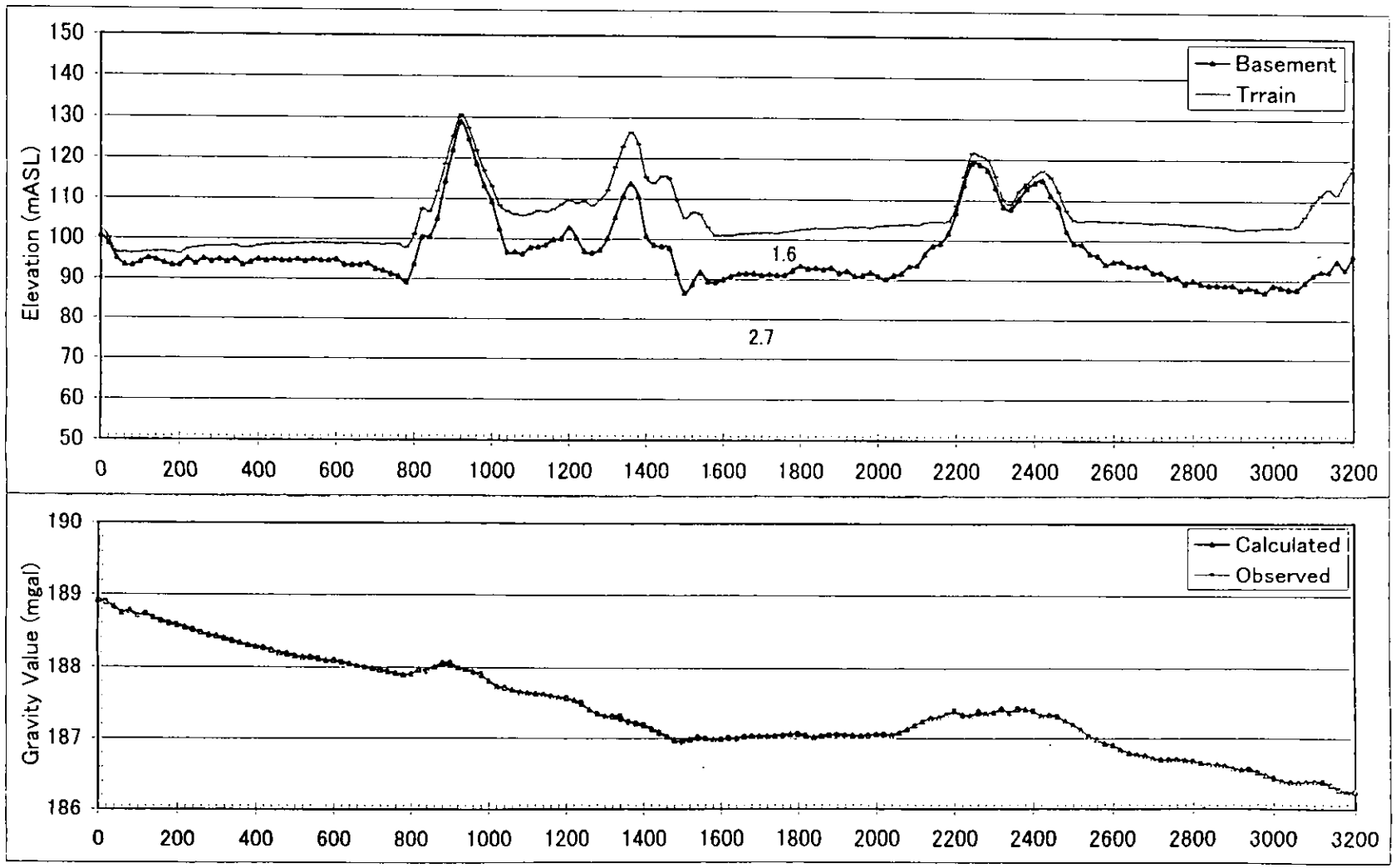
Gravity Section (5)

LINE-6



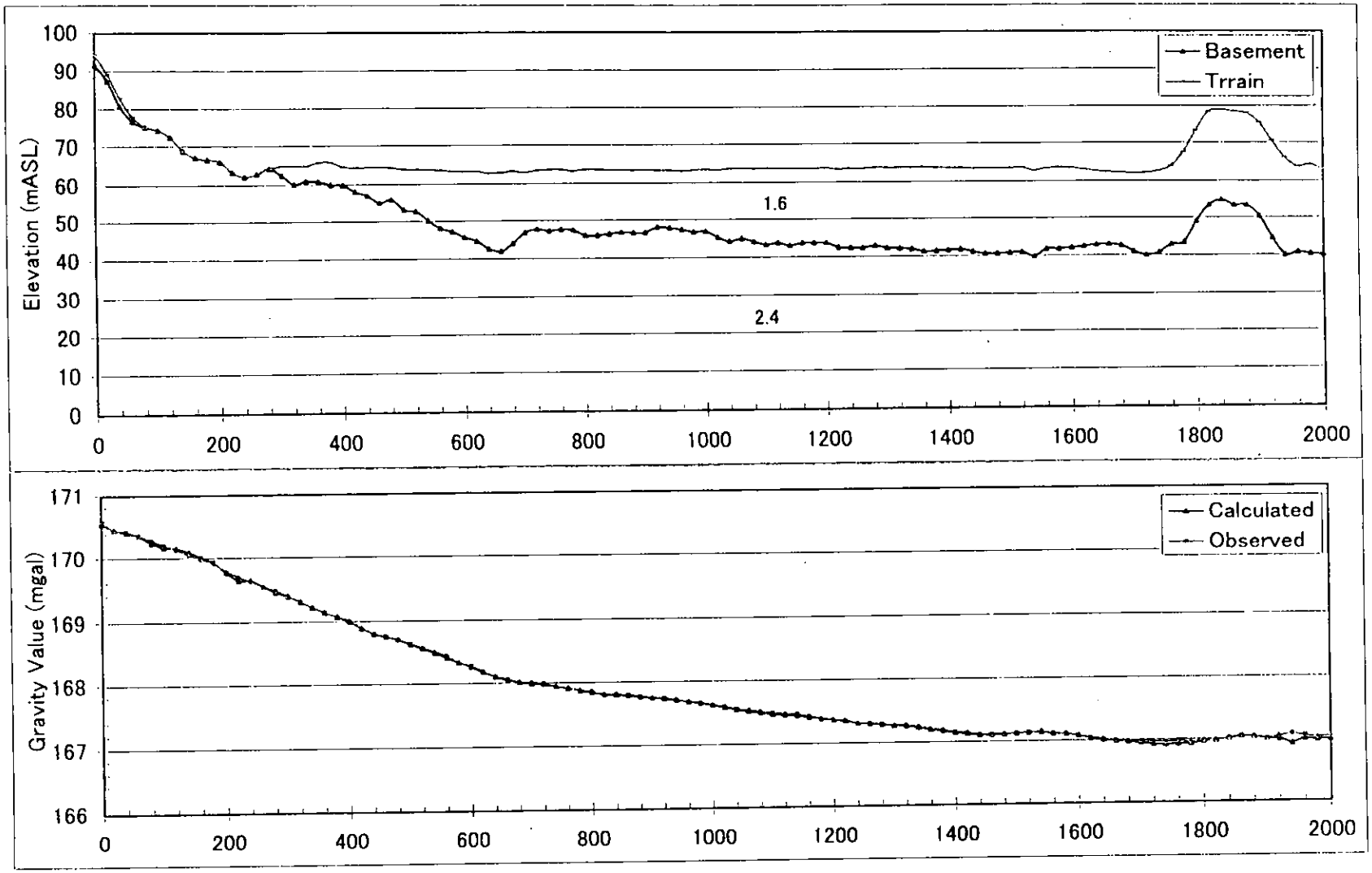
Gravity Section (6)

LINE-7



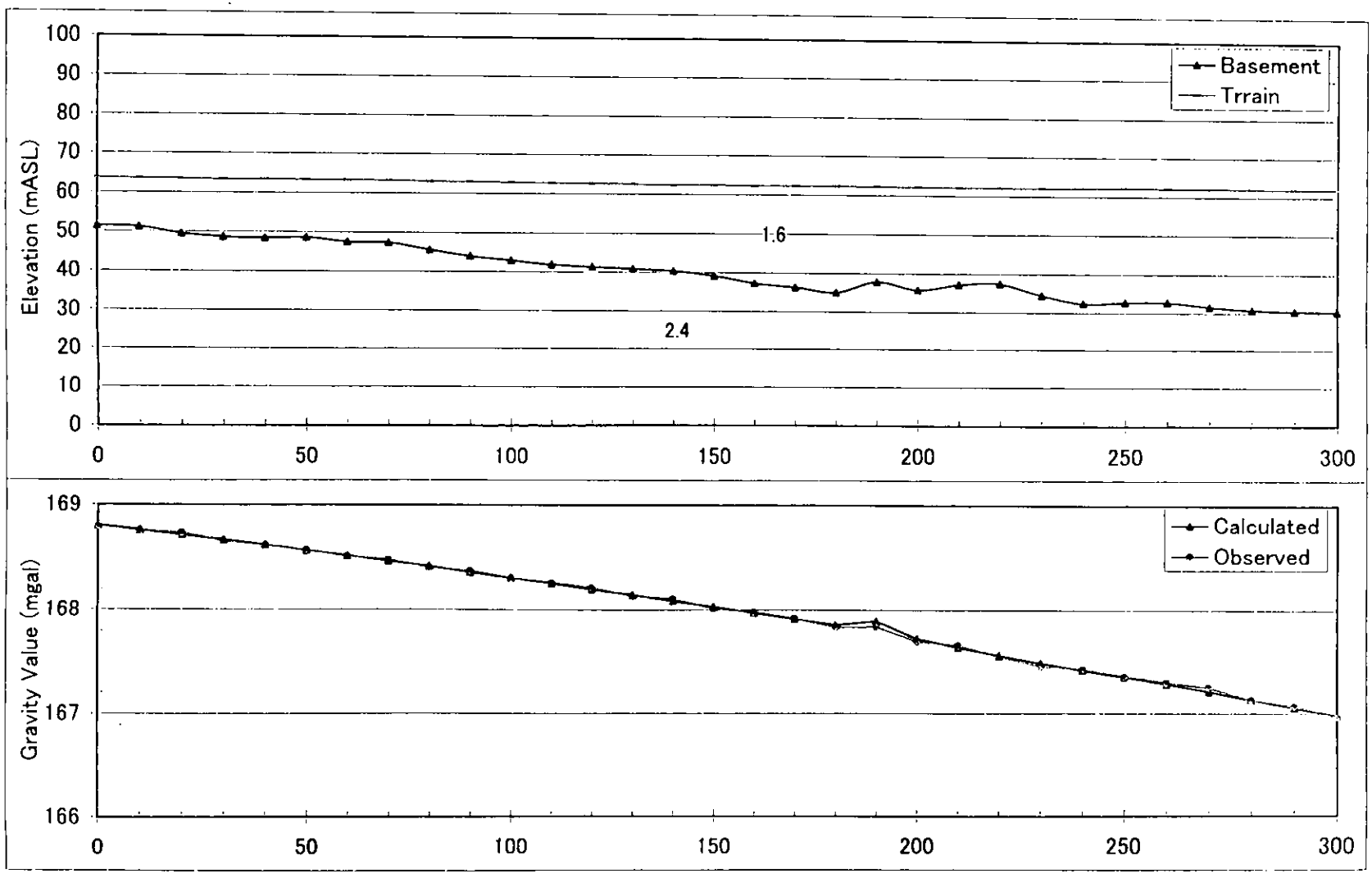
Gravity Section (7)

LINE-8



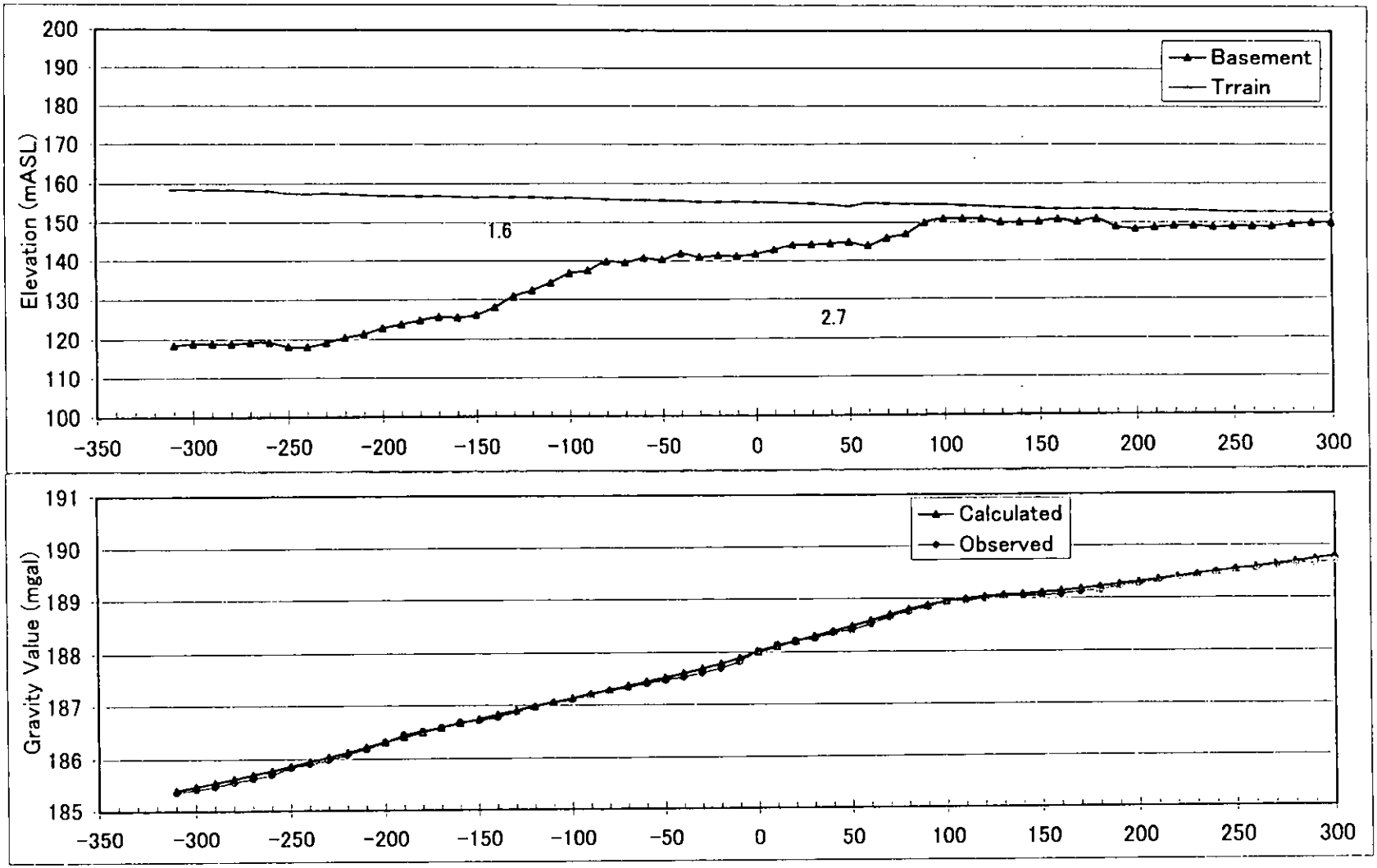
Gravity Section (8)

LINE-9



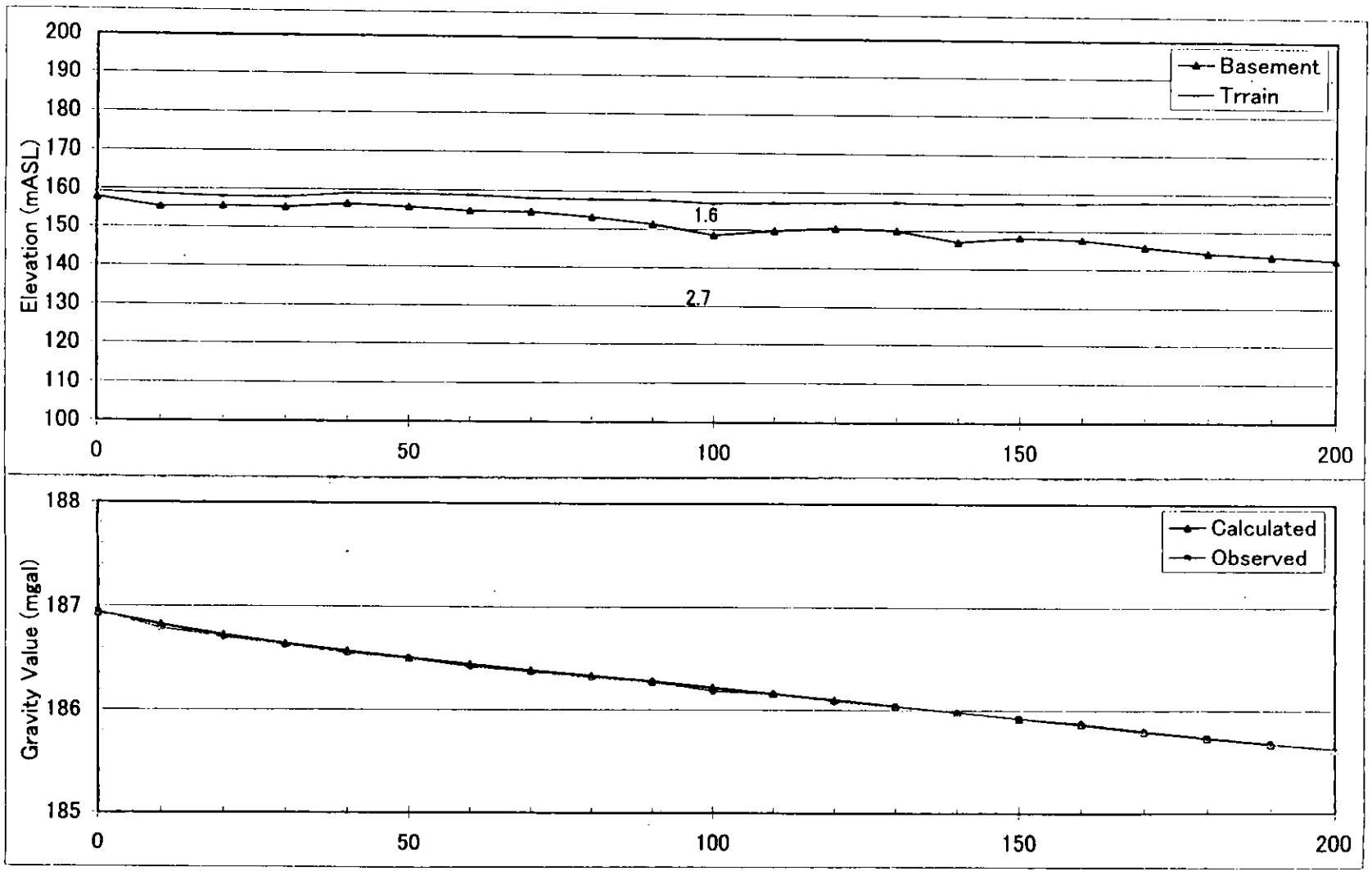
Gravity Section (9)

LINE-10,11



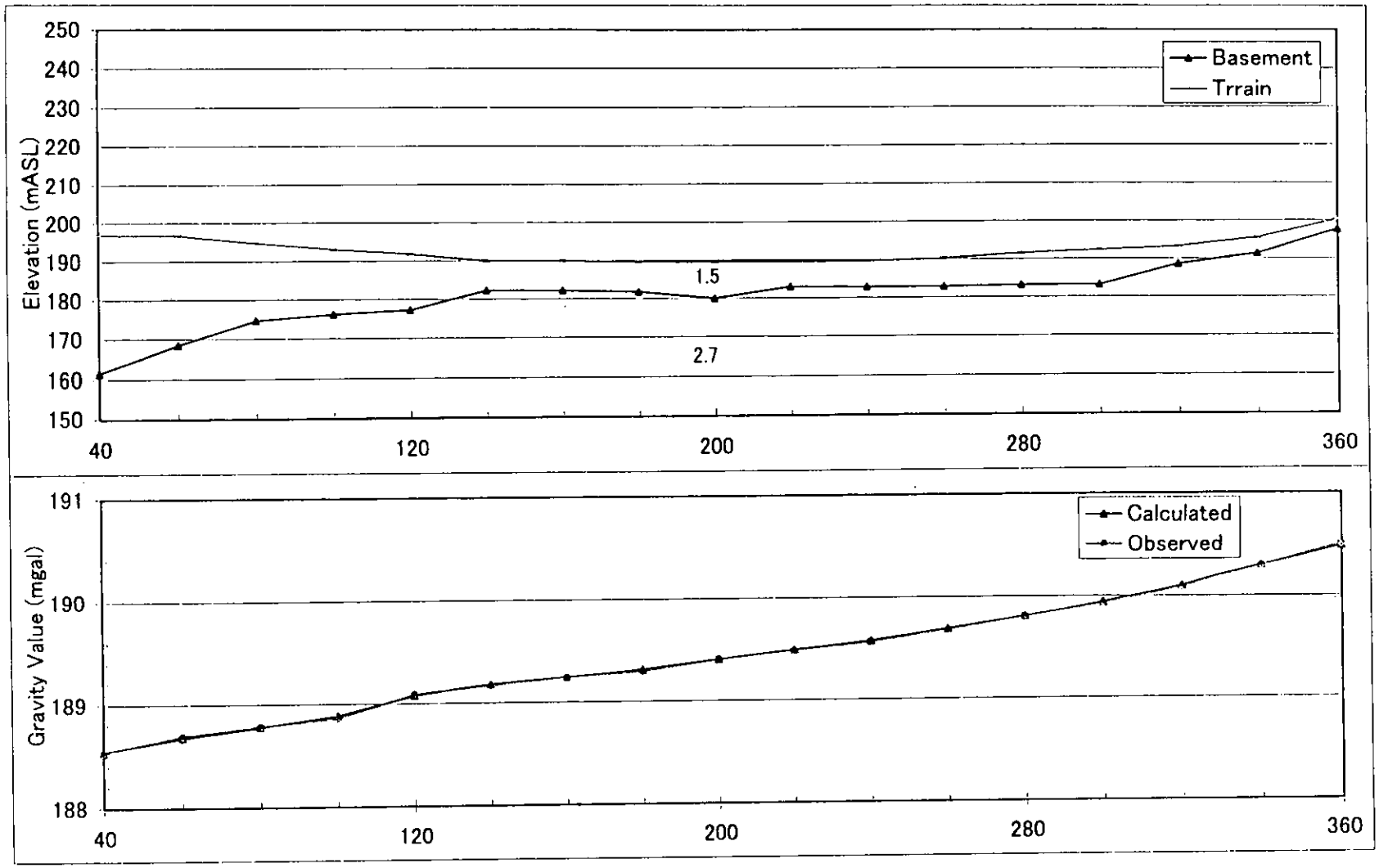
Gravity Section (10)

LINE-12



Gravity Section (11)

LINE-13



Gravity Section (12)

Appendix-4 Geological Columnar Section of Drill Holes (1) to (13)

D. H. No. DH-2

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	0		Gravel & sand	Brown~brownish grey, muddy, including slightly clay and, silt	-6.60m ▽	
	6.00		Calcreted gravel & sand	Brown~dark brownish grey, compact calcreted beds		
	10.00					
	15.00		Basaltic pillow lava	Brownish grey~dark greenish grey, weathered strong chloritization		
	20.00					
	23.00		Basaltic massive lava	Dark green, strong chloritization		
	30.00					
	32.00		Basaltic pillow lava	Dark green, strong chloritization		
	40.00					

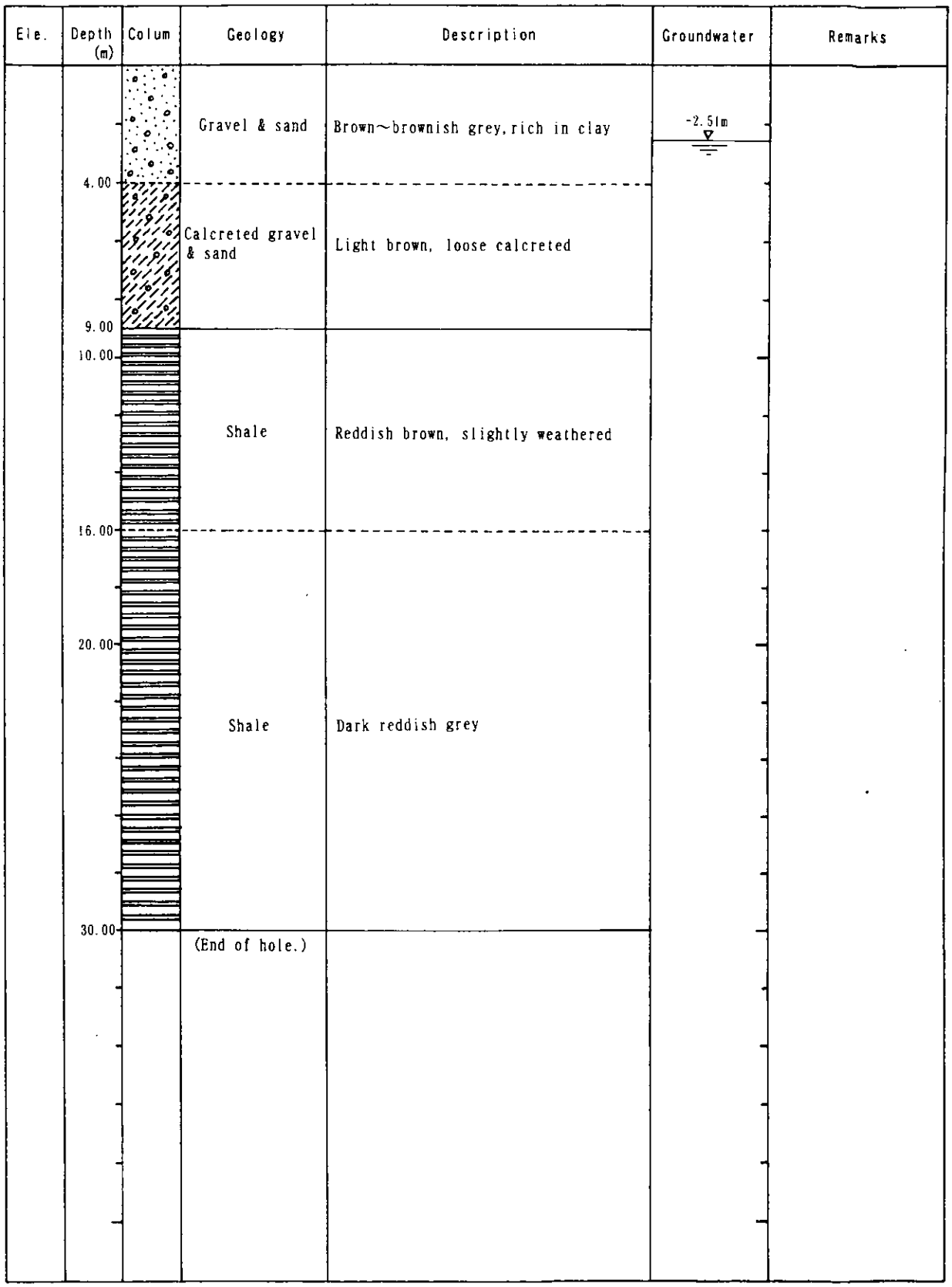
Geological Columnar Section of Drill Holes (1)

D. H. No. DH-2

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	41.00		Basaltic pillow lava	Dark green, strong chloritization		
	45.00		Basaltic massive lava	Dark green, strong chloritization		
	50.00		Basaltic pillow lava	Dark green, strong chloritization, calcite		
			(End of hole.)			

D.H.No.DH-3

(1)



Geological Columnar Section of Drill Holes (2)

D.H.No.DH-4D

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Gravel & sand	loose wadi sediments		
	1.00		Calcreted gravel & sand	Light grey~brownish grey, Gravel:0.5~8cm in diameter, round~sub-round, gravel: gabbro, dolerite, harzburgite matrix: fine~coarse sand	-4.98m ▽	
	10.00					
	12.00		Basaltic pillow lava	Dark greenish grey~dark green		
	15.00		Basaltic massive lava	Dark green ,coarse grained		
	20.00		Basaltic pillow lava	Light greenish grey, chloritization, calcite veinlets		
	28.00		Basaltic pillow lava	Brownish grey~greenish grey		
	30.00					
	31.00		Basaltic pillow lava	Light greenish grey		
	40.00					

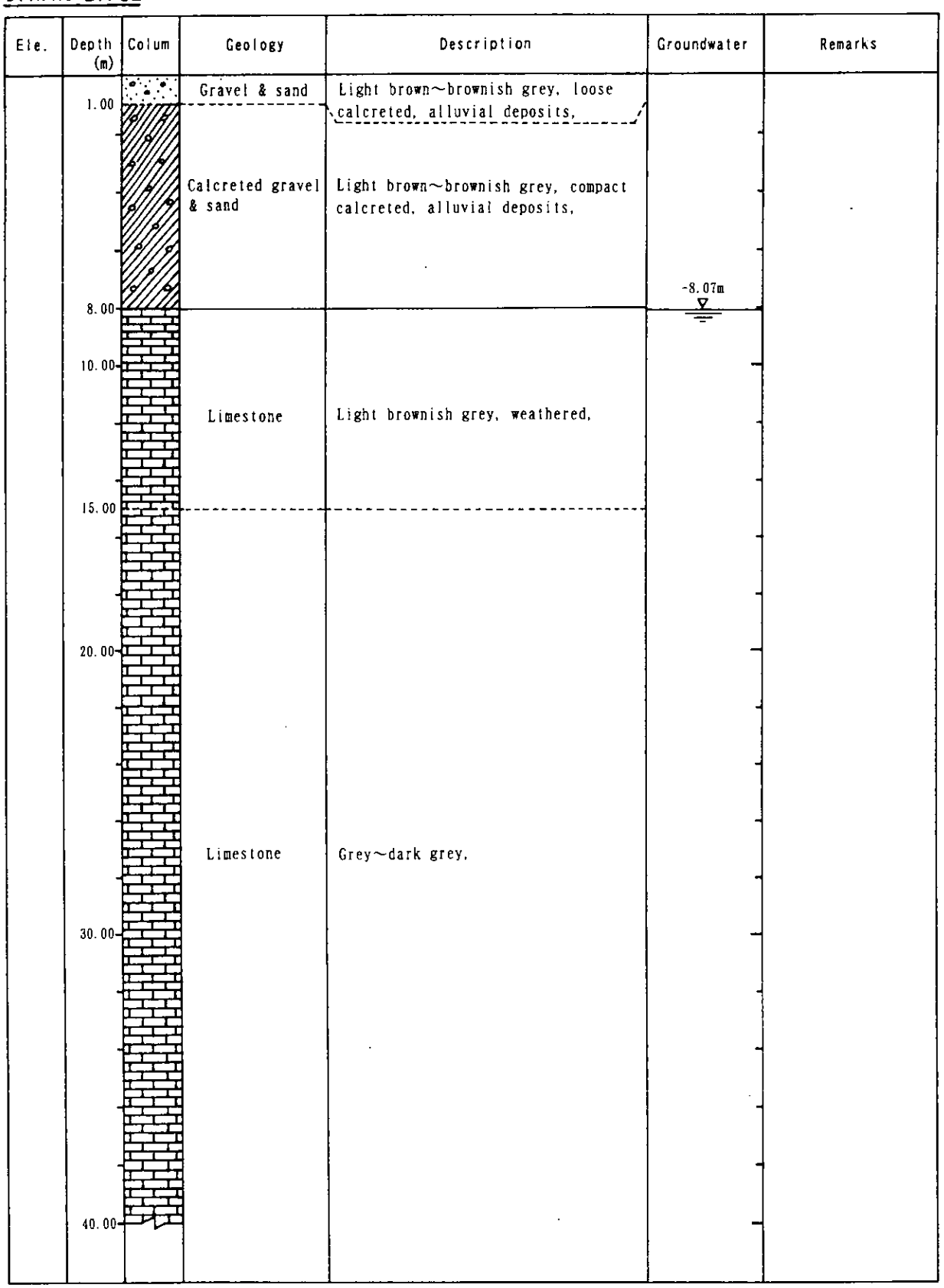
Geological Columnar Section of Drill Holes (3)

D.H.No.DH-4D

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Basaltic pillow lava	Light greenish grey		
	47.00		Basaltic massive lava	Dark green, chloritization, coarse grained		
	50.00		(End of hole.)			

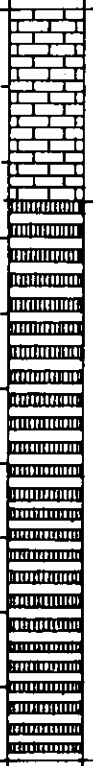
D. H. No. DH-5D

(1)



Geological Columnar Section of Drill Holes (4)

D. H. No. DH-5D

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Limestone	Grey～dark grey,		
	45.00		Siliceous mudstone	Reddish brown, siliceous mudstone～chert,		
	50.00					
	60.00		(End of hole.)			

D. H. No. DH-6D

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	1.00		Gravel & sand	Light brownish grey, loose sediment,		
			Calcreted gravel & sand	Light brownish grey, weak calcreted, loose, gravel:round~sub-round gabbro, dolerite, limestone,		
	5.00					
	10.00		Calcreted gravel & sand	Brownish grey, calcrete, compacted,	-10.78m ▽	
	15.00		Calcreted gravel & sand	Light brownish grey, calcrete, compacted,		
	18.00					
	20.00		Calcreted gravel & sand	Light brownish grey, calcrete, compacted, coarse sand,		
	23.00					
	30.00		Calcareous mudstone	Dark grey, calcareous, weathered,		
	40.00					

Geological Columnar Section of Drill Holes (5)

D.H.No.DH-6D

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	50.00		Calcareous mudstone	Dark grey, calcareous, weathered,		
	60.00		(End of hole.)			

D.H.No.DH-7D

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Gravel & sand	Brown~brownish grey, loose, clay,		
	4.00		Calcreted gravel & sand	Light brownish green, loose,		
	8.00				-9.35m	
	10.00		Calcreted gravel & sand	Whitish grey~light brownish grey, calcrete, compacted,		
	16.50		Mudstone	Light greenish grey~whitish grey, strongly weathered, soft, argillized		
	19.00					
	20.00		Mudstone	Light greenish grey~whitish grey, strongly weathered, very soft,		
	30.00		Mudstone	Light greenish grey~whitish grey, silty mudstone,		
	40.00					

Geological Columnar Section of Drill Holes (6)

D. H. No. DH-7D

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Mudstone	Light greenish grey~whitish grey, weathered, soft,		
	45.00					
	50.00		Mudstone	Light brownish grey, a little hard, still weathered, soft, clay,		
	60.00		(End of hole.)			

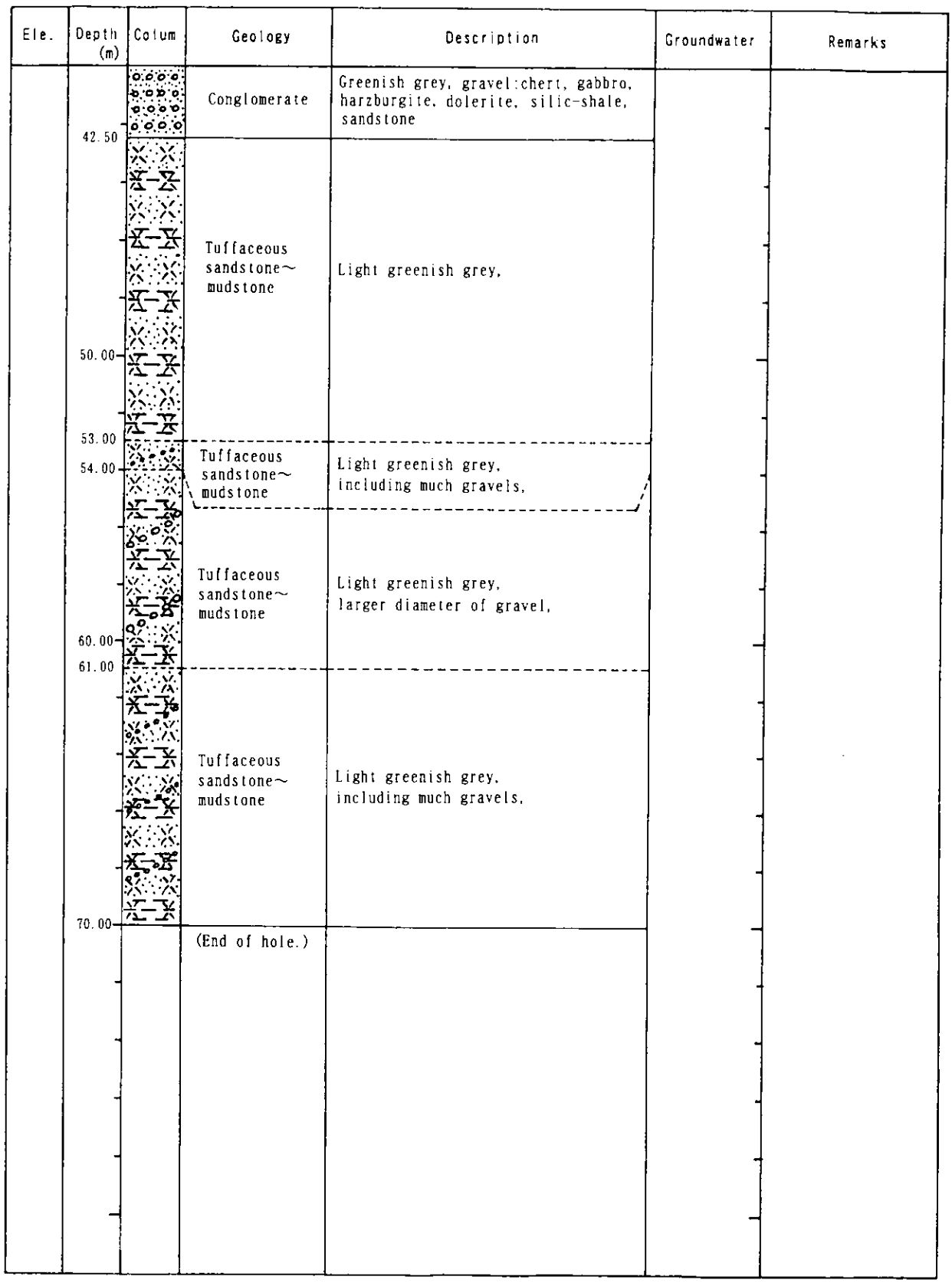
D. H. No. DH-8D

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Gravel & sand	Light grey, loose alluvial deposits, gravel: round~sub-round, gabbro, dolerite, harzburgite, matrix: fine~coarse sand.		
	8.00					
	10.00		Calcreted gravel & sand	Light brownish grey~whity grey, compact calcreted, gravel: round~sub-round, gabbro, dolerite, harzburgite, matrix: fine~coarse sand.	-15.24m	
	20.00					
	21.00		Calcreted gravel & sand	Light brownish grey, loose calcrete, including much gravels, gravel: round~sub-round, gabbro, dolerite, harzburgite, matrix: fine~coarse sand.		
	30.00		Tuffaceous sandstone~ mudstone	Light greenish grey, argillized.		
	38.00		Conglomerate	Greenish grey, gravel: chert, gabbro, harzburgite, dolerite, silic-shale, sandstone		
	40.00					

Geological Columnar Section of Drill Holes (7)

D.H.No.DH-8D



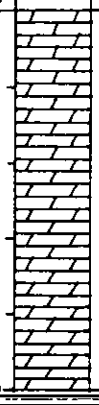
Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Conglomerate	Greenish grey, gravel:chert, gabbro, harzburgite, dolerite, silic-shale, sandstone		
	42.50		Tuffaceous sandstone~ mudstone	Light greenish grey,		
	50.00					
	53.00		Tuffaceous sandstone~ mudstone	Light greenish grey, including much gravels,		
	54.00		Tuffaceous sandstone~ mudstone	Light greenish grey, larger diameter of gravel,		
	60.00					
	61.00		Tuffaceous sandstone~ mudstone	Light greenish grey, including much gravels,		
	70.00		(End of hole.)			

D. H. No. DH-9

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	0.00		Gravel & sand	Light brownish grey, loose, gravel:dolerite, gabbro, limestone, harzburgite	-7.57m	
	5.00		Calcreted gravel & sand	Light brownish grey, calcrete, compacted, gravel:dolerite, gabbro, limestone, harzburgite		
	8.00		Calcreted gravel & sand	Light brownish grey, clay silty, fine sand,		
	10.00					
	14.00		Calcreted gravel & sand	Brownish grey~brown, loose, very fine sand		
	20.00		Calcreted gravel & sand	Brownish grey~brown, loose, include gravel tertiary reddish shale,		
	28.00					
	29.00		Calcareous mudstone	Light brownish grey, calcareous, silt, very fine sand~fine sand,		
	30.00					
	40.00					

Geological Columnar Section of Drill Holes (8)

D. H. No. DH-9

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Calcareous mudstone	Light brownish grey, calcareous, silt, very fine sand~fine sand,		
	50.00					

D. H. No. DH-10

(1)

Ele. (m)	Depth (m)	Colum.	Geology	Description	Groundwater	Remarks
	1.00		Gravel and sand	Brown, sorting bad, loose, gravel: 0.5 – 8cm Matrix: fine to coarse sand		
	4.00		Gravel and sand	Brownish grey, loose calcreted layer		
	8.00		Calcreted Gravel & sand	Light brownish grey, consolidated by calcrete, compacted	-7.62m	
	10.00		Massive lava	Dark green to greenish grey, basaltic massive lava, hard		
	15.00		Pillow lava	Dark greenish grey, basaltic pillow lava, crackly		
	18.00		Massive lava	Dark green to greenish grey, basaltic massive lava, hard		
	20.00					
	30.00		(End of hole.)			

Geological Columnar Section of Drill Holes (9)

D.H.No.DH-11

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	3.00		Gravel & sand	Brown~light brownish grey, loose		
	5.00		Calcreted gravel & sand	Brown~light brownish grey loose calcreted		
	8.00		Basaltic pillow lava	Light greenish grey, weathered		
	10.00		Basaltic massive lava	Light greenish grey, weathered a little, coarse grained, hard	-9.58m	
	14.00		Basaltic pillow lava	greenish grey, fresh light grey		
	19.00					
	20.00		Basaltic massive lava	Light grey, fresh hard, coarse grained, chloritization		
	27.00		Basaltic pillow lava	Light grey, fresh quartz, chloritization		
	30.00		(End of hole.)			

Geological Columnar Section of Drill Holes (10)

D. H. No. DH-12D

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	2.00		Gravel & sand	Light grey~brownish grey, loose,		
	8.00		Calcreted gravel & sand	Light grey~brownish grey, calcreted, loose,	-5.36m ▽	
	14.00		Calcreted gravel & sand	Brown~brownish grey, calcrete, compacted,		
	17.00		Basaltic massive lava	Greenish grey, weathered, partly brownish, chlorite, epidote, calcite,		
	19.00		Basaltic pillow lava	Greenish grey, weathered, partly chlorite, epidote, calcite,		
	24.00		Basaltic massive lava	Greenish grey, weathered, partly brownish, chlorite, epidote, calcite,		
	27.00		Basaltic pillow lava	Greenish grey, weathered, partly chlorite, epidote, calcite,		
	40.00		Basaltic massive lava	Light greenish grey, massive,		

Geological Columnar Section of Drill Holes (11)

D. H. No. DH-12D

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Basaltic massive lava	Light greenish grey, massive,		
	50.00		(End of hole.)			

D.H.No.DH13

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
	4.00		Gravel & sand	Grey~brownish grey, gravel:gabbro, dolerite,		
	9.00		Calcreted gravel & sand	Brownish grey, coarse sand, weak calcrete,	-7.85m	
	10.00		Basaltic pillow lava	Greenish grey,		
	14.00					
	15.00			Basaltic pillow lava(altered zone)		
	20.00		Basaltic massive lava	Greenish grey~dark greenish grey,		
	21.00		Basaltic pillow lava	Greenish grey,		
	24.00		Basaltic massive lava	Dark greenish grey, coarse grained,		
	28.00					
	30.00		Basaltic pillow lava	Light greenish grey, altered,		
	39.00		Basaltic massive lava	Dark greenish grey,		
	40.00					

Geological Columnar Section of Drill Holes (12)

D. H. No. DH13

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Basaltic massive lava	Dark greenish grey,		
	44.00		Basaltic pillow lava	Light greenish grey,		
	47.00		Basaltic massive lava	Dark greenish grey~dark green, fresh, coarse grained,		
	50.00		(End of hole.)			

D. H. No. DH-14

(1)

Ele.	Depth (m)	Colum	Geology	Description	Groundwater	Remarks
			Gravel & sand	Grey~brownish grey, loose, gravel:gabbro, dolerite,		
	3.00		Calcreted gravel & sand	Grey~brownish grey, loose calcrete, gravel:gabbro, dolerite,		
	5.00		Basaltic pillow lava	Dark grey, weathered a little, wealth chlorite, epidote,	-8.70m	
	9.00		Basaltic massive lava	Light greenish grey~grey,		
	10.00					
	12.00		Basaltic pillow lava	Greenish grey~dark grey, wealth chlorite, epidote,		
	18.00		Basaltic massive lava	Dark grey,		
	20.00		Basaltic pillow lava	Greenish grey~dark grey,		
	25.00		Basaltic massive lava	Dark grey~greenish grey,		
	27.00		Basaltic pillow lava	Grey~greenish grey,		
	30.00					
	33.00		Basaltic massive lava	Greenish grey~dark grey,		
	40.00		(End of hole.)			

Geological Columnar Section of Drill Holes (13)

Appendix-5 Site Pumping Test Analyzed Result (1) to (22)

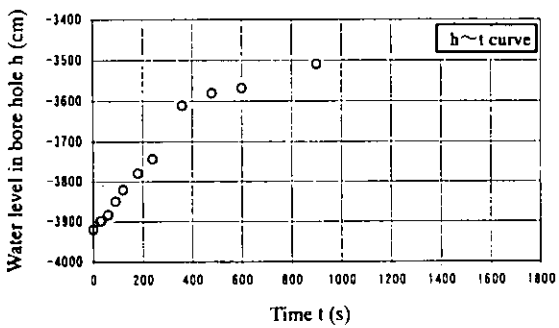
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

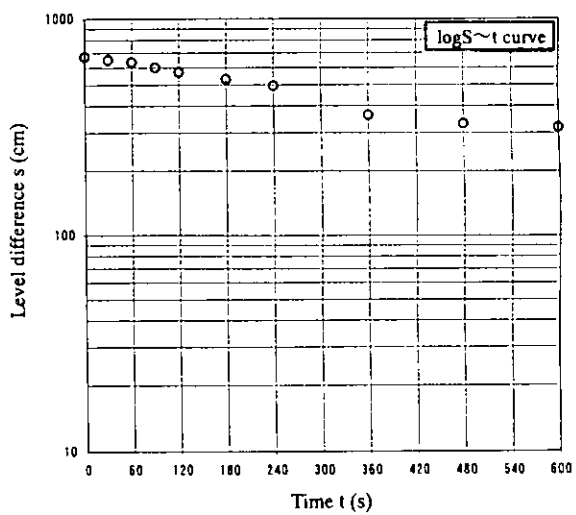
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 06/07/2000

Name of drill hole : DH-1A — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	1810	Classification of aquifer	Unconfined
Section tested (m)	32.50~50.60	Groundwater level : h_o (cm)	-3250.0		
Pipe inner diameter : d (cm)	6.35	Diameter of drill hole : D (cm)	9.75	Ground level (m)	262.72
Slope of linear part of log~t curve : m (S^{-1})	7.68E-04	Permeability Coefficient : k (cm/s)	**2.90E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3920.0	670.0
30	-3899.0	649.0
60	-3883.0	633.0
90	-3850.0	600.0
120	-3821.0	571.0
180	-3780.0	530.0
240	-3744.0	494.0
360	-3612.0	362.0
480	-3581.0	331.0
600	-3568.0	318.0
900	-3510.0	260.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

S-1

Site Pumping Test Analyzed Result (1)

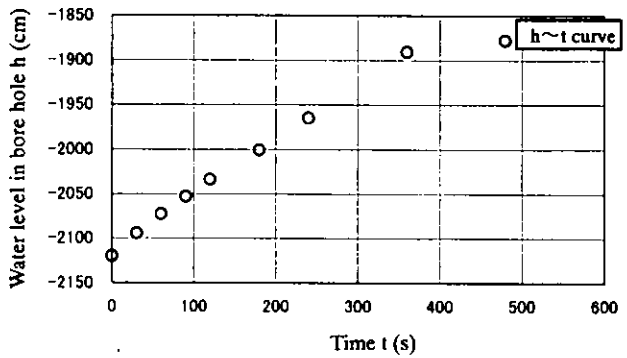
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

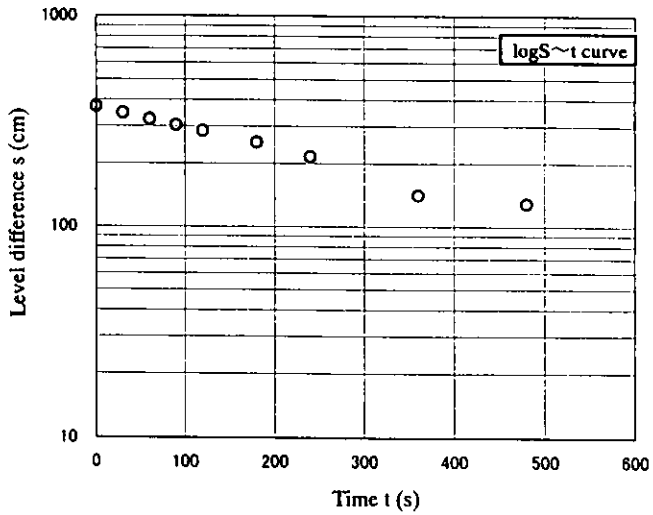
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 06/07/2000

Name of drill hole : DH-1B — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	1400	Classification of aquifer	Unconfined
Section tested (m)	17.50～31.50	Groundwater level : h_0 (cm)	-1750.0		
Pipe inner diameter : d (cm)	6.35	Diameter of drill hole : D (cm)	9.75	Ground level (m)	261.39
Slope of linear part of log～t curve : m (S^{-1})	1.18E-03	Permeability Coefficient : k (cm/s)	**5.49E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-2120.0	370.0
30	-2094.5	344.5
60	-2073.0	323.0
90	-2053.0	303.0
120	-2034.0	284.0
180	-2001.0	251.0
240	-1965.0	215.0
360	-1891.0	141.0
480	-1878.0	128.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (2)

Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 21/07/2000

Name of drill hole : DH-2 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4251	Classification of aquifer	Unconfined
Section tested (m)	7.49～50.00	Groundwater level : h_o (cm)	-749.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	211.49
Slope of linear part of log～t curve : m (S^{-1})	3.54E-04	Permeability Coefficient : k (cm/s)	**5.38E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-4850.0	4101.0
30	-4520.0	3771.0
60	-4421.0	3672.0
90	-4385.0	3636.0
120	-4316.0	3567.0
150	-4235.0	3486.0
180	-4149.0	3400.0
210	-4090.0	3341.0
240	-3968.0	3219.0
270	-3878.0	3129.0
300	-3768.0	3019.0
360	-3631.0	2882.0
420	-3555.0	2806.0
480	-3485.0	2736.0
540	-3436.0	2687.0
600	-3370.0	2621.0
660	-3250.0	2501.0
720	-3137.0	2388.0
780	-3100.0	2351.0
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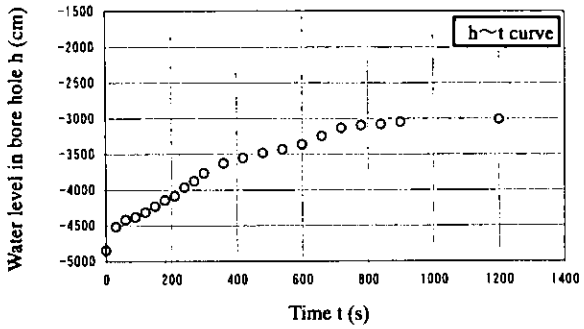
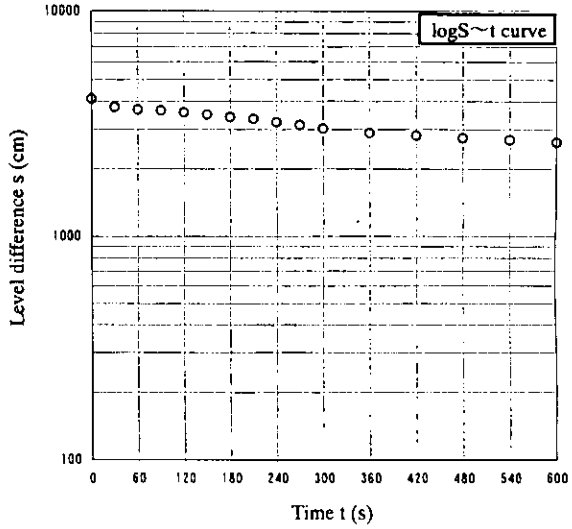
900	-3050.0	2301.0
1200	-3010.0	2261.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (3)

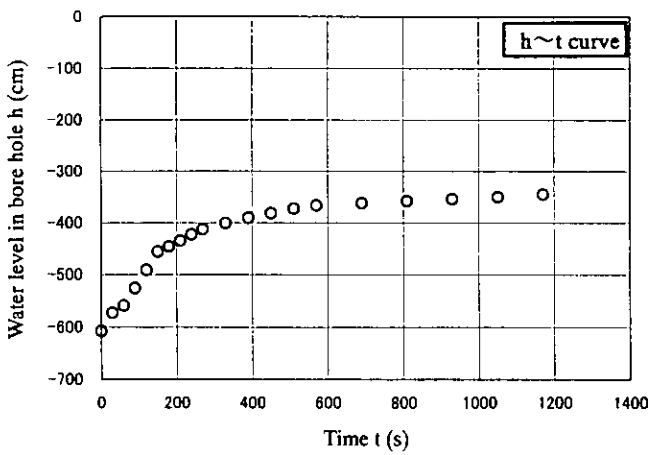
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

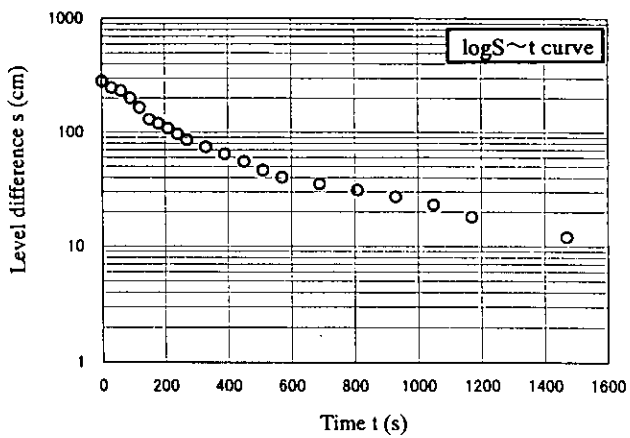
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 01/08/2000

Name of drill hole : DH-3 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	2673	Classification of aquifer	Unconfined
Section tested (m)	3.27~30.00	Groundwater level : h_0 (cm)	-327.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	162.24
Slope of linear part of log~t curve : m (S^{-1})	2.83E-03	Permeability Coefficient : k (cm/s)	**6.28E-04**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-608.0	281.0
30	-573.2	246.2
60	-559.1	232.1
90	-526.0	199.0
120	-491.0	164.0
150	-456.0	129.0
180	-446.4	119.4
210	-435.0	108.0
240	-423.0	96.0
270	-412.5	85.5
330	-401.0	74.0
390	-391.0	64.0
450	-382.0	55.0
510	-373.0	46.0
570	-367.0	40.0
690	-362.0	35.0
810	-358.0	31.0
930	-354.0	27.0
1050	-350.0	23.0
1170	-345.0	18.0
1470	-339.0	12.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (4)

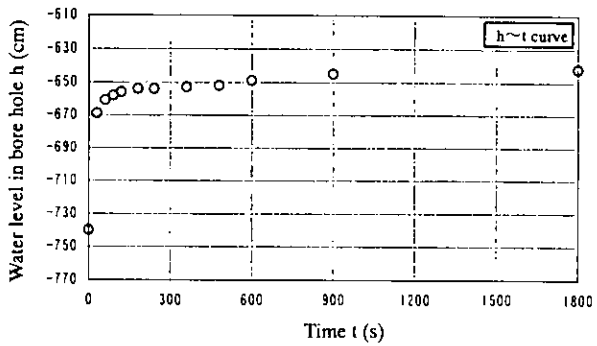
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

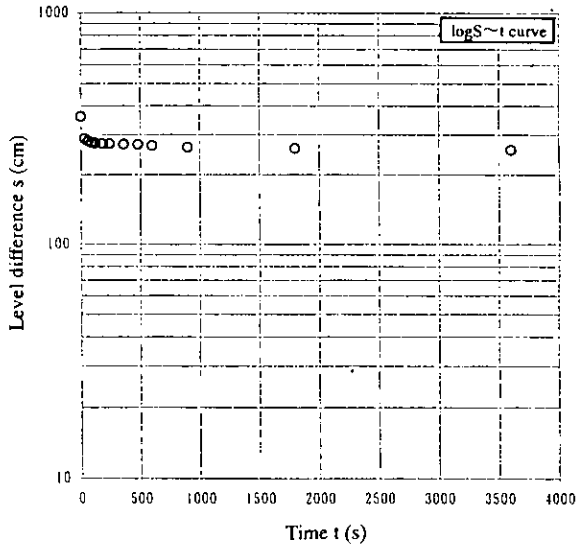
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 09/09/2000

Name of drill hole : DH-4G — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	46.19	Classification of aquifer	Unconfined
Section tested (m)	3.81～30.40	Groundwater level : h_0 (cm)	-381.0		
Pipe inner diameter : d (cm)	6.35	Diameter of drill hole : D (cm)	9.8	Ground level (m)	141.99
Slope of linear part of log～t curve : m (S^{-1})	7.50E-05	Permeability Coefficient : k (cm/s)	**4.22E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-740.0	359.0
30	-669.0	288.0
60	-661.0	280.0
90	-658.0	277.0
120	-656.0	275.0
180	-654.0	273.0
240	-654.0	273.0
360	-653.0	272.0
480	-652.0	271.0
600	-649.0	268.0
900	-645.0	264.0
1800	-642.0	261.0
3600	-638.0	257.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (5)

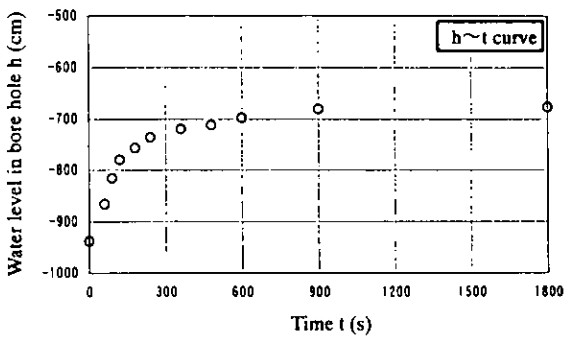
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

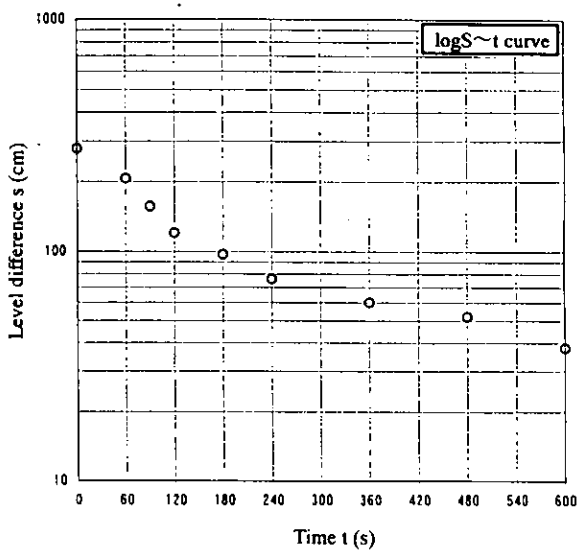
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 10/10/2000

Name of drill hole : DH-4S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	1140	Classification of aquifer	Unconfined
Section tested (m)	6.60~18.00	Groundwater level : h_0 (cm)	-660.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	145.32
Slope of linear part of log~t curve : m (S^{-1})	1.79E-03	Permeability Coefficient : k (cm/s)	**7.76E-04**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-938.0	278.0
60	-866.5	206.5
90	-816.0	156.0
120	-780.0	120.0
180	-757.0	97.0
240	-736.0	76.0
360	-720.0	60.0
480	-712.0	52.0
600	-698.0	38.0
900	-681.0	21.0
1800	-677.0	17.0
3600	-670.0	10.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (6)

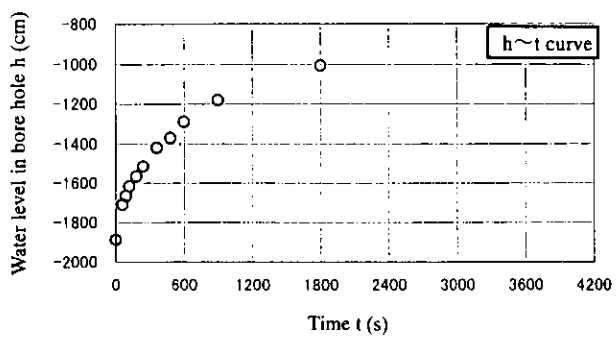
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

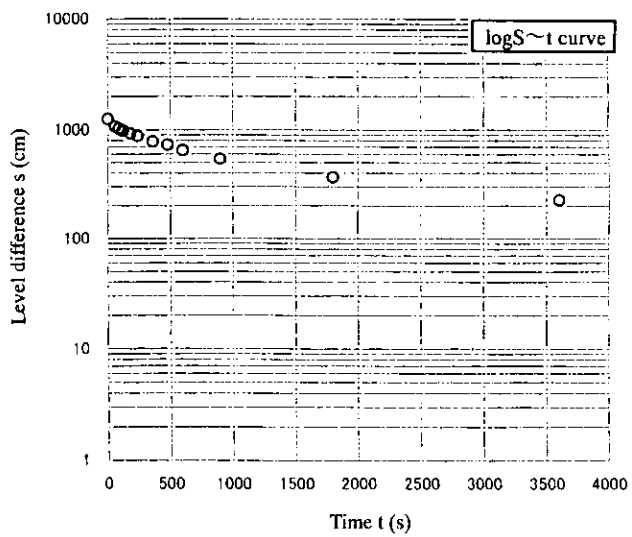
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 10/10/2000

Name of drill hole : DH-4D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4356	Classification of aquifer	Unconfined
Section tested (m)	6.44～50.00	Groundwater level : h_0 (cm)	-644.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	144.72
Slope of linear part of log～t curve : m (S^{-1})	4.60E-04	Permeability Coefficient : k (cm/s)	**1.08E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1888.0	1244.0
60	-1710.0	1066.0
90	-1666.0	1022.0
120	-1617.0	973.0
180	-1567.0	923.0
240	-1516.0	872.0
360	-1420.0	776.0
480	-1372.0	728.0
600	-1291.0	647.0
900	-1181.0	537.0
1800	-1007.0	363.0
3600	-870.0	226.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (7)

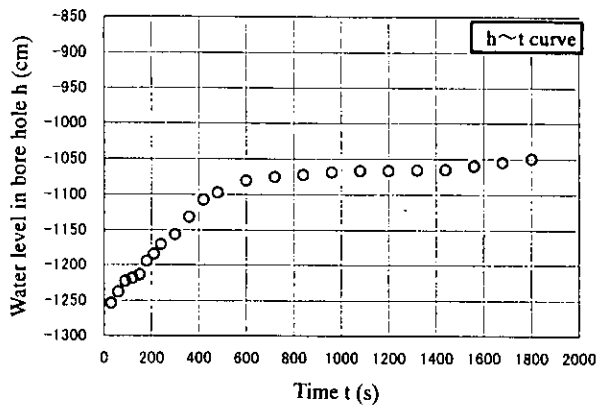
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

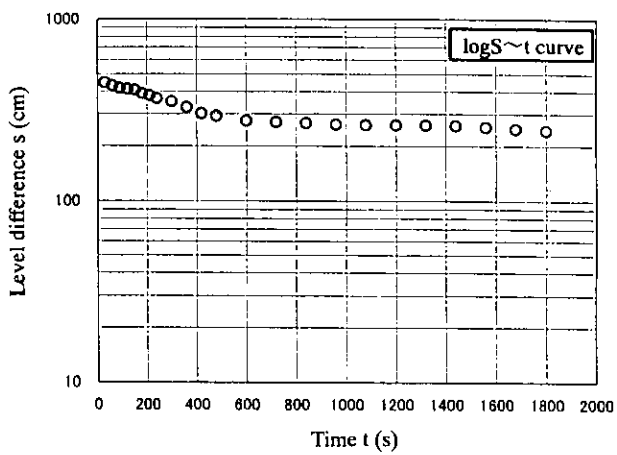
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 18/07/2000

Name of drill hole : DH-5S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	993	Classification of aquifer	Unconfined
Section tested (m)	8.07～18.00	Groundwater level : h_o (cm)	-807.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	107.56
Slope of linear part of log～t curve : m (S^{-1})	1.54E-04	Permeability Coefficient : k (cm/s)	**7.42E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-807.0	0.0
30	-1254.0	447.0
60	-1238.0	431.0
90	-1223.0	416.0
120	-1219.0	412.0
150	-1214.0	407.0
180	-1195.0	388.0
210	-1185.0	378.0
240	-1171.0	364.0
300	-1157.0	350.0
360	-1132.0	325.0
420	-1108.0	301.0
480	-1098.0	291.0
600	-1081.0	274.0
720	-1076.0	269.0
840	-1073.0	266.0
960	-1069.0	262.0
1080	-1067.0	260.0
1200	-1067.0	260.0
1320	-1066.0	259.0
1440	-1065.0	258.0
1560	-1060.0	253.0
1680	-1055.0	248.0
1800	-1050.0	243.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (8)

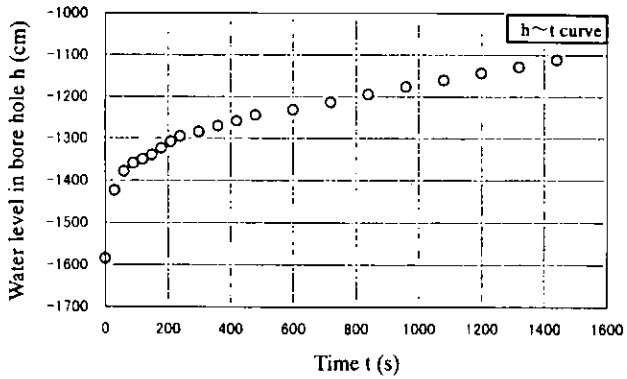
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

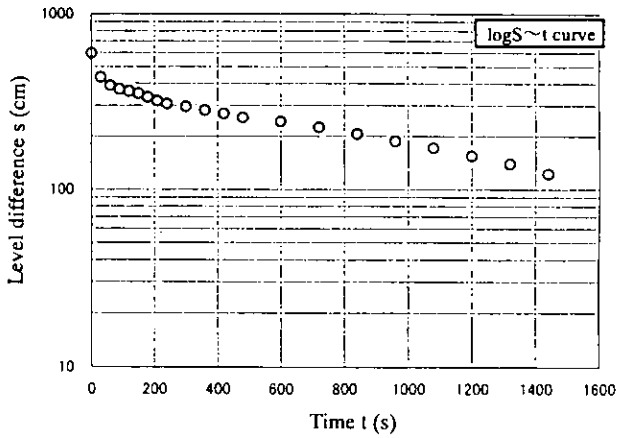
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 18/07/2000

Name of drill hole : DH-5D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	5010	Classification of aquifer	Unconfined
Section tested (m)	9.90~60.00	Groundwater level : h_0 (cm)	-990.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	107.04
Slope of linear part of log~t curve : m (S^{-1})	3.64E-04	Permeability Coefficient : k (cm/s)	**7.57E-06**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1585.0	595.0
30	-1424.0	434.0
60	-1379.5	389.5
90	-1360.0	370.0
120	-1351.0	361.0
150	-1340.0	350.0
180	-1324.0	334.0
210	-1308.0	318.0
240	-1296.0	306.0
300	-1285.0	295.0
360	-1271.0	281.0
420	-1259.0	269.0
480	-1245.0	255.0
600	-1232.0	242.0
720	-1214.0	224.0
840	-1195.0	205.0
960	-1177.0	187.0
1080	-1161.0	171.0
1200	-1144.0	154.0
1320	-1129.0	139.0
1440	-1112.0	122.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (9)

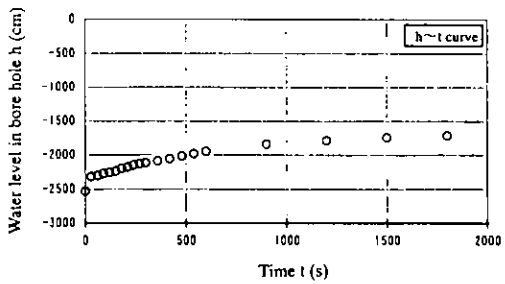
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

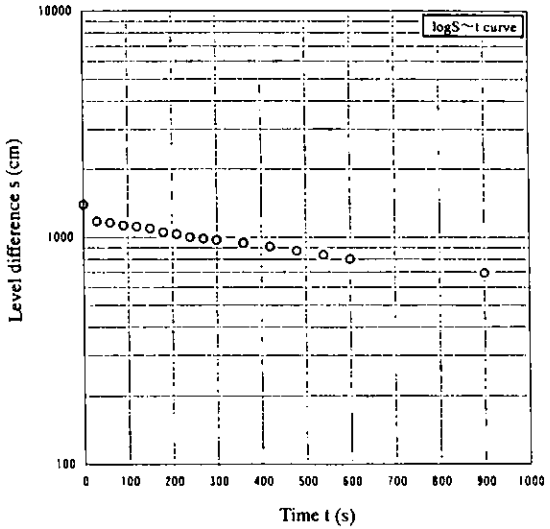
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 18/07/2000

Name of drill hole : DH-6S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	750	Classification of aquifer	Unconfined
Section tested (m)	10.50～18.00	Groundwater level : h_o (cm)	-1050.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	101.80
Slope of linear part of log～t curve : m (S^{-1})	8.47E-04	Permeability Coefficient : k (cm/s)	**5.04E-04**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1095.0	45.0
0.5	-1254.0	204.0
1	-1247.0	197.0
1.5	-1241.0	191.0
2	-1237.0	187.0
2.5	-1234.0	184.0
3	-1231.0	181.0
3.5	-1229.0	179.0
4	-1228.0	178.0
4.5	-1228.0	178.0
5	-1227.0	177.0
6	-1227.0	177.0
7	-1226.0	176.0
8	-1225.0	175.0
9	-1225.0	175.0
10	-1224.0	174.0
12	-1223.0	173.0
14	-1223.0	173.0
16	-1223.0	173.0
18	-1222.0	172.0
20	-1222.0	172.0
25	-1221.0	171.0
30	-1221.0	171.0
35	-1220.0	170.0
40	-1220.0	170.0
45	-1219.0	169.0
50	-1218.0	168.0
55	-1217.0	167.0
60	-1217.0	167.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^{2}\log(2L/D)}{L}\cdot m \qquad \left[\; m = \frac{\log(s_1/s_2)}{t_2 - t_1} \;\right]$$

Site Pumping Test Analyzed Result (10)

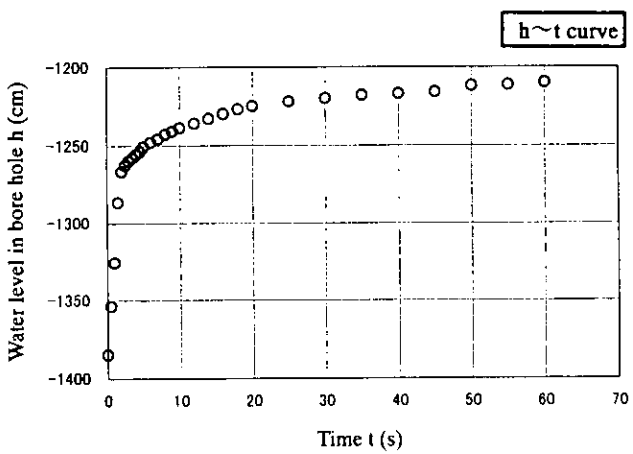
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

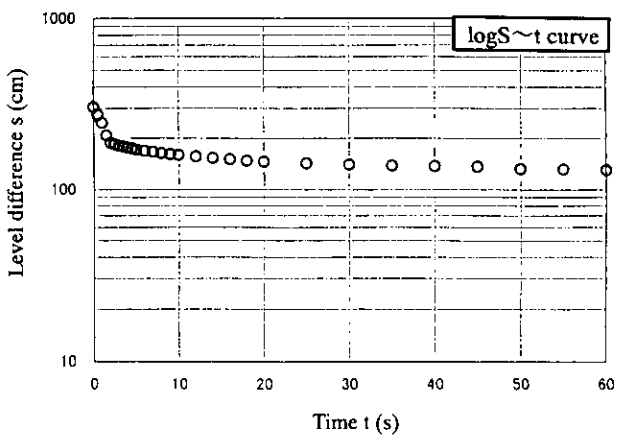
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 18/07/2000

Name of drill hole : DH-6D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4820	Classification of aquifer	Unconfined
Section tested (m)	10.80～60.00	Groundwater level : h_o (cm)	-1080.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	101.37
Slope of linear part of log～t curve : m (S^{-1})	2.72E-03	Permeability Coefficient : k (cm/s)	**5.85E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1385.0	305.0
0.5	-1354.0	274.0
1	-1326.0	246.0
1.5	-1287.0	207.0
2	-1267.0	187.0
2.5	-1263.0	183.0
3	-1260.0	180.0
3.5	-1258.0	178.0
4	-1256.0	176.0
4.5	-1254.0	174.0
5	-1251.0	171.0
6	-1248.0	168.0
7	-1246.0	166.0
8	-1243.0	163.0
9	-1241.0	161.0
10	-1239.0	159.0
12	-1236.0	156.0
14	-1233.0	153.0
16	-1230.0	150.0
18	-1227.0	147.0
20	-1225.0	145.0
25	-1222.0	142.0
30	-1220.0	140.0
35	-1218.0	138.0
40	-1217.0	137.0
45	-1216.0	136.0
50	-1212.0	132.0
55	-1211.5	131.5
60	-1210.0	130.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (11)

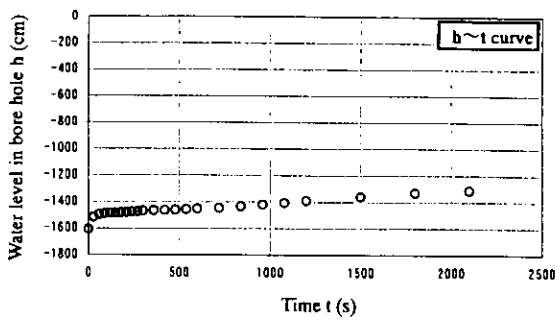
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

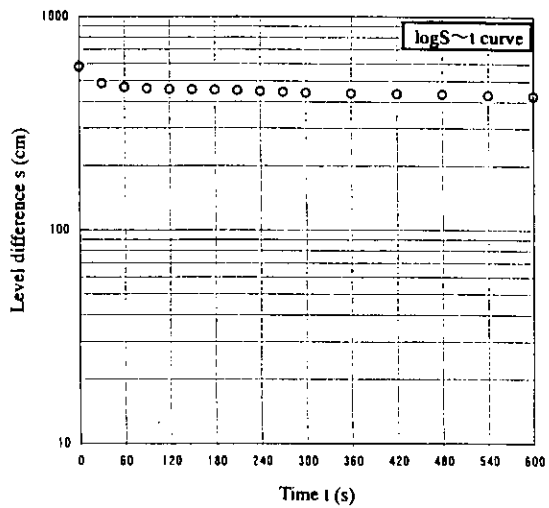
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 25/07/2000

Name of drill hole : DH-7S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	765	Classification of aquifer	Unconfined
Section tested (m)	10.35～18.00	Groundwater level : h_0 (cm)	-1030.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	43.47
Slope of linear part of log～t curve : m (S^{-1})	1.13E-04	Permeability Coefficient : k (cm/s)	**6.60E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1610.0	580.0
30	-1515.5	485.5
60	-1495.5	465.5
90	-1489.0	459.0
120	-1486.0	456.0
150	-1484.0	454.0
180	-1483.0	453.0
210	-1481.0	451.0
240	-1477.0	447.0
270	-1473.0	443.0
300	-1469.0	439.0
360	-1466.0	436.0
420	-1464.0	434.0
480	-1462.1	432.1
540	-1458.0	428.0
600	-1454.0	424.0
720	-1447.0	417.0
840	-1434.0	404.0
960	-1422.0	392.0
1080	-1408.0	378.0
1200	-1391.0	361.0
1500	-1360.0	330.0
1800	-1331.0	301.0
2100	-1312.0	282.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (12)

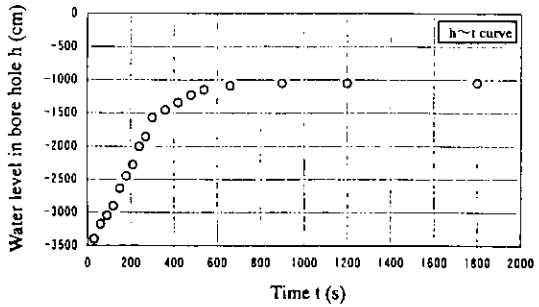
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

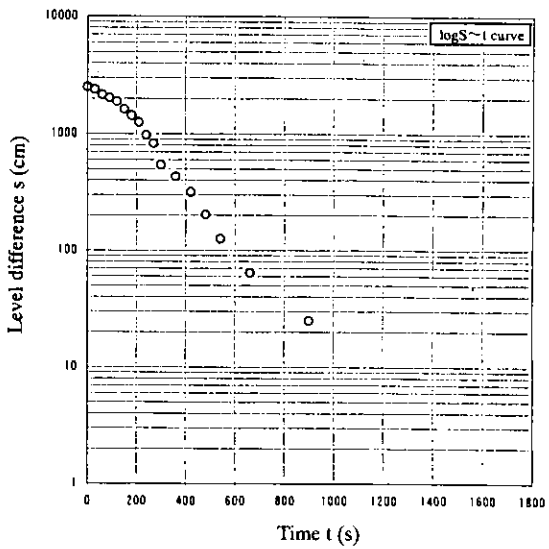
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 06/10/2000

Name of drill hole : DH-7D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4970	Classification of aquifer	Unconfined
Section tested (m)	10.30～60.00	Groundwater level : h_0 (cm)	-1030.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	43.24
Slope of linear part of log～t curve : m (S^{-1})	2.72E-03	Permeability Coefficient : k (cm/s)	**5.70E-05**	Weather	Cloudy

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3521.0	2491.0
30	-3403.0	2373.0
60	-3177.0	2147.0
90	-3050.0	2020.0
120	-2905.0	1875.0
150	-2643.0	1613.0
180	-2453.0	1423.0
210	-2281.0	1251.0
240	-2005.0	975.0
270	-1856.0	826.0
300	-1572.0	542.0
360	-1459.0	429.0
420	-1346.0	316.0
480	-1231.5	201.5
540	-1155.0	125.0
660	-1094.0	64.0
900	-1055.0	25.0
1200	-1054.0	24.0
1800	-1050.0	20.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (13)

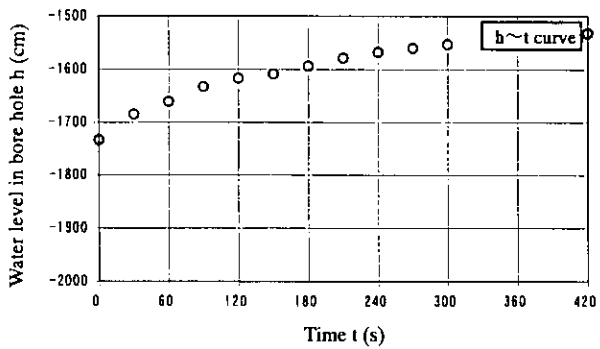
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

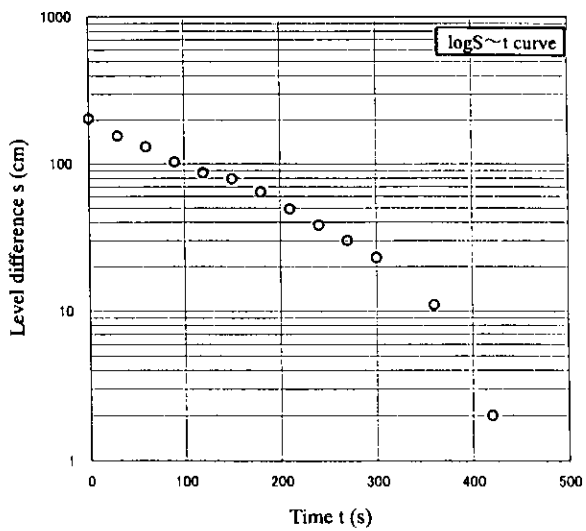
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 22/10/2000

Name of drill hole : DH-8S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	470	Classification of aquifer	Unconfined
Section tested (m)	15.30~20.00	Groundwater level : h_o (cm)	-1530.0		
Pipe inner diameter : d (cm)	7.6	Diameter of drill hole : D (cm)	30.6	Ground level (m)	22.31
Slope of linear part of log~t curve : m (S^{-1})	2.96E-03	Permeability Coefficient : k (cm/s)	**3.57E-04**	Weather	Cloudy

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1734.0	204.0
30	-1685.0	155.0
60	-1661.0	131.0
90	-1633.0	103.0
120	-1617.0	87.0
150	-1609.0	79.0
180	-1594.0	64.0
210	-1579.0	49.0
240	1568.0	38.0
270	-1560.0	30.0
300	-1553.0	23.0
360	-1541.0	11.0
420	-1532.0	2.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (14)

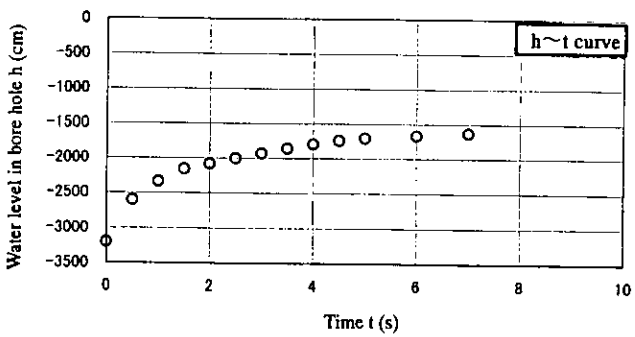
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

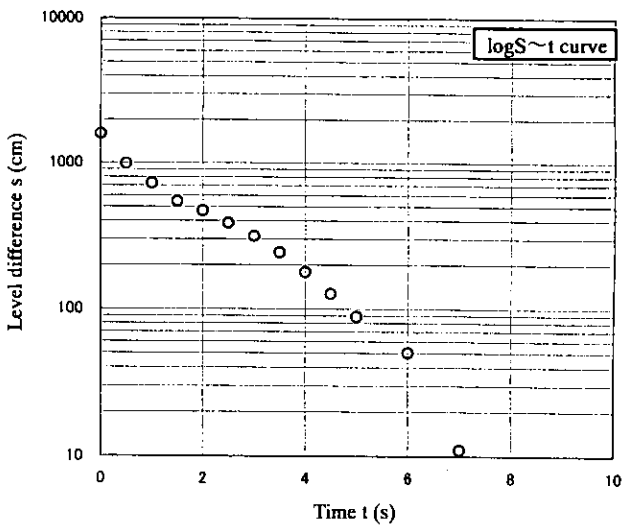
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 05/10/2000

Name of drill hole : DH-8D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	5380	Classification of aquifer	Unconfined
Section tested (m)	16.20～70.00	Groundwater level : h_0 (cm)	-1620.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	22.22
Slope of linear part of log～t curve : m (S^{-1})	2.35E-01	Permeability Coefficient : k (cm/s)	**4.61E-03**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3204.0	1584.0
0.5	-2604.0	984.0
1	-2341.0	721.0
1.5	-2163.0	543.0
2	-2087.0	467.0
2.5	-2005.0	385.0
3	-1933.0	313.0
3.5	-1862.0	242.0
4	-1798.0	178.0
4.5	-1746.0	126.0
5	-1708.0	88.0
6	-1670.0	50.0
7	-1631.0	11.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (15)

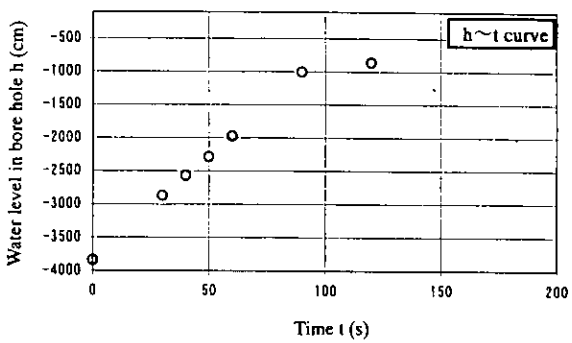
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

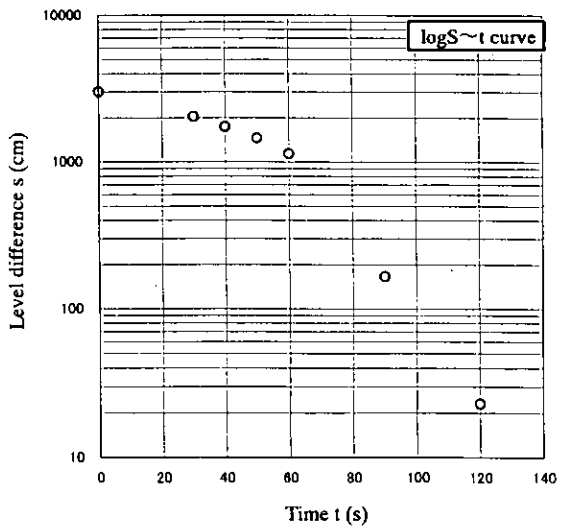
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 22/10/2000

Name of drill hole : DH-9 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4160	Classification of aquifer	Unconfined
Section tested (m)	8.40～50.00	Groundwater level : h_o (cm)	-840.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	8.00
Slope of linear part of log～t curve : m (S^{-1})	1.81E-02	Permeability Coefficient : k (cm/s)	**2.80E-03**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3841.0	3001.0
30	-2874.0	2034.0
40	-2576.0	1736.0
50	-2291.0	1451.0
60	-1978.0	1138.0
90	-1006.0	166.0
120	-863.0	23.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (16)

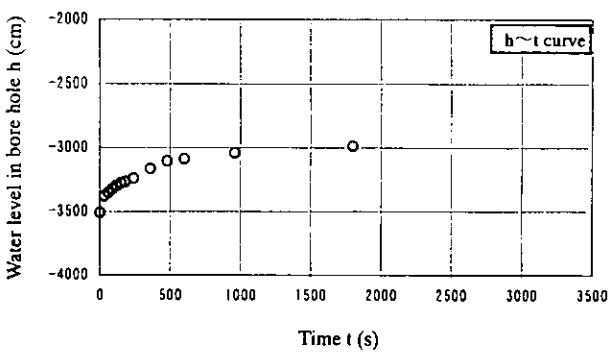
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

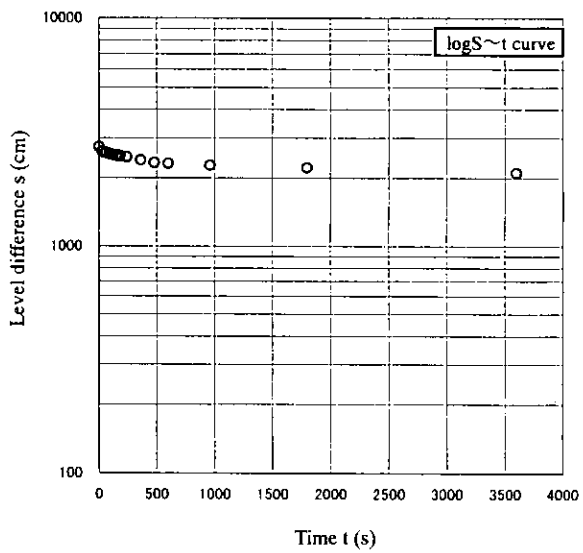
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 23/07/2000

Name of drill hole : DH-10 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	3229	Classification of aquifer	Unconfined
Section tested (m)	7.71～40.00	Groundwater level : h_0 (cm)	-771.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	167.50
Slope of linear part of log～t curve : m (S^{-1})	1.41E-04	Permeability Coefficient : k (cm/s)	**2.69E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3510.0	2739.0
30	-3380.0	2609.0
60	-3352.0	2581.0
90	-3324.0	2553.0
120	-3299.0	2528.0
150	-3280.0	2509.0
180	-3268.0	2497.0
240	-3242.0	2471.0
360	-3166.0	2395.0
480	-3105.0	2334.0
600	-3088.0	2317.0
960	-3042.0	2271.0
1800	-2989.0	2218.0
3600	-2875.0	2104.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

5 – 17

Site Pumping Test Analyzed Result (17)

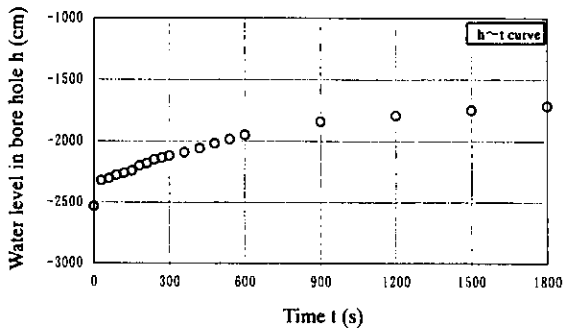
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

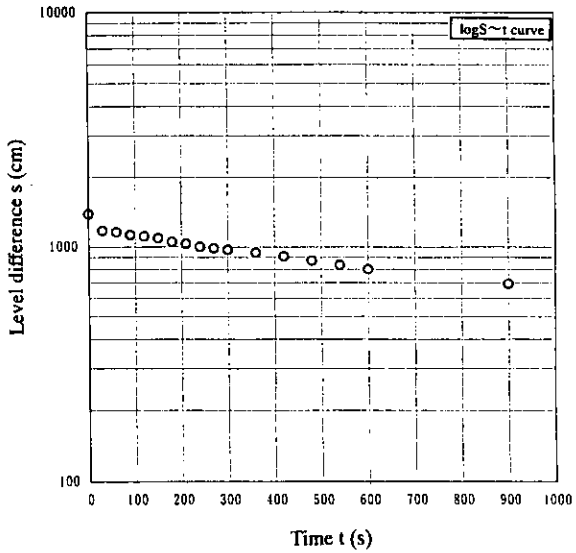
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 18/07/2000

Name of drill hole : DH-11 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	1850	Classification of aquifer	Unconfined
Section tested (m)	11.50~30.00	Groundwater level : h_o (cm)	-1150.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	255.64
Slope of linear part of log~t curve : m (S^{-1})	2.88E-04	Permeability Coefficient : k (cm/s)	**8.55E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-2535.0	1385.0
30	-2320.5	1170.5
60	-2305.0	1155.0
90	-2275.0	1125.0
120	-2260.0	1110.0
150	-2240.0	1090.0
180	-2200.0	1050.0
210	-2180.0	1030.0
240	-2150.0	1000.0
270	-2135.0	985.0
300	-2120.0	970.0
360	-2092.0	942.0
420	-2058.0	908.0
480	-2020.0	870.0
540	-1985.0	835.0
600	-1950.0	800.0
900	-1842.0	692.0
1200	-1792.0	642.0
1500	-1748.0	598.0
1800	-1715.0	565.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[\; m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \; \right]$$

Site Pumping Test Analyzed Result (18)

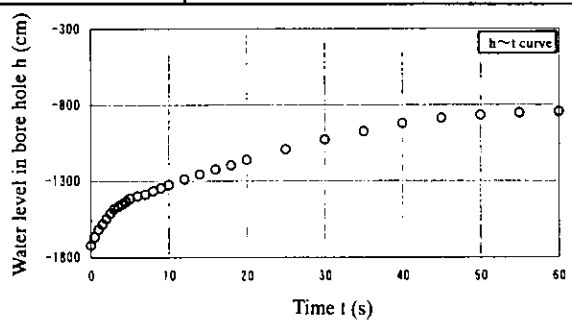
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

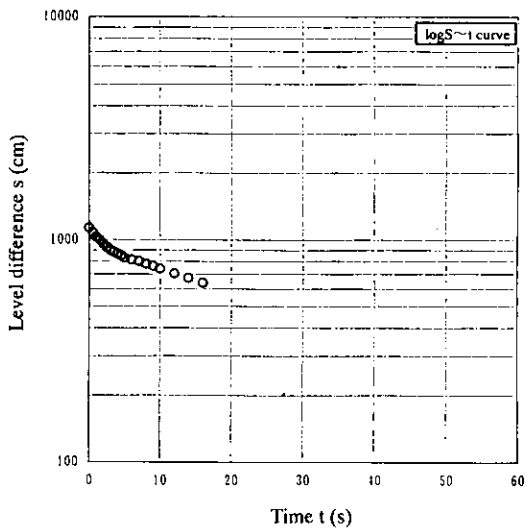
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 27/07/2000

Name of drill hole : DH-12S — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	1213	Classification of aquifer	Unconfined
Section tested (m)	5.87~18.00	Groundwater level : h_0 (cm)	-587.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	200.10
Slope of linear part of log~t curve : m (S^{-1})	9.83E-03	Permeability Coefficient : k (cm/s)	**4.06E-03**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1720.0	1133.0
0.5	-1665.0	1078.0
1	-1617.0	1030.0
1.5	-1582.0	995.0
2	-1546.0	959.0
2.5	-1510.0	923.0
3	-1482.0	895.0
3.5	-1467.0	880.0
4	-1451.0	864.0
4.5	-1434.0	847.0
5	-1415.0	828.0
6	-1399.0	812.0
7	-1388.0	801.0
8	-1365.0	778.0
9	-1347.0	760.0
10	-1326.0	739.0
12	-1289.0	702.0
14	-1257.0	670.0
16	-1225.0	638.0
18	-1197.0	610.0
20	-1161.0	574.0
25	-1092.0	505.0
30	-1027.0	440.0
35	-974.0	387.0
40	-921.0	334.0
45	-888.0	301.0
50	-868.0	281.0
55	-853.0	266.0
60	-845.0	258.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L / D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1 / s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (19)

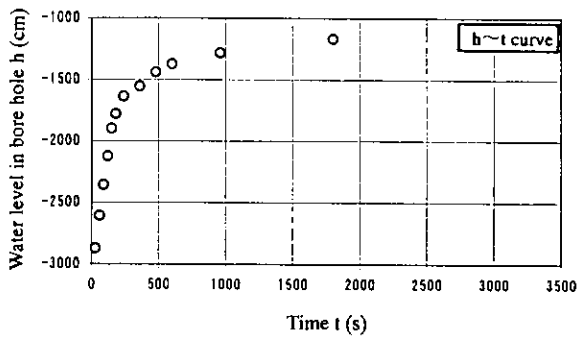
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

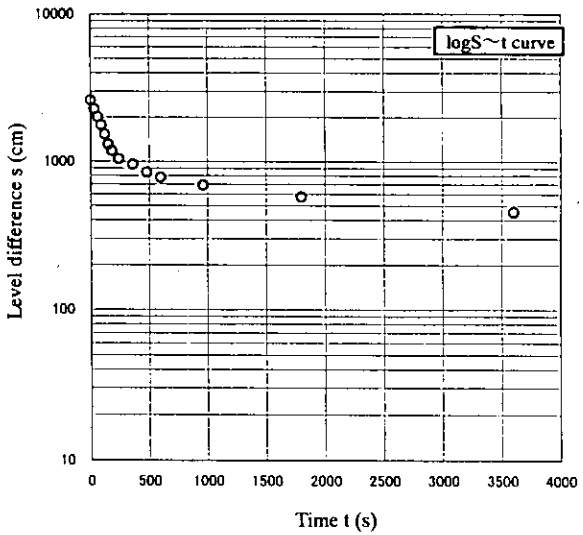
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 23/07/2000

Name of drill hole : DH-12D — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4402	Classification of aquifer	Unconfined
Section tested (m)	5.98～50.00	Groundwater level : h_o (cm)	-598.0		
Pipe inner diameter : d (cm)	7.5	Diameter of drill hole : D (cm)	15.6	Ground level (m)	199.99
Slope of linear part of log～t curve : m (S^{-1})	2.01E-03	Permeability Coefficient : k (cm/s)	**4.67E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-3198.0	2600.0
30	-2871.0	2273.0
60	-2610.0	2012.0
90	-2360.0	1762.0
120	-2125.0	1527.0
150	-1901.0	1303.0
180	-1780.0	1182.0
240	-1636.0	1038.0
360	-1555.0	957.0
480	-1441.0	843.0
600	-1375.0	777.0
960	-1285.0	687.0
1800	-1170.0	572.0
3600	-1051.0	453.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (20)

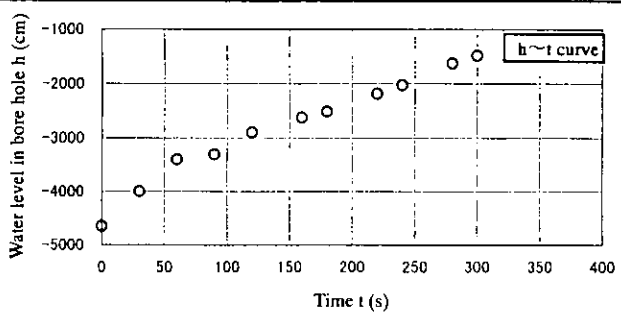
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

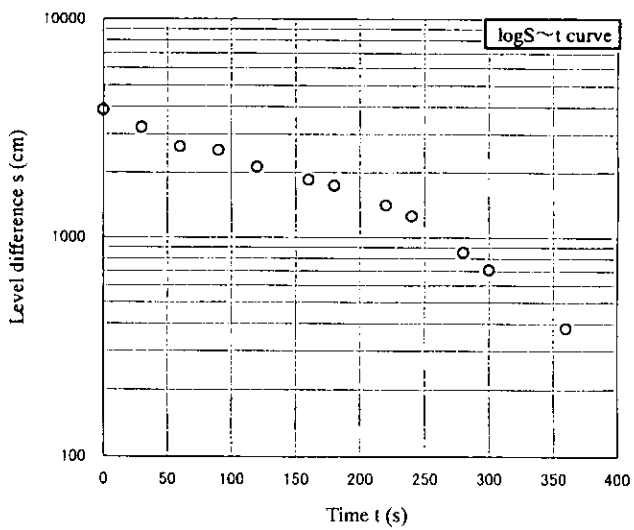
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 04/10/2000

Name of drill hole : DH-13 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	4215	Classification of aquifer	Unconfined
Section tested (m)	7.85～50.00	Groundwater level : h_0 (cm)	-785.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	228.57
Slope of linear part of log～t curve : m (S^{-1})	1.86E-03	Permeability Coefficient : k (cm/s)	**2.84E-04**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-4650.0	3865.0
30	-4001.0	3216.0
60	-3406.0	2621.0
90	-3307.0	2522.0
120	-2905.0	2120.0
160	-2629.0	1844.0
180	-2520.0	1735.0
220	-2190.0	1405.0
240	-2035.0	1250.0
280	-1635.0	850.0
300	-1492.0	707.0
360	-1165.0	380.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (21)

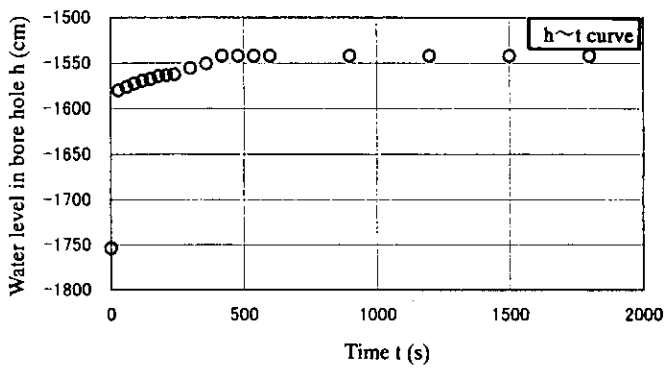
Based on JGS 1314	Permeability Test using drill hole (Unstationary Method)

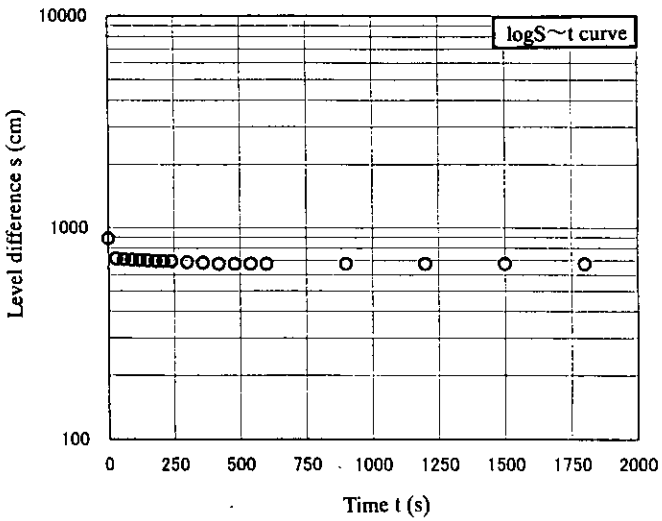
Subject: The Feasibility Study on Mine Pollution Control in Sohar Mine Area, Sultanate of Oman — Date tested: 04/10/2000

Name of drill hole : DH-14 — Measured by: mrc

Test method	Recovery test	Sectional length : L (cm)	3130	Classification of aquifer	Unconfined
Section tested (m)	8.70~40.00	Groundwater level : h_o (cm)	-870.0		
Pipe inner diameter : d (cm)	20	Diameter of drill hole : D (cm)	30.6	Ground level (m)	230.95
Slope of linear part of log~t curve : m (S^{-1})	5.67E-05	Permeability Coefficient : k (cm/s)	**1.10E-05**	Weather	Fine

Elapsed time : t(s)	Water level in hole : h (cm)	Level difference between original GWL: S (cm)
0	-1754.0	884.0
30	-1580.5	710.5
60	-1577.0	707.0
90	-1573.0	703.0
120	-1570.0	700.0
150	-1568.0	698.0
180	-1565.0	695.0
210	-1564.0	694.0
240	-1563.0	693.0
300	-1556.0	686.0
360	-1551.0	681.0
420	-1542.0	672.0
480	-1542.0	672.0
540	-1542.0	672.0
600	-1542.0	672.0
900	-1542.0	672.0
1200	-1542.0	672.0
1500	-1542.0	672.0
1800	-1542.0	672.0





Remarks :

Equations used for permeability test

$$k = \frac{0.66d^2 \log(2L/D)}{L} \cdot m \qquad \left[m = \frac{\log(s_1/s_2)}{t_2 - t_1} \right]$$

Site Pumping Test Analyzed Result (22)