



ISCOR VANDERBIJLPARK STEEL

ENVIRONMENTAL MASTER PLAN

SPECIALIST REPORT

GEOLOGY
VOLUME 2 OF 2

BY
JASPER MÜLLER ASSOCIATES

SERIES IV
DOCUMENT IVS/SR/028
DECEMBER 2002



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ENVIRONMENTAL MASTER PLAN

SPECIALIST REPORT

GEOLOGY VOLUME 2 OF 2

BY
JASPER MÜLLER ASSOCIATES

**SERIES IV
DOCUMENT IVS/SR/028
DECEMBER 2002**

**Draft for discussion
CONFIDENTIAL
Research for IVS**



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FINAL

ISCOR VANDERBIJLPARK STEEL

MASTER PLAN SPECIALIST REPORT

IVS/SR/028

GEOLOGY

DATE: DECEMBER 2002

COMPILED BY:

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APPENDIX IV

- FIGURE IV-1: Localities of the Shallow Weathered Zone Aquifer monitoring boreholes drilled for the IVS Integrated Environmental Master Plan Baseline Study (IVB-boreholes) as well as for other recent geohydrological assessments (IVS boreholes) in the area..
- DATA SET IV-1: Site Information Reports and Construction and Geological logs of the Shallow Weathered Zone Aquifer boreholes, used to describe the local geology for the IVS Integrated Environmental Master Plan Baseline Study - Boreholes **IVB-D1 to IVD-D177**.
- DATA SET IV-2: Site Information Reports and Construction and Geological logs of the Shallow Weathered Zone Aquifer boreholes, used to describe the local geology for the Lamont Park, Rosashof and Louisrus area within the IVS Integrated Environmental Master Plan Baseline Study (**IVS-boreholes**).

FIGURE IV-1

Localities of the Shallow Weathered Zone Aquifer monitoring boreholes drilled for the IVS Integrated Environmental Master Plan Baseline Study (IVB-boreholes) as well as for other recent geohydrological assessments (IVS boreholes) in the area..

DATA SET IV-1

Site Information Reports and Construction and Geological logs of the Shallow Weathered Zone Aquifer boreholes, used to describe the local geology for the IVS Integrated Environmental Master Plan Baseline Study

(IVB Boreholes)

LEGEND

IVB-D Shallow Weathered Zone
Aquifer Monitoring Boreholes



MP Zones

IVS Shallow Weathered Zone
Aquifer Monitoring Boreholes

Draft for Review
Comments
Please do not modify

SCALE 1: 55 000

Client: BOCOR Vanderbijlpark Steel
Project: Masterplan Baseline Study
Map Status: Final
Compiled by: G. Cloete
Checked by: W. Grobbelaar



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Project no:
10193

Date:
October 2002

FIGURE IV-1

Localities of Shallow Weathered
Zone Aquifer Monitoring
Boreholes Drilled

SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 282TD201001 Number: IVB-D1 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D1

Region Type:

Region Desc.: NORTH WORKS OPEN AREAS

Y Coord. [m]: -83917.765	Reg./BB.: CS18	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948033.207	G-Nr.: NWD1	Site status: In use	Col. ht. [m]: 0.38
Altitude [m]: 1506.77		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010308	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	26.00	215	20010321	ROTARY PERC.
JMA	26.00	35.00	165	20010321	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010321	0.00	20.10	165	Steel	3	Plain casing				
20010321	20.10	26.00	165	Steel	3	Perforated or slotted	250	2	43	250

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	28.00	29.00	0.80	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Brown	Dark			
1.00	2.00	QUARTZITE	White			Gravel-bearing	
2.00	9.00	CLAY	Red	Brownish			
9.00	15.00	CLAY	Orange	Brownish			
15.00	26.00	CLAY	Brown				
26.00	29.00	LAVA	Brown	Grayish	Fine	Fractured	Broken
29.00	36.00	LAVA	Gray		Fine	Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010806	1105	0.00	6.08	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	0920	0.00	6.59	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	90	0	0	0	0	0	2.955	0	

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Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01001 Number: IVB-D1

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D1

Y Coord. [m]: -83917.765

X Coord. [m]: 2948033.21

Altitude [m]: 1506.77

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1: NWD1

Alt. No. 2: G19D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applic.: Industrial - Industrial

Equipment: No equipment

Depth [m]: 36.00

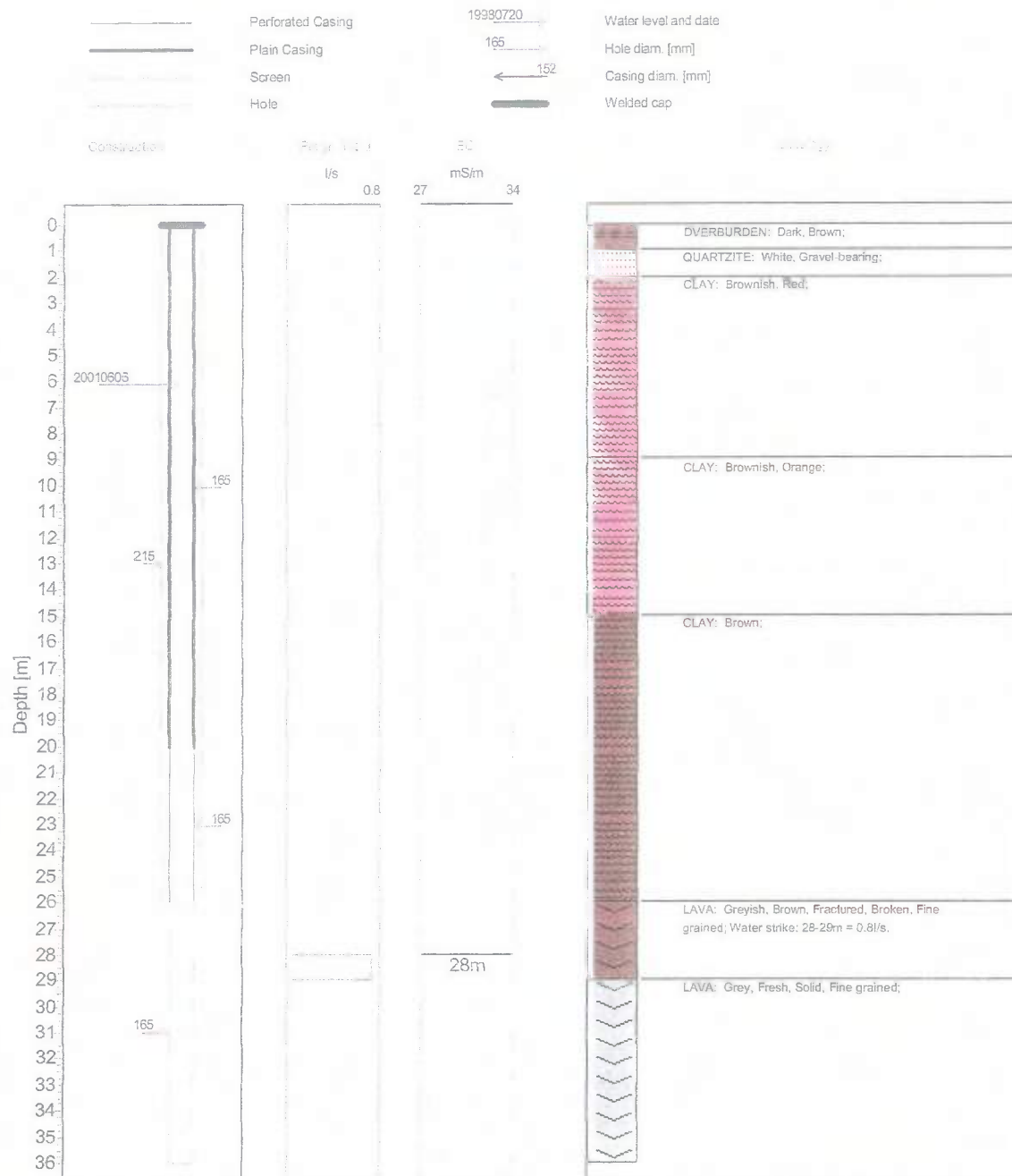
Collar h. [m]: 0.38

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Construction and Geotechnical Log



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site identifier: 2627DB01002 Number: IVB-D2 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D2

Region Type:

Region Desc.: OPEN AREA COOPERS HILL

Y Coord. [m]: -82338.241	Reg./BB.: CS22	Topo-set.: Flat surface, plain	Depth [m]: 36.00
X Coord. [m]: 2948073.706	G-Nr.:	Site status: In use	Col. ht. [m]: 0.36
Altitude [m]: 1506.14		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010312	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	11.00	215	20010423	ROTARY PERC.
JMA	11.00	36.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	11.00	165	Steel	3	Plain casing				
20010423	0.00	24.00	125	Steel	3	Plain casing				
20010423	24.00	36.00	125	Steel	3	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	CLAY	Brown	Light			
2.00	3.00	QUARTZITE	Grey	Light		Loose	Pebbly
3.00	11.00	CLAY	Brown	Reddish			
11.00	28.00	DIABASE	Grey	Light		Weathered	Fractured
28.00	34.00	DIABASE	Grey	Light		Fresh	Hard
34.00	35.00	SHALE	Black	Dark			
34.00	35.00	SHALE	Black			Carbonaceous	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1241	0.00	3.32	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1430	0.00	3.36	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	1138	0.00	3.20	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	% [min]	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0	0	0	0.103	0	

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Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01002 Number: IVB-D2

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D2

Y Coord. [m]: -82338.241

X Coord. [m]: 2948073.71

Altitude [m]: 1506.14

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G17D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 36.00

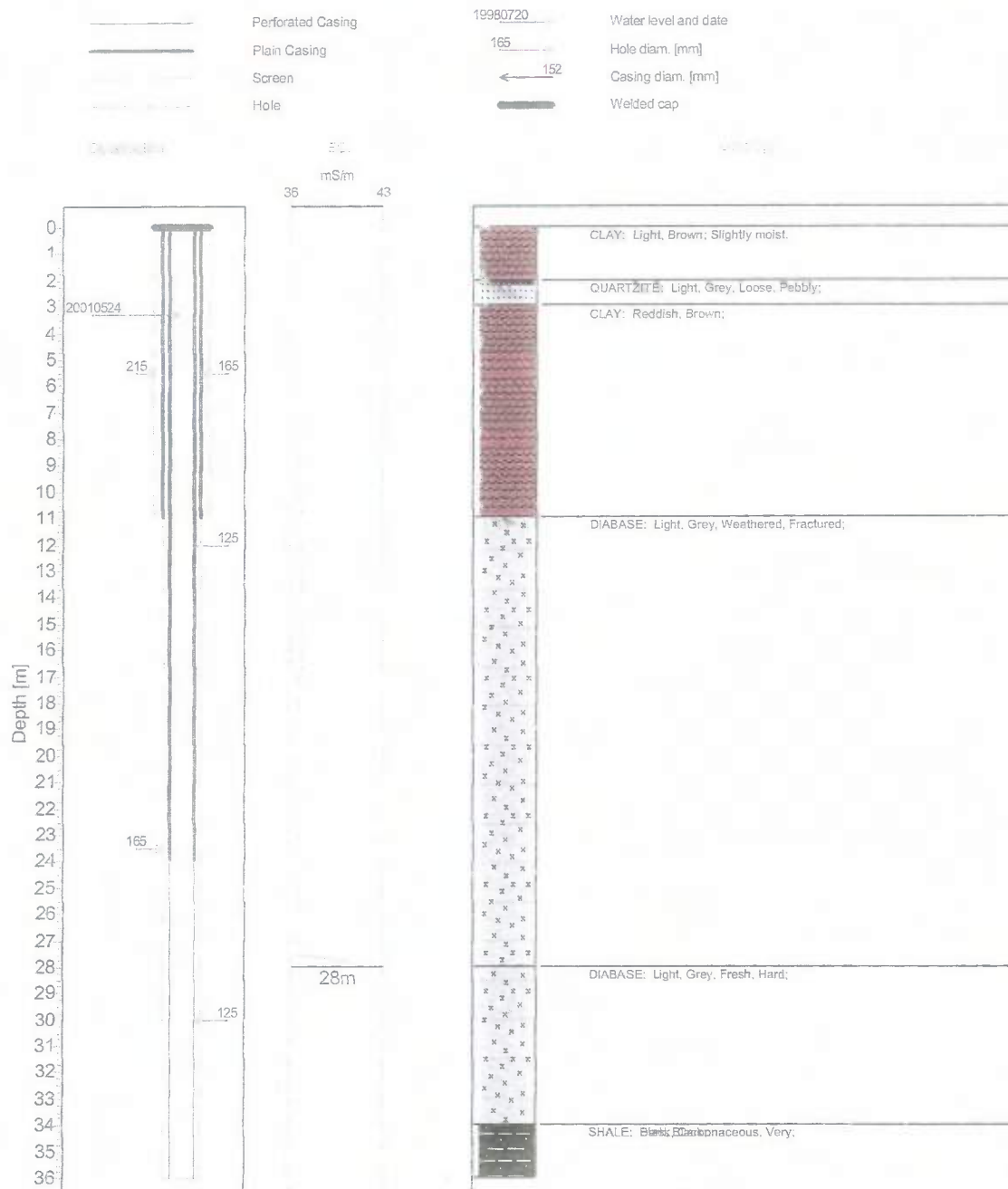
Collar h. [m]: 0.36

Drain. reg.: C220

Diam. [mm]: 125

Rep. inst.: JMA

Borehole Construction and Geological Log



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2527DB01003 Number: IVB-D3 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D3

Region Type:

Region Desc.: MATURATION PONDS

Y Coord. [m]: -82381.38	Reg.IBB.: CS22	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2947661.04299	G-Nr.:	Site status: In use	Col. ht. [m]: 0.41
Altitude [m]: 1505.94		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010313	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	21.00	215	20010423	ROTARY PERC.
JMA	21.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	20.60	165	Steel	3	Plain casing	0	0	0	0
20010423	0.00	24.00	125	Steel	3	Plain casing	0	0	0	0
20010423	24.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	CLAY	Black	Greyish			
2.00	7.00	CLAY	Brown	Reddish		Gravel-bearing	
7.00	14.00	CLAY	Brown	Yellowish			
14.00	18.00	SHALE	Brown	Light	Very fine	Weathered	Sandy
18.00	26.00	SHALE	Brown	Greyish		Weathered	
26.00	35.00	SHALE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010406	0750	0.00	1.66	
Electrical contact	Static	0	Geologist,	20010524	1243	0.00	2.07	SLUG TESTED
Electrical contact	Static	0	Field checked	20010828	1238	0.00	2.15	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0 0	0	0.111	0	

Draft for Discussion
C220 11/27/01
Costa Rica for IVS



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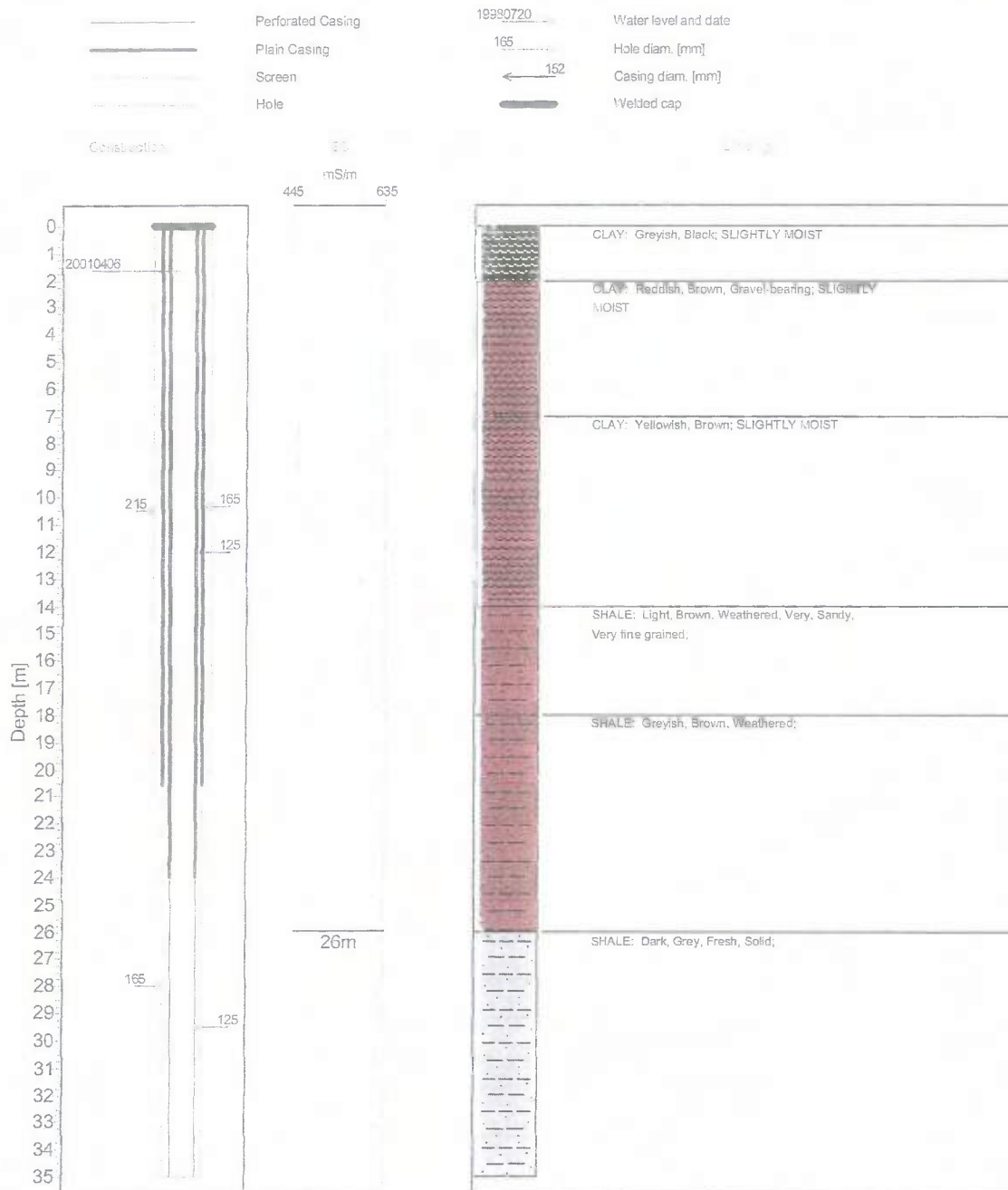
Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01003 Number: IVB-D3 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D3

Y Coord. [m]: -82381.380	Alt. No. 1:	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2947661.04	Alt. No. 2: G14D	Site status: In use	Collar h. [m]: 0.41
Altitude [m]: 1505.94		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geological Log



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01004 Number: IVB-D4 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D4

Region Type:

Region Desc.: COKE STOCKPILE AREA

Y Coord. [m]: -81446.816	Reg.IBB.: IM05	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2947974.87799	G-Nr.:	Site status: In use	Col. ht. [m]: 0.40
Altitude [m]: 1497.77		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010314	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	5.00	215	20010423	ROTARY PERC.
JMA	5.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	4.80	165	Steel	3	Plain casing	0	0	0	0
20010423	0.00	6.00	125	Steel	3	Plain casing	0	0	0	0
20010423	6.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	6.00	7.00	0.60	Volumetric	Weathered basin	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Dark			
1.00	4.00	SHALE	Brown				Weathered
4.00	12.00	SHALE	Brown	Light		Fresh	Fractured
12.00	32.00	SHALE	Brown	Reddish		Fresh	Solid
32.00	35.00	SHALE	Black	Dark		Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1244	0.00	0.94	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1549	0.00	0.94	EC LOGGED
Electrical contact	Static	0	Field checked	20010816	1056	0.00	1.03	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [mld]	Storat.	Comment
SLUGTEST	20010625	1200	0	0	0	0 0 0	0	0.155	0	



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Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01004 Number: IVB-D4

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D4

Y Coord. [m]: -81446.816

Alt. No. 1:

Topo-set.: Along dam, lake or swamp

Depth [m]: 35.00

X Coord. [m]: 2947974.88

Alt. No. 2: G16D

Site status: In use

Collar h. [m]: 0.40

Altitude [m]: 1497.77

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 125

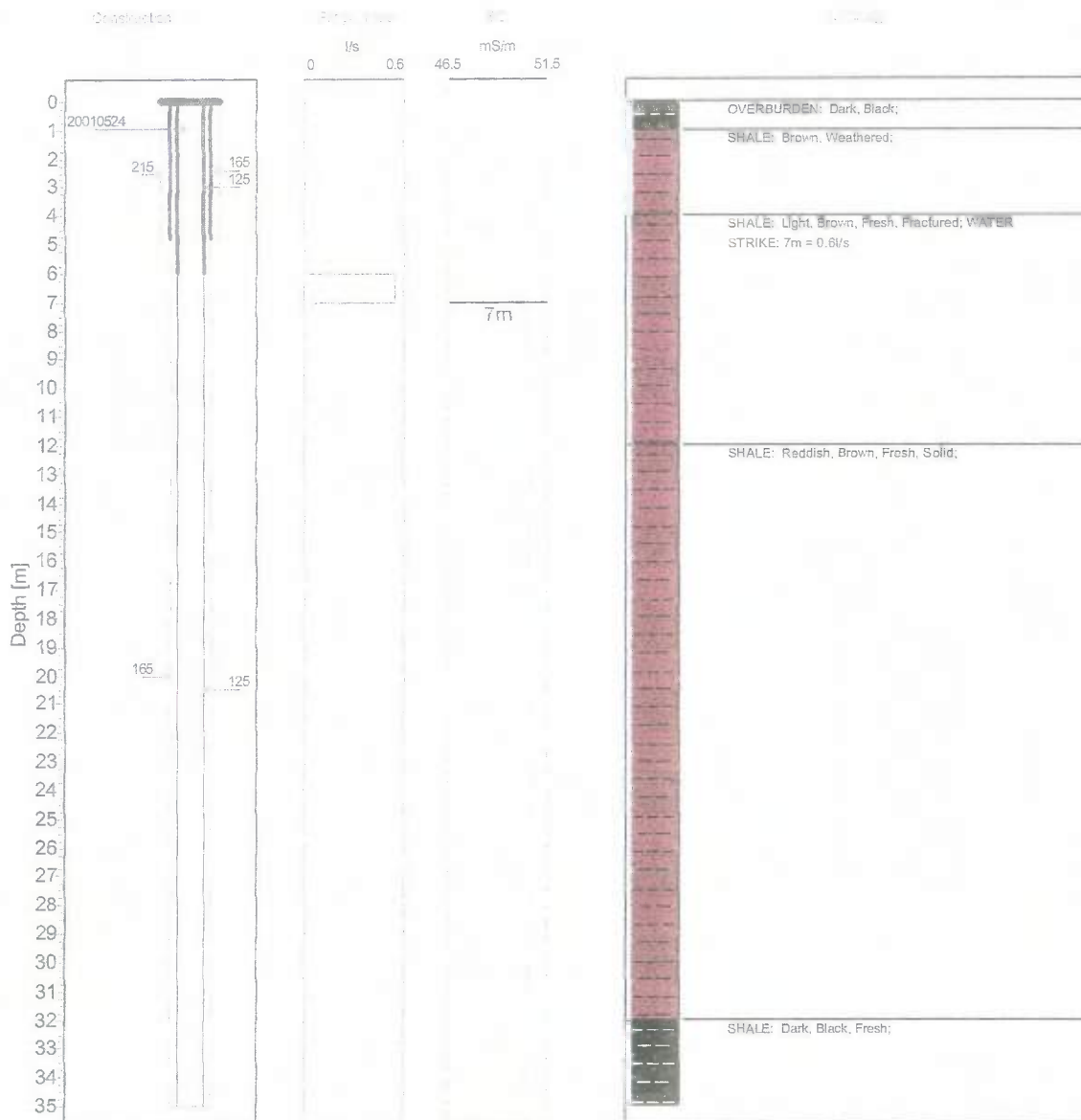
Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

Geological and Geophysical Log Legend

	Perforated Casing	19980720	Water level and date
	Plain Casing	165	Hole diam. [mm]
	Screen	152	Casing diam. [mm]
	Hole		Welded cap



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01005 Number: IVB-D5 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D5

Region Type:

Region Descr.: SOLID WASTE DUMPS

Y Coord. [m]: -81129.342	Reg.IBB.: CS07	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2947800.847	G-Nr.:	Site status: In use	Col. ht. [m]: 0.34
Altitude [m]: 1494.87		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010315	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	11.00	215	20010423	ROTARY PERC.
JMA	11.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010423	0.00	11.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	27.00	28.00	1.50	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	1.00	OVERBURDEN	Black				
	1.00	10.00	SHALE	Brown	Light		Weathered	
	10.00	16.00	SHALE	Brown			Fractured	Broken
	16.00	29.00	SHALE	Brown	Greyish		Fresh	Solid
	29.00	35.00	SHALE	Black	Dark		Fresh	Carbonaceous

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010418	0750	0.00	0.24	EC LOGGED
Electrical contact	Static	0	Geologist,	20010524	1244	0.00	0.26	SLUG TESTED
Electrical contact	Static	0	Field checked	20010829	0828	0.00	0.35	



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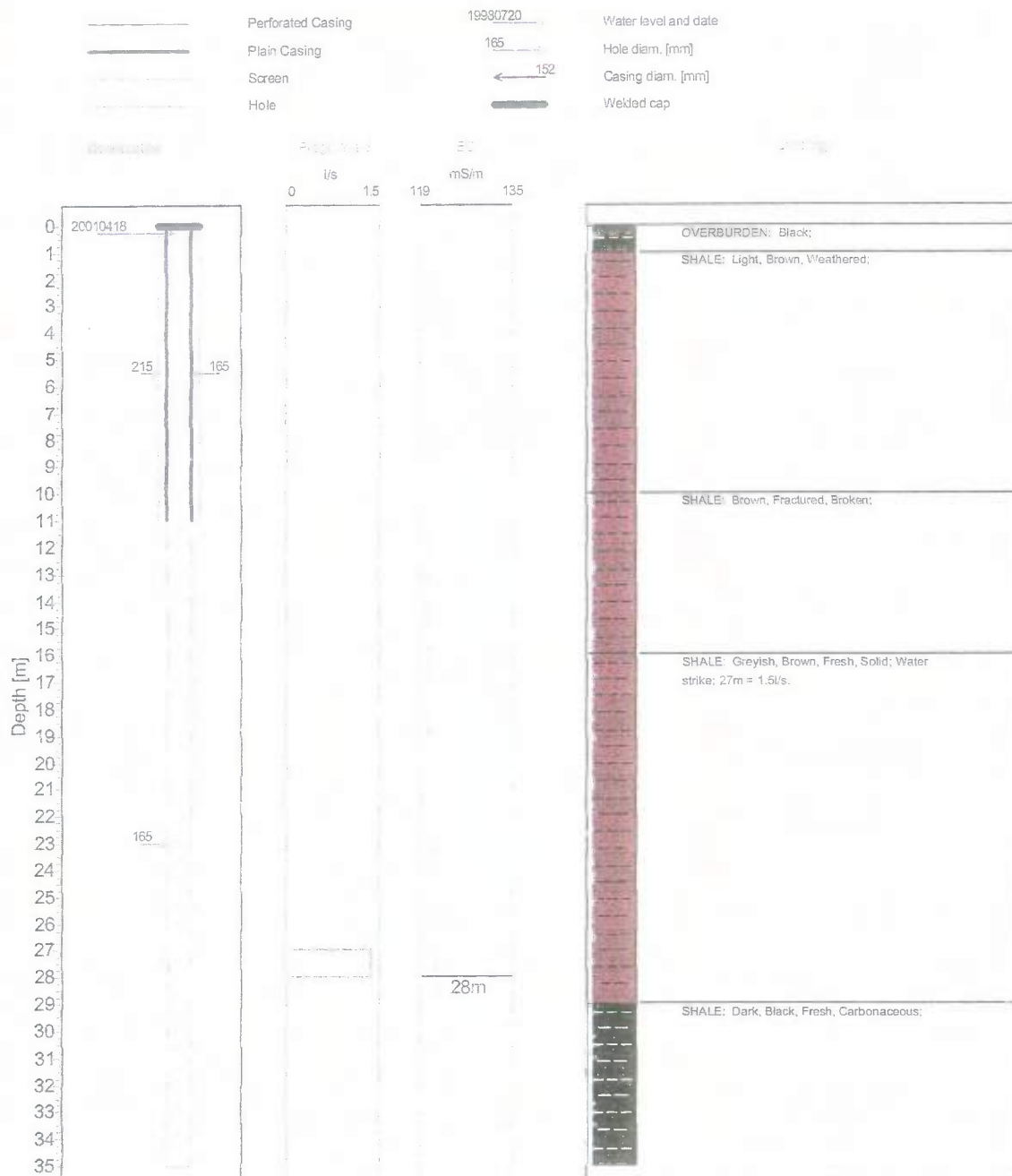
Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01005 Number: IVB-D5 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D5

Y Coord. [m]:	-81129.342	Alt. No. 1:		Topo-set.:	Along dam, lake or swamp	Depth [m]:	35.00
X Coord. [m]:	2947800.85	Alt. No. 2:	G15D	Site status:	In use	Collar h. [m]:	0.34
Altitude [m]:	1494.87			Site purp.:	Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit			Use applic.:	Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System			Equipment:	No equipment	Rep. inst.:	JMA

Construction and Geohydrological Legend



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01006 Number: IVB-D6 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D6

Region Type:

Region Descr.: COKE STOCKPILE AREA

Y Coord. [m]:	-81202.161	Reg.IBB.: IM05	Topo-set.: Along dam, lake or swamp	Depth [m]:	35.00
X Coord. [m]:	2948288.114	G-Nr.:	Site status: In use	Col. ht. [m]:	0.26
Altitude [m]:	1495.23		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat. treatment	Constr. cost
20010315	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	11.00	215	20010423	ROTARY PERC.
JMA	11.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010423	0.00	11.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	31.00	32.00	0.20	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	1.00	OVERBURDEN	Black	Dark			
	1.00	8.00	SHALE	Brown	Yellowish		Weathered	
	8.00	12.00	SHALE	Brown	Yellowish		Fractured	Broken
	12.00	33.00	SHALE	Brown	Light		Fresh	Solid
	33.00	35.00	SHALE	Black	Dark		Fresh	Carbonaceous

WATER LEVEL:	Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
	Electrical contact	Static	0	Geologist,	20010418	0830	0.00	0.56	EC LOGGED
	Electrical contact	Static	0	Geologist,	20010524	1245	0.00	0.59	SLUG TESTED
	Electrical contact	Static	0	Field checked	20010829	0944	0.00	0.57	

TESTING DETAILS:	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0 0	0 0	0.097	0	

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Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01006 Number: IVB-D6

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D6

Y Coord. [m]: -81202.161

X Coord. [m]: 2948288.11

Altitude [m]: 1495.23

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G23D

Topo-set.: Along dam, lake or swamp

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 35.00

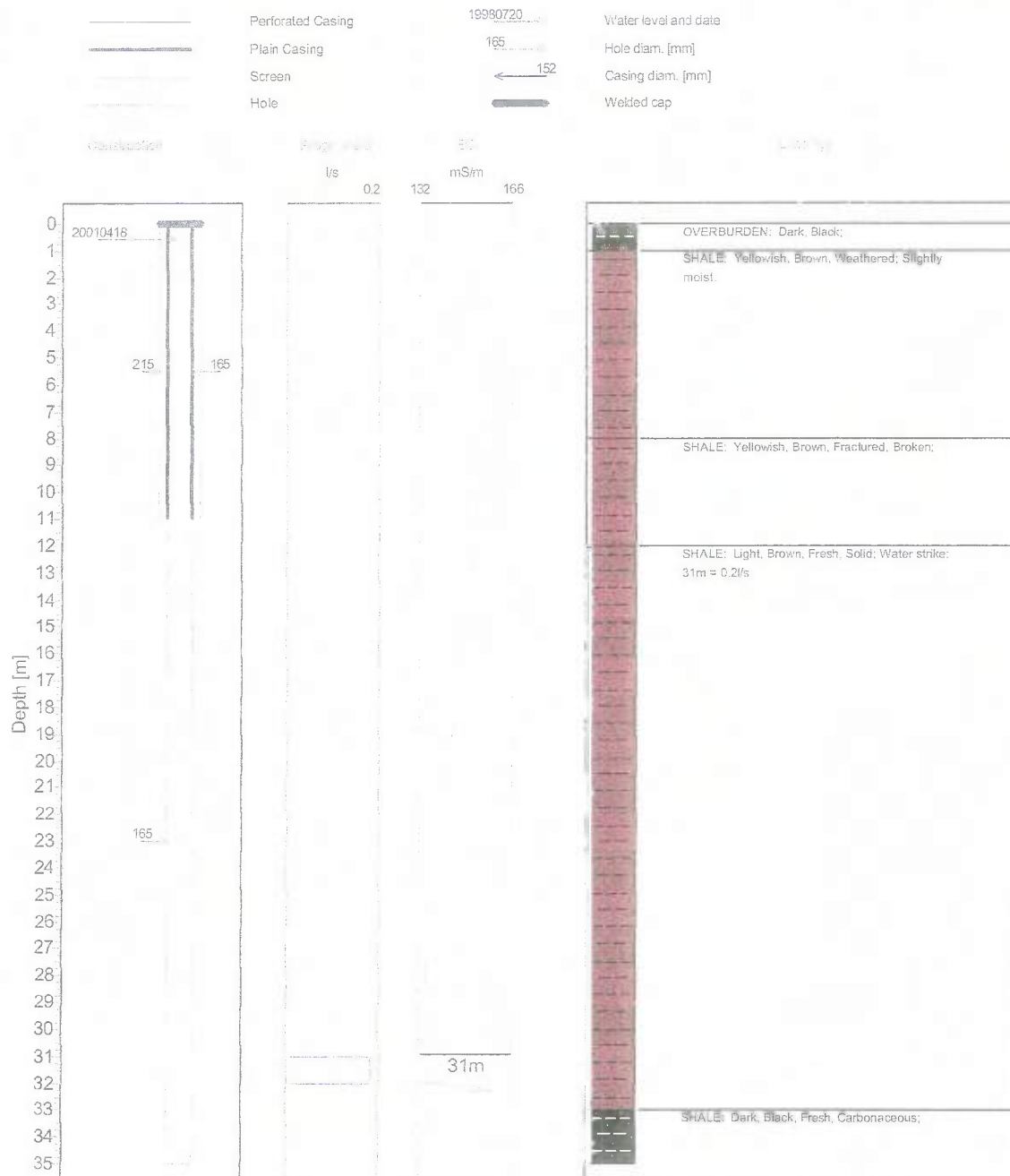
Collar h. [m]: 0.26

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Construction and Geohydrological Log



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01007 Number: IVB-D7 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D7

Region Type:

Region Descr.: COAL STACKING

Y Coord. [m]:	-81500.892	Reg.IBB.: IM04	Topo-set.: Along dam, lake or swamp	Depth [m]:	36.00
X Coord. [m]:	2948668.203	G-Nr.:	Site status: In use	Col. ht. [m]:	0.17
Altitude [m]:	1497.81		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	125
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010316	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	21.00	215	20010423	ROTARY PERC.
JMA	21.00	36.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	21.00	165	Steel	3	Plain casing	0	0	0	0
20010423	0.00	24.00	125	Steel	3	Plain casing	0	0	0	0
20010423	24.00	36.00	125	Steel	3	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	25.00	26.00	2.00	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
1.00	2.00	OVERBURDEN	Black				
2.00	18.00	DIABASE	Brown	Greyish		Weathered	
18.00	26.00	DIABASE	Grey	Brownish		Fractured	Broken
26.00	36.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1247	0.00	1.18	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010531	0719	0.00	1.26	EC LOGGED
Electrical contact	Static	0	Field checked	20010816	1140	0.00	1.11	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [mld]	Storat.	Comment
SLUGTEST	20010625	90	0	0	0	0 0	0	0	6.246	0

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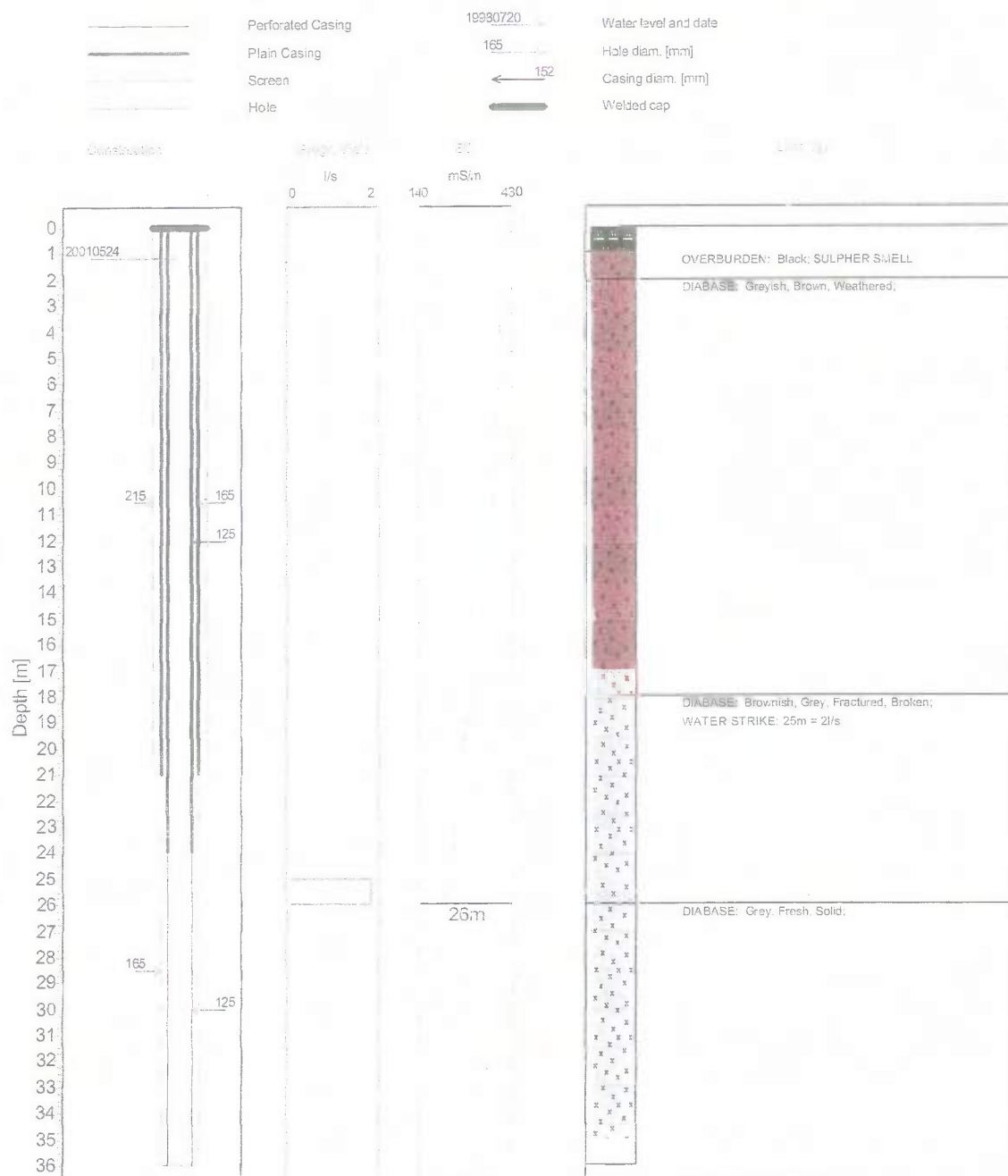
Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01007 Number: IVB-D7 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D7

Y Coord. [m]: -81500.892	Alt. No. 1:	Topo-set.: Along dam, lake or swamp	Depth [m]: 36.00
X Coord. [m]: 2948668.20	Alt. No. 2: G22D	Site status: In use	Collar h. [m]: 0.17
Altitude [m]: 1497.81		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - Industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geohydrological Legend



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01008 Number: IVB-D8 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D8

Region Type:

Region Desc.: OPEN AREAS "HEAPS"

Y Coord. [m]: -83312.462	Reg.IBB.: CS12	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948028.452	G-Nr.: NWD2	Site status: In use	Col. ht. [m]: 0.72
Altitude [m]: 1513.55		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010509	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	24.00	215	20010516	ROTARY PERC.
JMA	24.00	35.00	165	20010516	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010516	0.00	24.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	25.00	26.00	0.40	Estimated	Fractured	Geologist, technician,	

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	4.00	OVERBURDEN	Brown	Dark			
	4.00	6.00	SOIL	Brown	Light			
	6.00	20.00	SOIL	Yellow	Light			
	20.00	24.00	DIABASE	Brown	Greyish		Weathered	
	24.00	28.00	DIABASE	Grey	Brownish		Fractured	
	28.00	35.00	DIABASE	Grey	Dark		Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010606	1155	0.00	8.02	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	0835	0.00	8.54	

TESTING DETAILS:	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	600	0	0	0	0 0 0 0 0	0	0.716	0	

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Borehole Construction and Geological Log

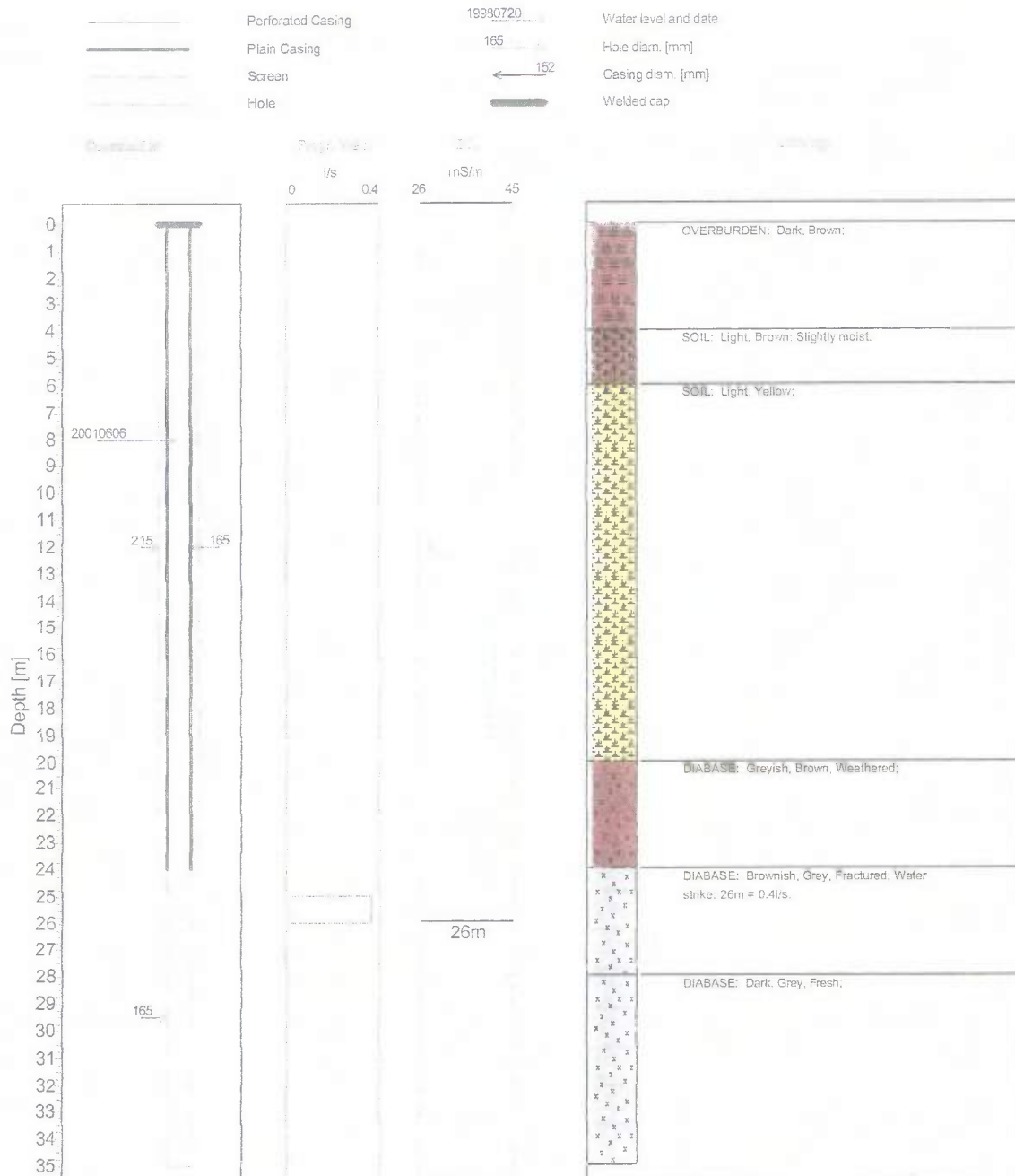
Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 262TDB01008 Number: IVB-D8 Site type: Borehole

Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D8

Y Coord. [m]: -83312.462	Alt. No. 1: NWD2	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948028.45	Alt. No. 2: G18D	Site status: In use	Collar h. [m]: 0.72
Altitude [m]: 1513.55		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geological Log



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01009 Number: IVB-D9 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D9

Region Type:

Region Descr.: OPEN AREAS "HEAPS"

Y Coord. [m]: -82477.139	Reg.IBB.: CS12	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948523.382	G-Nr.:	Site status: In use	Col. ht. [m]: 0.43
Altitude [m]: 1506.11		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010320	EDMS	Air percussion	Gravel pack with	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	26.00	215	20010423	ROTARY PERC.
JMA	26.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	24.00	125	Steel	3	Plain casing	0	0	0	0
20010423	0.00	26.00	165	Steel	3	Plain casing	0	0	0	0
20010423	24.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	21.00	22.00	0.30	Volumetric	Weathered basin	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Dark			
1.00	3.00	GRAVEL	Brown			Clayay	
3.00	20.00	CLAY	Brown	Yellowish			
20.00	25.00	DIABASE	Brown	Greyish		Weathered	Fractured
25.00	35.00	DIABASE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010522	1408	0.00	3.30	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1508	0.00	3.36	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	1208	0.00	3.32	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	900	0	0	0	0 0 0 0 0	0	0.609	0	

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Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01009 Number: IVB-D9

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D9

Y Coord. [m]: -82477.139

X Coord. [m]: 2948523.38

Altitude [m]: 1506.11

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G21D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 35.00

Collar h. [m]: 0.43

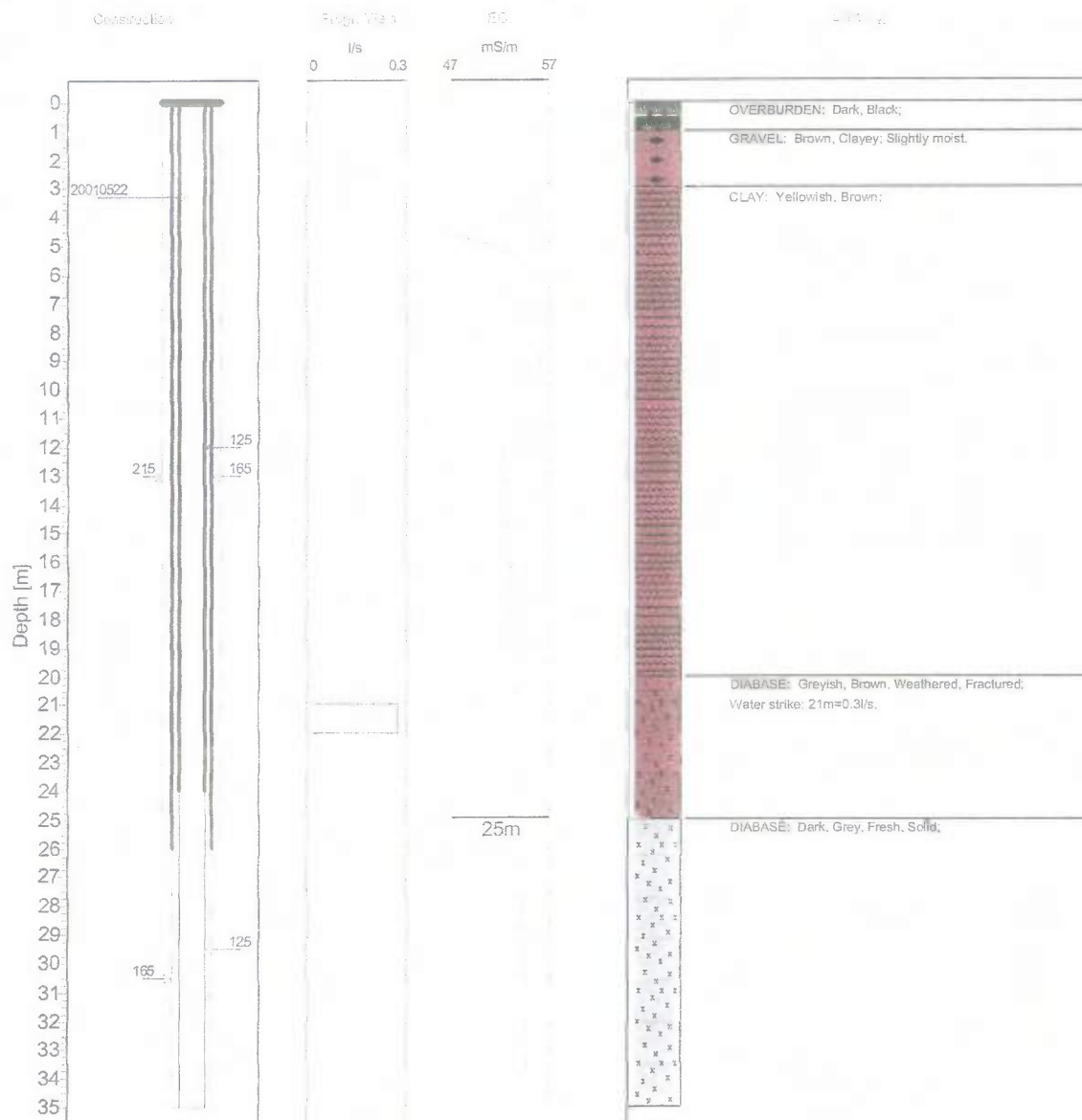
Drain. reg.: C220

Diam. [mm]: 125

Rep. inst.: JMA

Construction and Geohydrological Legend

	Perforated Casing	19980720	Water level and date
	Plain Casing	165	Hole diam. [mm]
	Screen	152	Casing diam. [mm]
	Hole		Welded cap



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01010 Number: IVB-D10 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D10

Region Type:

Region Desc.: OPEN AREAS "HEAPS"

Y Coord. [m]: -82683.118	Reg.IBB.: CS12	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948895.049	G-Nr.: NWD6	Site status: In use	Col. ht. [m]: 0.34
Altitude [m]: 1504.37		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:						
Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010321	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	8.00	215	20010423	ROTARY PERC.
JMA	8.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010423	0.00	8.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	32.00	33.00	0.60	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	1.00	OVERBURDEN	Brown	Dark			
	1.00	8.00	SHALE	Brown	Dark		Weathered	
	8.00	22.00	SHALE	Brown	Light		Fractured	Broken
	22.00	35.00	SHALE	Grey	Light		Fresh	Solid

WATER LEVEL:	Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
	Electrical contact	Static	0	Field checked	20011008	1309	0.00	3.40	

TESTING DETAILS:	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0	0	0	0.103	0	

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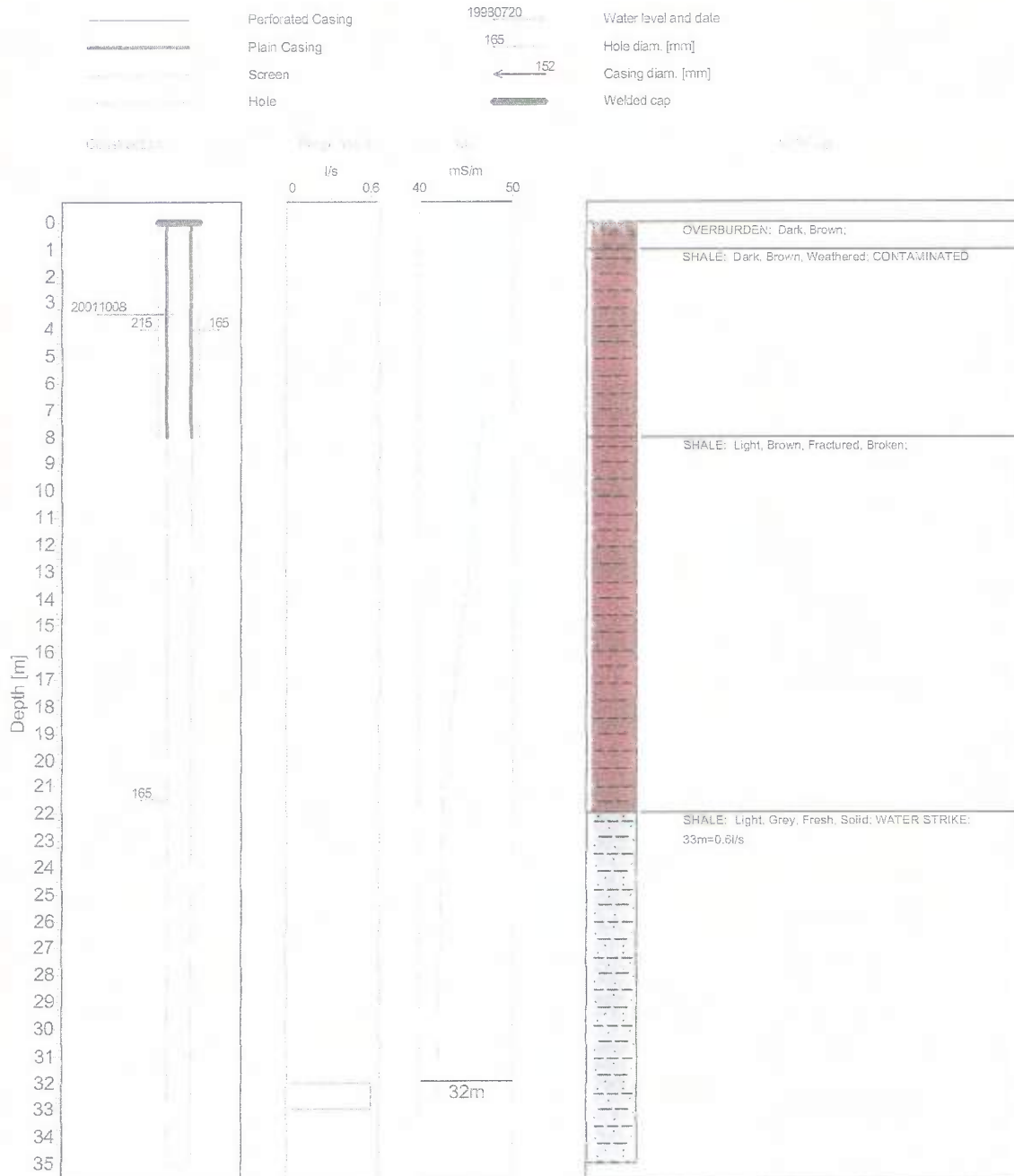
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Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01010 Number: IVB-D10 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D10

Y Coord. [m]: -82683.118	Alt. No. 1: NWD6	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948895.05	Alt. No. 2: G24D	Site status: In use	Collar h. [m]: 0.34
Altitude [m]: 1504.37		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01011 Number: IVB-D11 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D11

Region Type:

Region Descr.: BIO PLANT / OPEN AREAS

Y Coord. [m]: -82937.49	Reg./BB.: CS16	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949579.079	G-Nr.: NWD9	Site status: In use	Col. ht. [m]: 0.28
Altitude [m]: 1497.01		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010321	EDMS	Air percussion	Gravel pack with	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	16.00	215	20010423	ROTARY PERC.
JMA	16.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	16.00	165	Steel	3	Plain casing	0	0	0	0
20010423	0.00	18.00	125	Steel	3	Plain casing	0	0	0	0
20010423	18.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Dark			
1.00	6.00	CLAY	Brown				
6.00	22.00	SHALE	Brown	Orange		Weathered	Clayey
22.00	33.00	DIABASE	Brown	Greyish		Fractured	Broken
33.00	35.00	DIABASE	Black	Dark		Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010522	1409	0.00	2.33	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010607	0826	0.00	2.21	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	1118	0.00	2.31	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	180	0	0	0	0 0 0	0	1.65	0	

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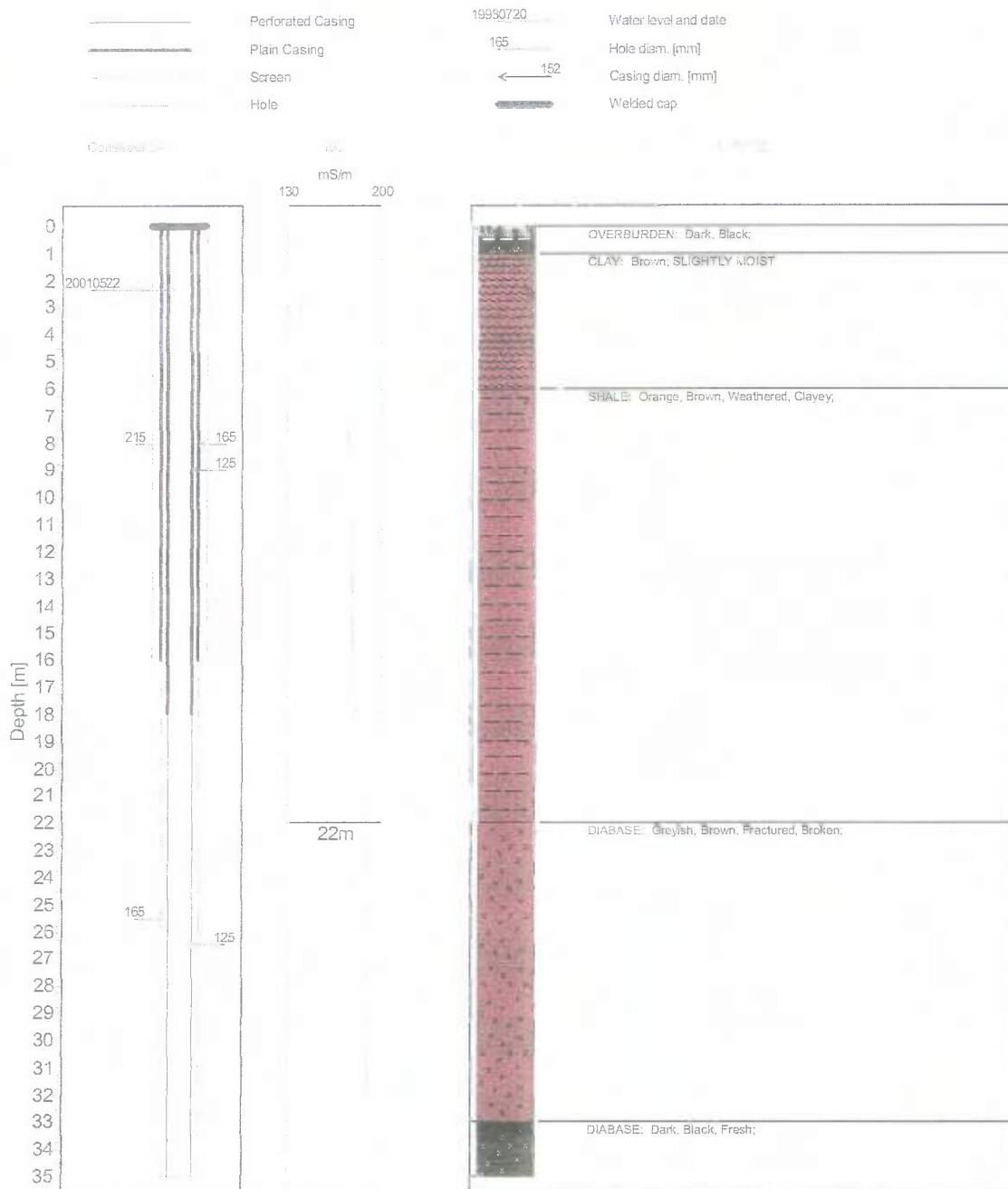
Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01011 Number: IVB-D11 Site type: Borehole

Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D11

Y Coord. [m]: -82937.490	Alt. No. 1: NWD9	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949579.08	Alt. No. 2: G28D	Site status: In use	Collar h. [m]: 0.28
Altitude [m]: 1497.01		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2527DB01012 Number: IVB-D12 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D12

Region Type:

Region Descr.: OPEN AREAS

Y Coord. [m]: -82211.663	Reg.IBB.: CS15	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949699.775	G-Nr.:	Site status: In use	Col. ht. [m]: 0.40
Altitude [m]: 1496.50		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special Durat. treatment	Constr. cost
20010322	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	11.00	215	20010423	ROTARY PERC.
JMA	11.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	11.00	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Dark			
1.00	15.00	CLAY	Brown	Light			
15.00	17.00	SHALE	Brown	Grayish		Weathered	Broken
17.00	28.00	SHALE	Grey			Fresh	Solid
28.00	35.00	SHALE	Black	Dark		Fresh	Carbonaceous

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010418	0950	0.00	0.98	EC LOGGED
Electrical contact	Static	0	Geologist,	20010522	1410	0.00	0.92	SLUG TESTED
Electrical contact	Static	0	Field checked	20010829	1310	0.00	1.64	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m³/d]	Perm. [mld]	Storat.	Comment
SLUGTEST	20010625	1200	0	0	0	0 0 0	0	0.159	0	

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Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01012 Number: IVB-D12

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D12

Y Coord. [m]: -82211.663

Alt. No. 1:

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2949699.77

Alt. No. 2: G29D

Site status: In use

Collar h. [m]: 0.40

Altitude [m]: 1496.50

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

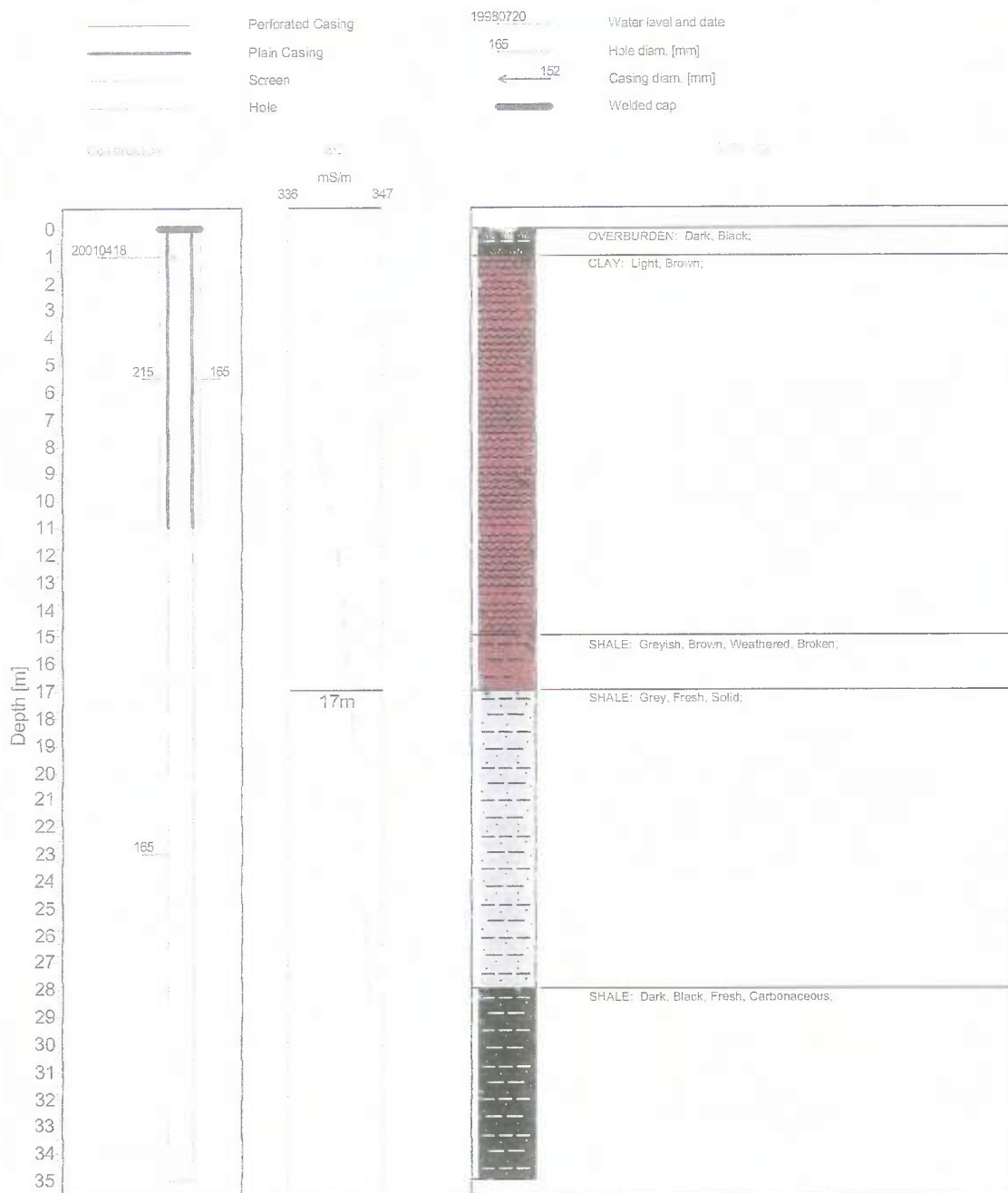
Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01013 Number: IVB-D13 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D13

Region Type:

Region Descr.: STACKING & RECLAIMING

Y Coord. [m]:	-81748.705	Reg.IBB.: IM04	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2949414.606	G-Nr.:	Site status: In use	Col. ht. [m]:	0.54
Altitude [m]:	1497.65		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. Inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010425	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	15.00	165	Steel	3	Plain casing				

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	OVERBURDEN	Brown	Light			
2.00	10.00	TUFF	Brown	Greyish		Weathered	
10.00	15.00	SHALE	Grey	Brownish		Weathered	
15.00	35.00	SHALE	Grey	Light		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010418	1030	0.00	1.47	EC LOGGED
Electrical contact	Static	0	Geologist,	20010522	1411	0.00	1.56	SLUG TESTED
Electrical contact	Static	0	Field checked	20010829	1214	0.00	1.61	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0	0	0	0.161	0	

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Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION: Site identifier: 2627DB01013 Number: IVB-D13 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D13

Y Coord. [m]: -81748.705	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949414.61	Alt. No. 2: G30D	Site status: In use	Collar h. [m]: 0.54
Altitude [m]: 1497.65		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01014 Number: IVB-D14 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D14

Region Type:

Region Descr.: BIO PLANT

Y Coord. [m]: -83348.141	Reg.IBB.: CS16	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949501.309	G-Nr.: NWD8	Site status: In use	Col. ht. [m]: 0.32
Altitude [m]: 1496.82		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010329	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010423	0.00	18.50	165	Steel	3	Plain casing				

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	3.00	SOIL	Brown	Dark			
	3.00	17.00	CLAY	Brown	Light			
	17.00	20.00	DIABASE	Brown	Greyish		Weathered	
	20.00	27.00	DIABASE	Grey	Brownish		Fractured	Broken
	27.00	35.00	DIABASE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1412	0.00	2.89	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010607	0905	0.00	3.08	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	1028	0.00	3.25	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	90	0	0	0	0 0 0 0 0 0	0	3.249	0	

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Borehole Construction and Geological Log

Date compiled: 5/9/02

BASIC SITE INFORMATION: Site Identifier: 2627DB01014 Number: IVB-D14 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D14

Longitude [°]: 27.8371609	Alt. No. 1: NWD8	Topo-set.: Flat surface, plain	Depth [m]: 35.00
Latitude [°]: 26.6555670	Alt. No. 2: G27D	Site status: In use	Collar h. [m]: 0.32
Altitude [m]: 1496.82		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01015 Number: IVB-D15 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D15

Region Type:

Region Descr.: NORTH WORKS

Y Coord. [m]: -83665.063	Reg./BB.: UP01	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948613.545	G-Nr.: NWD5	Site status: In use	Col. ht. [m]: 0.25
Altitude [m]: 1505.91		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010402	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	19.30	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	OVERBURDEN	Brown	Reddish			
2.00	5.00	GRAVEL	Brown				
5.00	9.00	CLAY	Brown	Reddish			
9.00	17.00	CLAY	Brown	Yellowish			
17.00	19.00	DIABASE	Grey	Brownish		Fractured	Broken
19.00	35.00	DIABASE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010606	1340	0.00	3.36	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	0840	0.00	3.60	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	600	0	0	0	0 0 0	0	0.419	0	

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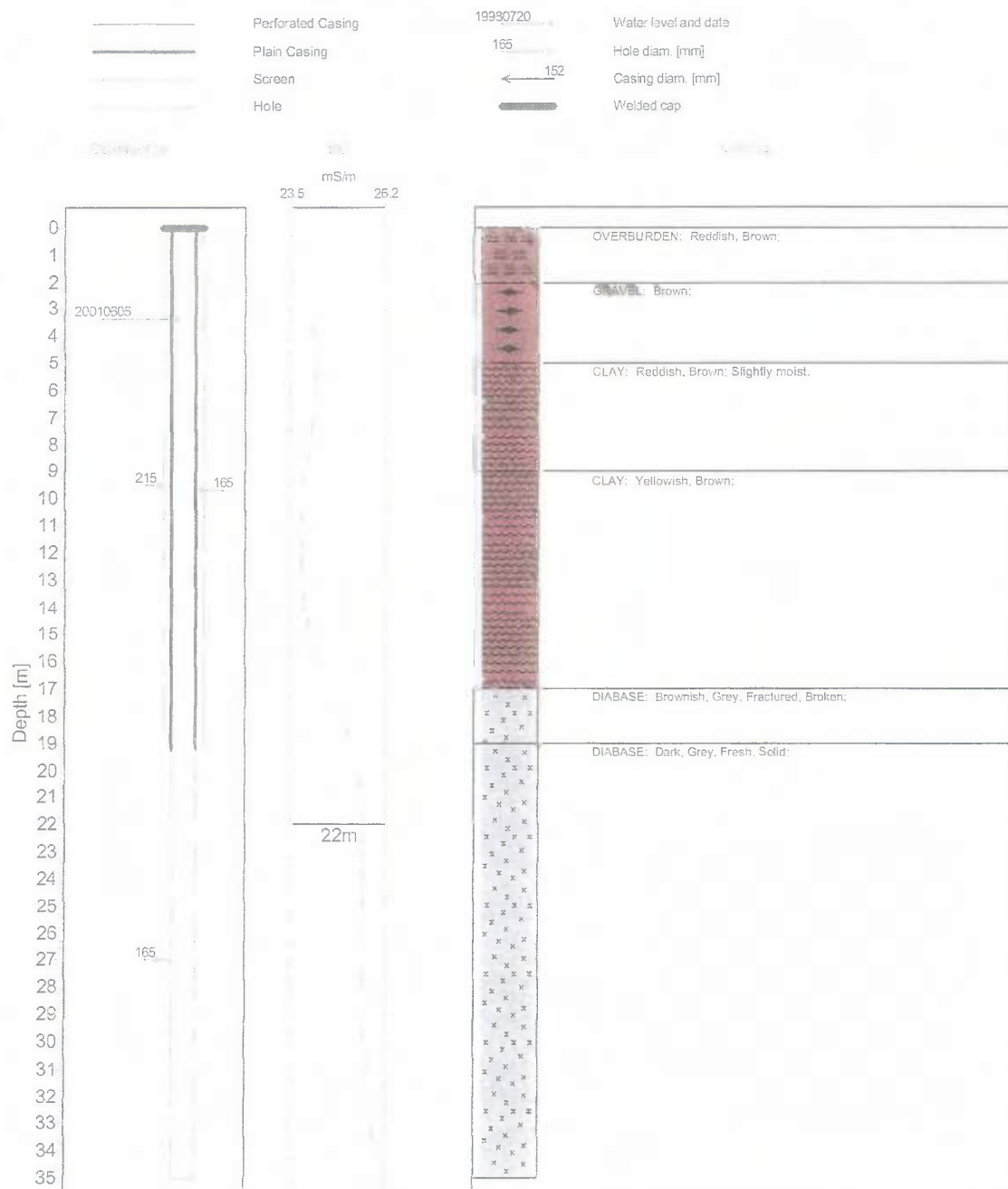
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Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01015 Number: IVB-D15 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D15

Y Coord. [m]: -83665.063	Alt. No. 1: NWD5	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2948613.54	Alt. No. 2: G25D	Site status: In use	Collar h. [m]: 0.25
Altitude [m]: 1505.91		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - Industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01016 Number: IVB-D16 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D16

Region Type:

Region Desc.: NORTH WORKS OPEN AREAS

Y Coord. [m]:	-84017.644	Reg./BB.: CS18	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2949087.832	G-Nr.: NWD7	Site status: In use	Col. ht. [m]:	0.44
Altitude [m]:	1498.71		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat. treatment	Special	Constr. cost
20010403	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	14.00	215	20010423	ROTARY PERC.
JMA	14.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010403	0.00	14.20	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:	Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
	JMA	27.00	28.00	0.30	Volumetric	Contact zone	Geologist, technician,	

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	1.00	SOIL	Brown	Reddish			
	1.00	15.00	CLAY	Brown	Dark			
	15.00	19.00	DIABASE	Brown	Greyish		Fractured	Broken
	19.00	28.00	DIABASE	Grey	Dark		Fresh	Solid
	28.00	32.00	SHALE	Black	Dark		Fresh	Carbonaceous
	32.00	35.00	DIABASE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010606	1310	0.00	3.49	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	0930	0.00	3.59	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010726	300	0	0	0	0	0	0	0.828	0	



Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01016 Number: IVB-D16 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D16

Y Coord. [m]: -84017.644	Alt. No. 1: NWD7	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2949087.83	Alt. No. 2: G26D	Site status: In use	Collar h. [m]: 0.44
Altitude [m]: 1498.71		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01017 Number: IVB-D17 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D17

Region Type:

Region Descr.: MATURATION PONDS

Y Coord. [m]:	-82970.56	Reg./BB.: CS12	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2947592.578	G-Nr.:	Site status: In use	Col. ht. [m]:	0.32
Altitude [m]:	1511.46		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	125
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010404	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	16.00	215	20010423	ROTARY PERC.
JMA	17.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010404	0.00	17.60	165	Steel	3	Plain casing	0	0	0	0
20010404	0.00	18.00	125	Steel	3	Plain casing	0	0	0	0
20010404	18.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Brown				
1.00	5.00	SANDSTONE	Brown	Light		Weathered	
5.00	16.00	CLAY	Brown	Reddish			
16.00	35.00	QUARTZITE	Brown	Greyish		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1412	0.00	3.52	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1252	0.00	3.56	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	1037	0.00	3.85	
Electrical contact	Static	0	Field checked	20011009	0955	0.00	3.95	SLUG TEST

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	900	0	0	0	0 0 0	0	0.721	0	
SLUGTEST	20011009	90	0					2.523		



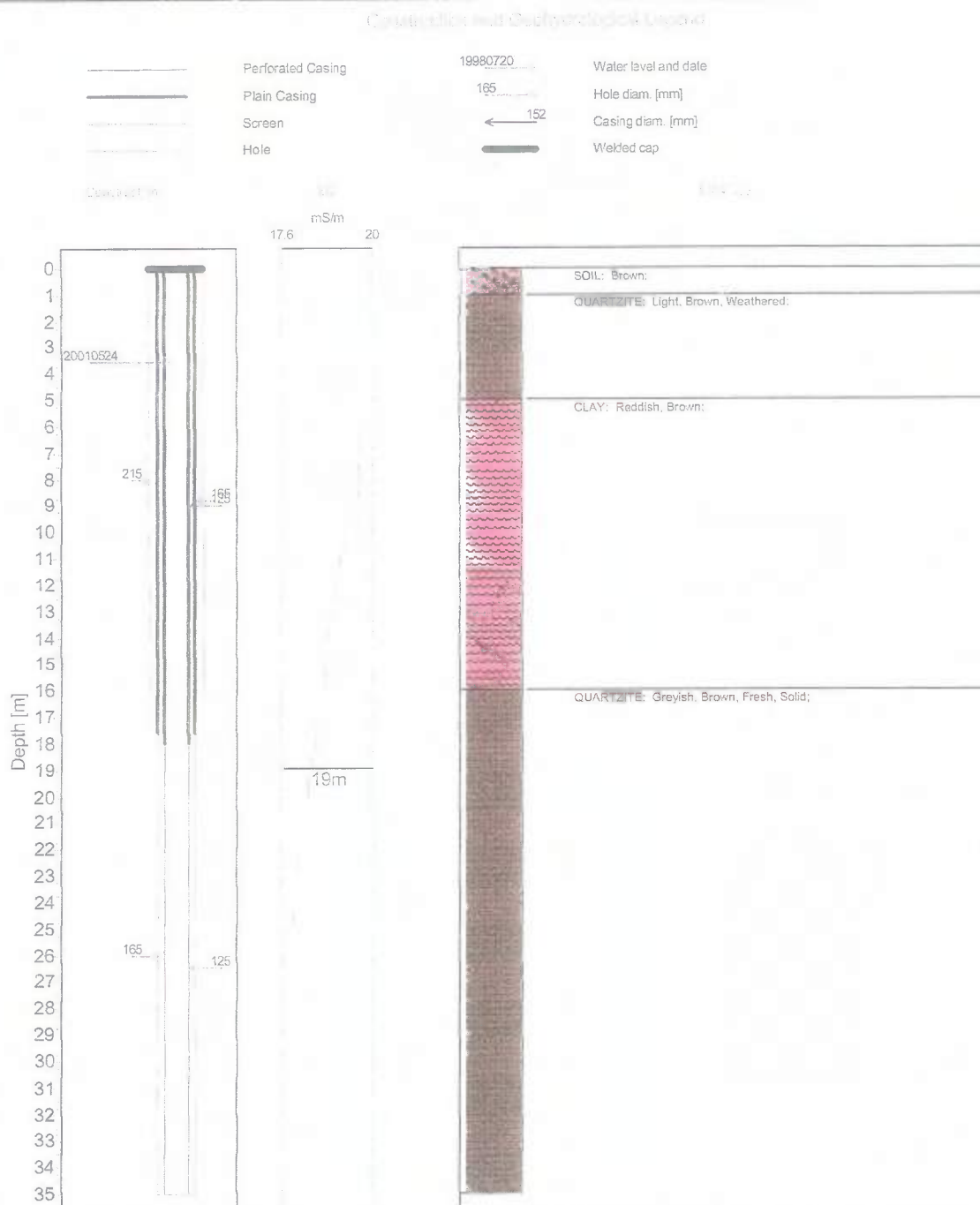
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Borehole Construction and Geological Log

Date compiled: 5/31/02

BASIC SITE INFORMATION: Site Identifier: 2627DB01017 Number: IVB-D17 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D17

Y Coord. [m]: -82970.560	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2947592.58	Alt. No. 2: G13D	Site status: In use	Collar h. [m]: 0.32
Altitude [m]: 1511.46		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

Page 1

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Draft for discussion
CONFIDENTIAL
Research for IYS

SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01018 Number: IVB-D18 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D18

Region Type:

Region Descr.: EVAPORATION DAMS 1-4

Y Coord. [m]:	-82310.265	Reg.IBB.: CS07	Topo-set.: Along dam, lake or swamp	Depth [m]:	35.00
X Coord. [m]:	2947010.082	G-Nr.:	Site status: In use	Col. ht. [m]:	0.47
Altitude [m]:	1500.95		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010405	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	15.30	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	28.00	29.00	1.30	Volumetric	Contact zone	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Dark			
1.00	6.00	CLAY	Brown	Reddish			
6.00	8.00	CLAY	White	Greyish		Calcareous	Clayey
8.00	15.00	CLAY	Brown				
15.00	29.00	SAND	Brown	Light	Very fine	Gravel-bearing	
29.00	35.00	DIABASE	Grey	Brownish		Fresh	Fractured

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1413	0.00	1.51	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1314	0.00	1.48	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	1235	0.00	1.57	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	180	0	0	0	0	0	0	1.004	0	



Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01018 Number: IVB-D18

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D18

Y Coord. [m]: -82310.265

X Coord. [m]: 2947010.08

Altitude [m]: 1500.95

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G8D

Topo-set.: Along dam, lake or swamp

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 35.00

Collar h. [m]: 0.47

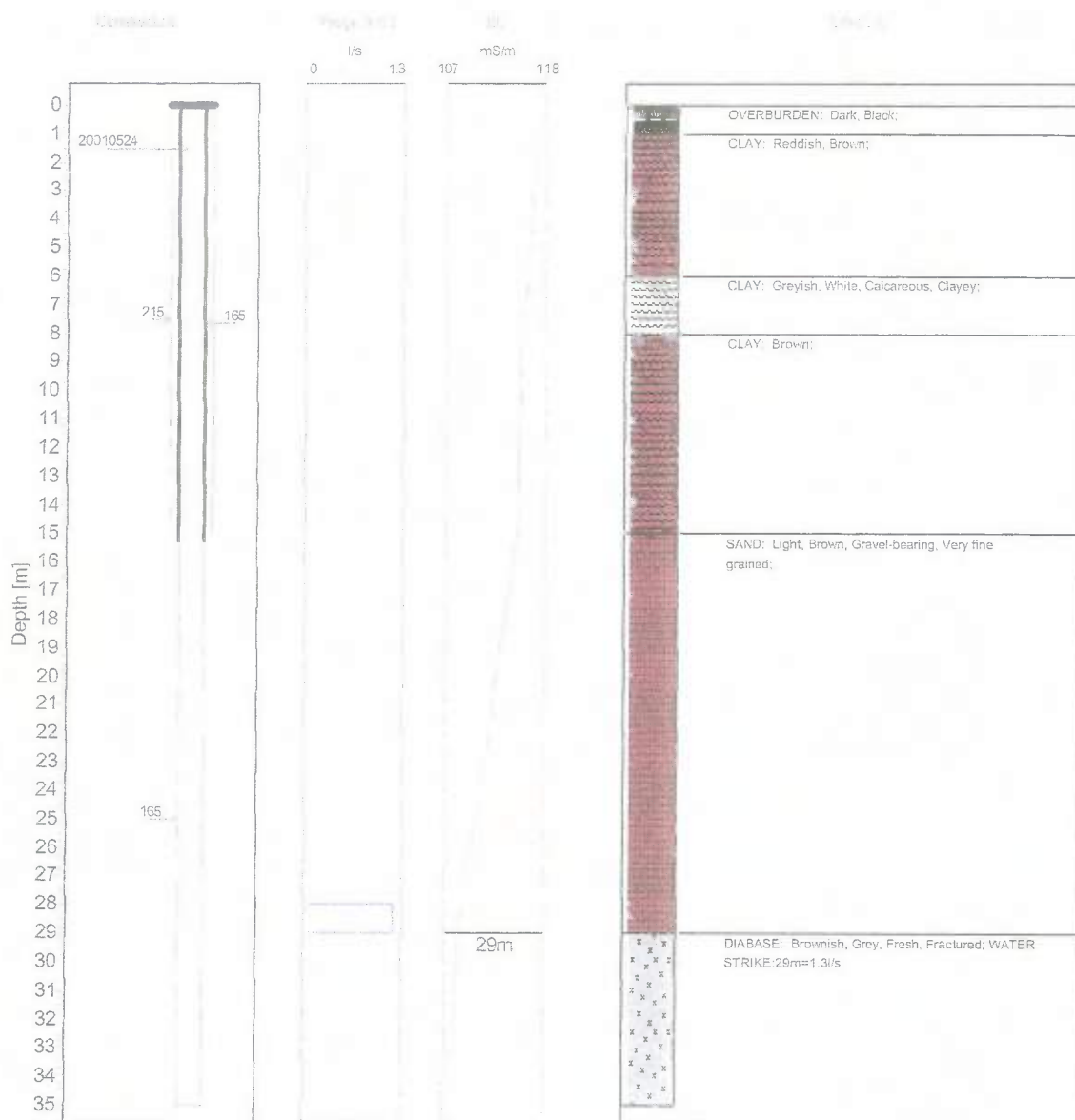
Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Construction and Geological Legend

	Perforated Casing	19980720	Water level and date
	Plain Casing	165	Hole diam. [mm]
	Screen	152	Casing diam. [mm]
	Hole		Welded cap



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01019 Number: IVB-D19 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D19

Region Type:

Region Descr.: EVAPORATION DAMS 1-4

Y Coord. [m]: -82369.336	Reg./BB.: CS07	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2945990.519	G-Nr.:	Site status: In use	Col. ht. [m]: 0.20
Altitude [m]: 1499.16		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010405	EDMS	Air percussion	Gravel pack with	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	18.00	215	20010405	ROTARY PERC.
JMA	18.00	35.00	165	20010405	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010405	0.00	18.00	125	Steel	3	Plain casing	0	0	0	0
20010405	0.00	18.00	165	Steel	3	Plain casing	0	0	0	0
20010405	18.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	18.00	19.00	0.30	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	CLAY	Brown				
2.00	8.00	CLAY	Brown	Reddish			
8.00	13.00	CLAY	Brown	Yellowish			
13.00	17.00	DIABASE	Brown			Weathered	
17.00	20.00	DIABASE	Brown	Grayish		Fractured	Broken
20.00	35.00	DIABASE	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1414	0.00	1.64	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010530	1347	0.00	1.67	EC LOGGED
Electrical contact	Static	0	Field checked	20010808	1340	0.00	1.53	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	900	0	0	0	0	0	0.378	0	

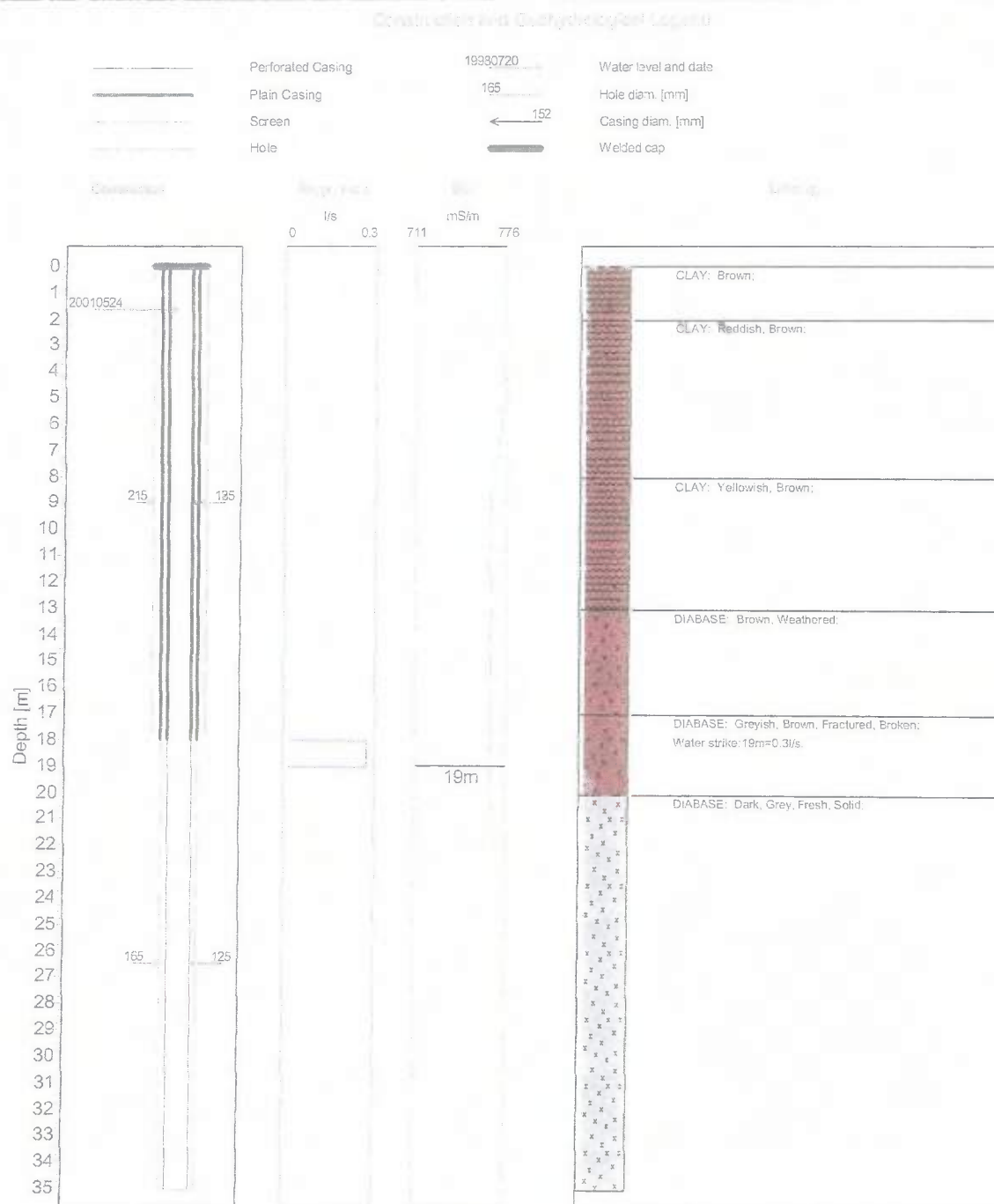


Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2527DB01019 Number: IVB-D19 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D19

Y Coord. [m]: -82369.336	Alt. No. 1:	Topo-set.: Along dam, lake or swamp	Depth [m]: 35.00
X Coord. [m]: 2945990.52	Alt. No. 2: G4D	Site status: In use	Collar h. [m]: 0.20
Altitude [m]: 1499.16		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01020 Number: IVB-D20 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D20

Region Type:

Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -83343.436

Reg./SB.: CS14

Topo-set.: Hillside (slope)

Depth [m]: 43.00

X Coord. [m]: 2946984.52

G-Nr.:

Site status: In use

Col. ht. [m]: 0.38

Altitude [m]: 1512.61

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special treatment

Constr. cost

20010321 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

13.00

215

20010321

ROTARY PERC.

JMA

13.00

43.00

165

20010321

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. Opening [mm] Type

Length

Width

Hori. dist. Vert. dist.

20010321

0.00

13.00

165

Steel

3 Plain casing

0

0

0

0

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

2.00

OVERBURDEN

Brown

Reddish

2.00

4.00

GRAVEL

Brown

Reddish

4.00

7.00

CLAY

Brown

Reddish

7.00

13.00

CLAY

Brown

Reddish

13.00

16.00

QUARTZITE

Brown

Light

Fine

Weathered

16.00

19.00

QUARTZITE

Brown

Light

Fine

Weathered

19.00

23.00

QUARTZITE

Brown

Light

Fine

Weathered

Fresh

23.00

25.00

QUARTZITE

Grey

Light

Fine

Fresh

Fractured

25.00

26.00

QUARTZITE

Brown

Light

Fine

Fractured

26.00

31.00

QUARTZITE

Brown

Light

Fine

Fractured

Fresh

31.00

32.00

QUARTZITE

Brown

Fine

Fractured

Fresh

32.00

36.00

QUARTZITE

Brown

Fine

Fractured

Fresh

36.00

38.00

QUARTZITE

Brown

Greyish

Fine

Fractured

Fresh

38.00

40.00

QUARTZITE

Brown

Fine

Fractured

40.00

41.00

QUARTZITE

Brown

Light

Fine

Fractured

Fresh

WATER LEVEL:

Meth. meas.

Level status

Piez. Info source

Date meas. Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010417

1000

0.00

5.24

EC LOGGED

Electrical contact

Static

0

Field checked

20010828

0705

0.00

5.67

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate[l/s]

Drawd. [m]

Recovery: [m] %

[min]

Trans. [m²/d]

Perm. [m/d]

Storat.

Comment

SLUGTEST

20010724

1500

0

0

0

0

0

0

0

0

0

0

0

0

0.003

0

0

0

0

0

0

0

0

0

0

0

Borehole Construction and Geological Log

Date compiled: 11/9/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01020 Number: IVB-D20

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D20

Y Coord. [m]: -83343.436

X Coord. [m]: 2946984.52

Altitude [m]: 1512.61

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G9D

Topo-set.: Hillside (slope)

Site status: In use

Site purp.: Observation

Use applic.: Industrial - Industrial

Equipment: No equipment

Depth [m]: 43.00

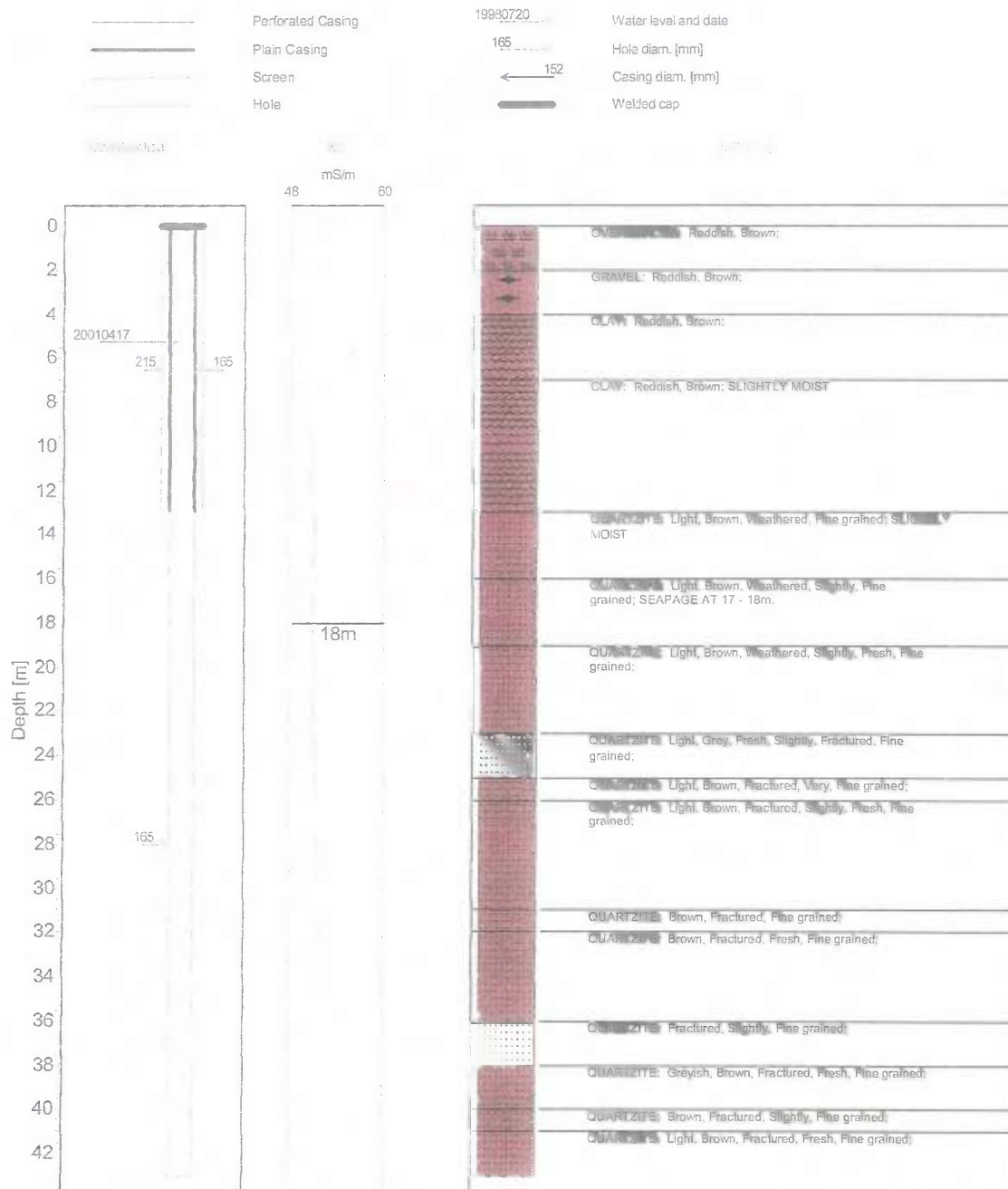
Collar h. [m]: 0.38

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Correlation and Geotechnical Log



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01021 Number: IVB-D21 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D21

Region Type:

Region Desc.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -84137.511

Reg.IBB.: CS14

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2947069.68

G-Nr.:

Site status: In use

Col. ht. [m]: 0.58

Altitude [m]: 1513.83

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special treatment

Constr. cost

20010326 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. Inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

19.00

215

20010423

ROTARY PERC.

JMA

19.00

35.00

165

20010423

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. Opening [mm] Type

Length

Width

Hori. dist. Vert. dist.

20010423

0.00

19.35

165

Steel

3 Plain casing

AQUIFER:

Rep. Inst.

Depth to Top [m]

Bot. [m]

Yield [l/s]

Method meas.

Aquifer type

Info source

Comment

JMA

22.00

23.00

0.20

Volumetric

Weathered basin

Geologist, technician,

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

1.00

SOIL

Brown

Dark

1.00

7.00

SOIL

Brown

Light

Gravel-bearing

Sandy

7.00

22.00

CLAY

Brown

Yellowish

22.00

25.00

DOLERITE

Brown

Greyish

Weathered

25.00

37.00

DOLERITE

Grey

Dark

Fresh

Solid

WATER LEVEL:

Meth. meas.

Level status

Piez.

Info source

Date meas.

Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010405

1147

0.00

3.89

Electrical contact

Static

0

Geologist,

20010618

1023

0.00

4.49

EC LOGGED

Electrical contact

Static

0

Field checked

20010807

1200

0.00

4.81

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate [l/s]

Drawd. [m]

Recovery: %

[min]

Trans. [m²/d]

Perm. [m/d]

Storat.

Comment

SLUGTEST

20010724

900

0

0

0

0

0

0

0

0

0.381

0



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Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01021 Number: IVB-D21

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D21

Y Coord. [m]: -84137.511

X Coord. [m]: 2947069.68

Altitude [m]: 1513.83

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G11D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 37.00

Collar h. [m]: 0.58

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01022 Number: IVB-D22 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D22

Region Type:

Region Desc.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -84513.665

Reg./BS.: CS14

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2946908.45

Site status: In use

Col. ht. [m]: 0.31

Altitude [m]: 1513.26

G-Nr.:

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special treatment

Constr. cost

20010327 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. Inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

19.00

215

20010423

ROTARY PERC.

JMA

19.00

35.00

165

20010423

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. Opening [mm] Type

Length

Width

Hori. Vert. dist. dist.

20010423

0.00

19.35

165

Steel

3

Plain casing

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

1.00

SOIL

Brown

Yellowish

1.00

6.00

SOIL

Brown

Dark

6.00

7.00

BOULDERS AND CLAY

Brown

7.00

17.00

SOIL

Brown

Yellowish

17.00

19.00

LAVA

Brown

Weathered

19.00

23.00

LAVA

Grey

Brownish

Fractured

Broken

23.00

35.00

LAVA

Grey

Dark

Fresh

Solid

WATER LEVEL:

Meth. meas.

Level status

Piez. Info source

Date meas.

Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010417

1025

0.00

6.22

EC LOGGED

Electrical contact

Static

0

Geologist,

20010524

1414

0.00

6.53

SLUG TESTED

Electrical contact

Static

0

Field checked

20010828

0930

0.00

7.47

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate[l/s]

Drawd. [m]

Recovery: [m] %

[min]

Trans. [m²/d]

Perm. [m/d]

Storat. Comment

SLUGTEST

20010625

1500

0

0

0

0

0

0

0

0

0.104

0

Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01022 Number: IV6-D22

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D22

Y Coord. [m]: -84513.665

Alt. No. 1:

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2946908.45

Alt. No. 2: G10D

Site status: In use

Collar h. [m]: 0.31

Altitude [m]: 1513.26

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

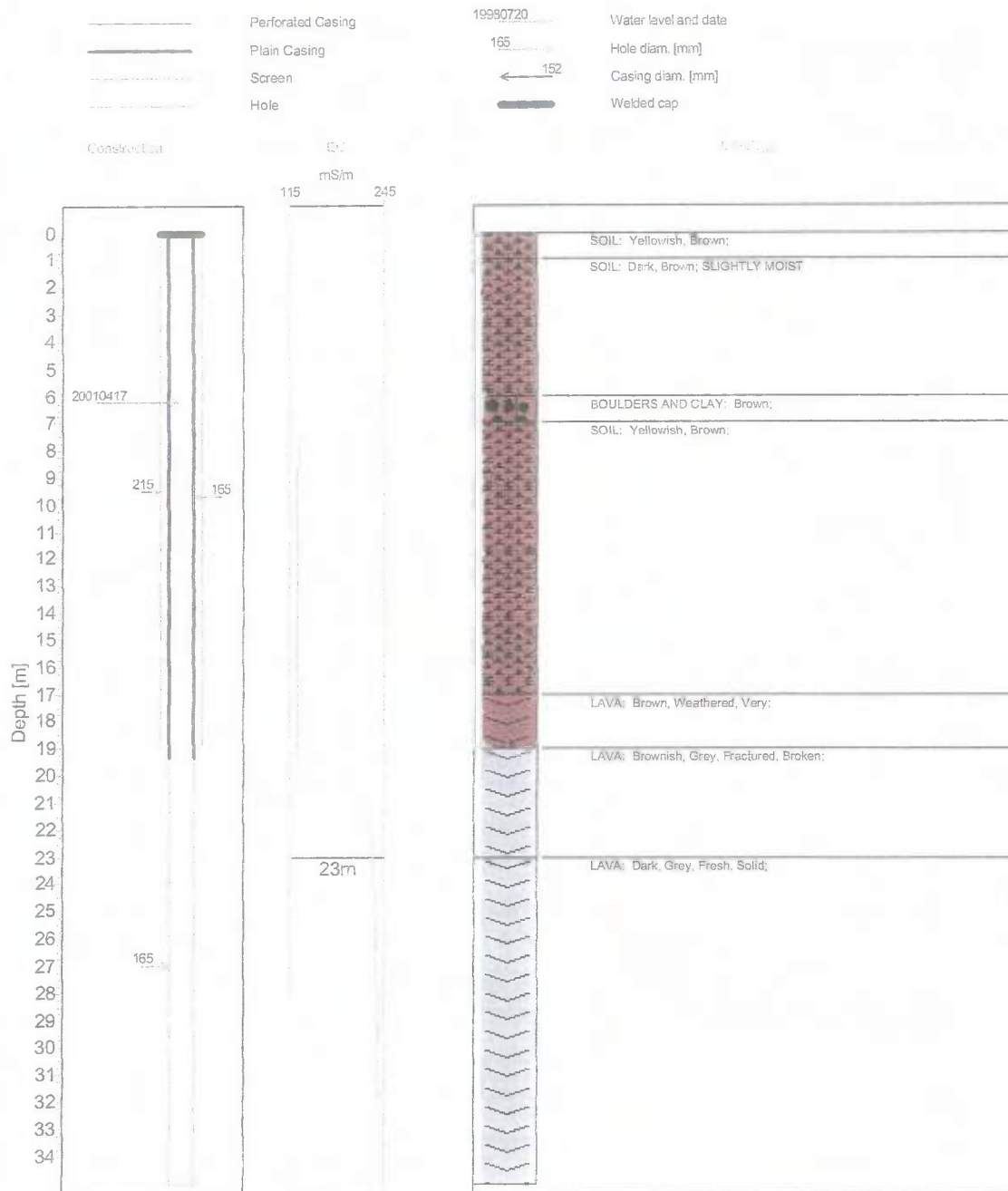
Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

Construction and Geological Log



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01023 Number: IVB-D23 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D23

Region Type:

Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]:	-84561.338	Reg./BB.: CS14	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2946444.48	G-Nr.:	Site status: In use	Col. ht. [m]:	0.42
Altitude [m]:	1518.72		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010327	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010327	0.00	19.00	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	SOIL	Brown	Dark			
2.00	3.00	BOULDERS AND CLAY	Brown				
3.00	7.00	SOIL	Brown	Reddish			
7.00	19.00	SOIL	Brown	Light			
19.00	25.00	LAVA	Brown	Greyish		Weathered	Broken
25.00	35.00	LAVA	Grey	Dark		Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010417	1055	0.00	10.07	EC LOGGED
Electrical contact	Static	0	Geologist,	20010524	1415	0.00	10.33	SLUG TESTED
Electrical contact	Static	0	Field checked	20010828	0900	0.00	11.51	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0 0	0	0.054	0	



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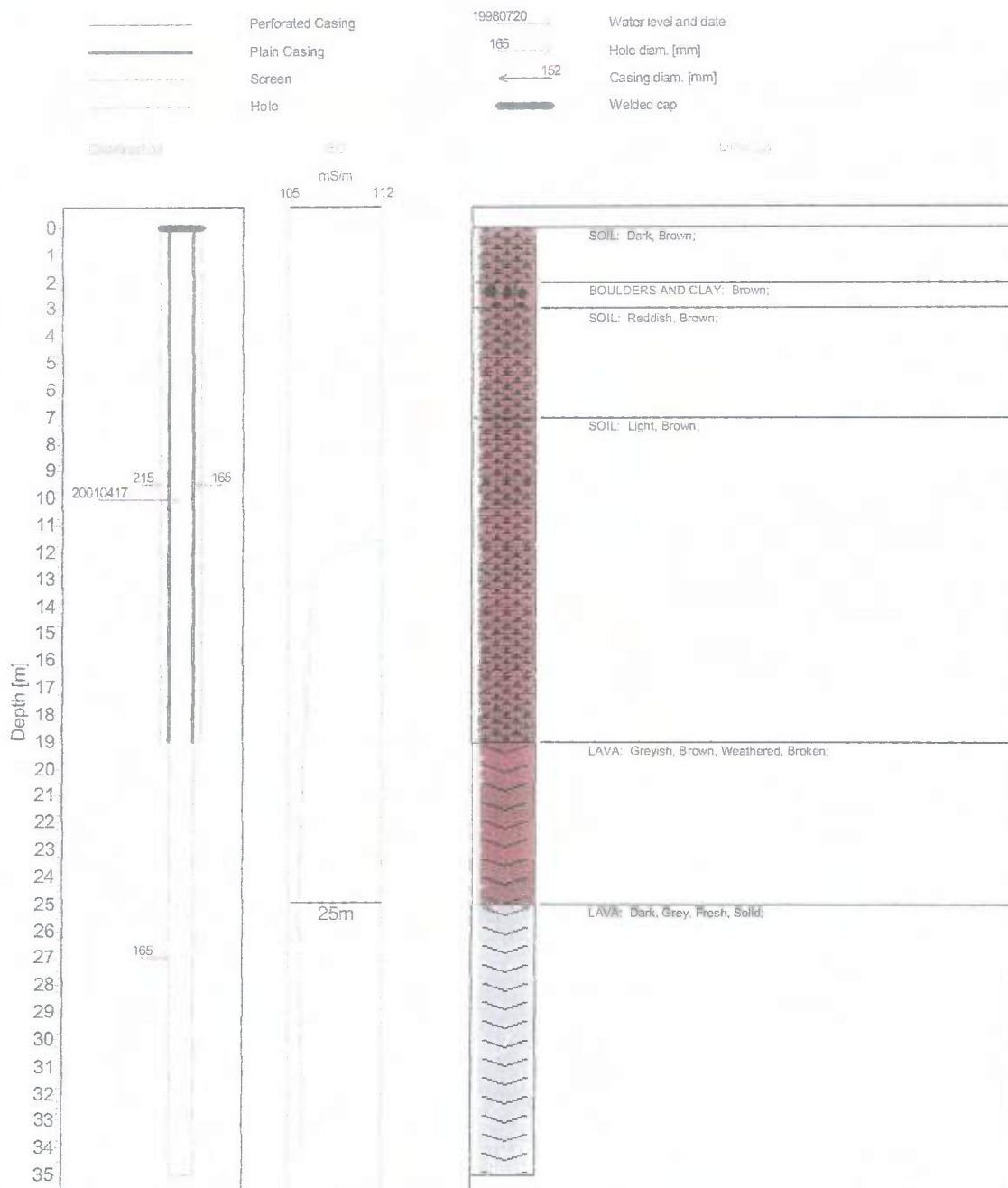
Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01023 Number: IVB-D23 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D23

Y Coord. [m]: -84561.338	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946444.48	Alt. No. 2: G5D	Site status: In use	Collar h. [m]: 0.42
Altitude [m]: 1518.71		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geotechnological Legend



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01024 Number: IVB-D24 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D24

Region Type:

Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]:	-84561.72	Reg./BB.: CS14	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2946005.48	G-Nr.:	Site status: In use	Col. ht. [m]:	0.37
Altitude [m]:	1521.17		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat. treatment	Constr. cost
20010328	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	19.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	24.50	25.00	0.01	Notch (V- or U-notch)			SEAPAGE

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Brown				
1.00	3.00	BOULDER CLAY	Brown				
3.00	6.00	SOIL	Brown	Dark			
6.00	19.00	SAND	Brown	Yellowish			
19.00	25.00	LAVA	Brown	Greyish		Weathered	
25.00	35.00	LAVA	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010417	1120	0.00	11.16	EC LOGGED
Electrical contact	Static	0	Geologist,	20010524	1416	0.00	11.34	SLUG TESTED
Electrical contact	Static	0	Field checked	20010817	1430	0.00	12.06	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	% [min]	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	600	0	0	0	0	0	0	0.72	0	

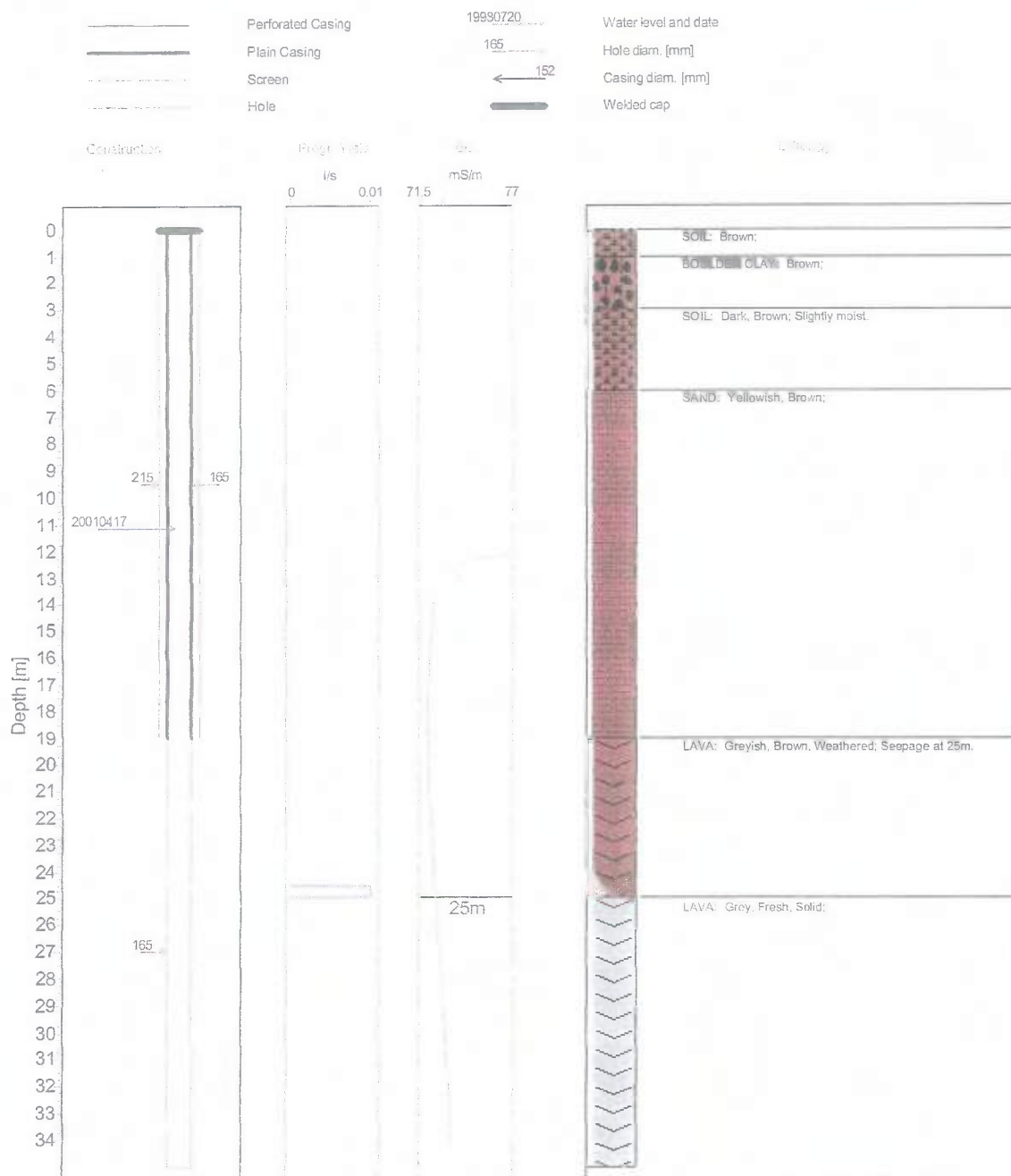
Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01024 Number: IVB-D24 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D24

Y Coord. [m]: -84561.720	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946005.48	Alt. No. 2: G1D	Site status: In use	Collar h. [m]: 0.37
Altitude [m]: 1521.16		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geohydrological Legend



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01025 Number: IVB-D25 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D25

Region Type:

Region Desc.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -84044.621

Reg./BB.: CS14

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2946048.74

G-Nr.:

Site status: In use

Col. ht. [m]: 0.33

Altitude [m]: 1521.74

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special treatment

Constr. cost

20010329 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. Inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

19.00

215

20010423

ROTARY PERC.

JMA

19.00

35.00

165

20010423

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. Opening [mm] Type

Length

Width

Hori. dist. Vert. dist.

20010423

0.00

19.00

165

Steel

3 Plain casing

0

0

0

0

AQUIFER:

Rep. Inst.

Depth to Top [m]

Bot. [m]

Yield [l/s]

Method meas.

Aquifer type

Info source

Comment

JMA

18.50

19.00

0.20

Volumetric

Fractured

Geologist, technician,

DRY

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

3.00

SOIL

Brown

Reddish

3.00

5.00

BOULDER CLAY

Brown

Light

5.00

16.00

SHALE

Brown

Light

Weathered

16.00

19.00

SHALE

Grey

Fractured

Broken

19.00

35.00

SHALE

Purple

Pinkish

Fresh

Solid

WATER LEVEL:

Meth. meas.

Level status

Piez.

Info source

Date meas.

Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010417

1200

0.00

5.48

EC LOGGED

Electrical contact

Static

0

Geologist,

20010524

1416

0.00

5.69

SLUG TESTED

Electrical contact

Static

0

Field checked

20010817

1515

0.00

6.79

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate [l/s]

Drawd. [m]

Recovery: [m]

%

[min]

Trans. [m²/d]

Perm. [m/d]

Storat. Comment

SLUGTEST

20010625

1500

0

0

0

0

0

0

0

0

0

0

0.023

0



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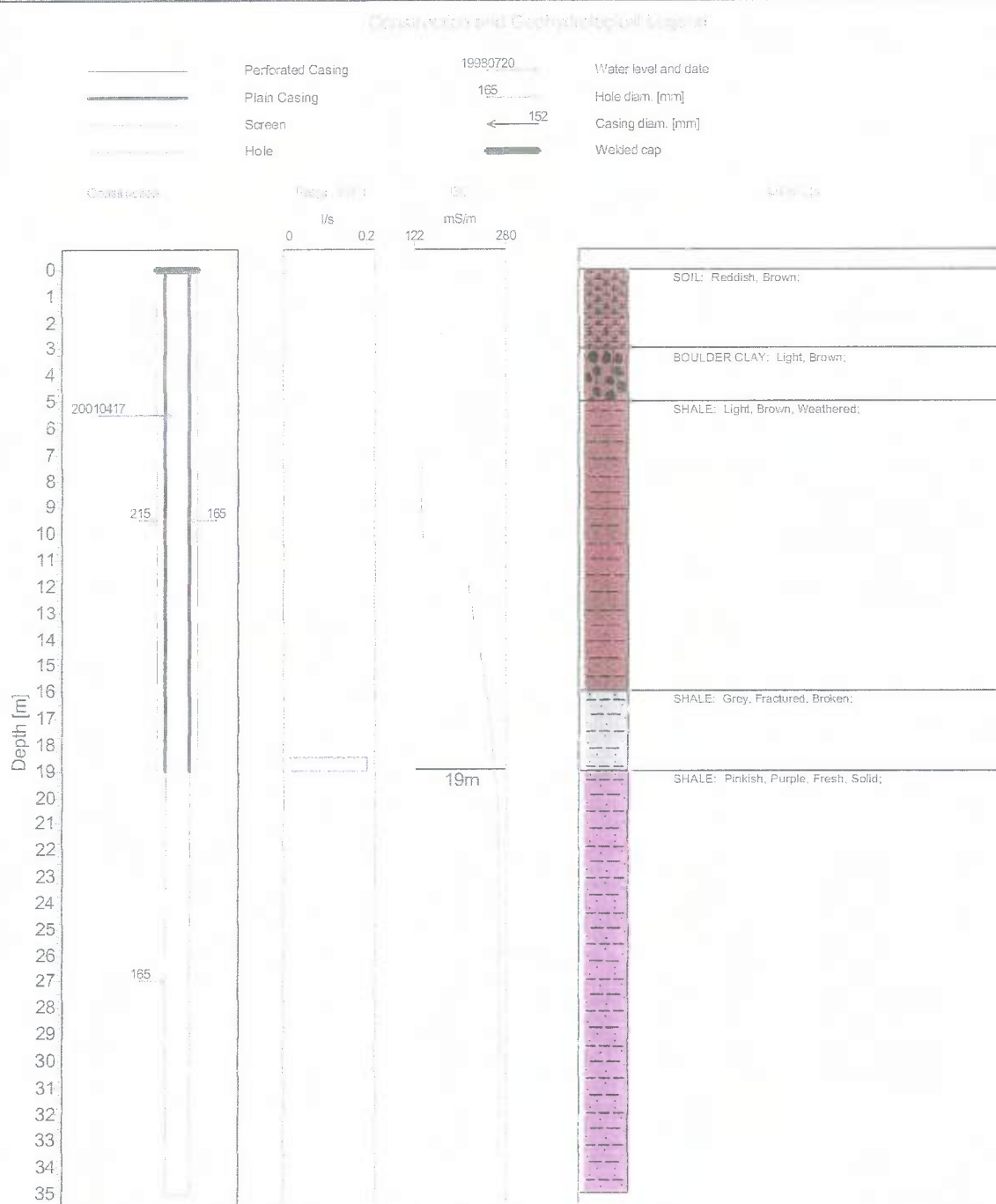
E-mail: webmaster@jma-cc.co.za

Borehole Construction and Geological Log

Date compiled: 11/28/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01025 Number: IVB-D25 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D25

Y Coord. [m]: -84044.621	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946048.74	Alt. No. 2: G2D	Site status: In use	Collar h. [m]: 0.33
Altitude [m]: 1521.74		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - Industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DBC1026 Number: IVB-D26 Site type: Borehole

Distr./Farm No.: Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D26

Region Type: Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -83554.16	Reg.IBB.: CS14	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946104.64	G-Nr.:	Site status: In use	Col. ht. [m]: 0.58
Altitude [m]: 1515.52		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:						
Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment
20010402	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	8.00	215	20010423	ROTARY PERC.
JMA	8.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:										
Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	6.50	165	Steel	3	Plain casing	0	0	0	0
20010423	6.50	7.50	165	Steel	3	Perforated or slotted	250	2	43	250

AQUIFER:	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	6.50	7.00	1.00	Volumetric	Fractured	Geologist, technician,	

GEOLOGY:								
Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary	
0.00	1.00	SOIL	Brown	Reddish				
1.00	4.00	QUARTZITE	Brown	Light		Weathered		
4.00	8.00	QUARTZITE	Brown	Light		Fractured	Broken	
8.00	13.00	QUARTZITE	Grey			Fresh	Solid	
13.00	26.00	SANDSTONE	Brown	Reddish		Weathered	Fresh	
26.00	35.00	SHALE	Grey	Light		Fresh	Solid	

WATER LEVEL:								
Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010418	1235	0.00	5.08	EC LOGGED
Electrical contact	Static	0	Geologist,	20010524	1417	0.00	5.44	SLUG TESTED
Electrical contact	Static	0	Field checked	20010828	0745	0.00	6.75	

TESTING DETAILS:												
Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment		
SLUGTEST	20010625	150	0	0	0	0	0	0	1.243	0		

Borehole Construction and Geological Log

Date compiled: 5/31/02

BASIC SITE INFORMATION: Site Identifier: 2627DB01026 Number: IVB-D26 Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D26

Y Coord. [m]: -83554.160

X Coord. [m]: 2946104.64

Altitude [m]: 1515.52

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G3D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applic.: Industrial - industrial

Equipment: No equipment

Depth [m]: 35.00

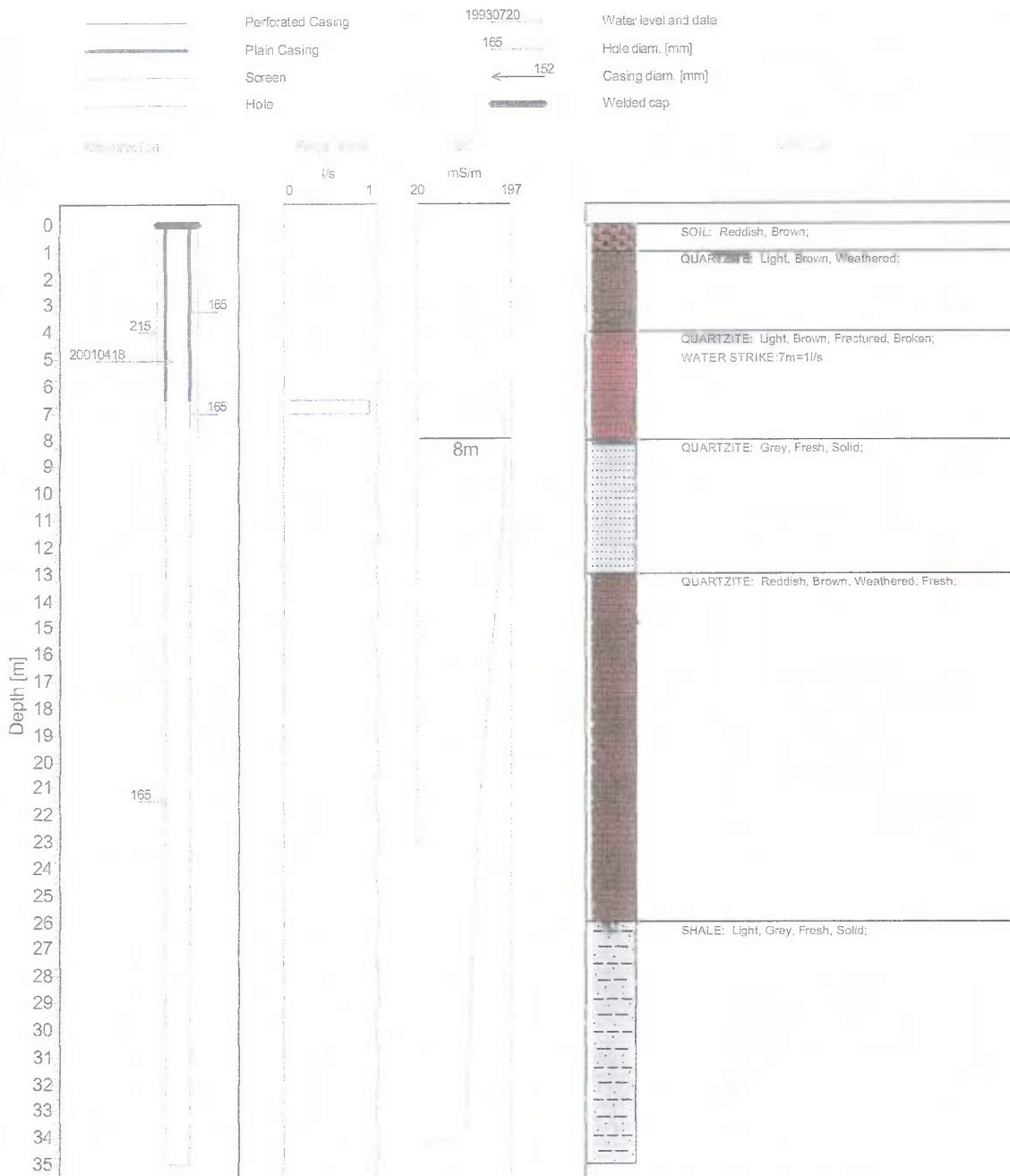
Collar h. [m]: 0.58

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Construction and Geohydrological Legend



COMMENT:

Page 1



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01027 Number: IVB-D27 Site type: Borehole

Distr./Farm No.:

Site Name/Das.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D27

Region Type:

Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]: -83565.888

Reg./BB.: CS14

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2946478.82

G-Nr.: IPD-2

Site status: In use

Col. ht. [m]: 0.49

Altitude [m]: 1515.82

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special Durat. treatment

Constr. cost

20010402 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. Inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

18.00

215

20010423

ROTARY PERC.

JMA

18.00

35.00

165

20010423

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. Opening [mm] Type

Length

Width

Hori. dist. Vert. dist.

20010423

0.00

18.00

165

Steel

3

Plain casing

0

0

0

0

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

2.00

SOIL

Brown

Reddish

2.00

9.00

QUARTZITE

White

Light

Fractured

9.00

10.00

SANDSTONE

Pink

Light

Weathered

10.00

12.00

SANDSTONE

Brown

Light

Weathered

12.00

13.00

QUARTZITE

White

Light

Weathered

13.00

15.00

SANDSTONE

Brown

Weathered

15.00

22.00

SANDSTONE

Brown

Reddish

Weathered

22.00

35.00

SHALE

Grey

Light

Fresh

Solid

WATER LEVEL:

Meth. meas.

Level status

Piez.

Info source

Date meas.

Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010618

1100

0.00

5.14

EC LOGGED

Electrical contact

Static

0

Field checked

20010807

1025

0.00

5.69

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate[l/s]

Drawd. [m]

Recovery: [m] %

 Trans. [m²/d]

Perm. [m/d]

Stor. Comment

SLUGTEST

20010724

1500

0

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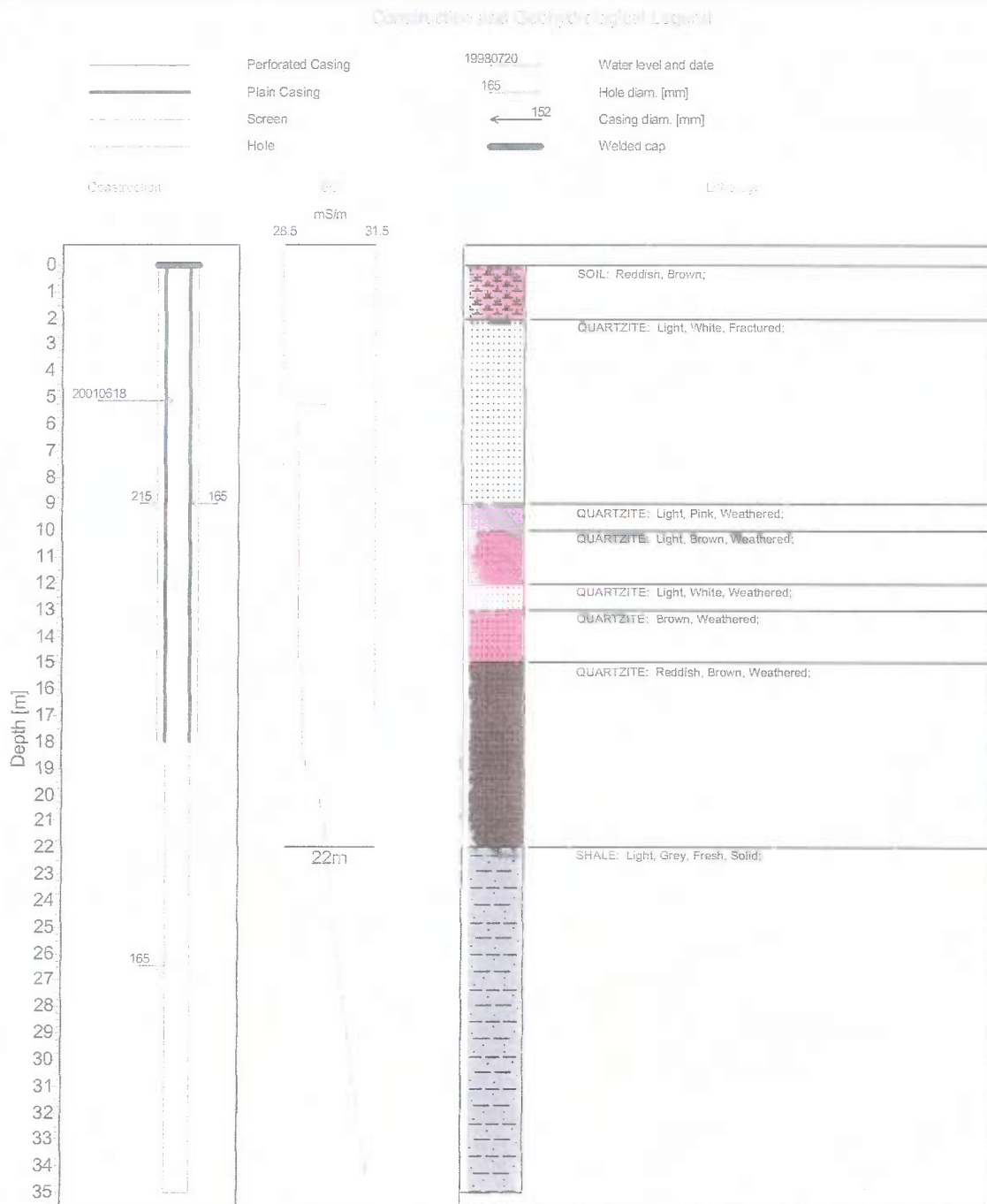


Borehole Construction and Geological Log

Date compiled: 5/31/02

BASIC SITE INFORMATION: Site Identifier: 2627DB01027 Number: IVB-D27 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D27

Y Coord. [m]: -83565.888	Alt. No. 1: IPD-2	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946478.82	Alt. No. 2: G6D	Site status: In use	Collar h. [m]: 0.49
Altitude [m]: 1515.82		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

Page 1



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01028 Number: IVB-D28 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D28

Region Type:

Region Descr.: PROPOSED NEW WASTE SITE

Y Coord. [m]:	-83807.174	Reg. IBB.: CS14	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2947520.526	G-Nr.:	Site status: In use	Col. ht. [m]:	0.49
Altitude [m]:	1511.81		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:						
Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010403	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010423	0.00	19.50	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:											
Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary				
0.00	2.00	SOIL	Brown	Reddish							
2.00	4.00	BOULDERS	Brown	Light							
4.00	18.00	CLAY	Brown	Yellowish							
18.00	20.00	LAVA	Brown	Greyish		Weathered					
20.00	23.00	LAVA	Grey			Fractured	Broken				
23.00	35.00	LAVA	Grey			Fresh	Solid				

WATER LEVEL:									
Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment	
Electrical contact	Static	0	Geologist,	20010606	1227	0.00	4.33	EC LOGGED	
Electrical contact	Static	0	Field checked	20010808	0955	0.00	4.62		

TESTING DETAILS:	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0 0 0	0	0.069	0	



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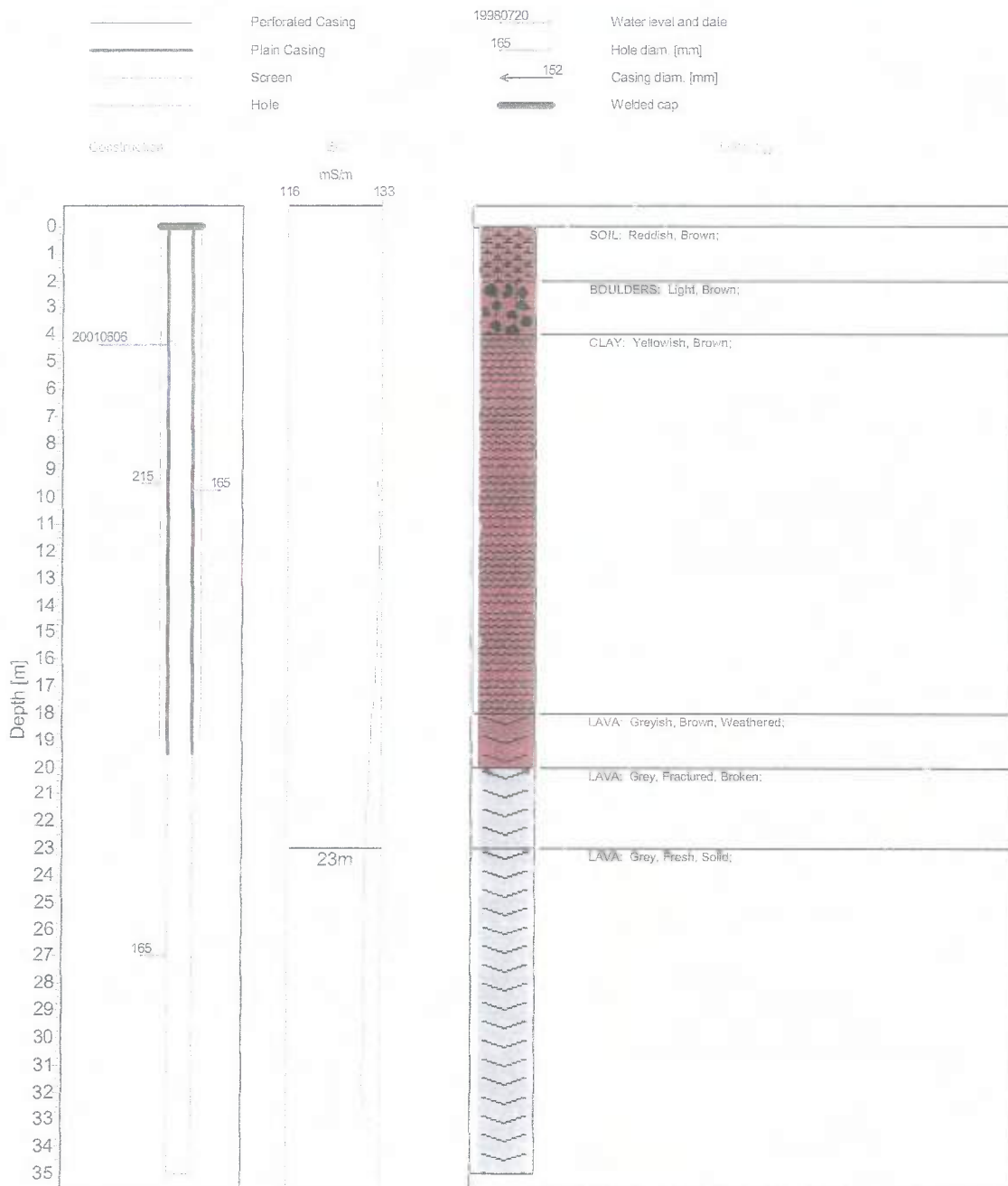
Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01028 Number: IVB-D28 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D28

Y Coord. [m]: -83807.174	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2947520.53	Alt. No. 2: G12D	Site status: In use	Collar h. [m]: 0.49
Altitude [m]: 1511.81		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geological Log



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01029 Number: IVB-D29 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D29

Region Type:

Region Desc.: CASTING & MILL PLANT

Y Coord. [m]: -82471.852	Reg./BB.: CP01	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2949933.999	G-Nr.:	Site status: In use	Col. ht. [m]: 0.03
Altitude [m]: 1495.83		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010406	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	31.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	14.20	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Grey	Light			
1.00	4.00	SOIL	Brown	Reddish			
4.00	10.00	SOIL	Brown	Light		Sandy	
10.00	13.00	DIABASE	Brown			Weathered	
13.00	18.00	DIABASE	Grey			Fractured	Broken
18.00	31.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010607	1040	0.00	3.84	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	1400	0.00	4.20	
Electrical contact	Static	0	Field checked	20011009	1440	0.00	4.18	SLUGTEST

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [mld]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0 0	0	0.027	0	
SLUGTEST	20011009	1500	0					0.029		



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Borehole Construction and Geological Log

Date compiled: 11/12/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01029 Number: IVB-D29

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D29

Y Coord. [m]: -82471.852

X Coord. [m]: 2949934.00

Altitude [m]: 1495.83

Coord. acc.: Accurate to within 1 unit

Coord. meth.: Global Positioning System

Alt. No. 1:

Alt. No. 2: G34D

Topo-set.: Flat surface, plain

Site status: In use

Site purp.: Observation

Use applc.: Industrial - industrial

Equipment: No equipment

Depth [m]: 31.00

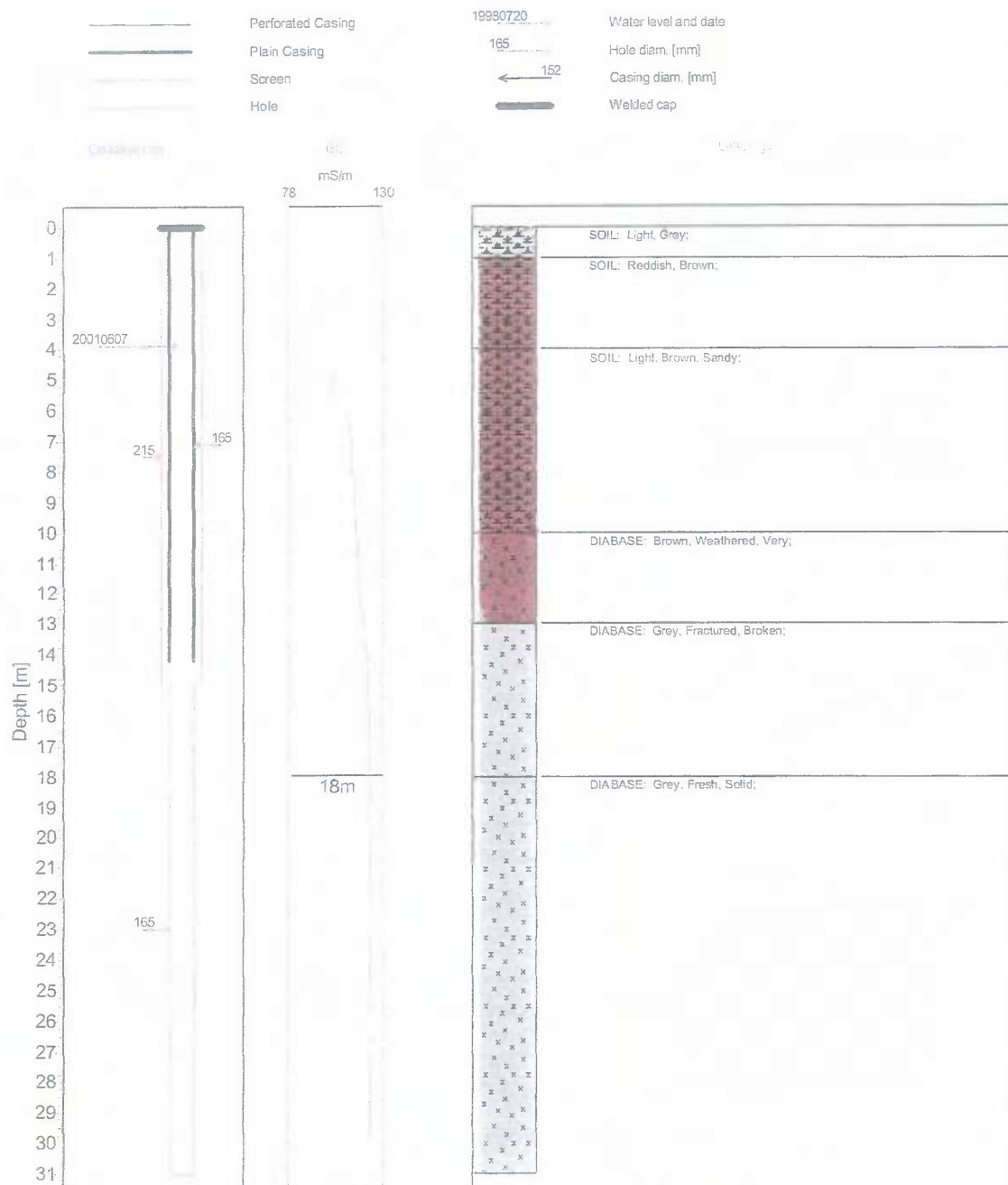
Collar h. [m]: 0.03

Drain. reg.: C220

Diam. [mm]: 165

Rep. inst.: JMA

Construction and Geohydrological Log



COMMENT:



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Date compiled: 11/27/01

Site Identifier: 2627DB01030 **Number:** IVB-D30 **Site type:** Borehole

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D30

Region Descr.:SIDING AREA

Y Coord. [m]:	-83671.169	Reg.IBB.: CS19 G-Nr.: NWD10	Topo-set.:	Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2949860.205		Site status:	In use	Col. ht. [m]:	0.24
Altitude [m]:	1492.24		Site purp.:	Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.:	Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment:	No equipment	Rep. inst.:	JMA

Date const.	Contractor	Constr. meth.	Type finish	Method	Durat. treatment	Cost
20010406	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

Rep. Inst.	Top [m]	Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	19.00	215	20010423	ROTARY PERC.
JMA	19.00	35.00	165	20010423	ROTARY PERC.

Date inst.	Dep. to top [m]	Bot. [m]	Thick. [mm]	Material	Thick. [mm]	Type	Length	Width	Int. dist.	Ext. dist.
20010423	0.00	19.30	165	Steel	3	Plain casing				

Dep. Top [m]	Bot. [m]	Lithology code	Primary	Secondary	Texture	Primary	Secondary
0.00	2.00	SOIL	Brown	Dark			
2.00	3.00	BOULDERS	Brown	Light			
3.00	4.00	SOIL	Brown	Dark			
4.00	19.00	DIABASE	Brown	Yellowish		Weathered	Clayey
19.00	23.00	DIABASE	Grey			Fractured	Broken
23.00	35.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:								
Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010601	1500	0.00	3.23	EC LOGGED
Electrical contact	Static	0	Field checked	20010809	1310	0.00	4.60	
Electrical contact	Static	0	Field checked	20011009	1255	0.00	4.68	SLUGTEST

Description	started	[s]	intk. [m]	rate[l/s]	[m]	[m]	%	[min]	[m ² /d]	[m/d]	Storat.	Comment
SLUGTEST	20010724	900	0	0	0	0	0	0	0	0.366	0	
SLUGTEST	20011009	1200	0							0.265		

Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01030 Number: IVB-D30

Site type: Borehole

Distr./Farm No.:

Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D30

Y Coord. [m]: -83671.169

Alt. No. 1: NWD10

Topo-set.: Flat surface, plain

Depth [m]: 35.00

X Coord. [m]: 2949860.21

Alt. No. 2: G35D

Site status: In use

Collar h. [m]: 0.24

Altitude [m]: 1492.24

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

Construction and Geological Log



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01031 Number: IVB-D31 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D31

Region Type:

Region Descr.: HECKETTS SLAG PLANT

Y Coord. [m]: -82727.403	Reg.IBB.: CP01	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2950719.467	G-Nr.:	Site status: In use	Col. ht. [m]: 0.58
Altitude [m]: 1495.20		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special Durat. treatment	Constr. cost
20010410	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	15.00	165	Steel	3	Plain casing				

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	14.00	15.00	0.80	Volumetric	Weathered basin	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Black	Dark			
1.00	4.00	SOIL	Brown	Yellowish			
4.00	14.00	SHALE	Brown			Weathered	
14.00	25.00	SHALE	Brown	Greyish		Fractured	Broken
25.00	35.00	SHALE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010504	1418	0.00	3.42	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010601	1248	0.00	3.64	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	1420	0.00	3.97	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0 0	0	0.037	0	



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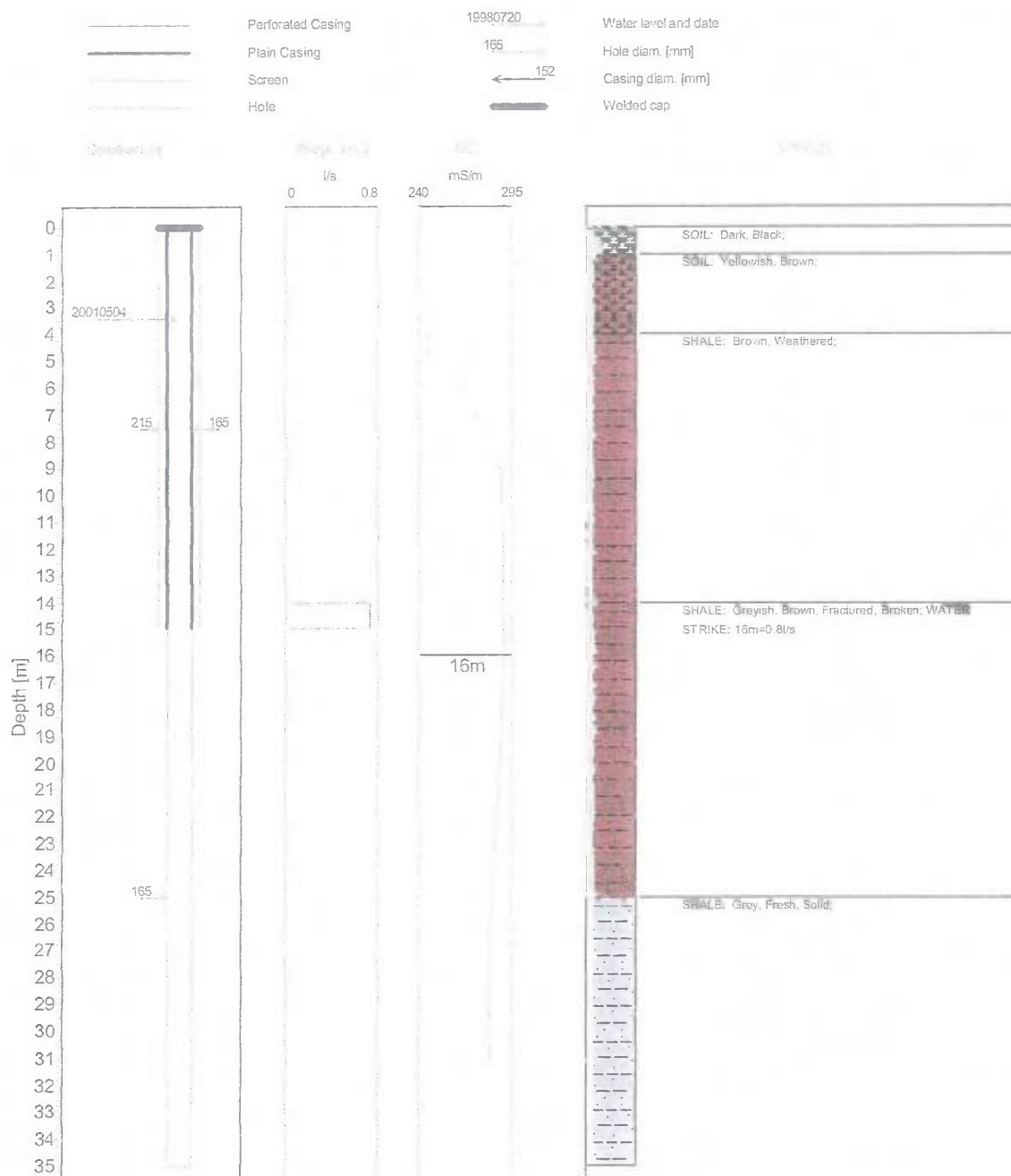
Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01031 Number: IVB-D31 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D31

Y Coord. [m]: -82727.403	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2950719.47	Alt. No. 2: G43D	Site status: In use	Collar h. [m]: 0.58
Altitude [m]: 1495.20		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geohydrological Legend



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01032 Number: IVB-D32 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D32

Region Type:

Region Desc.: CONSTRUCTION STOREYARD

Y Coord. [m]:	-81777.955	Reg.IBB.: MM01	Topo-set.: Flat surface, plain	Depth [m]:	35.00
X Coord. [m]:	2951080.376	G-Nr.:	Site status: In use	Col. ht. [m]:	0.68
Altitude [m]:	1499.15		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - Industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010411	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	35.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	10.00	165	Steel	3	Plain casing	0	0	0	0
20010423	10.00	11.00	165	Steel	3	Perforated or slotted	250	2	43	250
20010423	11.00	15.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	10.00	11.00	0.80	Volumetric	Weathered basin	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	3.00	SOIL	Brown	Reddish			
3.00	5.00	SOIL	Brown				
5.00	11.00	DIABASE	Brown			Weathered	
11.00	17.00	DIABASE	Brown	Greyish		Fractured	Broken
17.00	35.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010504	1419	0.00	5.21	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010607	1528	0.00	5.75	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	1324	0.00	5.98	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	600	0	0	0	0 0 0	0	0.613	0	

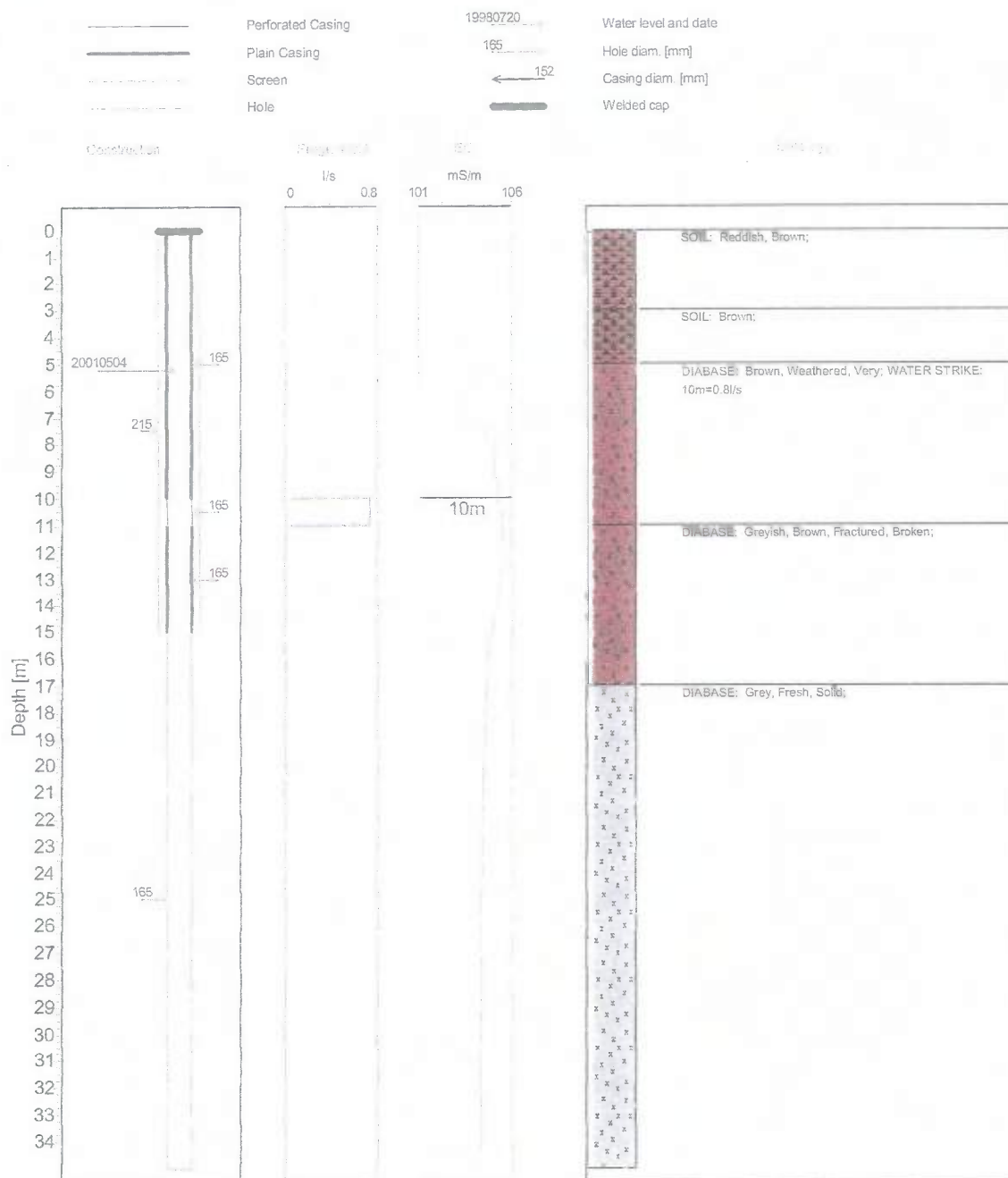
Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01032 Number: IVB-D32 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D32

Y Coord. [m]: -81777.955	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2951080.38	Alt. No. 2: G42D	Site status: In use	Collar h. [m]: 0.68
Altitude [m]: 1499.15		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. Inst.: JMA

Construction and Geo-hydrological Legend



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01033 Number: IVB-D33 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D33

Region Type:

Region Desc.: BLAST FURNACE

Y Coord. [m]: -81589.6	Reg.IBB.: CS02	Topo-set.: Flat surface, plain	Depth [m]: 21.00
X Coord. [m]: 2949951.857	G-Nr.:	Site status: In use	Col. ht. [m]: 0.24
Altitude [m]: 1496.23		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010411	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	12.00	215	20010423	ROTARY PERC.
JMA	12.00	21.00	165	20010423	ROTARY PERD.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	9.00	165	Steel	3	Plain casing	0	0	0	0
20010423	9.00	13.00	165	Steel	3	Perforated or slotted	250	2	43	250

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	9.00	10.00	0.20	Volumetric	Weathered basin	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Black	Dark			
1.00	3.00	SOIL	Brown	Reddish			
3.00	12.00	DIABASE	Brown			Weathered	
12.00	16.00	DIABASE	Grey	Light		Fractured	Broken
16.00	21.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010606	1552	0.00	4.12	EC LOGGED
Electrical contact	Static	0	Field checked	20010831	0945	0.00	4.58	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m]	% [min]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0	0	0	0.071	0	

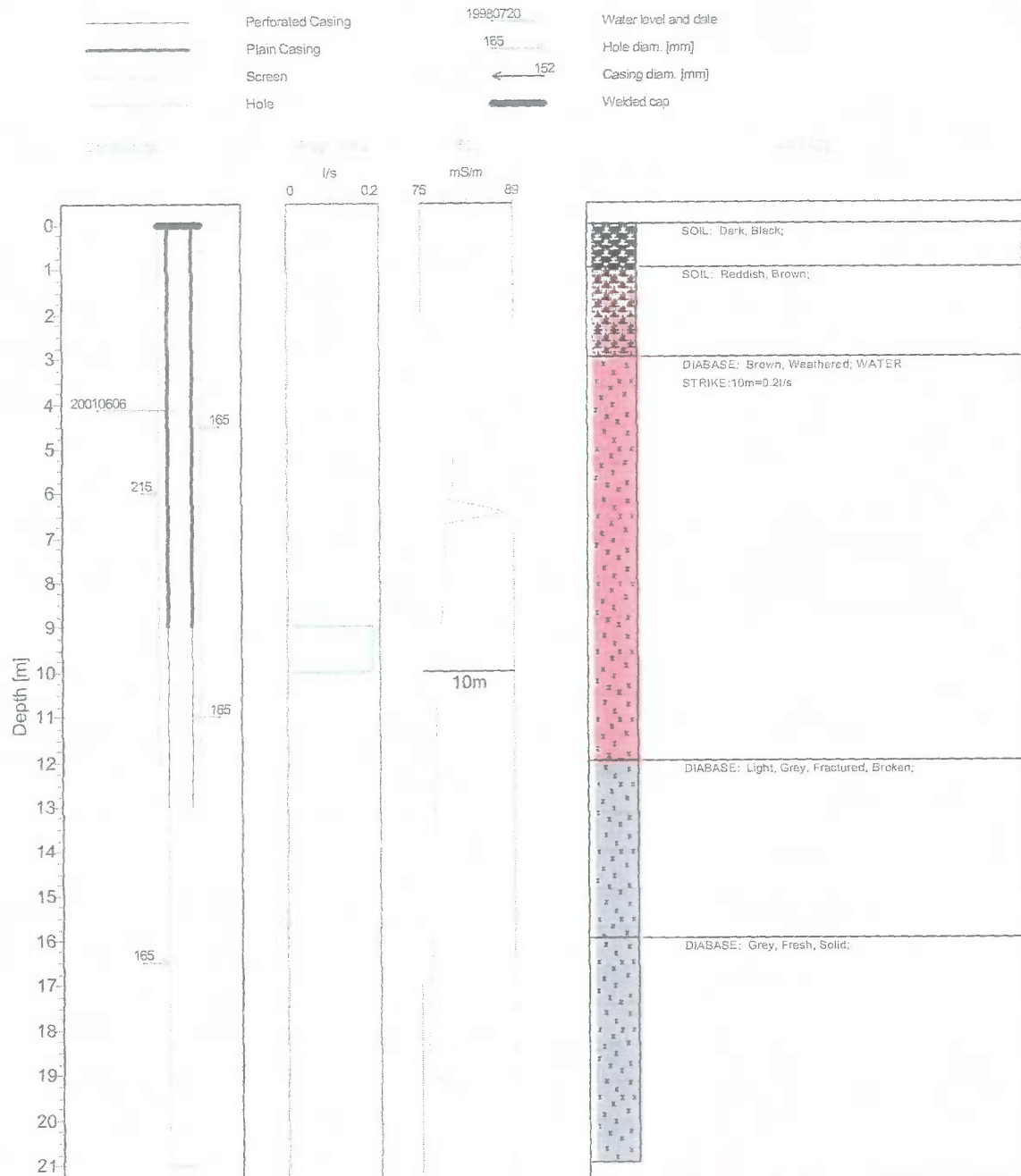


Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01033 Number: IVB-D33 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D33

Y Coord. [m]: -81589.600	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 21.00
X Coord. [m]: 2949951.86	Alt. No. 2: G33D	Site status: In use	Collar h. [m]: 0.24
Altitude [m]: 1496.23		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01034 Number: IVB-D34 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D34

Region Type:

Region Descr.: BLAST FURNACE

Y Coord. [m]: -80743.149	Reg.IBB.: IM01	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2950070.751	G-Nr.:	Site status: In use	Col. ht. [m]: 0.50
Altitude [m]: 1494.78		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010417	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	31.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	15.00	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Brown	Reddish			
1.00	4.00	RUBBLE					
4.00	11.00	SHALE	Brown			Weathered	
11.00	15.00	SHALE	Grey	Brownish		Fractured	Broken
15.00	23.00	SHALE	Grey			Fresh	Solid
23.00	25.00	SHALE	Grey			Fractured	Broken
25.00	31.00	SHALE	Black	Dark		Fresh	Carbonaceous

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010607	1120	0.00	4.88	EC LOGGED
Electrical contact	Static	0	Field checked	20010816	0750	0.00	5.02	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0 0 0	0	0.012	0	

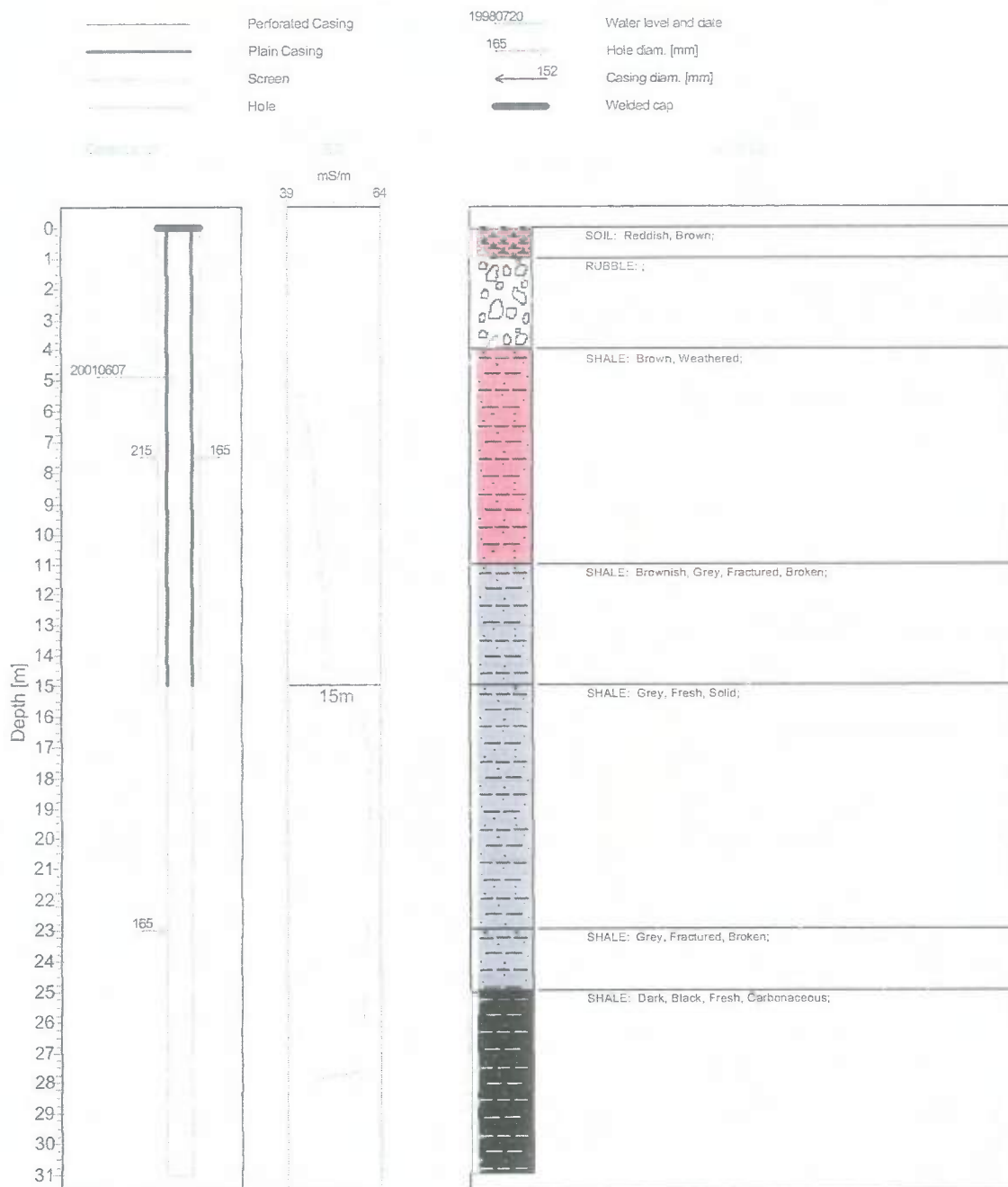
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CONFIDENTIAL
Research for IVS

Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01034 Number: IVB-D34 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D34

Y Coord. [m]: -80743.149	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2950070.75	Alt. No. 2: G32D	Site status: In use	Collar h. [m]: 0.50
Altitude [m]: 1494.78		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01035 Number: IVB-D35 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D35

Region Type:

Region Descr.: OPEN AREA / COIL STORAGE

Y Coord. [m]: -83313.099	Reg.IBB.: CP03	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2950307.55	G-Nr.:	Site status: In use	Col. ht. [m]: 0.55
Altitude [m]: 1493.97		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special Durat. treatment	Constr. cost
20010605	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010409	ROTARY PERC.
JMA	15.00	35.00	165	20010409	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010605	0.00	15.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	25.00	26.00	2.00	Estimated	Fractured	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Black	Greyish		Gravel-bearing	Sandy
1.00	3.00	OVERBURDEN	Brown	Dark		Gravel-bearing	Clayey
3.00	4.00	OVERBURDEN	Grey	Dark		Gravel-bearing	Sandy
4.00	5.00	OVERBURDEN	Grey			Sandy	Gravel-bearing
5.00	6.00	OVERBURDEN	Brown	Dark		Sandy	Gravel-bearing
6.00	8.00	DIABASE	Brown	Dark		Weathered	Clayey
8.00	13.00	DIABASE	Brown	Dark		Weathered	
13.00	15.00	DIABASE	Brown	Greyish	Medium to coarse	Fresh	Weathered
15.00	25.00	DIABASE	Brown	Greyish	Medium to coarse	Weathered	
25.00	32.00	DIABASE	Brown	Greyish	Medium to coarse	Fractured	
32.00	35.00	DIABASE	Grey	Dark	Medium to coarse	Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010504	1419	0.00	9.29	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010601	1430	0.00	9.75	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	0755	0.00	10.13	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	180	0	0	0	0	0	0	1.575	0	

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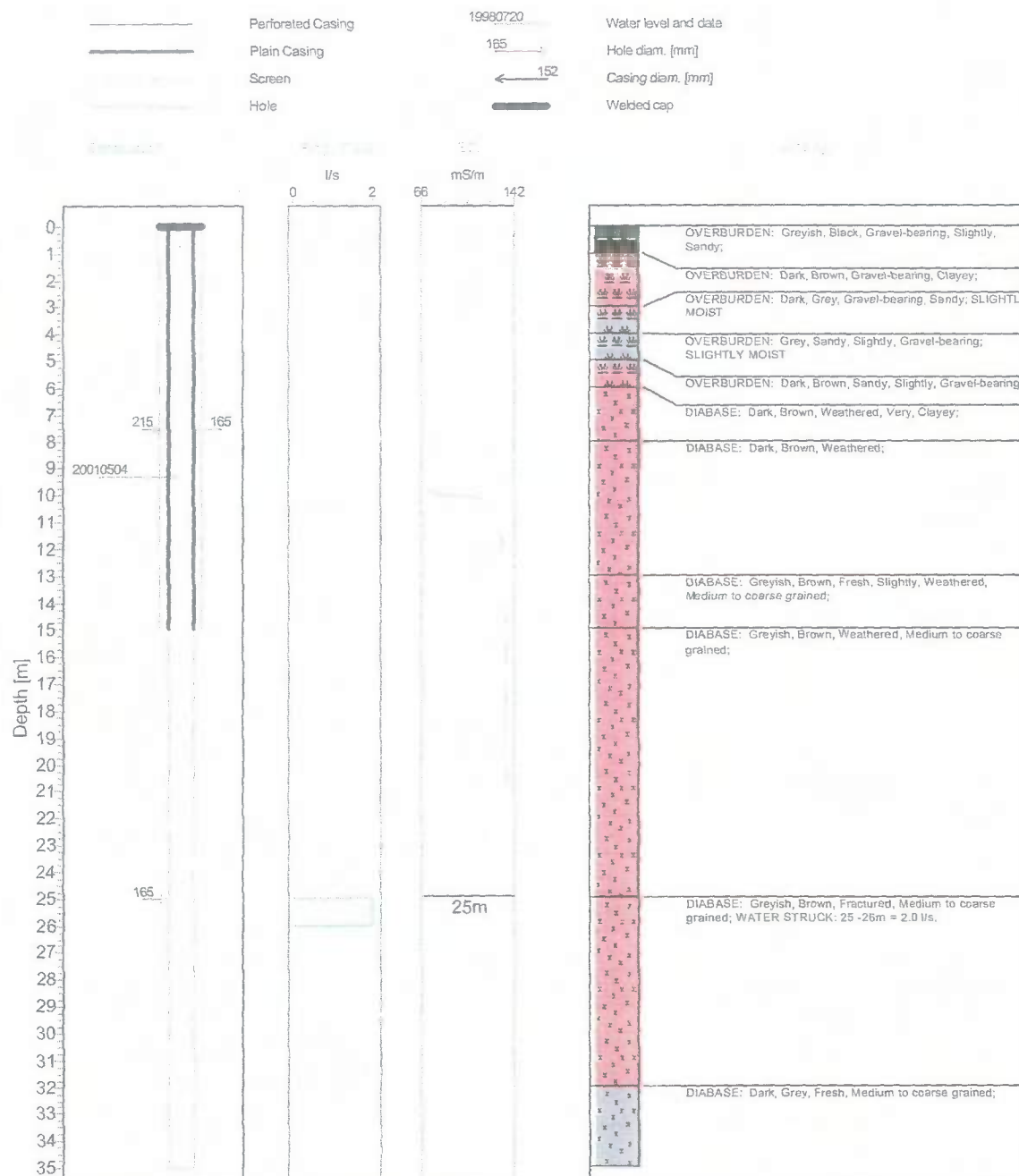
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Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01035 Number: IVB-D35 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D35

Y Coord. [m]: -83313.099	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2950307.55	Alt. No. 2: G36D	Site status: In use	Collar h. [m]: 0.55
Altitude [m]: 1493.97		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01036 Number: IVB-D36 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D36

Region Type:

Region Descr.: SLAB STORAGE YARD

Y Coord. [m]: -82462.77	Reg.IBB.: CP01	Topo-set.: Flat surface, plain	Depth [m]: 25.00
X Coord. [m]: 2950539.806	G-Nr.:	Site status: In use	Col. ht. [m]: 0.42
Altitude [m]: 1495.43		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat. treatment	Special	Constr. cost
20010410	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	17.00	215	20010410	ROTARY PERC.
JMA	17.00	25.00	165	20010410	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010410	0.00	17.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	16.00	16.50	0.50	Estimated	Fractured	Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	OVERBURDEN	Grey	Brownish		Gravel-bearing	
2.00	4.00	FERRICRETE	Brown	Reddish		Weathered	Clayey
4.00	5.00	FERRICRETE	Brown	Reddish			
5.00	6.00	FERRICRETE	Brown	Yellowish			
6.00	9.00	SHALE	Brown	Yellowish		Weathered	Calcareous
9.00	11.50	SHALE	Yellow			Weathered	
11.50	13.00	SHALE	Brown	Yellowish		Weathered	Clayey
13.00	15.50	DIABASE	Brown			Weathered	Clayey
15.50	16.50	DIABASE	Brown	Greyish	Medium to coarse	Fractured	Fresh
16.50	17.00	DIABASE	Grey	Brownish	Medium to coarse	Fresh	Fractured
17.00	25.00	DIABASE	Grey	Dark	Medium to coarse	Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010504	1420	0.00	6.98	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010601	1330	0.00	6.35	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	0820	0.00	6.57	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	% [min]	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0	0	0	0.273	0	

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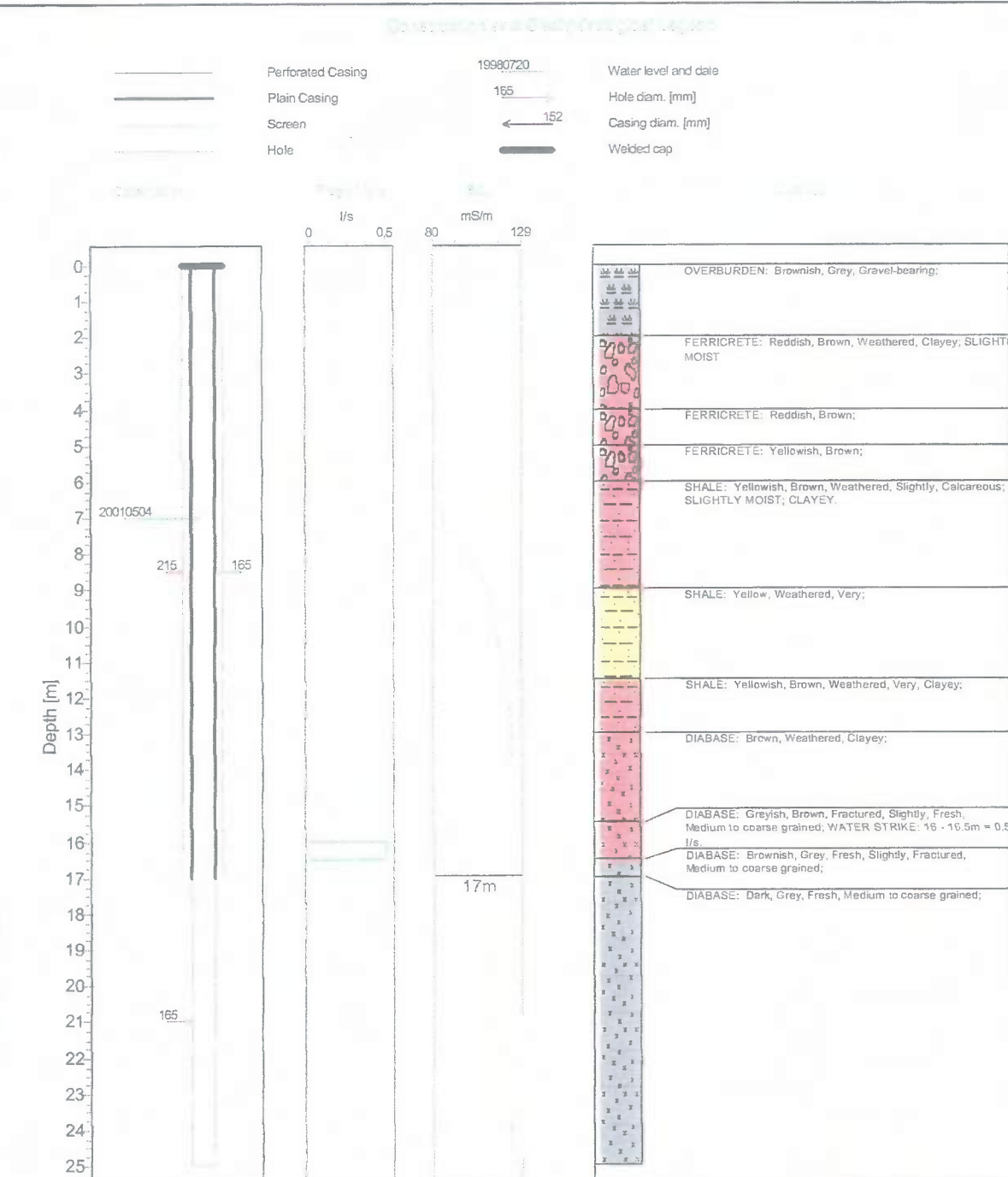
Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01036 Number: IVB-D36 Site type: Borehole

Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D36

Y Coord. [m]: -82462.770	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 25.00
X Coord. [m]: 2950539.81	Alt. No. 2: G37D	Site status: In use	Collar h. [m]: 0.42
Altitude [m]: 1495.43		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01037 Number: IVB-D37 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D37

Region Type:

Region Descr.: SLABBING MILL

Y Coord. [m]: -81852.10633	Reg.IBB.: CP01	Topo-set.: Flat surface, plain	Depth [m]: 40.00
X Coord. [m]: 2950560.06067	G-Nr.:	Site status: In use	Col. ht. [m]: 0.41
Altitude [m]: 1495.35		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 10 units		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. Inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010410	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	25.00	215	20010410	ROTARY PERC.
JMA	25.00	40.00	165	20010410	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010410	0.00	19.00	165	Steel	3	Plain casing	0	0	0	0
20010410	19.00	25.00	165	Steel	3	Perforated or slotted	250	2	500	175

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	OVERBURDEN	Brown	Dark		Gravel-bearing	Clayey
2.00	3.00	CLAY	Brown	Dark		Gravel-bearing	
3.00	5.00	CLAY	Brown	Greyish			
5.00	7.00	SHALE	Brown	Light		Weathered	
7.00	10.00	SHALE	Brown	Pinkish		Weathered	
10.00	13.00	SHALE	Brown	Greyish		Weathered	Clayey
13.00	14.00	SHALE	Brown	Reddish		Weathered	Clayey
14.00	15.00	SHALE	Brown	Yellowish		Weathered	Clayey
15.00	17.00	SHALE	Brown	Purple		Weathered	
17.00	19.00	SHALE	Brown	Greyish		Weathered	Clayey
19.00	24.00	SHALE	Brown			Weathered	Clayey
24.00	26.00	SHALE	Brown	Greyish		Weathered	Fractured
26.00	29.00	SHALE	Brown	Yellowish		Weathered	
29.00	30.00	SHALE	Brown	Greyish		Weathered	Fractured
30.00	31.00	SHALE	Brown	Yellowish		Weathered	
31.00	32.50	SHALE	Brown	Greyish		Fractured	Baked
32.50	34.00	SHALE	Brown	Dark		Weathered	Clayey
34.00	36.00	SLATE	Brown	Greyish		Weathered	Fractured
36.00	38.00	DIABASE	Brown	Greyish		Fractured	Weathered
38.00	40.00	DIABASE	Grey	Dark	Medium to coarse	Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010619	1113	0.00	5.41	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	0855	0.00	5.31	
Electrical contact	Static	0	Geologist,	20020504	1421	0.00	4.43	SLUG TESTED

TESTING DETAILS:

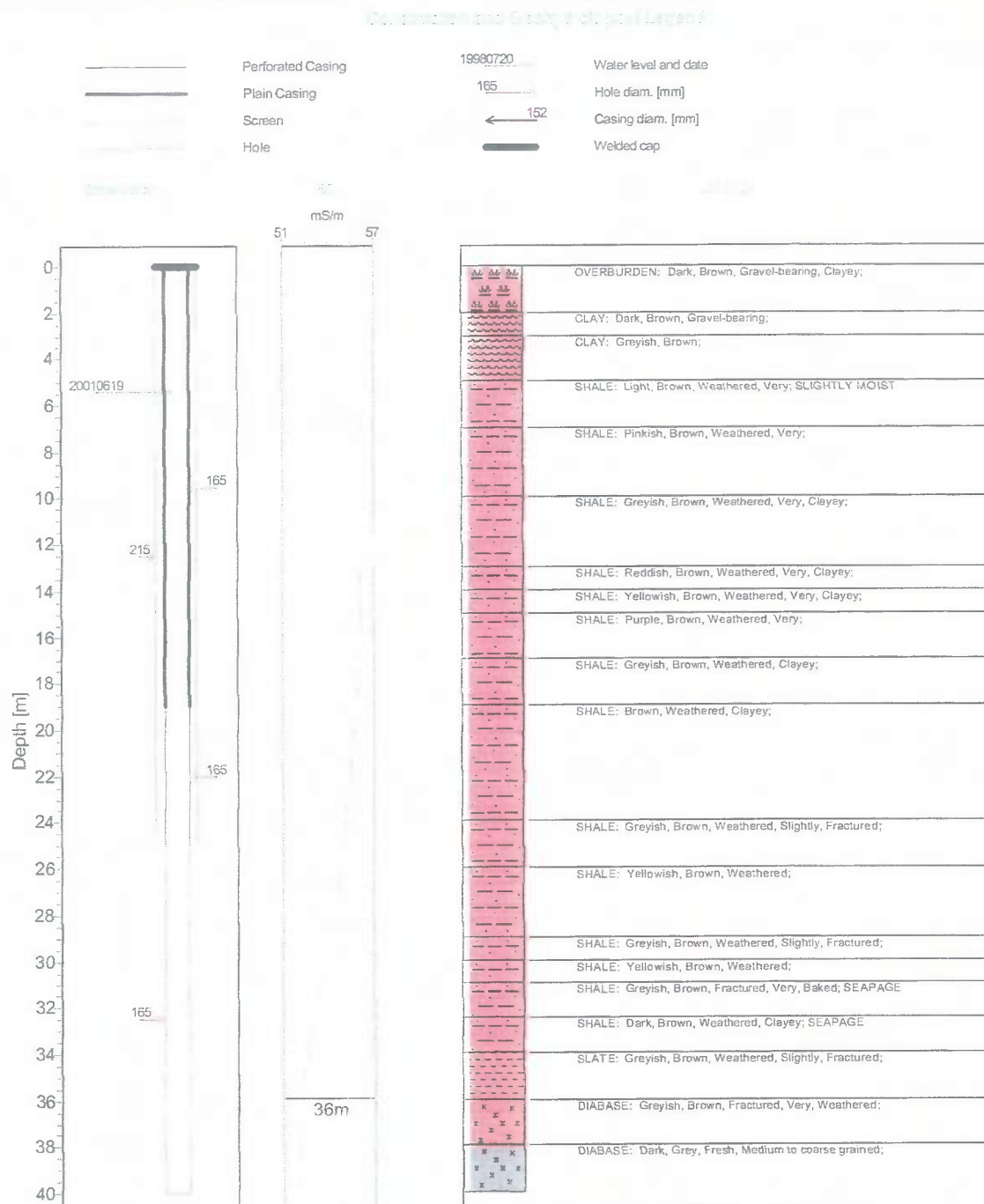
Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0	0	0.047	0	

Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01037 Number: IVB-D37 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D37

Y Coord. [m]: -81852.106	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 40.00
X Coord. [m]: 2950560.06	Alt. No. 2: G38D	Site status: In use	Collar h. [m]: 0.41
Altitude [m]: 1495.35		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 10 units		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01038 Number: IVB-D38 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D38

Region Type:

Region Descr.: OXYGEN PLANT / P.H.

Y Coord. [m]: -81101.942

Reg./BB.: CS02

Topo-set.: Flat surface, plain

Depth [m]: 37.00

X Coord. [m]: 2950484.862

Site status: In use

Col. ht. [m]: 0.47

Altitude [m]: 1495.98

G-Nr.:

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 165

Coord. meth.: Global Positioning System

Equipment: No equipment

Rep. inst.: JMA

CONSTRUCTION:

Date const. Contractor

Constr. meth.

Type finish

Development Method

Special treatment

Constr. cost

20010410 EDMS

Air percussion

Open bottom

Pumped with air

0 Pumped with

0.00

HOLE DIAMETER:

Rep. Inst.

Depth to Top [m]

Depth to Bottom [m]

Diameter [mm]

Date const.

Comment

JMA

0.00

25.00

215

20010410

ROTARY PERC.

JMA

25.00

37.00

165

20010410

ROTARY PERC.

CASING DETAILS:

Date inst.

Dep. to top [m]

Bot. [m]

Diam. [mm]

Material

Thickn. [mm]

Opening Type

Length

Width

Hori. dist.

Vert. dist.

20010418

0.00

16.00

165

Steel

3

20010418

0.00

17.00

130

Steel

3

Plain casing

0

0

0

0

20010418

16.00

18.00

165

Steel

3

Perforated or slotted

250

2

43

250

20010418

17.00

29.00

130

Steel

3

Perforated or slotted

25

2

25

10

20010418

18.00

28.00

165

Steel

3

20010418

29.00

35.00

130

Steel

3

AQUIFER:

Rep. Inst.

Depth to Top [m]

Bot. [m]

Yield [l/s]

Method meas.

Aquifer type

Info source

Comment

JMA

16.00

17.00

0.50

Estimated

Weathered basin

Geologist, technician,

GEOLOGY:

Dep. Top [m]

Bot. [m]

Lithology code

Colour Primary

Secondary

Texture

Feature Primary

Secondary

0.00

2.00

OVERBURDEN

Grey

Brownish

Gravel-bearing

Sandy

2.00

3.00

CLAY

Brown

Dark

Gravel-bearing

3.00

8.00

CLAY

Brown

Yellowish

8.00

12.00

SHALE

Brown

Yellowish

Weathered

12.00

14.00

DIABASE

Brown

Dark

Weathered

14.00

16.00

DIABASE

Brown

Dark

Weathered

Gritty

16.00

22.00

DIABASE

Brown

Greyish

Medium to coarse

Weathered

Fractured

22.00

25.00

SHALE

Brown

Yellowish

Fractured

Weathered

25.00

27.00

SHALE

Brown

Greyish

Fractured

Weathered

27.00

31.00

SHALE

Black

Greyish

Weathered

Carbonaceous

31.00

37.00

SHALE

Black

Greyish

Fractured

Fresh

WATER LEVEL:

Meth. meas.

Level status

Piez. Info source

Date meas.

Time meas.

Sec.

Water lev. [m]

Comment

Electrical contact

Static

0

Geologist,

20010619

1140

0.00

1.19

EC LOGGED

Electrical contact

Static

0

Geologist,

20010919

0930

0.00

6.00

Electrical contact

Static

0

Geologist,

20011004

1150

0.00

6.15

Electrical contact

Static

0

Geologist,

20011009

1510

0.00

6.16

SLUGTEST

TESTING DETAILS:

Description

Date started

Durat. [s]

Depth to intk. [m]

Disch. rate [l/s]

Drawd. [m]

Recovery: [m] %

Trans. [m²/d]

Perm. [m/d]

Storat. Comment

SLUGTEST

20010724

180

0

0

0

0

0

0

0

10.601

0

SLUGTEST

20011009

900

0

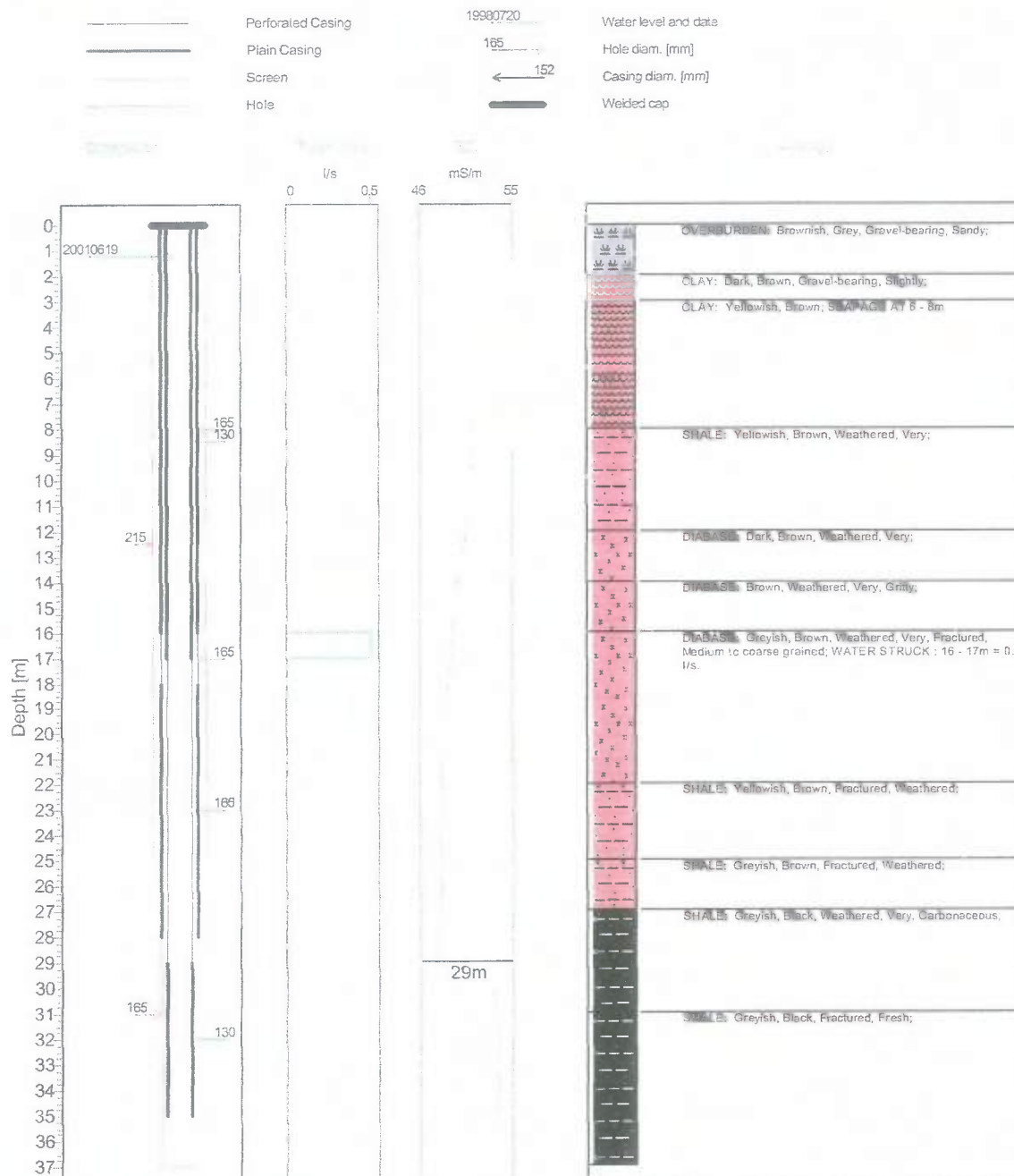
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Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01038 Number: IVB-D38 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D38

Y Coord. [m]: -81101.942	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 37.00
X Coord. [m]: 2950484.86	Alt. No. 2: G39D	Site status: In use	Collar h. [m]: 0.47
Altitude [m]: 1495.98		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - Industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01039 Number: IVB-D39 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D39

Region Type:

Region Descr.: BLAST FURNACE / TETP AREA

Y Coord. [m]: -80359.781	Reg./BB.: CS05	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2950014.739	G-Nr.:	Site status: In use	Col. ht. [m]: 0.62
Altitude [m]: 1494.74		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010418	EDMS	Air percussion	Open bottom	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010423	ROTARY PERC.
JMA	15.00	31.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	15.50	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Brown	Yellowish			
1.00	3.00	SOIL	Black	Light			
3.00	9.00	CLAY	Black	Dark			
9.00	12.00	CLAY	Brown	Dark			
12.00	15.00	SHALE	Brown	Greyish		Weathered	
15.00	19.00	SHALE	Grey	Light		Fractured	Broken
19.00	31.00	SHALE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010607	1150	0.00	5.84	EC LOGGED
Electrical contact	Static	0	Field checked	20010816	0850	0.00	5.96	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ³ /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0 0 0	0	0.039	0	

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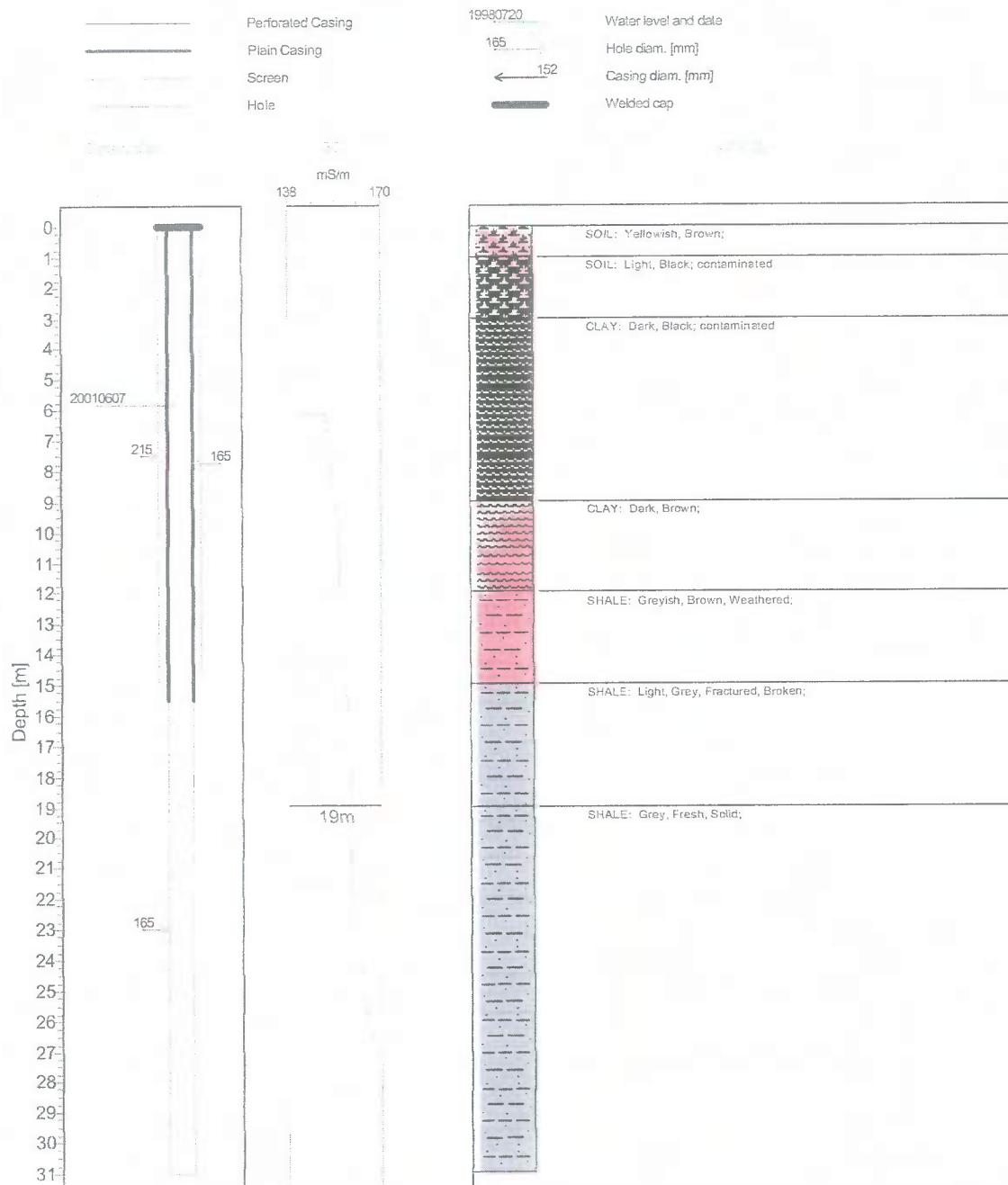


Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01039 Number: IVB-D39 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D39

Y Coord. [m]: -80359.781	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2950014.74	Alt. No. 2: G31D	Site status: In use	Collar h. [m]: 0.62
Altitude [m]: 1494.73		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01040 Number: IVB-D40 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLAT STEEL SOURCE BOREHOLE IVB-D40

Region Type:

Region Descr.: BOF PLANT / TRUCK REPAIR

Y Coord. [m]: -81374.36	Reg.IBB.: SM02	Topo-set.: Flat surface, plain	Depth [m]: 26.00
X Coord. [m]: 2950519.091	G-Nr.:	Site status: In use	Col. ht. [m]: 0.28
Altitude [m]: 1495.98		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010419	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	11.00	215	20010423	ROTARY PERC.
JMA	11.00	26.00	165	20010423	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010423	0.00	11.00	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	2.00	OVERBURDEN	Black	Dark			
2.00	8.00	SOIL	Brown	Light			
8.00	11.00	DIABASE	Brown	Greyish		Weathered	
11.00	14.00	DIABASE	Grey			Fractured	Broken
14.00	19.00	DIABASE	Grey			Fresh	Solid
19.00	21.00	DIABASE	Brown			Fractured	Broken
21.00	26.00	DIABASE	Grey			Fresh	Solid

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010504	1421	0.00	4.02	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010607	0740	0.00	4.56	EC LOGGED
Electrical contact	Static	0	Field checked	20010810	1005	0.00	5.13	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0	0 0	0.029	0	

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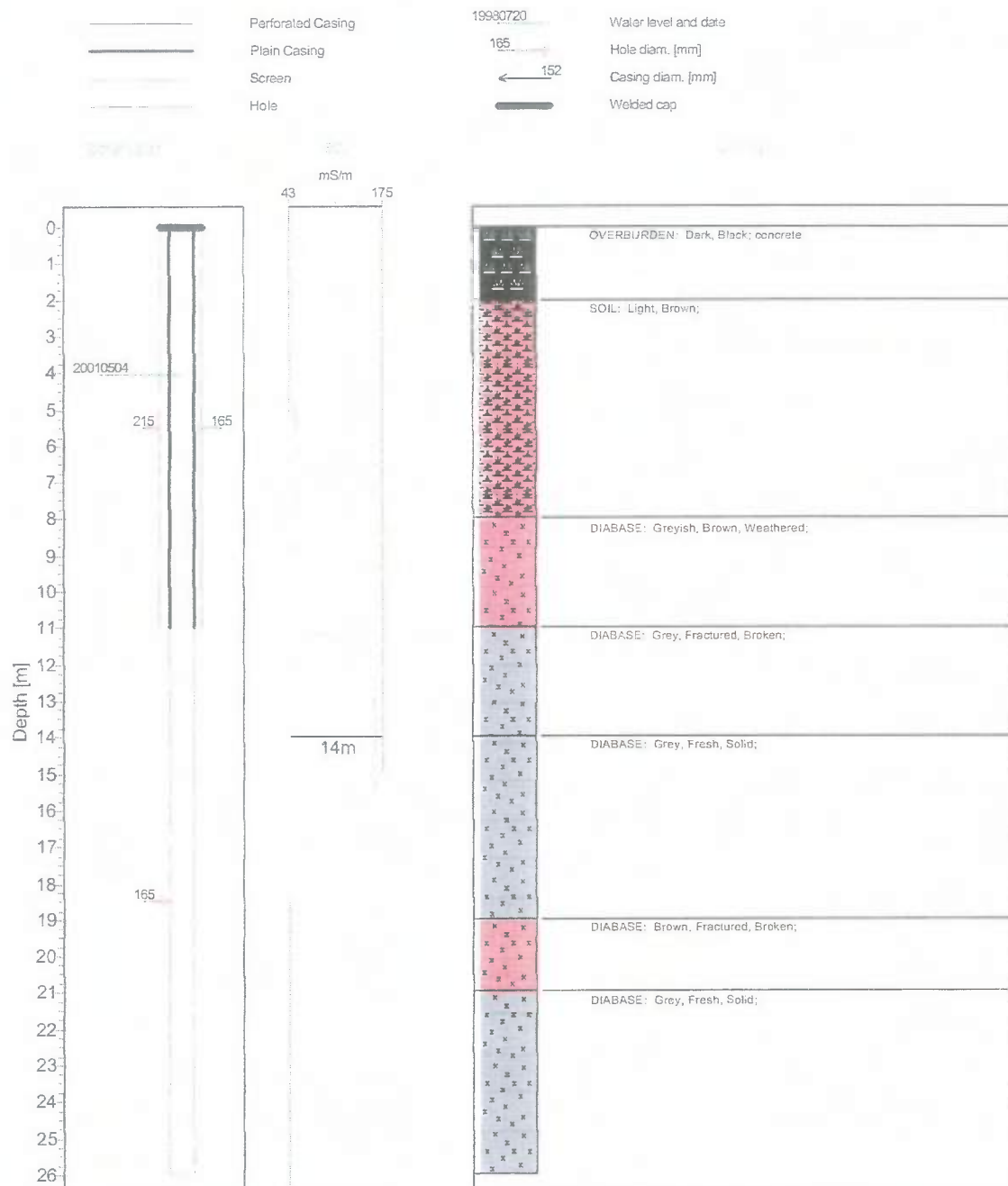
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Borehole Construction and Geological Log

Date compiled: 11/22/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01040 Number: IVB-D40 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D40

Y Coord. [m]: -81374.360	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 26.00
X Coord. [m]: 2950519.09	Alt. No. 2: G41D	Site status: In use	Collar h. [m]: 0.28
Altitude [m]: 1495.98		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01041 Number: IVB-D41 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D41

Region Type:

Region Descr.: NORTH WORKS OPEN AREAS

Y Coord. [m]:	-84229.039	Reg./BB.: CS18	Topo-set.: Flat surface, plain	Depth [m]:	31.00
X Coord. [m]:	2948594.3	G-Nr.: NWD3	Site status: In use	Col. ht. [m]:	0.12
Altitude [m]:	1498.56		Site purp.: Observation	Drain. reg.:	C220
Coord. acc.:	Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]:	165
Coord. meth.:	Global Positioning System		Equipment: No equipment	Rep. inst.:	JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010430	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	15.00	215	20010430	ROTARY PERC.
JMA	15.00	31.00	165	20010430	ROTARY PERC.

CASING DETAILS:	Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
	20010430	0.00	15.50	165	Steel	3	Plain casing	0	0	0	0

GEOLOGY:	Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
	0.00	2.00	SOIL	Brown	Reddish			
	2.00	12.00	SHALE	Brown			Weathered	
	12.00	18.00	SHALE	Grey	Brownish		Fractured	
	18.00	31.00	SHALE	Grey			Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010615	0715	0.00	1.72	EC LOGGED
Electrical contact	Static	0	Field checked	20010815	0750	0.00	1.89	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	%	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010724	1500	0	0	0	0	0	0	0.011	0	

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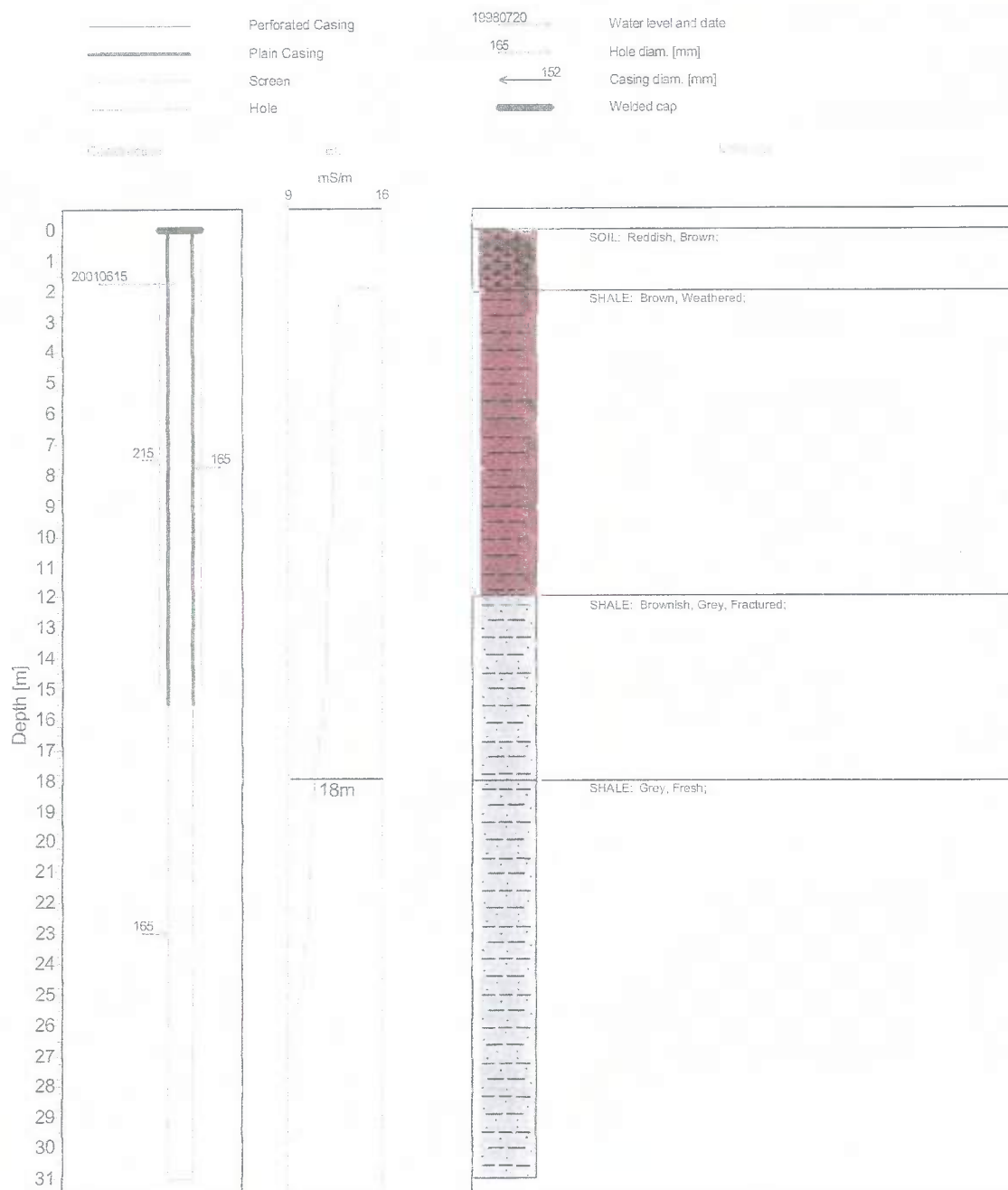
Borehole Construction and Geological Log

Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01041 Number: IVB-D41 Site type: Borehole

Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D41

Y Coord. [m]: -84229.039	Alt. No. 1: NWD3	Topo-set.: Flat surface, plain	Depth [m]: 31.00
X Coord. [m]: 2948594.30	Alt. No. 2: G20D	Site status: In use	Collar h. [m]: 0.12
Altitude [m]: 1498.56		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01042 Number: IVB-D42 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D42

Region Type:

Region Desc.: EVAPORATION DAMS 1-4

Y Coord. [m]: -82402.305	Reg.IBB.: CS07	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946387.789	G-Nr.:	Site status: In use	Col. ht. [m]: 0.51
Altitude [m]: 1499.79		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Special treatment	Constr. cost
20010514	EDMS	Air percussion	Gravel pack with	Pumped with air	0 Pumped with	0.00

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	23.00	215	20010514	ROTARY PERC.
JMA	23.00	35.00	165	20010514	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010514	0.00	21.00	125	Steel	3	Plain casing	0	0	0	0
20010514	0.00	23.00	165	Steel	3	Plain casing	0	0	0	0
20010514	21.00	35.00	125	Steel	3	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Black				
1.00	4.00	SOIL	Brown	Dark		Clayey	
4.00	19.00	SAND	Brown	Light	Fine		
19.00	21.00	DIABASE	Brown	Dark	Fine	Weathered	
21.00	23.00	DIABASE	Brown	Greyish	Fine	Fractured	
23.00	30.00	DIABASE	Grey	Dark	Fine	Fresh	
30.00	35.00	DIABASE	Grey	Dark	Fine	Fresh	Fractured

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010524	1422	0.00	2.32	SLUG TESTED
Electrical contact	Static	0	Geologist,	20010619	0805	0.00	2.22	EC LOGGED
Electrical contact	Static	0	Geologist,	20011004	0945	0.00	2.42	
Electrical contact	Static	0	Geologist,	20011009	1145	0.00	2.45	SLUGTEST

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010625	1500	0	0	0	0 0	0	0.074	0	
SLUGTEST	20011009	900	0					0.284		

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Borehole Construction and Geological Log

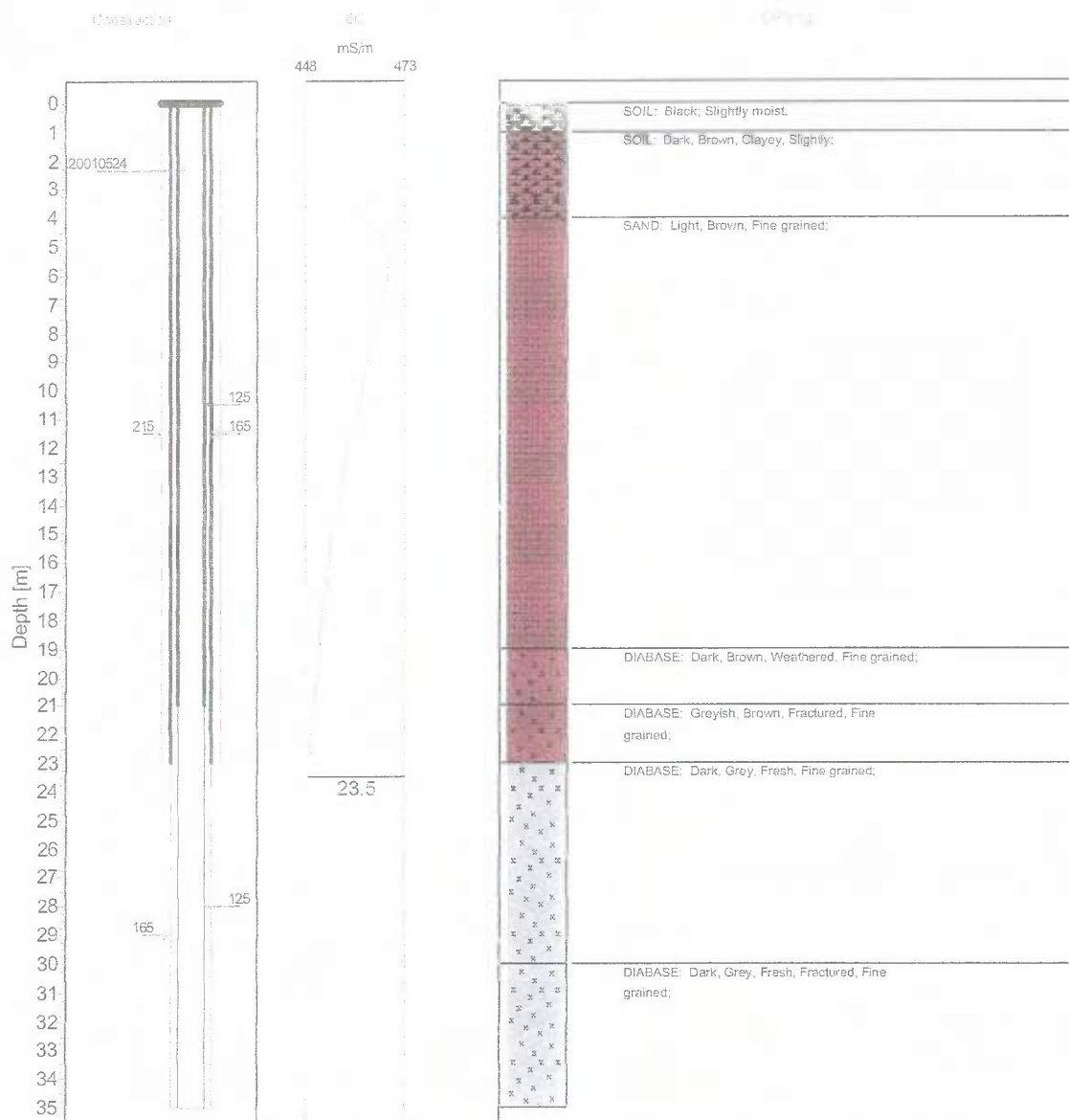
Date compiled: 11/6/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01042 Number: IVB-D42 Site type: Borehole
Distr./Farm No.: Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D42

Y Coord. [m]: -82402.305	Alt. No. 1:	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2946387.79	Alt. No. 2: G7D	Site status: In use	Collar h. [m]: 0.51
Altitude [m]: 1499.79		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

Construction and Geology Legend

	Perforated Casing		Water level and date
	Plain Casing		Hole diam. [mm]
	Screen		Casing diam. [mm]
	Hole		Welded cap



COMMENT:



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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01043 Number: IVB-D43 Site type: Borehole

Distr./Farm No.:

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D43

Region Type:

Region Descr.: OPEN AREAS

Y Coord. [m]: -80046.107	Reg.IBB.: CS03	Topo-set.: Flat surface, plain	Depth [m]: 35.00
X Coord. [m]: 2950401.664	G-Nr.:	Site status: In use	Col. ht. [m]: 0.42
Altitude [m]: 1486.51		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 165
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

CONSTRUCTION:

Date const.	Contractor	Constr. meth.	Type finish	Development Method	Durat.	Special treatment	Constr. cost
20010517	EDMS	Air percussion	Open bottom	Pumped with air	0	Pumped with	0.00

HOLE DIAMETER:	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	18.00	215	20010517	ROTARY PERC.
JMA	18.00	35.00	165	20010517	ROTARY PERC.

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
20010517	0.00	18.00	165	Steel	3	Plain casing	0	0	0	0

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	19.00	20.00	0.30	Estimated		Geologist, technician,	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	SOIL	Black	Brownish			
1.00	4.00	SOIL	Brown	Dark			
4.00	6.00	SOIL	Brown	Light			
6.00	15.00	SHALE	Brown			Weathered	
15.00	17.00	SHALE	Brown			Weathered	
17.00	24.00	SHALE	Grey	Brownish		Fractured	
24.00	35.00	SHALE	Grey	Dark		Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0	Geologist,	20010614	0705	0.00	1.38	EC LOGGED
Electrical contact	Static	0	Geologist,	20010626	0800	0.00	1.39	SLUG TEST
Electrical contact	Static	0	Field checked	20010903	1330	0.00	1.37	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010706	1500	0	0	0	0 0 0	0	0.041	0	

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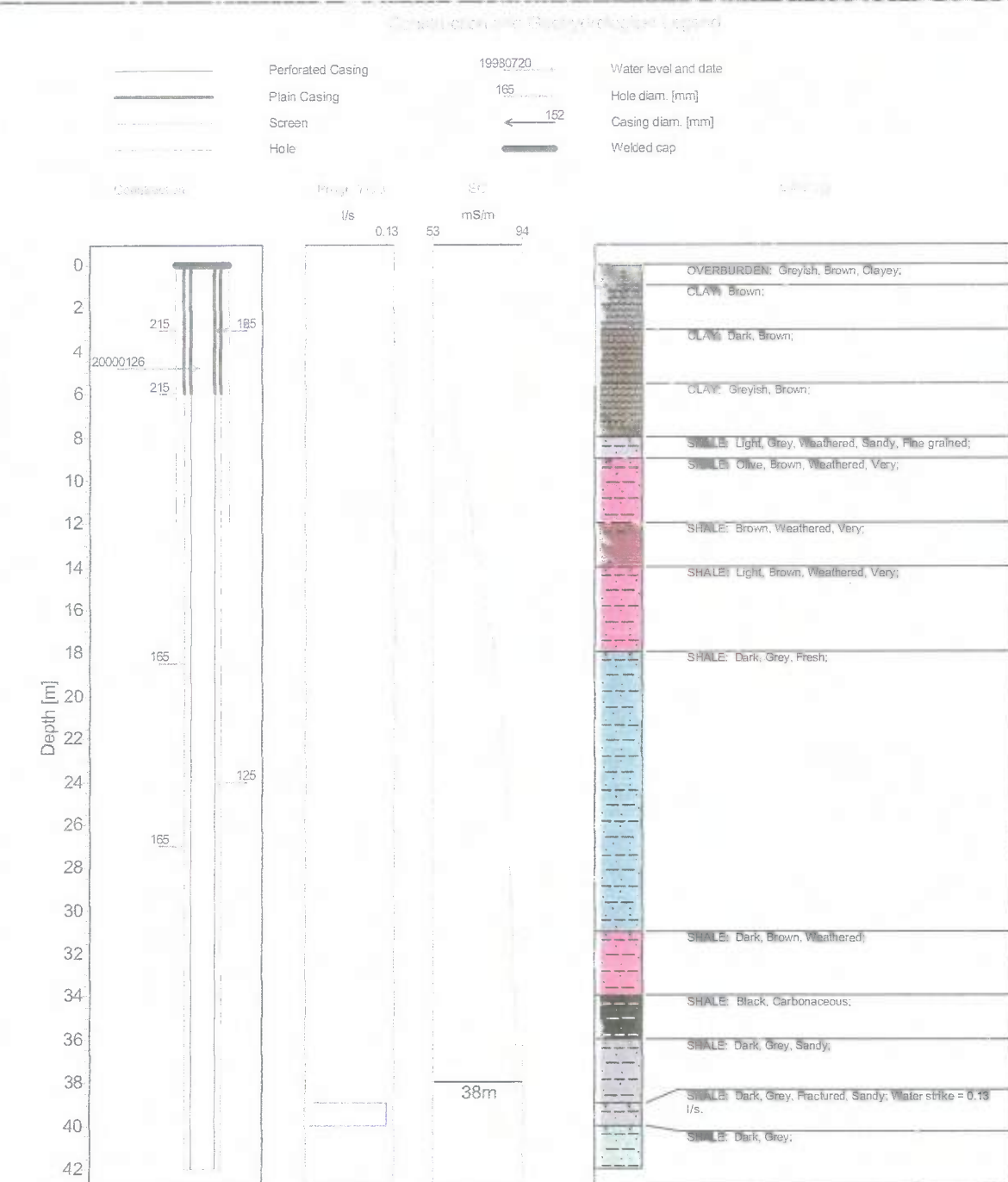
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Borehole Construction and Geological Log

Date compiled: 6/3/02

BASIC SITE INFORMATION: Site Identifier: 2627DB01044 Number: IVB-D44 Site type: Borehole
Distr./Farm No.: ISCOR Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D44

Y Coord. [m]: -82815.485	Alt. No. 1:	Topo-set.: Hillside (slope)	Depth [m]: 42.00
X Coord. [m]: 2950173.54	Alt. No. 2: CMS2E	Site status: In use	Collar h. [m]: 0.07
Altitude [m]: 1495.48		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 110
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01044 Number: IVB-D44 Site type: Borehole

Distr./Farm No.: ISCOR

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D44

Region Type:

Region Descr.: MILL PLANT/ UNCOATED PRODUCTS/ LURGI

Y Coord. [m]: -82815.485	Reg.IBB.: CP01	Topo-set.: Hillside (slope)	Depth [m]: 42.00
X Coord. [m]: 2950173.542	G-Nr.:	Site status: In use	Col. ht. [m]: 0.07
Altitude [m]: 1495.50		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 110
Coord. meth.: Global Positioning System		Equipment: No equipment	Rep. inst.: JMA

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	6.00	215	19990317	
JMA	0.00	12.00	215	19980514	
JMA	6.00	31.00	165	19990317	
JMA	12.00	42.00	165	19980514	

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
19990317	0.00	6.00	125	PVC	3					
19990317	0.00	6.00	165	Steel	3					
19990317	6.00	42.00	125	PVC	6	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	39.00	40.00	0.13	Estimated	Fractured	Report or file	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	OVERBURDEN	Brown	Greyish		Clayey	
0.00	1.00	OVERBURDEN	Grey	Dark		Sandy	
1.00	3.00	CLAY	Brown				
1.00	5.50	CLAY	Grey				
3.00	8.00	CLAY	Brown	Dark			
5.50	9.00	CLAY	Brown	Greyish			
8.00	12.00	SANDSTONE	Grey	Light	Fine	Weathered	
9.00	14.00	SHALE	Brown	Olive		Weathered	
12.00	18.00	SHALE	Brown			Weathered	
14.00	30.00	SHALE	Brown	Light		Weathered	
18.00	31.00	SHALE	Grey	Dark		Fresh	
30.00	34.00	SHALE	Brown	Dark		Weathered	
34.00	36.00	SHALE	Black			Carbonaceous	
36.00	39.00	SANDSTONE	Grey	Dark			
39.00	40.00	SANDSTONE	Grey	Dark		Fractured	
40.00	42.00	QUARTZITE	Grey	Dark			

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0		20000126	1608	0.00	4.78	
Electrical contact	Static	0		20000306	1415	0.00	4.67	
Electrical contact	Static	0		20000728	1326	0.00	4.48	
Electrical contact	Static	0		20000814	0807	0.00	4.59	
Electrical contact	Static	0	Geologist,	20001207	1208	0.00	4.95	
Electrical contact	Static	0	Geologist,	20010514	1435	0.00	4.99	
Electrical contact	Static	0	Field checked	20010820	1147	0.00	5.82	

SITE INFORMATION REPORT

Date compiled: 11/27/01

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m]	%	[min]	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010306	600	0	0	0	0	0	0	0	0	0.1	0

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01045 Number: IVB-D45 Site type: Borehole

Distr./Farm No.: ISCOR

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D45

Region Type:

Region Desc.: CETP SLUDGE DAMS

Y Coord. [m]: -82008.24

Reg./BB.: CS22

Topo-set.: Hillside (slope)

Depth [m]: 39.00

X Coord. [m]: 2948960.69

Site status: In use

Col. ht. [m]: 0.72

Altitude [m]: 1502.21

G-Nr.:

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 125

Coord. meth.: Levelled or surveyed

Equipment: No equipment

Rep. inst.: JMA

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	7.00	215	19980505	
JMA	7.00	39.00	165	19980505	

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
19980505	0.00	3.00	125	Steel	3		0	0	0	0
19980505	3.00	39.00	125	PVC	6	Perforated or slotted	25	2	25	10

AQUIFER:

Rep. Inst.	Depth to Top [m]	Bot. [m]	Yield [l/s]	Method meas.	Aquifer type	Info source	Comment
JMA	15.00	16.50	0.08	Estimated	Fractured	Report or file	
JMA	21.00	22.00	0.61	Estimated	Fractured	Report or file	

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	4.00	SOIL	Brown	Dark		Clayey	
4.00	15.00	DIABASE	Brown	Olive		Weathered	
15.00	16.50	DIABASE	Brown	Olive		Fractured	
16.50	19.00	DIABASE	Brown	Olive		Weathered	
19.00	21.00	DIABASE	Brown	Greyish		Weathered	
21.00	22.00	DIABASE	Brown	Greyish		Fractured	
22.00	24.00	DIABASE	Brown	Greyish		Weathered	
24.00	29.00	DIABASE	Grey	Dark		Fresh	
29.00	30.00	DIABASE	Grey	Dark		Fractured	
30.00	39.00	DIABASE	Grey	Dark		Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0		20000126	1546	0.00	3.09	
Electrical contact	Static	0		20000306	1418	0.00	2.97	
Electrical contact	Static	0		20000728	1328	0.00	3.71	
Electrical contact	Static	0		20000814	0811	0.00	2.54	
Electrical contact	Static	0	Geologist,	20001114	0940	0.00	3.32	
Electrical contact	Static	0	Field checked	20010118	1206		3.13	
Electrical contact	Static	0	Field checked	20010208	1319	0.00	2.87	
Electrical contact	Static	0	Field checked	20010302	0914	0.00	2.73	
Electrical contact	Static	0	Field checked	20010514	1437	0.00	3.37	
Electrical contact	Static	0	Field checked	20010820	1350	0.00	3.41	

TESTING DETAILS:

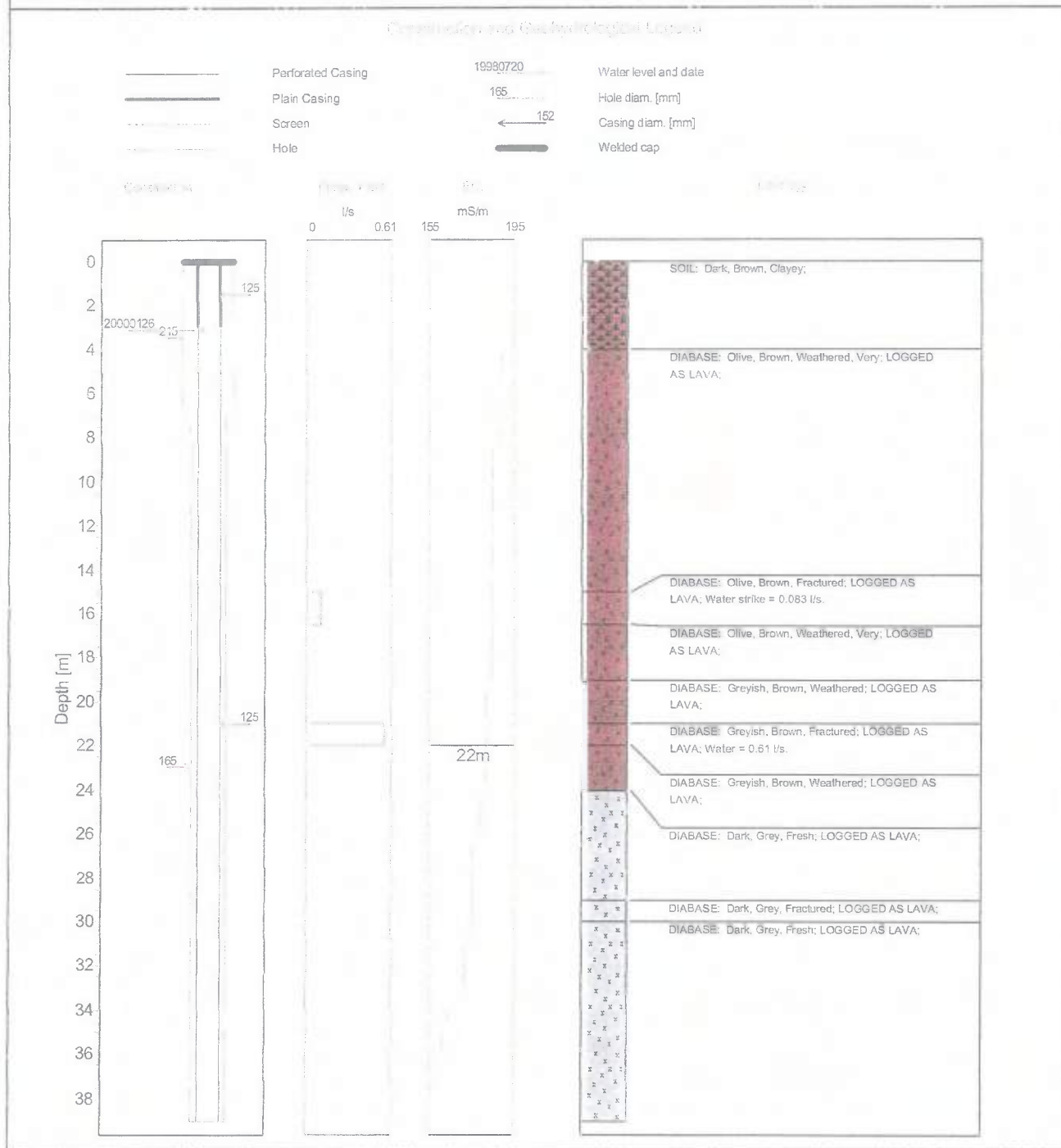
Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate [l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m ² /d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010307	30	0	0	0	0 0	0	3.847	0	

Borehole Construction and Geological Log

Date compiled: 11/23/01

BASIC SITE INFORMATION: Site identifier: 2627DB01045 Number: IVB-D45 Site type: Borehole
Distr./Farm No.: ISCOR Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D45

Y Coord. [m]: -82008.240	Alt. No. 1:	Topo-set.: Hillside (slope)	Depth [m]: 39.00
X Coord. [m]: 2948960.69	Alt. No. 2: CETP 1	Site status: In use	Collar h. [m]: 0.72
Altitude [m]: 1502.21		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Levelled or surveyed		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01046 Number: IVB-D46

Site type: Borehole

Distr./Farm No.: ISCOR

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D46

Region Type:

Region Desc.: OETP SLUDGE DAMS

Y Coord. [m]: -82067.89	Reg.IBB.: CS22	Topo-set.: Hillside (slope)	Depth [m]: 36.00
X Coord. [m]: 2948541.7	G-Nr.:	Site status: In use	Col. ht. [m]: 0.47
Altitude [m]: 1502.03		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Levelled or surveyed		Equipment: No equipment	Rep. inst.: JMA

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	4.00	215	19980506	
JMA	4.00	36.00	165	19980506	

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
19980506	0.00	1.50	125	Steel	3		0	0	0	0
19980506	1.50	36.00	125	PVC	6	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	3.00	SOIL	Brown	Dark		Clayey	
3.00	15.00	DIABASE	Brown	Olive		Weathered	
15.00	26.00	DIABASE	Brown	Dark		Weathered	
26.00	36.00	DIABASE	Brown	Greyish		Weathered	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0		20000126	1546	0.00	0.28	
Electrical contact	Static	0		20000306	1418	0.00	0.76	
Electrical contact	Static	0		20000728	1328	0.00	0.91	
Electrical contact	Static	0	Geologist,	20001114	1017	0.00	1.31	
Electrical contact	Static	0	Field checked	20010118	1227		1.45	
Electrical contact	Static	0	Field checked	20010208	1319	0.00	1.65	
Electrical contact	Static	0	Field checked	20010302	0925	0.00	1.27	
Electrical contact	Static	0	Field checked	20010514	1439	0.00	0	
Electrical contact	Static	0	Field checked	20010514	1441	0.00	1.08	
Electrical contact	Static	0	Field checked	20010820	1335	0.00	0.81	

TESTING DETAILS:

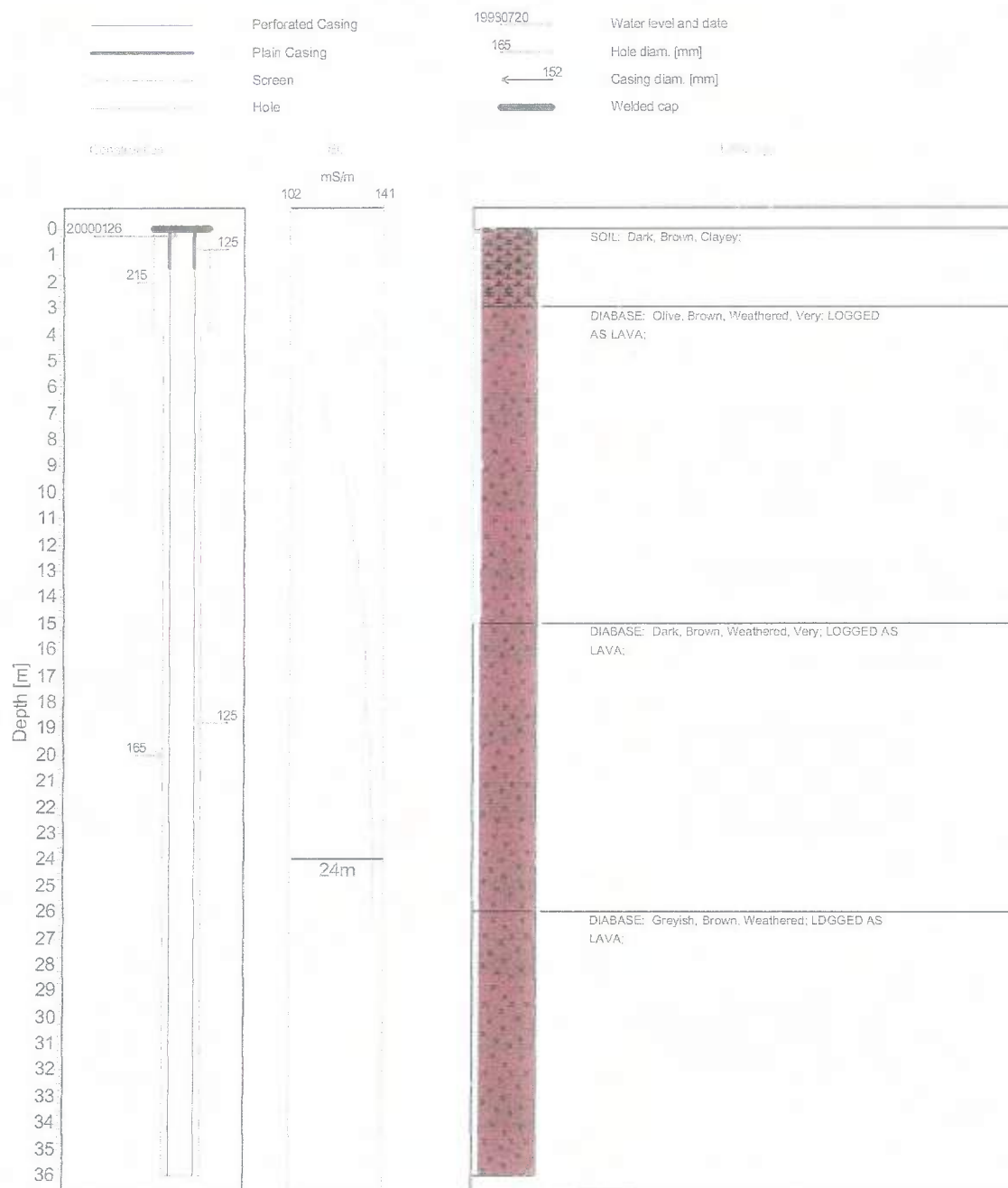
Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: % [min]	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010307	300	0	0	0	0 0 0	0	0.146	0	

Borehole Construction and Geological Log

Date compiled: 11/23/01

BASIC SITE INFORMATION: Site Identifier: 2627DB01046 Number: IVB-D46 Site type: Borehole
Distr./Farm No.: ISCOR Site Name/Descr.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D46

Y Coord. [m]: -82067.890	Alt. No. 1:	Topo-set.: Hillside (slope)	Depth [m]: 36.00
X Coord. [m]: 2948541.70	Alt. No. 2: CETP 2	Site status: In use	Collar h. [m]: 0.47
Altitude [m]: 1502.03		Site purp.: Observation	Drain. reg.: C220
Coord. acc.: Accurate to within 1 unit		Use applic.: Industrial - industrial	Diam. [mm]: 125
Coord. meth.: Levelled or surveyed		Equipment: No equipment	Rep. inst.: JMA



COMMENT:

Page 1

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SITE INFORMATION REPORT

Date compiled: 11/27/01

BASIC SITE INFORMATION:

Site Identifier: 2627DB01047 Number: IVB-D47 Site type: Borehole

Distr./Farm No.: ISCOR

Site Name/Des.: ISCOR FLATSTEEL SOURCE BOREHOLE IVB-D47

Region Type:

Region Desc.: DIRECT REDUCTION PLANT AREA & OHP

Y Coord. [m]: -80738.29

Reg./BB.: SM05

Topo-set.: Flat surface, plain

Depth [m]: 30.00

X Coord. [m]: 2949374.70999

Site status: In use

Col. ht. [m]: 0.20

Altitude [m]: 1492.52

G-Nr.:

Site purp.: Observation

Drain. reg.: C220

Coord. acc.: Accurate to within 1 unit

Use applic.: Industrial - industrial

Diam. [mm]: 110

Coord. meth.: Levelled or surveyed

Equipment: No equipment

Rep. inst.: JMA

HOLE DIAMETER:

Rep. Inst.	Depth to Top [m]	Depth to Bottom [m]	Diameter [mm]	Date const.	Comment
JMA	0.00	7.00	215	19990507	
JMA	7.00	30.00	165	19990507	

CASING DETAILS:

Date inst.	Dep. to top [m]	Bot. [m]	Diam. [mm]	Material	Thickn. [mm]	Opening Type	Length	Width	Hori. dist.	Vert. dist.
19990507	0.00	4.00	125		3					
19990507	0.00	6.00	165	Steel	3					
19990507	4.00	30.00	125	PVC	6	Perforated or slotted	25	2	25	10

GEOLOGY:

Dep. Top [m]	Bot. [m]	Lithology code	Colour Primary	Secondary	Texture	Feature Primary	Secondary
0.00	1.00	CLAY	Grey	Dark			
1.00	5.00	CLAY	Brown	Greyish			
5.00	15.00	DIABASE	Brown	Olive		Weathered	
15.00	18.00	DIABASE	Brown	Greyish		Weathered	
18.00	30.00	SANDSTONE	Grey			Fresh	

WATER LEVEL:

Meth. meas.	Level status	Piez.	Info source	Date meas.	Time meas.	Sec.	Water lev. [m]	Comment
Electrical contact	Static	0		19991115	1625	0.00	4.70	
Electrical contact	Static	0		20000210	1307	0.00	4.82	
Electrical contact	Static	0		20000727	1216	0.00	4.85	
Electrical contact	Static	0	Field checked	20000905	1520	0.00	4.78	
Electrical contact	Static	0	Geologist,	20001114	1226	0.00	4.79	
Electrical contact	Static	0	Field checked	20010118	1100		4.82	
Electrical contact	Static	0	Field checked	20010302	1035	0.00	4.76	
Electrical contact	Static	0	Field checked	20010827	0933	0.00	4.68	

TESTING DETAILS:

Description	Date started	Durat. [s]	Depth to intk. [m]	Disch. rate[l/s]	Drawd. [m]	Recovery: [m] %	Trans. [m³/d]	Perm. [m/d]	Storat.	Comment
SLUGTEST	20010307	60	0	0	0	0 0 0 0	0	0.884	0	