



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 11 of 33
<b>CO-ORDINATES</b> ( _ )	<b>GROUND LEVEL</b> (m)	<b>DATE STARTED</b> 13/09/2008
	<b>CORE DIAMETER</b> (mm) 102	<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT</b> Dublin Central Developments Ltd.	<b>INCLINATION</b> -90	<b>DRILLED BY</b> Millennium
<b>ENGINEER</b> AGL Consulting Engineers	<b>FLUSH</b> Polymer Gel	<b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
10								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL\_GDT 11/11/08

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
		Date	Hole Depth	Casing Depth	Depth to Water	Comments			
<b>INSTALLATION DETAILS</b>									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



# GEOTECHNICAL CORE LOG RECORD

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13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08

**SHEET** Sheet 12 of 33

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**

**CORE DIAMETER (mm)** 102

**DATE STARTED** 13/09/2008

**DATE COMPLETED** 14/09/2008

**CLIENT ENGINEER** Dublin Central Developments Ltd.  
AGL Consulting Engineers

**INCLINATION** -90

**FLUSH** Polymer Gel

**DRILLED BY** Millennium

**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
11					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					
								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay.	11.70				

DCC PLAN NO 2861/21  
14/06/2021

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG IM PER PG 13696.GPJ IGSL.GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 13 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT ENGINEER** Dublin Central Developments Ltd.  
AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R. %	S.C.R. %	R.Q.D. %	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
12					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP





# GEOTECHNICAL CORE LOG RECORD

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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 14 of 33
<b>CO-ORDINATES( _ )</b>		<b>DATE STARTED</b> 13/09/2008
		<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DRILLED BY</b> Millennium
<b>ENGINEER</b> AGL Consulting Engineers		<b>LOGGED BY</b> A. Mahony
		<b>GROUND LEVEL (m)</b>
		<b>CORE DIAMETER (mm)</b> 102
		<b>INCLINATION</b> -90
		<b>FLUSH</b> Polymer Gel

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
13								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

DCC PLAN NO 2861/21  
RECEIVED 01/06/2021

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
Date	Hole Depth	Casing Depth	Depth to Water	Comments					
<b>INSTALLATION DETAILS</b>									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL\_GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

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**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 15 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.  
**ENGINEER** AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
14					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

**REMARKS**  
Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**  
Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 16 of 33
<b>CO-ORDINATES</b> ( _ )		<b>DATE STARTED</b> 13/09/2008
		<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DRILLED BY</b> Millennium
<b>ENGINEER</b> AGL Consulting Engineers		<b>LOGGED BY</b> A. Mahony
		<b>GROUND LEVEL</b> (m)
		<b>CORE DIAMETER</b> (mm) 102
		<b>INCLINATION</b> -90
		<b>FLUSH</b> Polymer Gel

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
15	15.00							SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>	16.00				

DCC PLAN 2861/21  
REVISED 2/06/2021

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.								
					<b>GROUNDWATER DETAILS</b>								
					Date	Hole Depth	Casing Depth	Depth to Water	Comments				
<b>INSTALLATION DETAILS</b>													
Date	Tip Depth	RZ Top	RZ Base	Type									
14-09-08	13.00	6.00	13.00	50mm SP									
14-09-08	32.50	26.50	32.50	50mm SP									

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL\_GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 17 of 33
<b>CO-ORDINATES</b> ( _ )	<b>GROUND LEVEL</b> (m)	<b>DATE STARTED</b> 13/09/2008
	<b>CORE DIAMETER</b> (mm) 102	<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT</b> Dublin Central Developments Ltd.	<b>INCLINATION</b> -90	<b>DRILLED BY</b> Millennium
<b>ENGINEER</b> AGL Consulting Engineers	<b>FLUSH</b> Polymer Gel	<b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
16	16.00							Stiff brown sandy gravelly CLAY (gravel is predominantly fine, angular to sub-rounded)					N = 100/80 mm (10, 15, 30, 60, 10)
		100	0	0									

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
	Date	Hole Depth	Casing Depth	Depth to Water	Comments				
<b>INSTALLATION DETAILS</b>									
	Date	Tip Depth	RZ Top	RZ Base	Type				
	14-09-08	13.00	6.00	13.00	50mm SP				
	14-09-08	32.50	26.50	32.50	50mm SP				





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 18 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.  
**ENGINEER** AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
17	17.00				0 250 500	[Symbol]		Stiff brown sandy gravelly CLAY (gravel is predominantly fine, angular to sub-rounded and locally rounded)	17.05			[Symbol]	N = 55/31 mm (25, 45, 55)
		100	0	0									

DCC PLAN NO 2061/21  
RECEIVED: 07/06/2021

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEW LOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 19 of 33

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.  
**ENGINEER** AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R. %	S.C.R. %	R.Q.D. %	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
18	18.00				0    250    500	Legend		Stiff brown sandy gravelly CLAY (gravel is predominantly fine, angular to sub-rounded and locally rounded) <i>(continued)</i>				Standpipe Details	SPT (N Value)
		100	0	0									
	18.50												N = 50/20 mm (25, 50, 50)

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft	<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES</b> ( _ )	<b>SHEET</b> Sheet 20 of 33
<b>CLIENT ENGINEER</b> Dublin Central Developments Ltd. AGL Consulting Engineers	<b>DATE STARTED</b> 13/09/2008 <b>DATE COMPLETED</b> 14/09/2008
<b>INCLINATION</b> -90 <b>FLUSH</b> Polymer Gel	<b>DRILLED BY</b> Millennium <b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
19					0      250      500			Stiff brown sandy gravelly CLAY (gravel is predominantly fine, angular to sub-rounded and locally rounded) <i>(continued)</i>					
	100	0	0						19.40				
								Firm (19.4-19.6) to soft green brown SILT					
									19.90				
19.90								Firm slightly gravelly green brown CLAY					
	100	0	0						20.00				

DCC PLAN NO: 0861/21  
RECEIVED: 06/06/2021

<b>REMARKS</b> Hand dug inspection pit to 1.2m.	<b>INSTALLATION REMARKS</b> Headworks.			
<b>GROUNDWATER DETAILS</b>				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
<b>INSTALLATION DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG. 13696.GPJ IGSL.GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 21 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.  
**ENGINEER** AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
20	20.00				0 250 500			Mottled brown black clayey, very gravelly SAND (medium grained) with local cobbles. Gravel is predominantly coarse and rounded to sub-angular.					N = 39/30 mm (25, 61, 39)
		100	31	26					20.80	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP



# GEOTECHNICAL CORE LOG RECORD

DCC PLAN NO. 2861/21  
 RECEIVED: 01/06/2008  
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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 22 of 33
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DATE STARTED</b> 13/09/2008
<b>ENGINEER</b> AGL Consulting Engineers		<b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
21					0 250 500			Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. (continued)		Discontinuities are smooth and planar and clay smeared. Dips are sub-10°. (continued)			
21.50								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally	21.87	Discontinuities are smooth and planar, and clay smeared throughout. Dips are sub-10° with hairline and insipient clay smeared fractures throughout.			

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.				
<b>INSTALLATION DETAILS</b>					<b>GROUNDWATER DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL\_GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 23 of 33
<b>CO-ORDINATES</b> ( _ )	<b>GROUND LEVEL</b> (m)	<b>DATE STARTED</b> 13/09/2008
	<b>CORE DIAMETER</b> (mm) 102	<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT ENGINEER</b> Dublin Central Developments Ltd. AGL Consulting Engineers	<b>INCLINATION</b> -90	<b>DRILLED BY</b> Millennium
	<b>FLUSH</b> Polymer Gel	<b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
22		100	0	0				<p>moderately weathered. Pyrite dispersed. Incipient fractures common.</p> <p>Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common. <i>(continued)</i></p>		Discontinuities are smooth and planar, and clay smeared throughout. Dips are sub-10° with hairline and insipient clay smeared fractures throughout. <i>(continued)</i>			
22.80		100	0	0									

IGSL RC NEWLOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
	Date	Hole Depth	Casing Depth	Depth to Water	Comments				
<b>INSTALLATION DETAILS</b>									
	Date	Tip Depth	RZ Top	RZ Base	Type				
	14-09-08	13.00	6.00	13.00	50mm SP				
	14-09-08	32.50	26.50	32.50	50mm SP				





# GEOTECHNICAL CORE LOG RECORD

DCC PLAN NO 2861/21  
RECEIVED: 01/06/2021  
REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 24 of 33
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DATE STARTED</b> 13/09/2008
<b>ENGINEER</b> AGL Consulting Engineers		<b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
23	23.10				0 250 500			Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common. (continued)		Discontinuities are smooth and planar, and clay smeared throughout. Dips are sub-10° with hairline and insipient clay smeared fractures throughout. (continued)			
		100	57	50				Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	23.46	Discontinuities are smooth and planar. Dips are sub-10° with local sub-70° calcite fracture.			

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.				
<b>INSTALLATION DETAILS</b>					<b>GROUNDWATER DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL-RC NEWLOG TM PER PG 13696.GPJ IGSL\_GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
		<b>SHEET</b> Sheet 25 of 33
<b>CO-ORDINATES</b> ( _ )		<b>DATE STARTED</b> 13/09/2008
		<b>DATE COMPLETED</b> 14/09/2008
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DRILLED BY</b> Millennium
<b>ENGINEER</b> AGL Consulting Engineers		<b>LOGGED BY</b> A. Mahony
		<b>GROUND LEVEL</b> (m)
		<b>CORE DIAMETER</b> (mm) 102
		<b>INCLINATION</b> -90
		<b>FLUSH</b> Polymer Gel

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
24					0 250 500			Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. <i>(continued)</i>	24.37	Discontinuities are smooth and planar. Dips are sub-10° with local sub-70° calcite fracture. <i>(continued)</i>			
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.	24.49	Discontinuities are smooth and planar and locally clay smeared. Dips are sub-10° with hairline fractures.			
24.60		100	0	0				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	24.80	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			
24.80								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.					

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
Date	Hole Depth	Casing Depth	Depth to Water	Comments					
<b>INSTALLATION DETAILS</b>									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL RC NEWLOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

DCC PLAN NO. 2861/21  
 REPORT NUMBER  
 13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 26 of 33
<b>CLIENT</b> Dublin Central Developments Ltd. <b>ENGINEER</b> AGL Consulting Engineers		<b>DATE STARTED</b> 13/09/2008 <b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL (m)</b> <b>CORE DIAMETER (mm)</b> 102		<b>DRILLED BY</b> Millennium <b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90 <b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
25					0 250 500			Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common. (continued)	25.21	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°. (continued)			
	100	75	45					Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	25.72	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.		Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.				
<b>GROUNDWATER DETAILS</b>									
Date	Hole Depth	Casing Depth	Depth to Water	Comments					
<b>INSTALLATION DETAILS</b>									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL RC NEWLOG TM PER PG 13696.GPJ IGSL.GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08  
**SHEET** Sheet 27 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008  
**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.  
**ENGINEER** AGL Consulting Engineers

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
26					0 250 500								
									26.11	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°. (continued)			
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.	26.32	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
26.30		100	30	0				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.		Discontinuities are smooth and planar and slightly clay smeared. Dips are sub-10° with iron oxide stained sub-vertical fracture.			
26.60													

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

DCC PLAN NO 2861/21  
RECEIVED: 01/06/2021

REPORT NUMBER  
**13696**

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES</b> ( _ )		<b>SHEET</b> Sheet 28 of 33
<b>CLIENT</b> Dublin Central Developments Ltd. <b>ENGINEER</b> AGL Consulting Engineers		<b>DATE STARTED</b> 13/09/2008 <b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL</b> (m)		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER</b> (mm) 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
27		100	61	7				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. <i>(continued)</i>	27.52	Discontinuities are smooth and planar and slightly clay smeared. Dips are sub-10° with iron oxide stained sub-vertical fracture. <i>(continued)</i>			
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.		Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.				
					<b>GROUNDWATER DETAILS</b>				
	Date	Hole Depth	Casing Depth	Depth to Water	Comments				
<b>INSTALLATION DETAILS</b>									
	Date	Tip Depth	RZ Top	RZ Base	Type				
	14-09-08	13.00	6.00	13.00	50mm SP				
	14-09-08	32.50	26.50	32.50	50mm SP				

IGSL RC NEWLOG TM PER PG 13696.GPJ IGSL.GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> <b>RC08</b>
<b>CO-ORDINATES ( _ )</b>		<b>SHEET</b> Sheet 29 of 33
<b>CLIENT</b> Dublin Central Developments Ltd. <b>ENGINEER</b> AGL Consulting Engineers		<b>DATE STARTED</b> 13/09/2008 <b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
28	28.00				0      250      500			Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common. <i>(continued)</i>		Discontinuities are smooth and planar and clay smeared. Dips are sub-10°. <i>(continued)</i>			
		100	58	0									
	28.40							Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	28.42	Discontinuities are smooth and planar. Dips are sub-10°.			
		100	83	69									

IGSL\_RC\_NEWLOG\_1M\_PER\_PG\_13696.GPJ IGSL\_GDT\_11/11/08

<b>REMARKS</b> Hand dug inspection pit to 1.2m.					<b>INSTALLATION REMARKS</b> Headworks.				
<b>INSTALLATION DETAILS</b>					<b>GROUNDWATER DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC08

**SHEET** Sheet 30 of 33

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)

**CORE DIAMETER** (mm) 102

**DATE STARTED** 13/09/2008

**DATE COMPLETED** 14/09/2008

**CLIENT** Dublin Central Developments Ltd.

**INCLINATION** -90

**DRILLED BY** Millennium

**ENGINEER** AGL Consulting Engineers

**FLUSH** Polymer Gel

**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
29					0 250 500					Discontinuities are smooth and planar. Dips are sub-10°. (continued)			
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.	29.17	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	29.28	Discontinuities are smooth and planar and clay smeared. Dips are sub-10°.			
								Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	29.46	Discontinuities are smooth to slightly rough and clay smeared. Non-intact.			
29.50								Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.		Discontinuities are smooth and slightly undulose. Dips are sub-10°.			
		100	27	27				Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	29.79	Discontinuities are smooth and planar. Dips are sub-10° with undulose sub-vertical fracture.			

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES</b> ( _ )		<b>SHEET</b> Sheet 31 of 33
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DATE STARTED</b> 13/09/2008
<b>ENGINEER</b> AGL Consulting Engineers		<b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL</b> (m)		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER</b> (mm) 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
30					0 250 500			Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. <i>(continued)</i>		Discontinuities are smooth and planar. Dips are sub-10° with undulose sub-vertical fracture. <i>(continued)</i>			
	30.10							Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly and locally moderately weathered. Pyrite dispersed. Incipient fractures common.	30.26	Discontinuities are smooth and planar with local clay gravel infill (30.32-30.34m, 30.47-30.48m). Dips are sub-10°.			
		100	76	58				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	30.51	Discontinuities are smooth and planar, slightly clay smeared. Dips are sub-10°.			
									30.95				

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
<b>INSTALLATION DETAILS</b>					<b>GROUNDWATER DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



# GEOTECHNICAL CORE LOG RECORD

DCC PLAN NO. 2861/21  
RECEIVED REPORT NUMBER  
01/08/2021

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC08
<b>CO-ORDINATES</b> ( )		<b>SHEET</b> Sheet 32 of 33
<b>CLIENT</b> Dublin Central Developments Ltd.		<b>DATE STARTED</b> 13/09/2008
<b>ENGINEER</b> AGL Consulting Engineers		<b>DATE COMPLETED</b> 14/09/2008
<b>GROUND LEVEL</b> (m)		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER</b> (mm) 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
31	31.00				0 250 500			Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. <i>(continued)</i>	31.02	Discontinuities are smooth to slightly rough and clay smeared. Non-intact.			
		100	17	0				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	31.19	Discontinuities are smooth and planar. Dips are sub-10° with undulose sub-vertical calcite vein fracture.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout.	31.42	Discontinuities are smooth and planar. Dips are sub-10° with undulose sub-vertical calcite vein fracture.			
	31.70							Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	31.72				
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining.	31.99				

<b>REMARKS</b>					<b>INSTALLATION REMARKS</b>				
Hand dug inspection pit to 1.2m.					Headworks.				
					<b>GROUNDWATER DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					

IGSL RC NEWLOG TM PER PG 13696.GPJ IGSL.GDT 11/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO **RC08**  
SHEET Sheet 33 of 33

CO-ORDINATES ( \_ )

GROUND LEVEL (m)  
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008  
DATE COMPLETED 14/09/2008

CLIENT Dublin Central Developments Ltd.  
ENGINEER AGL Consulting Engineers

INCLINATION -90  
FLUSH Polymer Gel

DRILLED BY Millennium  
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
32		100	50	50				Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. <i>(continued)</i>	32.11	Discontinuities are smooth and planar. Dips are sub-10°. <i>(continued)</i>			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. <i>(continued)</i>	32.35	Discontinuities are smooth and planar. Dips are sub-10° with sub-vertical calcite vein fracture. Pyrite lense 32.34m			
								Strong to moderately strong, thin to medium bedded, dark grey to black, fine grained ARGILLACEOUS LIMESTONE. Fresh to slightly and locally moderately weathered. Pyrite dispersed throughout. Local calcite veining. <i>(continued)</i>	32.50	Discontinuities are smooth and planar. Dips are sub-10°.			
32.50								End of Corehole at 32.5 (m)					

**REMARKS**

Hand dug inspection pit to 1.2m.

**INSTALLATION REMARKS**

Headworks.

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL\_GDT 11/11/08



# GEOTECHNICAL CORE LOG RECORD

**REPORT NUMBER**  
 13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC16
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 1 of 15
<b>CLIENT ENGINEER</b> Dublin Central Developments Ltd AGL Consulting Ltd		<b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of fill (concrete, brick, black/brown clay)					
1								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of clayey gravelly cobbles	1.20				

**REMARKS**  
 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL GDT 28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 2 of 15

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

19/11/2008  
**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
2					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of clayey gravelly cobbles <i>(continued)</i>	2.50				N = 4 (20, 5, 1, 1, 1, 1)
								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay					
3													

**REMARKS**  
18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08



## GEOTECHNICAL CORE LOG RECORD

**REPORT NUMBER**  
13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> <b>RC16</b>
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 3 of 15
<b>CLIENT</b> Dublin Central Developments Ltd <b>ENGINEER</b> AGL Consulting Ltd		<b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>GROUND LEVEL (m)</b> <b>CORE DIAMETER (mm)</b> 102 <b>INCLINATION</b> -90 <b>FLUSH</b> Polymer Gel		<b>DRILLED BY</b> Millennium <b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
4					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay (continued)				N = 22 (1, 12, 8, 6, 1, 7)	
5												N = 45 (1, 4, 7, 9, 12, 17)	

**REMARKS**  
 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 4 of 15

**CO-ORDINATES** ( \_ )

**GROUND LEVEL** (m)  
**CORE DIAMETER** (mm) 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** 19/11/2008 Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R. %	S.C.R. %	R.Q.D. %	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
6					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay <i>(continued)</i>				N = 41 (1, 2, 2, 4, 15, 20)	
7													

**REMARKS**  
18/11/08- 6½hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**


GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEWLOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08

	GEOTECHNICAL CORE LOG RECORD	REPORT NUMBER <b>13696</b>
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<b>CONTRACT</b> Dublin Central Development - Draft	<b>DRILLHOLE NO</b> RC16	<b>SHEET</b> Sheet 5 of 15
<b>CO-ORDINATES( _ )</b>	<b>GROUND LEVEL (m)</b> CORE DIAMETER (mm) 102	<b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>CLIENT ENGINEER</b> Dublin Central Developments Ltd AGL Consulting Ltd	<b>INCLINATION</b> -90 <b>FLUSH</b> Polymer Gel	<b>DRILLED BY</b> Millennium <b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
8					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay <i>(continued)</i>					N = 46 (2, 4, 8, 10, 12, 16)
									10.00				

<b>REMARKS</b> 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.	<b>INSTALLATION REMARKS</b>  <b>GROUNDWATER DETAILS</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Hole Depth</th> <th>Casing Depth</th> <th>Depth to Water</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Date	Hole Depth	Casing Depth	Depth to Water	Comments										
Date	Hole Depth	Casing Depth	Depth to Water	Comments												
<b>INSTALLATION DETAILS</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Tip Depth</th> <th>RZ Top</th> <th>RZ Base</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>19-11-08</td> <td>8.00</td> <td>4.50</td> <td>8.00</td> <td>50mm SP</td> </tr> <tr> <td>19-11-08</td> <td>25.00</td> <td>20.00</td> <td>25.00</td> <td>50mm SP</td> </tr> </tbody> </table>	Date	Tip Depth	RZ Top	RZ Base	Type	19-11-08	8.00	4.50	8.00	50mm SP	19-11-08	25.00	20.00	25.00	50mm SP	
Date	Tip Depth	RZ Top	RZ Base	Type												
19-11-08	8.00	4.50	8.00	50mm SP												
19-11-08	25.00	20.00	25.00	50mm SP												

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL GDT 28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 6 of 15

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
10	10.00				0 250 500			Clayey GRAVEL (rounded and coarse).	10.20				N = 50 (2, 3, 3, 11, 17, 19)
		87	0	0				Dark brown, firm, sandy gravelly CLAY. Gravel is rounded and medium grained.	10.85				
	10.40							Dark brown, slightly gravelly (fine) SAND (medium to fine)	11.10				
11		100	0	0				Dark brown, firm to stiff, slightly sandy, gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded.	11.90				
	11.90												

**REMARKS**  
18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08

	GEOTECHNICAL CORE LOG RECORD	REPORT NUMBER 13696
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<b>CONTRACT</b> Dublin Central Development - Draft	<b>DRILLHOLE NO</b> RC16 <b>SHEET</b> Sheet 7 of 15
<b>CO-ORDINATES( _ )</b>	<b>GROUND LEVEL (m)</b> <b>CORE DIAMETER (mm)</b> 102 <b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>CLIENT ENGINEER</b> Dublin Central Developments Ltd AGL Consulting Ltd	<b>INCLINATION</b> -90 <b>FLUSH</b> Polymer Gel <b>DRILLED BY</b> Millennium <b>LOGGED BY</b> A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
12	12.30	100	0	0				Dark brown, firm to stiff, slightly sandy, gravelly CLAY with occasional cobbles. Gravel is fine to coarse, sub-angular to sub-rounded. Loss of recovery 0.2m. (continued)	12.60				
								Very clayey (brown/black) gravelly cobbles of argillaceous LIMESTONE (probable moderate to highly weathered bedrock).	13.03				
13		100	41	9				Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly weathered with incipient fractures.	13.70	Discontinuities are smooth and planar. Clay smeared and slightly iron oxide stained (13.51m-13.7m) Dips are sub-10°.			
	13.90							Strong to locally moderately strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly weathered.		Discontinuities are smooth to slightly rough and planar. Iron oxide stained 13.7m-13.9m. Heavily clay smeared 13.9m-14.02m. Dips are sub-10°.			

<b>REMARKS</b> 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.	<b>INSTALLATION REMARKS</b>			
<b>GROUNDWATER DETAILS</b>				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
<b>INSTALLATION DETAILS</b>				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG. 13696.GPJ IGSL\_GDT\_28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO **RC16**  
SHEET Sheet 8 of 15

CO-ORDINATES( \_ )

GROUND LEVEL (m)  
CORE DIAMETER (mm) 102

DATE STARTED 18/11/2008  
DATE COMPLETED

CLIENT Dublin Central Developments Ltd  
ENGINEER AGL Consulting Ltd

INCLINATION -90  
FLUSH Polymer Gel

19/11/2008 Millennium  
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
14					0 250 500			Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to slightly weathered with incipient fractures.	14.02	Non-Intact. Discontinuities are smooth and planar and heavily clay smeared. Dips are sub-10° with variable fractures.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh.	14.28	Discontinuities are smooth and planar. Dips are sub-10°.			
		100	43	29				Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh	14.48	Discontinuities are smooth and planar. Clay smeared 14.48m-14.71m. Dips are sub-10°.			
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered.	14.90	Discontinuities are smooth and planar. Clay smeared 15.01m. Dips are sub-10°.			
15								Strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to slightly weathered. Pyrite lense 15.25m.	15.01	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh. Pyrite lense 15.36m.	15.28	Discontinuities are smooth and planar. Dips are sub-10°.			
15.40									15.84	Discontinuities are smooth and planar. Dips are sub-10°.			

**REMARKS**  
18/11/08- 6½hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO **RC16**  
 SHEET Sheet 9 of 15

CO-ORDINATES( \_ )

GROUND LEVEL (m)  
 CORE DIAMETER (mm) 102

DATE STARTED 18/11/2008  
 DATE COMPLETED

CLIENT Dublin Central Developments Ltd  
 ENGINEER AGL Consulting Ltd

INCLINATION -90  
 FLUSH Polymer Gel

DRILLED BY Millennium  
 LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
16		100	94	82				Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered. (continued)		Discontinuities are smooth and planar. Dips are sub-10°. (continued)			
17	17.10							Strong to locally moderately strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE with argillaceous zones. Slightly weathered with sub-vertical calcite vein throughout.	17.20	Discontinuities are smooth to slightly rough and planar. Dips are sub-10° with sub-vertical calcite fracture throughout.			

**REMARKS**  
 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO **RC16**  
SHEET Sheet 10 of 15

CO-ORDINATES( \_ )

GROUND LEVEL (m)  
CORE DIAMETER (mm) 102

DATE STARTED 18/11/2008  
DATE COMPLETED

CLIENT Dublin Central Developments Ltd  
ENGINEER AGL Consulting Ltd

INCLINATION -90  
FLUSH Polymer Gel

DRILLED BY 19/11/2008 Millennium  
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
18					0 250 500			Strong to locally moderately strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE with argillaceous zones. Slightly weathered with sub-vertical calcite vein throughout. <i>(continued)</i>		Discontinuities are smooth to slightly rough and planar. Dips are sub-10° with sub-vertical calcite fracture throughout. <i>(continued)</i>			
18.20													
		100	100	91									
									18.92				
19								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE (slightly siliceous). Fresh to locally slightly weathered. Pyrite lense 19.39m.		Discontinuities are smooth and planar. Dips are sub-10° with sub-vertical fractures 19.14m-19.39m.			
19.00													
		100	43	33									
									19.68				
								Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh to locally slightly weathered. Incipient fractures common.	19.80	Discontinuities are smooth and planar. Dips are sub-10°.			
19.80										Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			

**REMARKS**  
18/11/08- 6½hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL GDT 28/11/08



## GEOTECHNICAL CORE LOG RECORD

**REPORT NUMBER**  
 13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC16
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 11 of 15
<b>CLIENT</b> Dublin Central Developments Ltd <b>ENGINEER</b> AGL Consulting Ltd		<b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R. %	S.C.R. %	R.Q.D. %	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
20					0 250 500			Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE, locally argillaceous zones. Fresh. (continued)	20.41	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°. (continued)			
	100	59	57					Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered.	20.88	Discontinuities are smooth and planar. Dips are sub-10° with sub-vertical fractures 20.7m-20.88m.			
21								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh. Pyrite lense 20.93 & 21.14m.	21.14	Discontinuities are smooth to slightly rough and planar. Dips are sub-10° with sub-vertical fracture 20.88m-20.97m.			
	21.20							Moderately strong to moderately weak, thinly bedded, black, calcareous SHALE. Fresh to locally slightly weathered with incipient fractures.	21.42	Discontinuities are smooth and planar. Black clay infilled 21.2m-21.24m. Dips are sub-10°.			
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered.		Discontinuities are smooth and planar. Dips are sub-10° with sub-vertical fractures 21.51-21.68m, 21.76m-21.92m and 22.45m-22.69m-clay smeared.			

**REMARKS**  
 18/11/08- 6¾hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG. 13696.GPJ IGSL\_GDT\_28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 12 of 15

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** 19/11/2008 Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
22	100	55	47					Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered. (continued)		Discontinuities are smooth and planar. Dips are sub-10° with sub-vertical fractures 21.51-21.68m, 21.76m-21.92m and 22.45m-22.69m-clay smeared. (continued)			
									22.70				
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh to locally slightly weathered.		Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
22.90													
23	100	100	87										
									23.50				
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered. Pyrite lense 23.95m.		Discontinuities are smooth and planar. Clay smeared 23.5m-23.58m. Dips are sub-10°.			
23.50													
									23.99				

**REMARKS**  
18/11/08- 6¾hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

<b>CONTRACT</b> Dublin Central Development - Draft		<b>DRILLHOLE NO</b> RC16
<b>CO-ORDINATES( _ )</b>		<b>SHEET</b> Sheet 13 of 15
<b>CLIENT</b> Dublin Central Developments Ltd <b>ENGINEER</b> AGL Consulting Ltd		<b>DATE STARTED</b> 18/11/2008 <b>DATE COMPLETED</b> 19/11/2008
<b>GROUND LEVEL (m)</b>		<b>DRILLED BY</b> Millennium
<b>CORE DIAMETER (mm)</b> 102		<b>LOGGED BY</b> A. Mahony
<b>INCLINATION</b> -90		
<b>FLUSH</b> Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
24		100	91	73				Moderately strong to moderately weak, thinly bedded to laminated, black, calcareous SHALE. Fresh (continued)	24.21	Discontinuities are smooth and planar. Dips are sub-10°. (continued)			
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered. Pyrite lense 24.35m & 24.8m.		Discontinuities are smooth and planar. Dips are sub-10°.			
24.90													
25		100	100	95				Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh.	25.21	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
									26.00				

**REMARKS**  
 18/11/08- 6¼hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08





# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 14 of 15

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** 19/11/2008 Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
26					0 250 500			Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh.	26.22	Discontinuities are smooth and planar. Dips are sub-10°.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh.	26.50	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
26.50								Moderately strong to moderately weak, thinly bedded, black, calcareous SHALE. Fresh	26.56	Discontinuities are smooth and planar. Dips are sub-10°.			
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE with interbedded siliceous limestone. Fresh. Pyrite lense 27.0m.	27.25	Discontinuities are smooth and planar. Dips are sub-10°.			
27		100	97	87				Moderately strong to moderately weak, thinly bedded, black, calcareous SHALE. Fresh	27.44	Discontinuities are smooth and planar. Dips are sub-10°.			
								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh.	27.78	Discontinuities are smooth and planar. Dips are sub-10°.			
								Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh.		Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			

**REMARKS**  
18/11/08- 6¾hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

**GROUNDWATER DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08

DCC PLAN NO. 2861/21  
RECEIVED: 01/06/2021



# GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

**CONTRACT** Dublin Central Development - Draft

**DRILLHOLE NO** RC16  
**SHEET** Sheet 15 of 15

**CO-ORDINATES( \_ )**

**GROUND LEVEL (m)**  
**CORE DIAMETER (mm)** 102

**DATE STARTED** 18/11/2008  
**DATE COMPLETED**

**CLIENT** Dublin Central Developments Ltd  
**ENGINEER** AGL Consulting Ltd

**INCLINATION** -90  
**FLUSH** Polymer Gel

**DRILLED BY** Millennium  
**LOGGED BY** A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
28	28.10				0 250 500			Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh.	28.10	Discontinuities are smooth and planar. Dips are sub-10°.			
								Moderately strong to moderately weak, thinly bedded, black, calcareous SHALE. Fresh	28.48	Discontinuities are smooth and planar. Dips are sub-10°.			
		100	86	74				Strong to very strong, thin to medium bedded, grey to dark grey, fine grained SILICEOUS LIMESTONE. Fresh.	28.70	Discontinuities are smooth to slightly rough and planar. Dips are sub-10°.			
29								Strong to moderately strong, thin to medium bedded, dark grey, fine grained ARGILLACEOUS LIMESTONE. Fresh to locally slightly weathered.	29.25	Discontinuities are smooth and planar. Dips are sub-10°.			
								End of Corehole at 29.8 (m)	29.80				

**REMARKS**  
18/11/08- 6¾hrs Unload sludge tanks, load & erect fencing, dig inspection pit (widened due to pipe) and move equipment onto location.

**INSTALLATION REMARKS**

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
19-11-08	8.00	4.50	8.00	50mm SP
19-11-08	25.00	20.00	25.00	50mm SP

IGSL RC NEW LOG 2M PER PG 13696.GPJ IGSL.GDT 28/11/08



# **APPENDIX 3**

## Soil Sampling Protocol



DCC PLAN NO. 2861/21  
REVISED: 01/06/2021

## STANDARD OPERATING PROCEDURE

### SOIL SAMPLING

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The soil sampling technique described below will be followed to ensure that soil samples are representative of the environment which they are intended to characterise.

#### 1.0 SAMPLING

- (A) Locate the soil sampling station in accordance with the workplan which will specify the number and type of samples to be taken. Place a wooden stake into the ground one metre from the sample location and record sample location on the stake.
- (B) Record the location in the field logbook and, if possible, photograph the location.
- (C) Collect soil samples from the depth specified in the workplan and record the depth in the field notebook. Describe the colour and texture of each sample and record in notebook.
- (D) Wear appropriate level of protection when taking samples (gloves, safety glasses, hard hat etc.) as specified in the workplan. Collect soil samples as specified in the workplan using decontaminated stainless steel trowel, soil corer, or similar device. Collect discrete soil samples from each station.
- (E) If required by the workplan, composite discrete soil samples by placing equal volumes of soil into the container and mixing thoroughly to a homogenous mixture. Samples may be hand picked, if necessary, to remove larger materials, such as leaves, sticks, gravel, rocks etc., if specified in the workplan. Record in notebook the nature of any materials removed from soil samples.
- (F) Deposit each soil sampled into a (clean, pre-washed) container. At the time of collection, the sample bottle will be filled to the top with soil sample.
- (G) Fill out labels with waterproof ink and attach to the sample container. The following information will be recorded on each sample label: -
  - Client/Site Name
  - Date Collected
  - Time Collected
  - Analysis
  - Preservative
  - Sample Identification Number