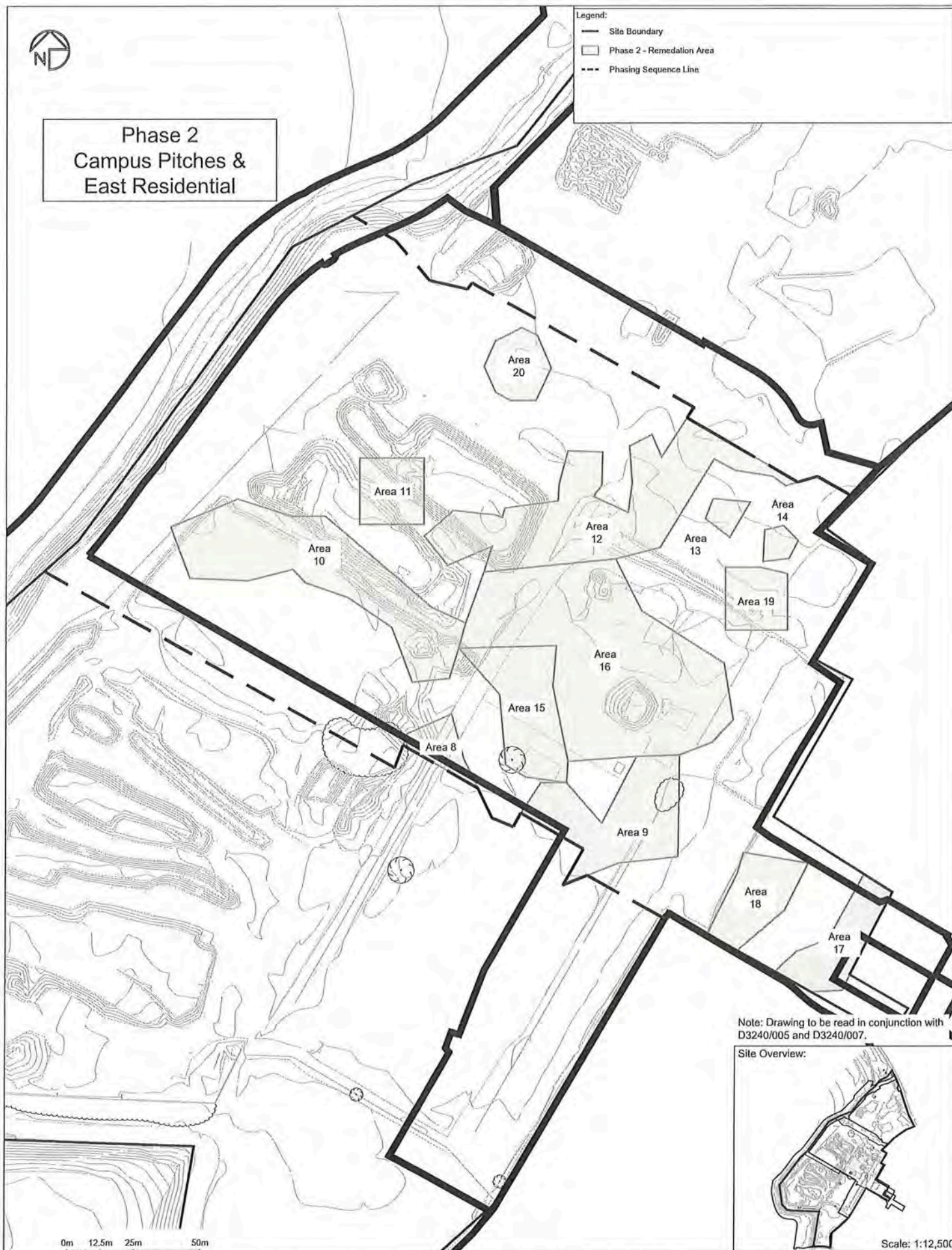


Appendix A Sanctus Drawings



Phase 2
Campus Pitches &
East Residential

- Legend:
- Site Boundary
 - Phase 2 - Remediation Area
 - Phasing Sequence Line



Note: Drawing to be read in conjunction with
D3240/005 and D3240/007.

Site Overview:



Scale: 1:12,500

0m 12.5m 25m 50m



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/09/2023
B	Areas Added	14/11/2023
C	Boundary Added	12/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Phase 2 - Proposed Phasing Plan Areas

Contract No:

S3240

Drawn By:

MW

Drawing No:

D3240/006

QC Check By:

ARW

Scale @ A3:
1:1250

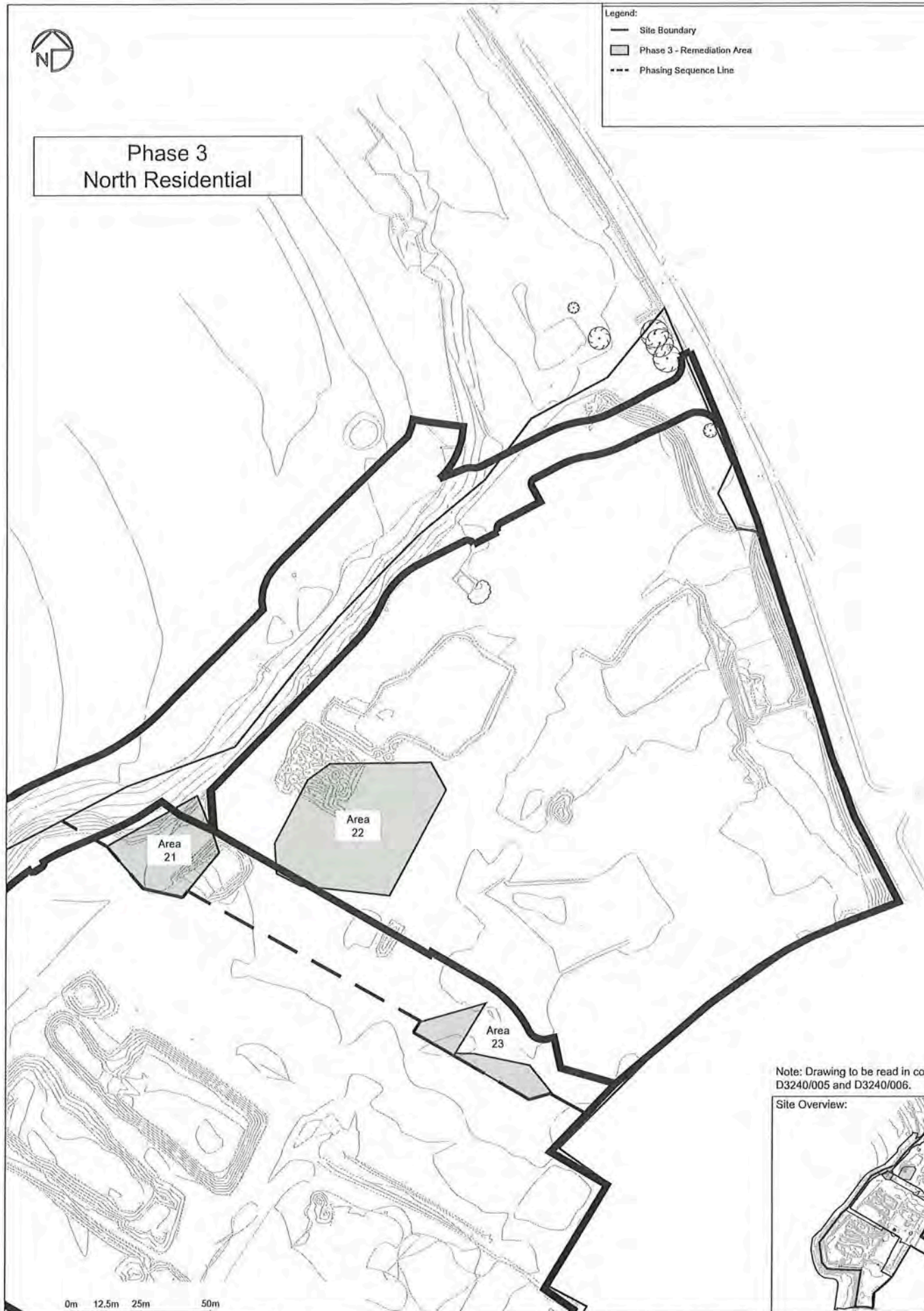
Approved By:

ARW



- Legend:
- Site Boundary
 - Phase 3 - Remediation Area
 - - - Phasing Sequence Line

Phase 3 North Residential



Note: Drawing to be read in conjunction with D3240/005 and D3240/006.

Site Overview:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 628222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/09/2023
B	Area IDs Updated	17/11/2023
C	Boundary Added	12/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Phase 3 - Proposed Phasing Plan Areas

Contract No:
S3240
Drawn By:
MW

Drawing No:
D3240/007
QC Check By:
ARW

Scale @ A3:
1:1250
Approved By:
ARW



Remediation Phase 1-3 Overlay onto Proposed Layout

LEGEND:

- SITE BOUNDARY
- PROPOSED RESIDENTIAL BUILDINGS
- PROPOSED ROADS
- INDICATIVE CAMPUS BUILDING FOOTPRINT
- PROPOSED MUGA PITCH
- PARKING BAYS

- Site Boundary
- Phase 1 - Remedial Area 1 (132m²)
- Phase 2 - Remedial Area 2 (140m²)
- Phase 3 - Remedial Area 3 (140m²)
- Future Development



Scale 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Dundee, GL2 4DH
T: 01453 820222
E: info@sanctus.co.uk www.sanctus.co.uk

Drawn by: [Name]
Check by: [Name]
Approved by: [Name]

APPROVED

Date	Project Name	Client
14/09/22	Sanctus House, Dundee	Sanctus House, Dundee
14/09/22	Sanctus House, Dundee	Sanctus House, Dundee
14/09/22	Sanctus House, Dundee	Sanctus House, Dundee
14/09/22	Sanctus House, Dundee	Sanctus House, Dundee



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line

NB: For Area 12 & Area 23 Validation sample locations please refer to Sanctus Drawing D3240/073 - Area 12 & Area 23 Sanctus Validation Sample Location Plan

CELL C

CELL B

CELL A

Area 9

Area 9A

Site Map:

Area of Interest

Scale: 1:12,500

0m 5m 10m 20m

sanctus

Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrassan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	19/07/2024
B	Validations Updated	05/08/2024

APPROVED

Project Name:
North Shore, Ardrassan

Client:
North Ayrshire Council

Drawing Title:
Area 9, 15 & 16 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/042

Scale B A3:
1:500 / See Inset

Drawn By:
MW

QC Check By:
ARW

Approved By:
ARW



- Legend:
- Site Boundary
 - Phase 2 - Remediation Area
 - Phase 3 - Remediation Area
 - Approximate Cell Division Line
 - Area 9 Excavation Extension - Pipe Line Removal



Note: Drawing to be read in conjunction with D3240/005 and D3240/007.

Site Overview:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	05/07/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Phase 2 & 3 Cell Location Overview

Contract No:
53240

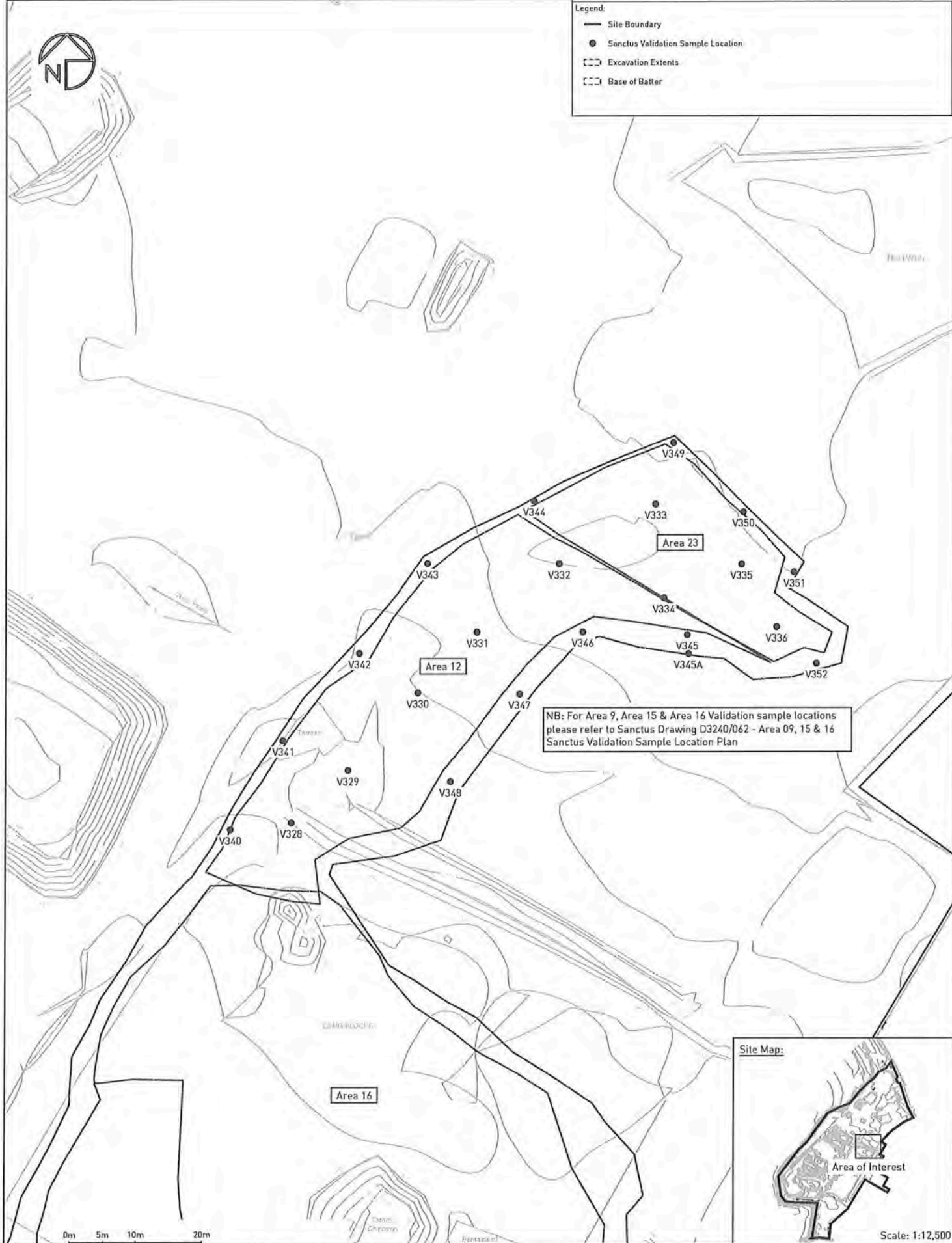
Drawing No:
D3240/069

Scale B A3:
1:1250

Drawn By:
JH

QC Check By:
ARW

Approved By:
ARW



- Site Boundary
- Sanctus Validation Sample Location
- Excavation Extents
- Base of Batter

NB: For Area 9, Area 15 & Area 16 Validation sample locations please refer to Sanctus Drawing D3240/062 - Area 09, 15 & 16 Sanctus Validation Sample Location Plan

Map:



Area of Interest

Scale:

Scale: 1:12,500



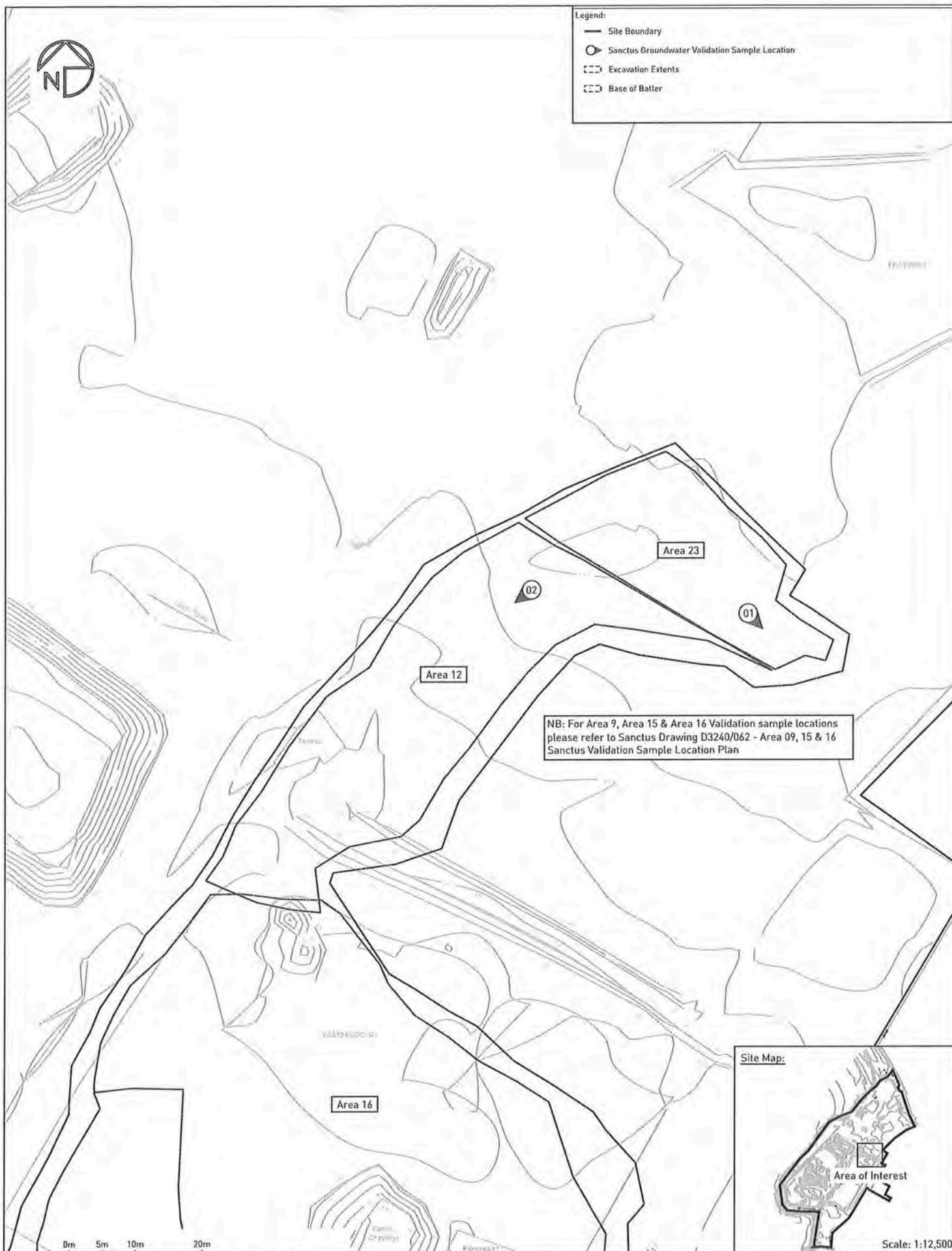
Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

APPROVED

Approved By:
ARW

**Legend:**

- Site Boundary
- Sanctus Groundwater Validation Sample Location
- Excavation Extents
- Base of Batter

**Site Map:**

Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glas, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.
ADescription
First IssueDate
05/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 12 & Area 23 - Sanctus Groundwater Validation Sample Location Plan

Contract No:
53240

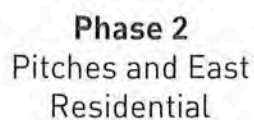
Drawing No:
D3240/080

Scale: A3:
1:500 / See Inset

Drawn By:
MW

QC Check By:
ARW

Approved By:
ARW

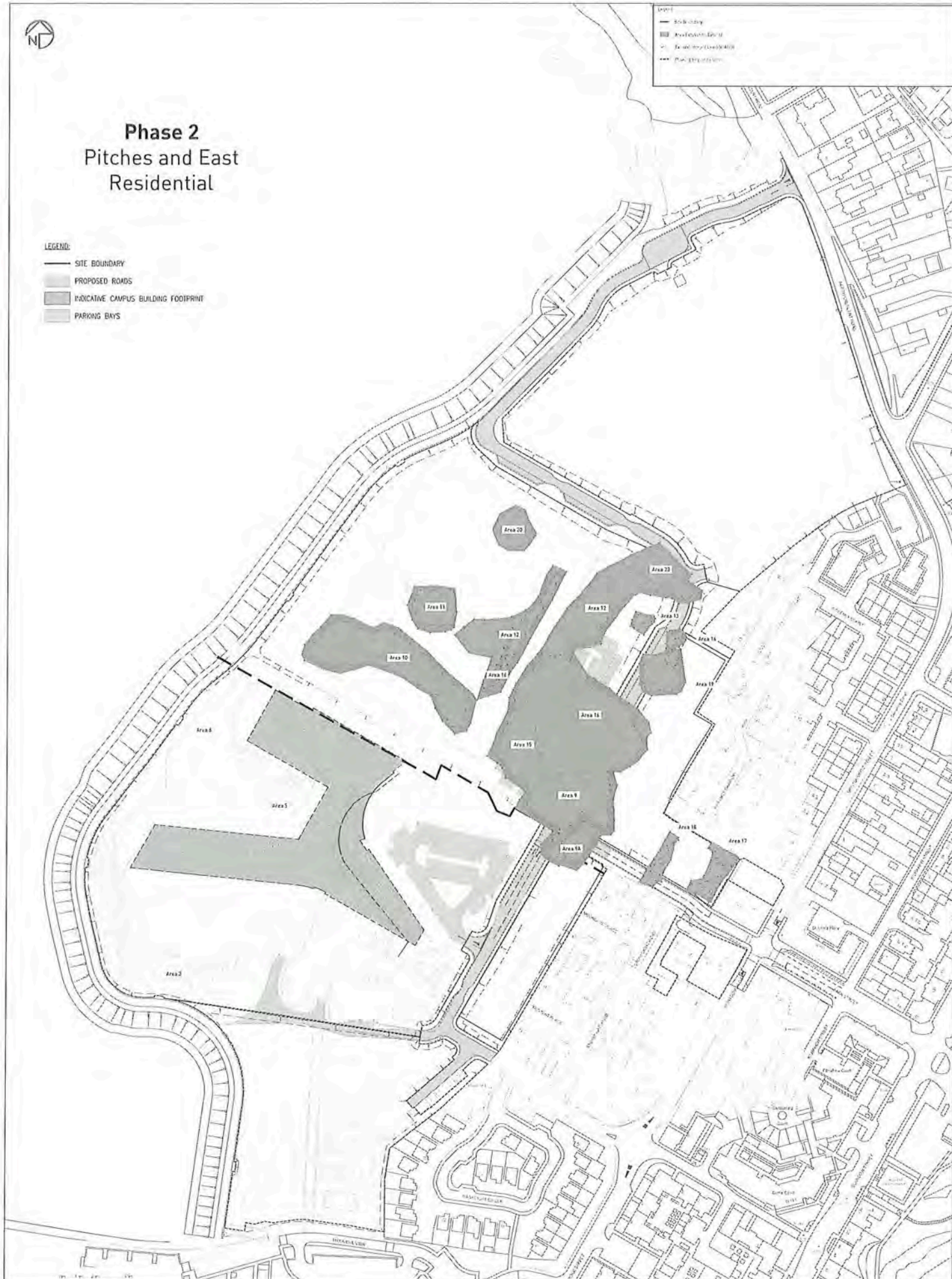
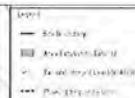


Phase 2

Pitches and East

Residential

 SITE BOUNDARY
 PROPOSED ROADS
 INDICATIVE CAMPUS BUILDING FOOTPRINT
 PARKING BAYS



4. No. of traps 5. Species/size 6. Sex ratio 7. No. of days/area 8. Comments
--

Q. No.	Description
A	Expenditure

APPROVED

2.0	14.0
-----	------

$\mathcal{N}(\mu, \Sigma)$ is a normal distribution with mean μ and covariance matrix Σ .

Q21
Sed. 300 10000

Page 2 of 2

278

Sheet 9f

100

10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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15 May



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - - - Excavation Extents
 - - - Base of Batter
 - - - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

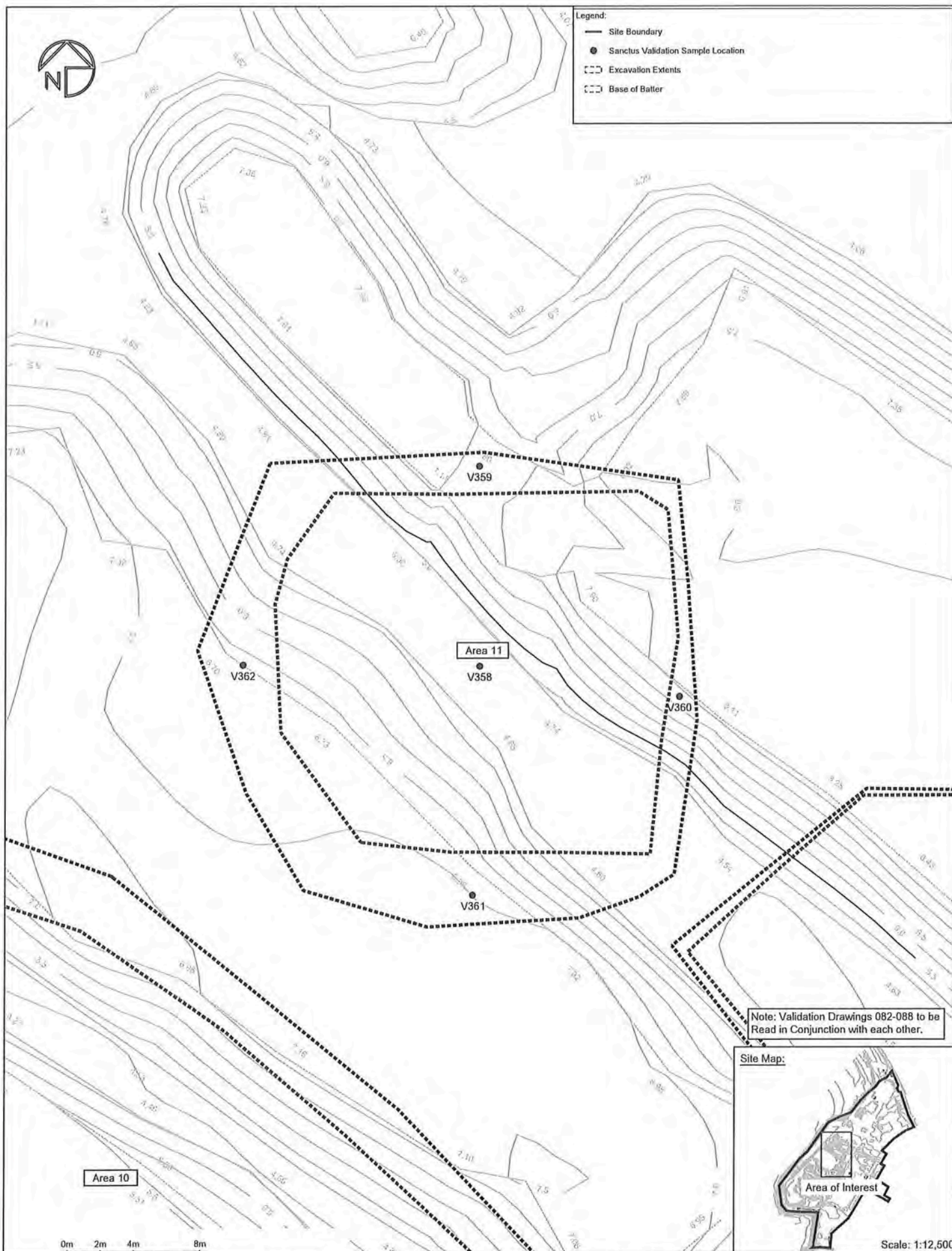
Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 10 - Sanctus Validation Sample Location Plan		
Contract No: S3240	Drawing No: 03240/82	Scale @ A3: 1:500 / See Inset
Drawn By: MW	QC Check By: JH	Approved By: ARW



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.
Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev. A
Description
First Issue
Date
20/08/2024
APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 11 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/83

Scale @ A3:
1:200/ See Inset

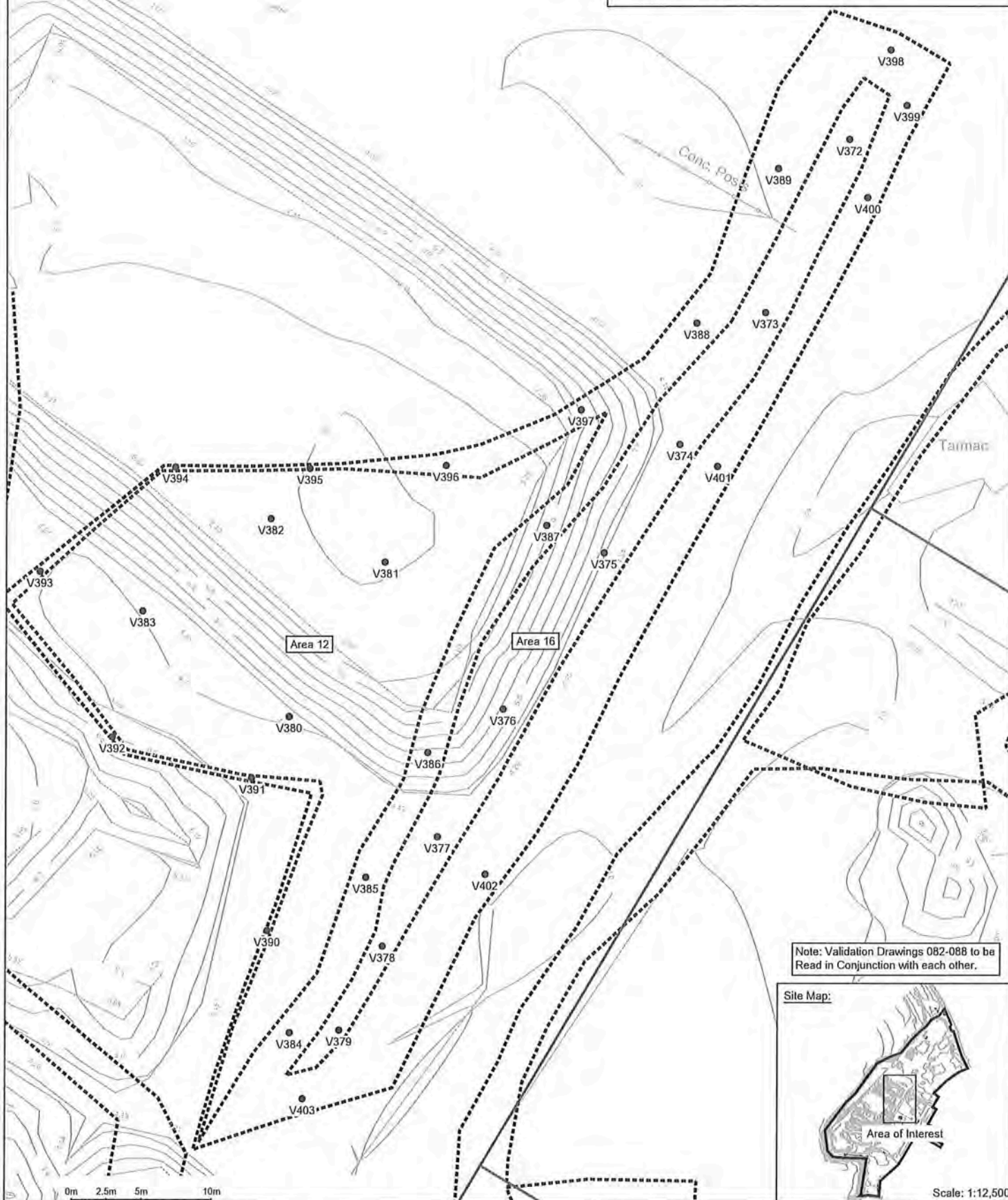
Drawn By:
MW

QC Check By:
JH

Approved By:
ARW



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev. A
Description
First Issue

Date
20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 12 & 16 - Sanctus Validation Sample Location Plan

Contract No:
S3240

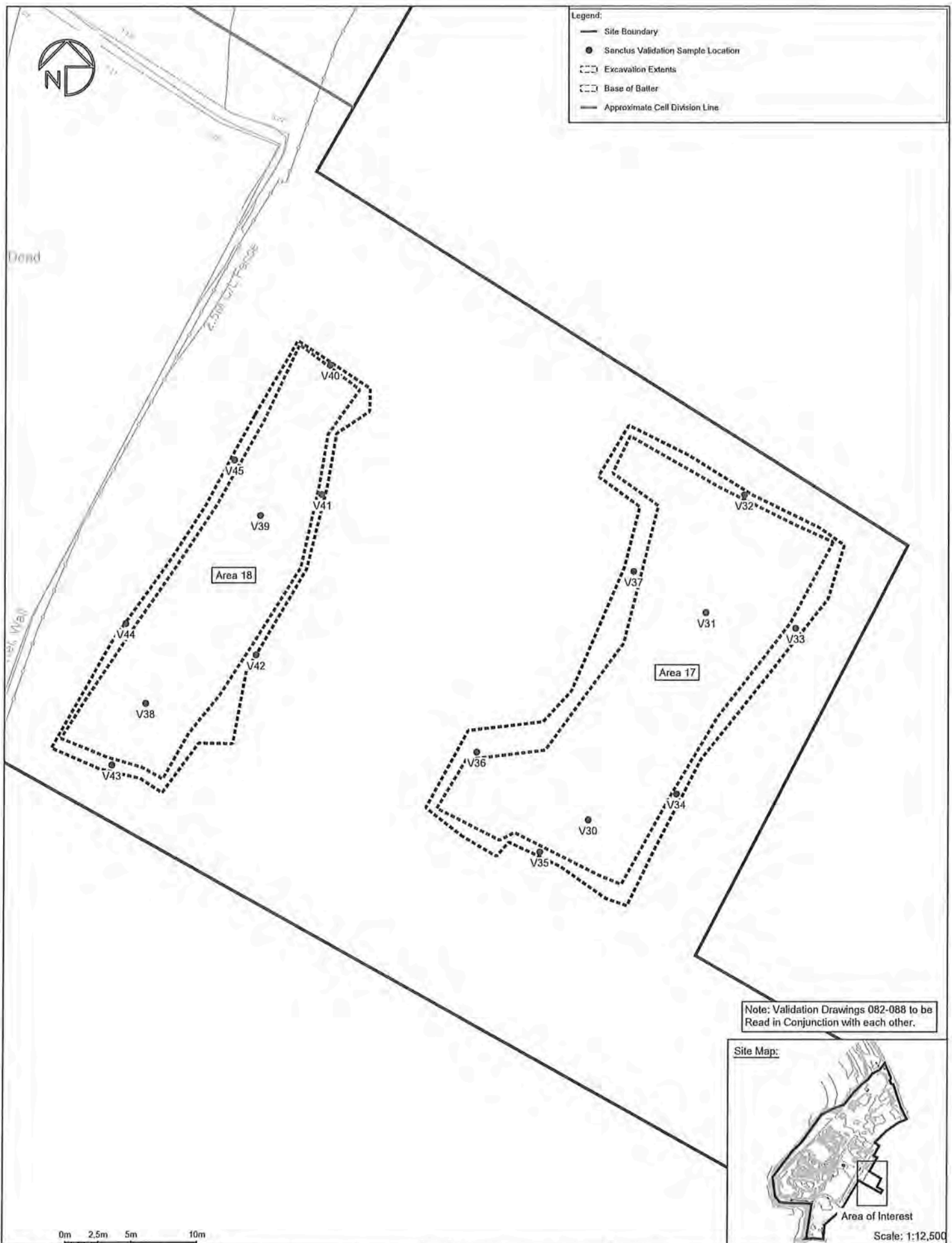
Drawn By:
MW

Drawing No:
D3240/084

QC Check By:
JH

Scale @ A3:
1:250 / See Inset

Approved By:
ARW



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

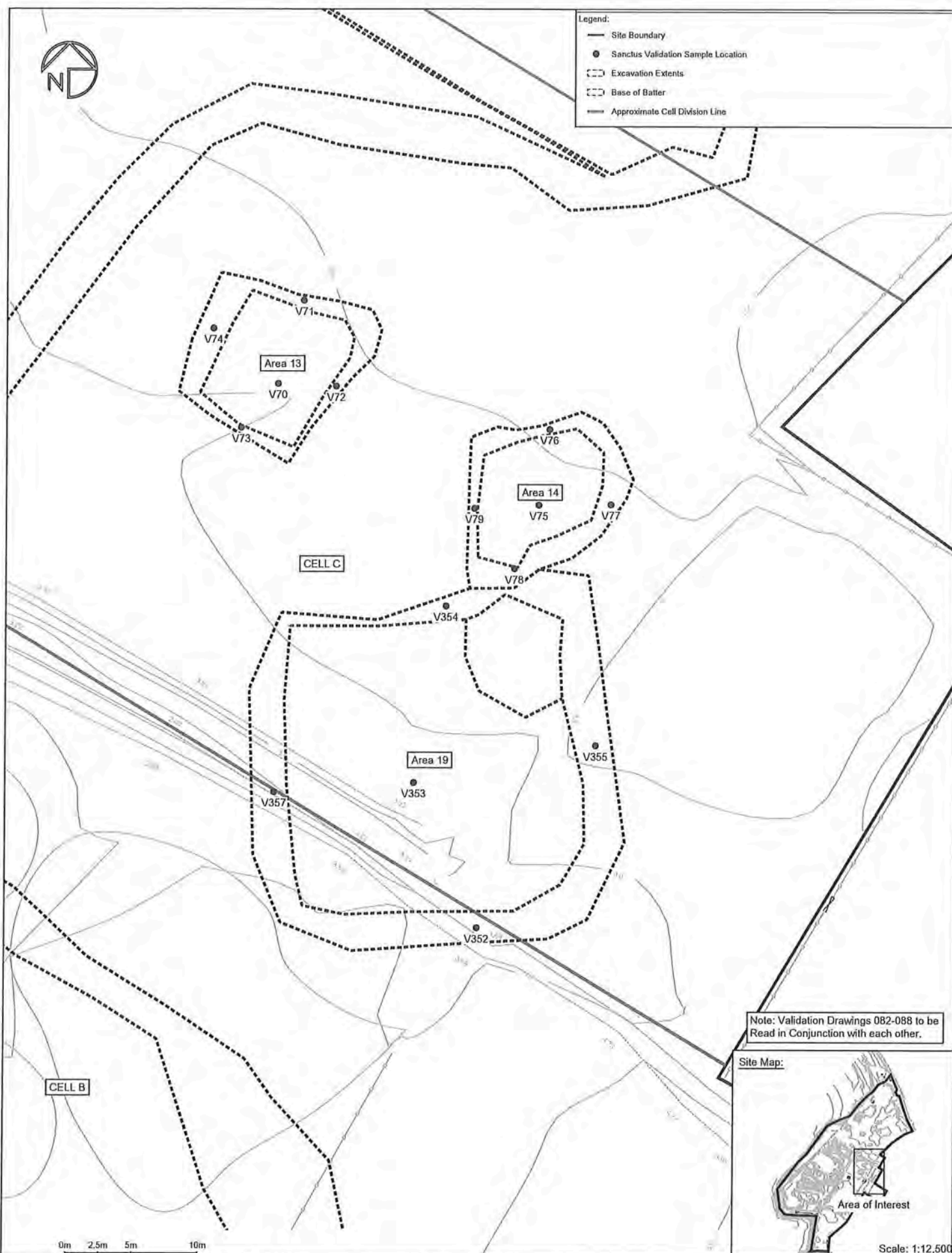
Rev.	Description	Date
A.	First Issue	20/08/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 17 & 18 - Sanctus Validation Sample Location Plan		
Contract No: S3240	Drawing No: D3240/85	Scale @ A3: 1:250 / See Inset
Drawn By: MW	QC Check By: JH	Approved By: ARW



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - - - Excavation Extents
 - - - Base of Batter
 - - - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

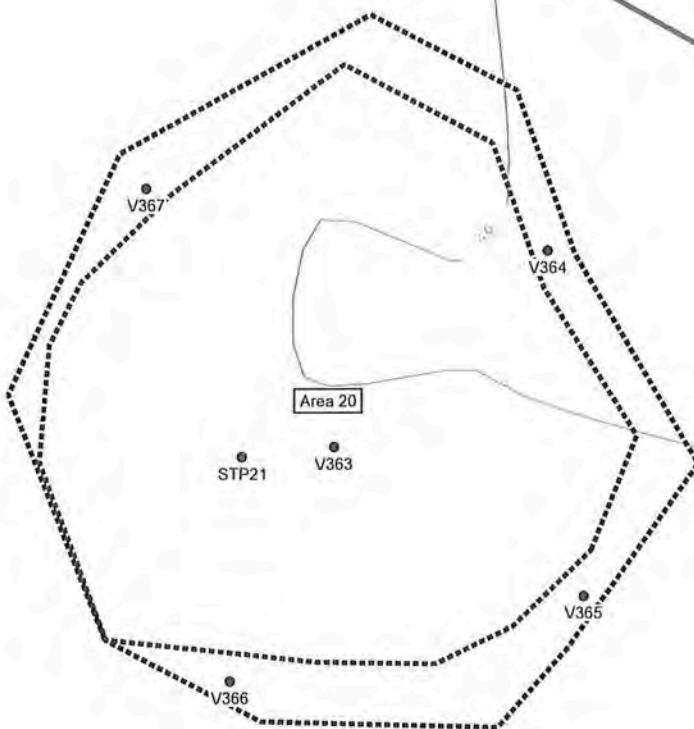
Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 13, 14 & 19 - Sanctus Validation Sample Location Plan		
Contract No: S3240	Drawing No: D3240/086	Scale @ A3: 1:250 / See Inset
Drawn By: MW	QC Check By: JH	Approved By: ARW



- Legend:
- Site Boundary
 - Sanctus Validation/Trial Pit Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Androssan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024
B	STP21 Added	18/09/2024

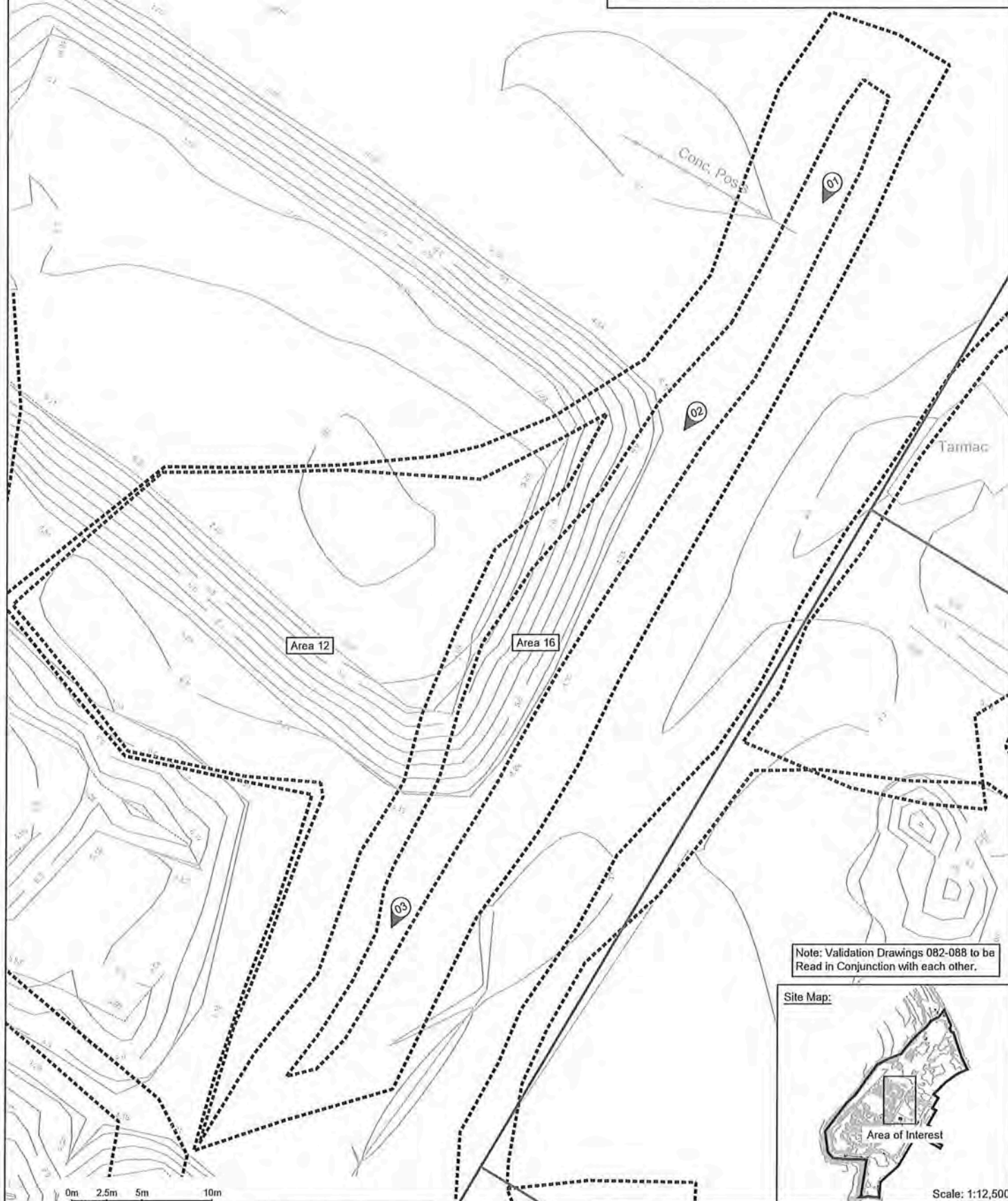
APPROVED

Project Name: North Shore, Androssan		
Client: North Ayrshire Council		
Drawing Title: Area 20 - Sanctus Validation Sample Location Plan		
Contract No: S3240	Drawing No: D3240/087	Scale @ A3: 1:500 / See Inset
Drawn By: MW	QC Check By: ARW	Approved By: ARW



Legend:

- Site Boundary
- Sanctus Groundwater Validation Sample Location
- Excavation Extents
- Base of Batter
- Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 12 & 16 - Sanctus Groundwater Sample Location Plan

Contract No:
S3240

Drawn By:
MW

Drawing No:
D3240/088

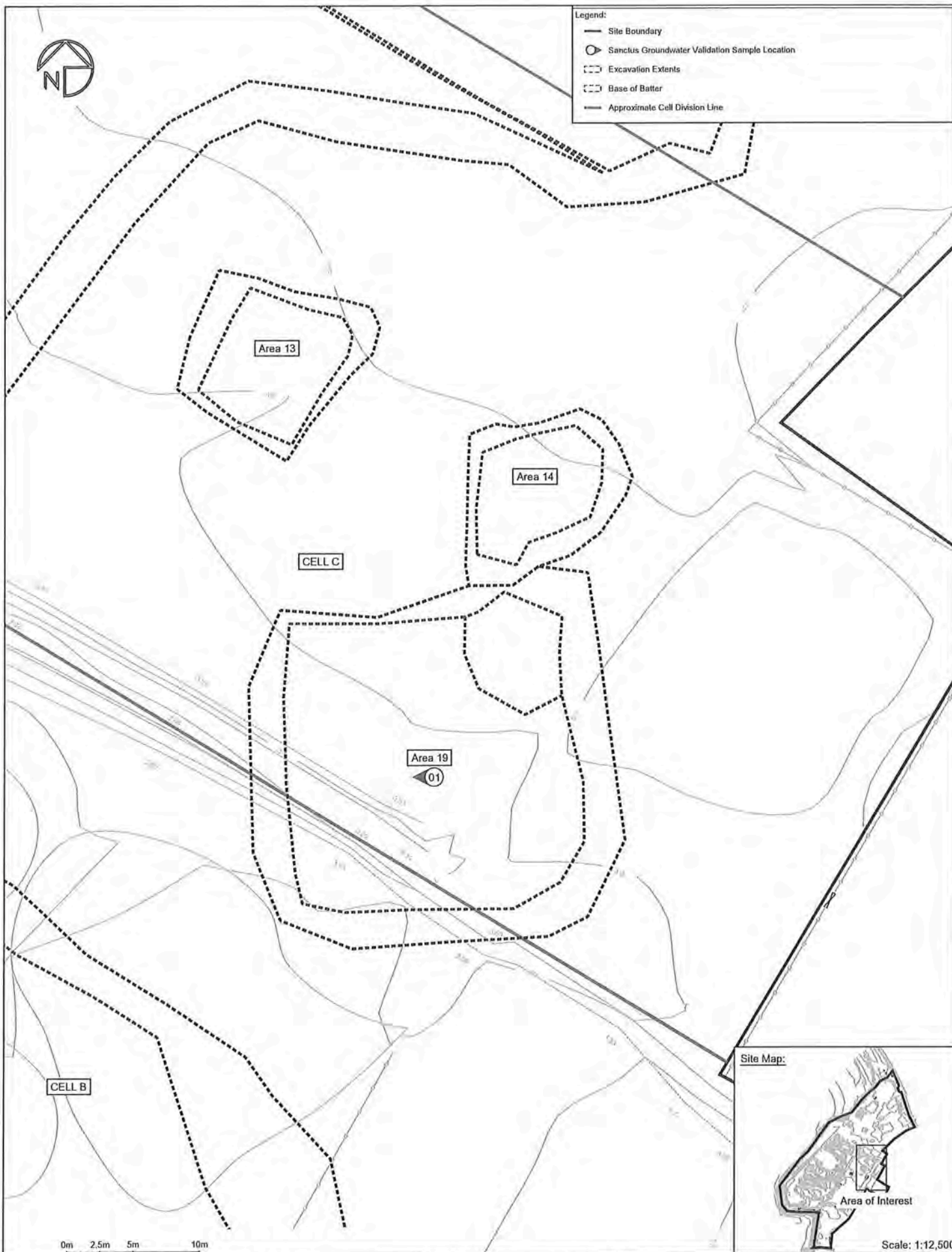
QC Check By:
JH

Scale @ A3:
1:250 / See Inset

Approved By:
ARW



- Legend:
- Site Boundary
 - Sanctus Groundwater Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Site Map:



Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	21/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 19 - Sanctus Groundwater Validation Sample Location Plan

Contract No:
S3240
Drawn By:
MW

Drawing No:
D3240/089
QC Check By:
ARW

Scale @ A3:
1:250 / See Inset
Approved By:
ARW



- Legend:
- Site Boundary
 - Sanctus Trial Pit Location
 - Phasing Sequence Line
 - Area 8 - Proposed Excavation Extents

STP019

Area 8

STP020

Site Overview:

Area of Interest:

Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	03/09/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Sanctus Area 08 Investigation Location Plan		
Contract No: S3240	Drawing No: D3240/090	Scale @ A3: 1:125
Drawn By: MW	QC Check By: JH	Approved By: ARW

Appendix B Sanctus Site Work Photographs



Plate No.: 1

Title.: Free phase Product Within Pipelines removed during Area 09 works.



Plate No.: 2

Title.: Additional pipeline identified within Area 09 'A'



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 3

Title.: Additional pipeline removed from Area 09 'A'.



Plate No.: 4

Title.: Area 09 'A' Eastern validation V320 – Failure, prior to removal and additional excavation.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore

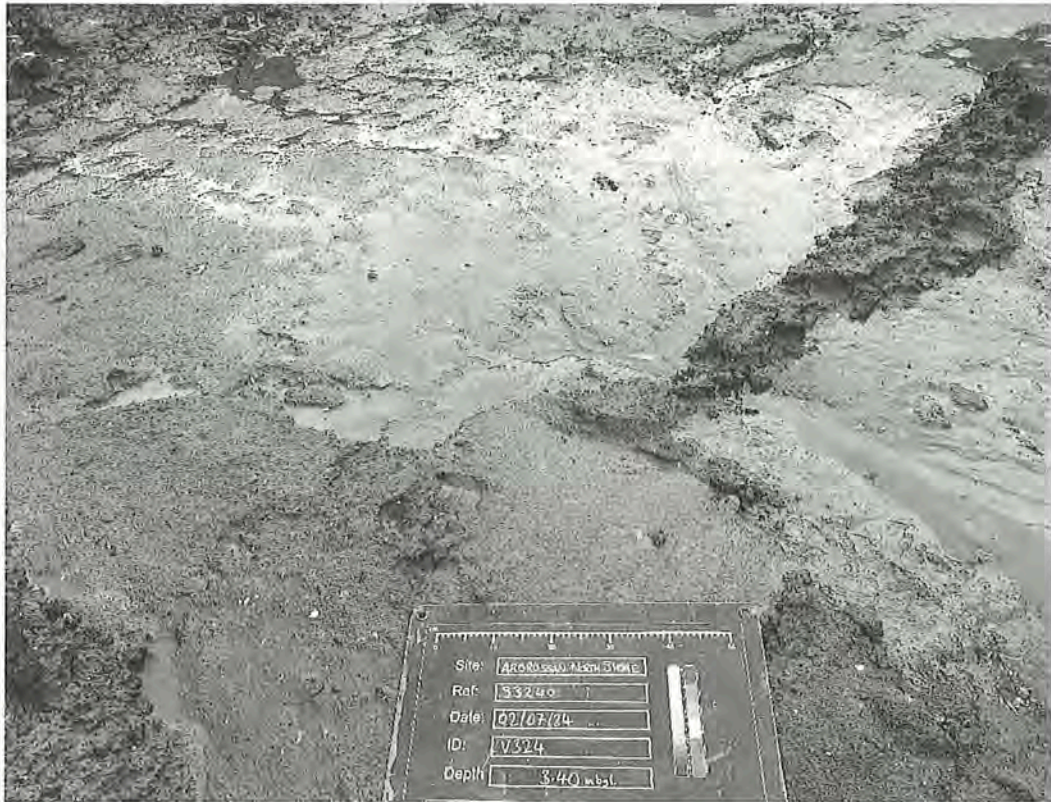


Plate No.: 5

Title.: Base of Excavation Area 09.

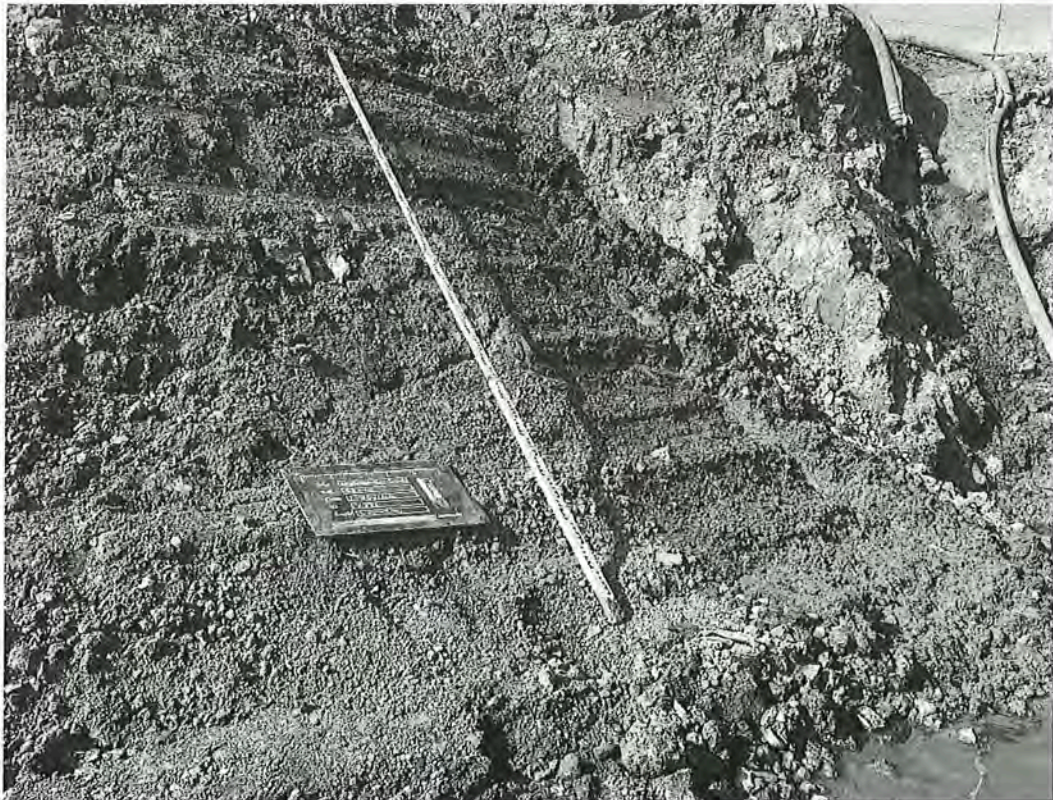


Plate No.: 6

Title.: Area 09 'A' validation V321 – Failure, prior to additional excavation. .

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 7

Title.: Area 09 Excavation works, including removal of historic foundations.



Plate No.: 8

Title.: Area 09 excavation works.

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 9

Title.: Ongoing dewatering, product and sheen removal & excavation of Area 09'A'.



Plate No.: 10

Title.: Excavation works within Area 15 & 16 (General View)

SANCIUS

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 11

Title.: Excavation of Area 15 & 16, Including free phase product.



Plate No.: 12

Title.: Area 15 excavation. base validation (Example).



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 13

Title.: Area 16 Excavation base validation (Example).



Plate No.: 14

Title.: Free Phase product barrels removed within excavation works in Area 12 & 23.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 15

Title.: Area 12 Exaction (General View) view South.



Plate No.: 16

Title.: Relict pipework removed during Are 12 & 23 excavation.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 17

Title.: Area 12 & 23 excavation (General View) view North.



Plate No.: 18

Title.: View of Validations V331 to 336 (Excavation base), view North.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 19

Title.: Area 12 view of Validations 346 to 348, looking South East.



Plate No.: 20

Title.: Revalidation of V345, following initial failure.

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 21

Title.: Area 23 view of V351 to V350, looking North.



Plate No.: 22

Title.: General View of 'Cell D' excavation (Areas 15 &16). View South.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore

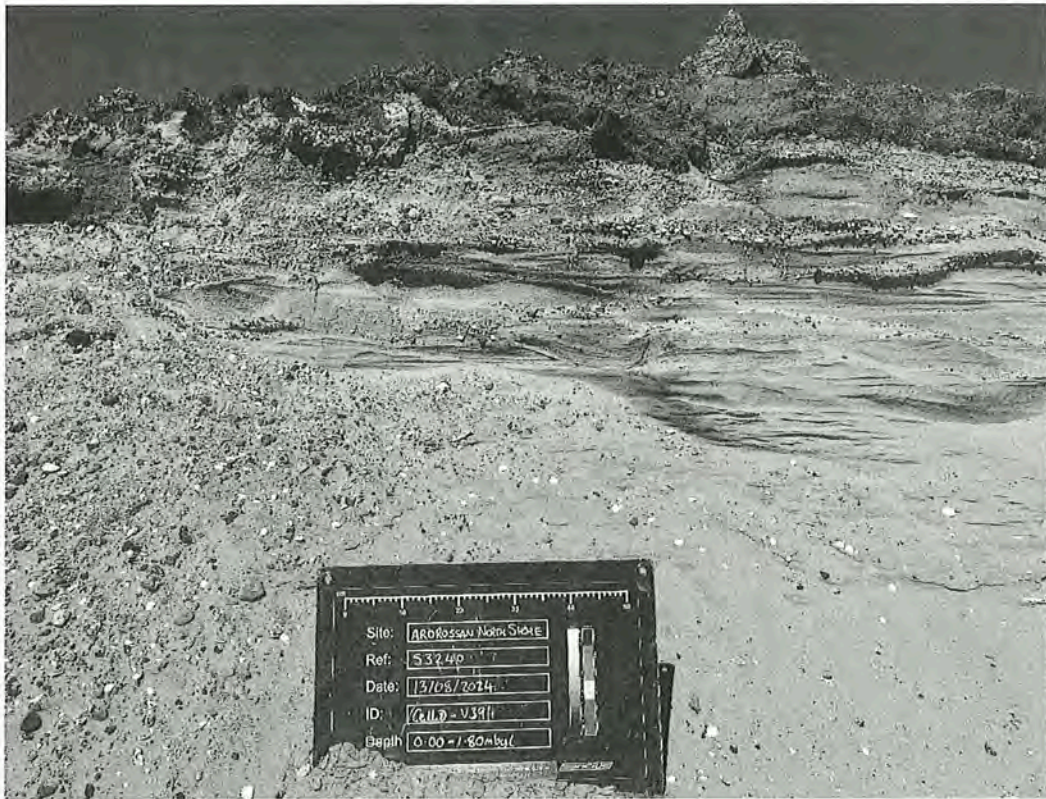


Plate No.: 23

Title.: Validation of Cell D, Example.

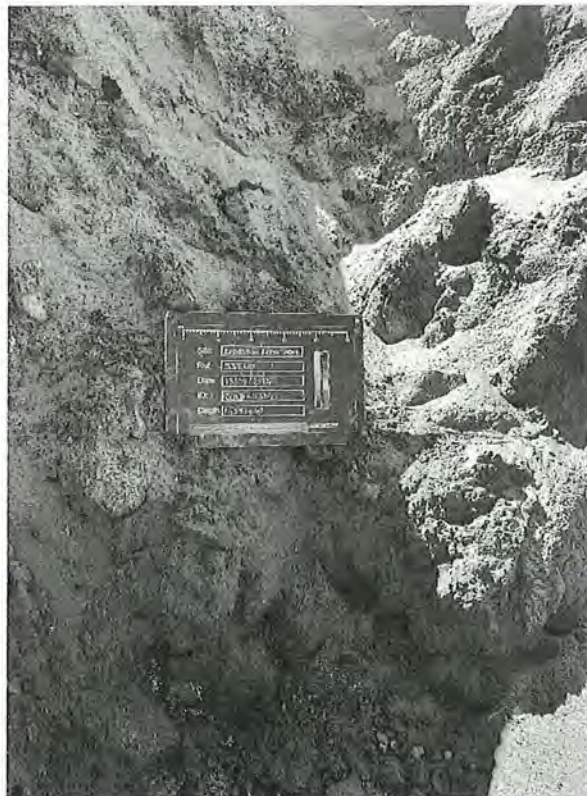


Plate No.: 24

Title.: Validation of Cell D, Example.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 25

Title.: Validation of Cell D, Example.



Plate No.: 26

Title.: Validation of Area 17 (Base), Example.

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 27

Title.: Validation of Area 17 (View West), Example. .



Plate No.: 28

Title.: Excavation and re-instatement of Area 18, Example.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 29

Title.: Excavation of Area 18.



Plate No.: 30

Title.: Excavation of Area 19, with free phase product present in groundwater.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 31

Title.: Area 19 following remediation, prior to re-instatement. View South.



Plate No.: 32

Title.: Removal of concrete structure, Area 19.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 33

Title.: Area 14 Validation, View South.



Plate No.: 34

Title.: Area 13 Excavation Base.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 35

Title.: Area 13 Validation, Example.



Plate No.: 36

Title.: Area 14 Validation, Example..



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 35

Title.: Barrels of product removed from Area 10.



Plate No.: 36

Title.: Validation of Area 10, Example.

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 37

Title.: Area 10 General View, looking West. Note Water present is Surface water.

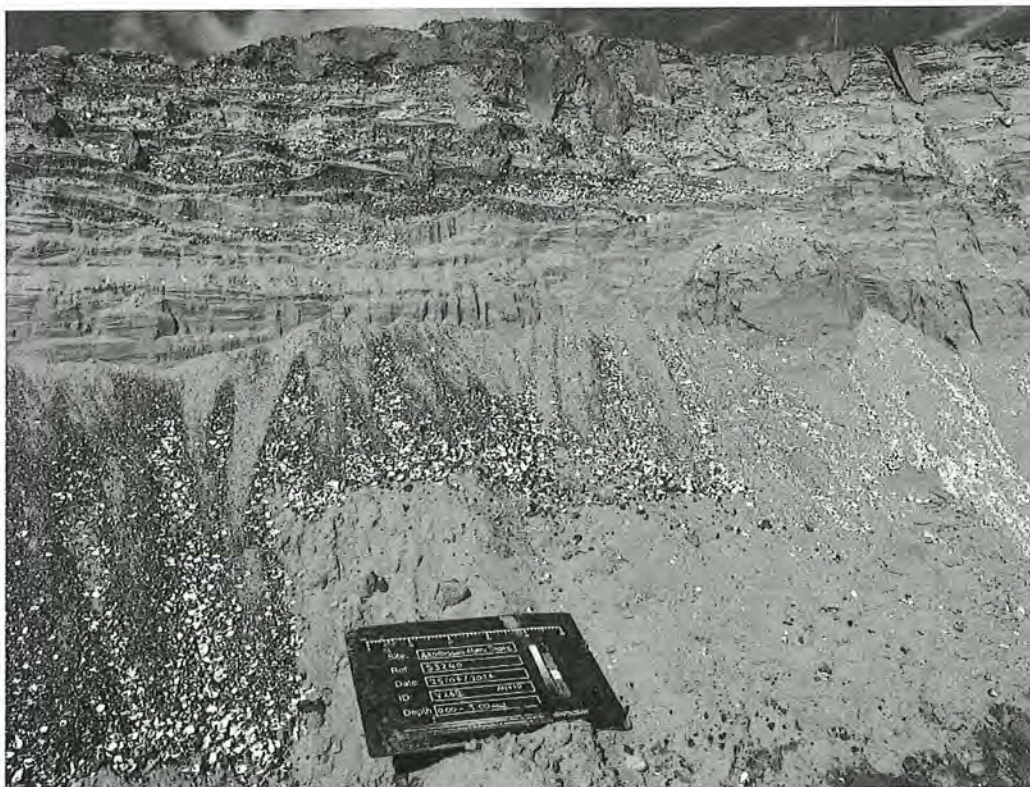


Plate No.: 38

Title.: Validation of Area 10, Example.

sanctus

Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore



Plate No.: 39

Title.: Treatment of TPH Impacted soils, general set up.



Plate No.: 40

Title.: Treatment and stockpiling of TPH Impacted soils, general set up.



Contract No.: S3240

Date: 12/09/2024

Contract Name: Ardrossan North Shore

Appendix C Sanctus Ground Water Validation



Plate No.: 1

Title.: Area 09 Water Validation 01 Location, looking West.



Plate No.: 2

Title.: Area 09 Water Validation 01 showing 0.00mm of sheen after 0.00 minutes.



Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore

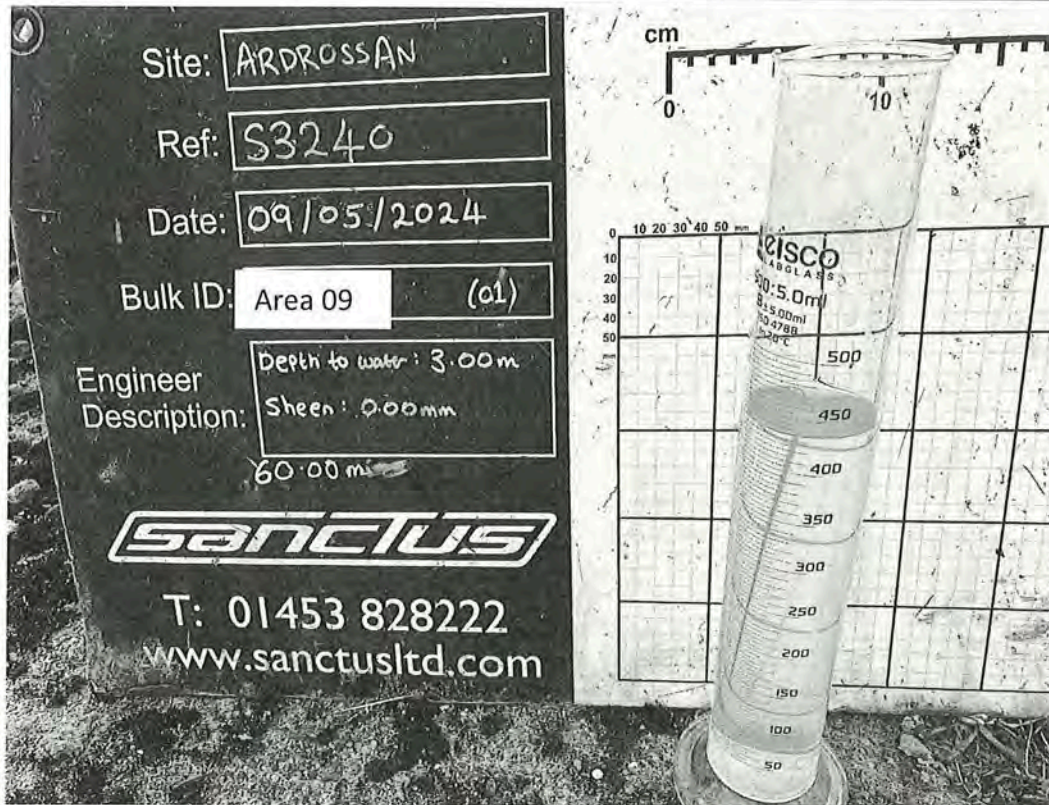


Plate No.: 3

Title.: Area 09 Water Validation 01 showing 0.00mm of sheen after 60 minutes.

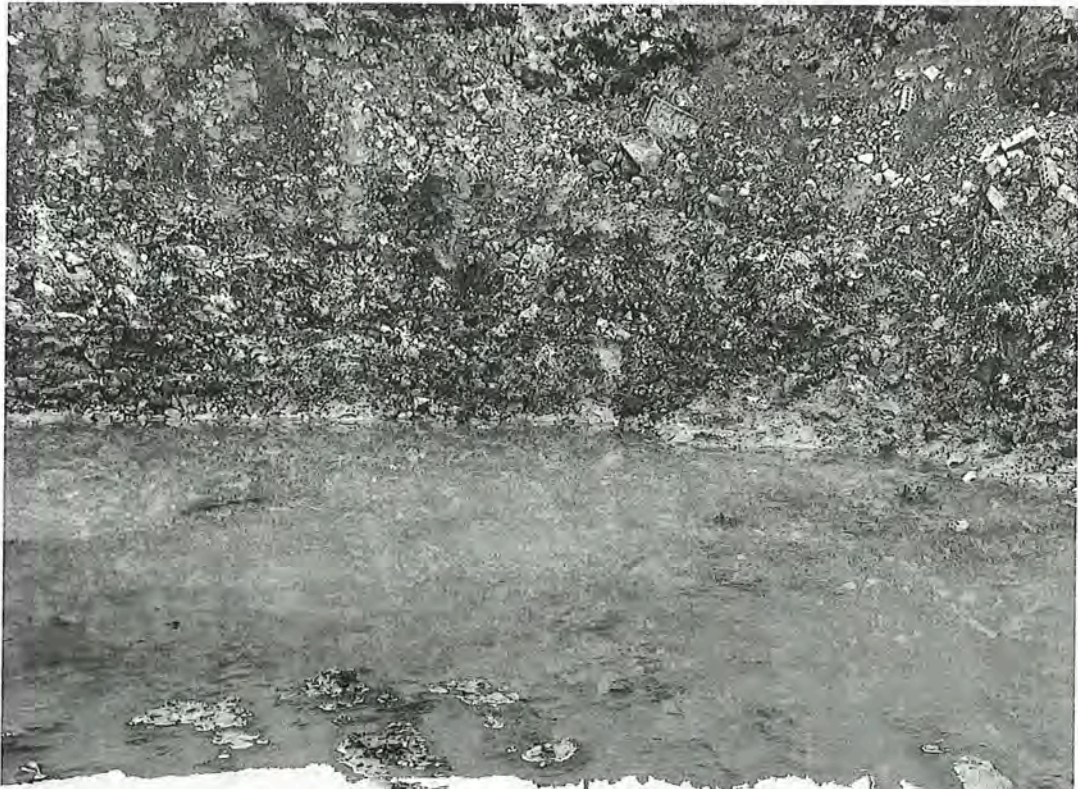


Plate No.: 4

Title.: Area 09 Water Validation 02 Location, shing no sheen. Looking East.

sanctus

Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore

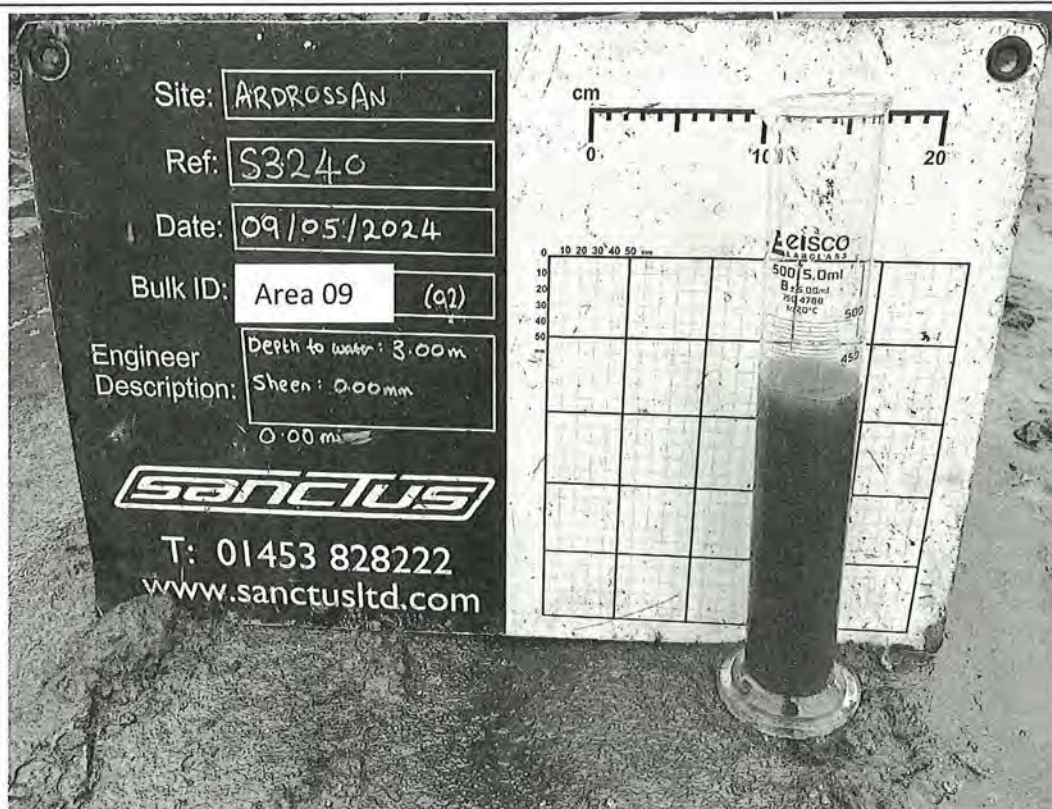


Plate No.: 5

Title.: Area 09 Water Validation 02 showing 0.00mm of sheen after 0 minutes.

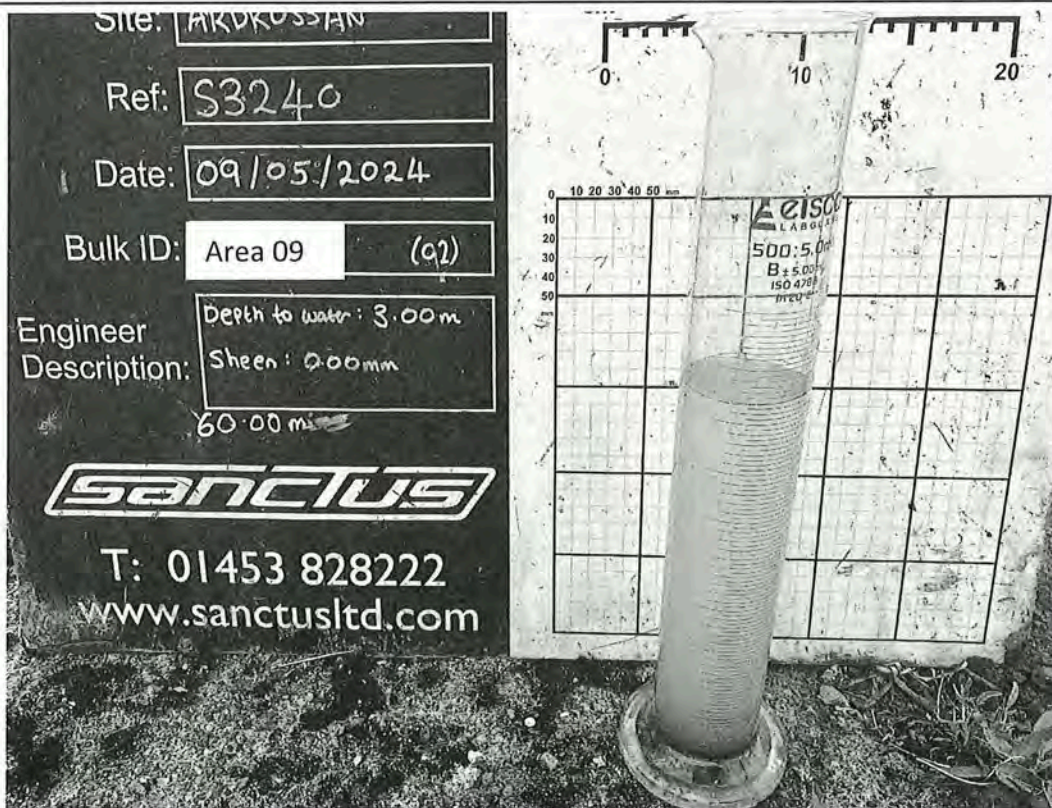


Plate No.: 6

Title.: Area 09 Water Validation 02 showing 0.00mm of sheen after 60 minutes.



Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore



Plate No.: 7

Title.: Area 09 Water Validation 03 Location, North West corner, showing no sheen.



Plate No.: 8

Title.: Area 09 Water Validation 03 showing 0.00mm of sheen after 0.00 minutes.



Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore



Plate No.: 9

Title.: Area 09 Water Validation 03 showing 0.00mm of sheen after 15 minutes.



Plate No.: 10

Title.: Area 09 Water Validation 04 Location, at southern boundary.

sanctus

Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore

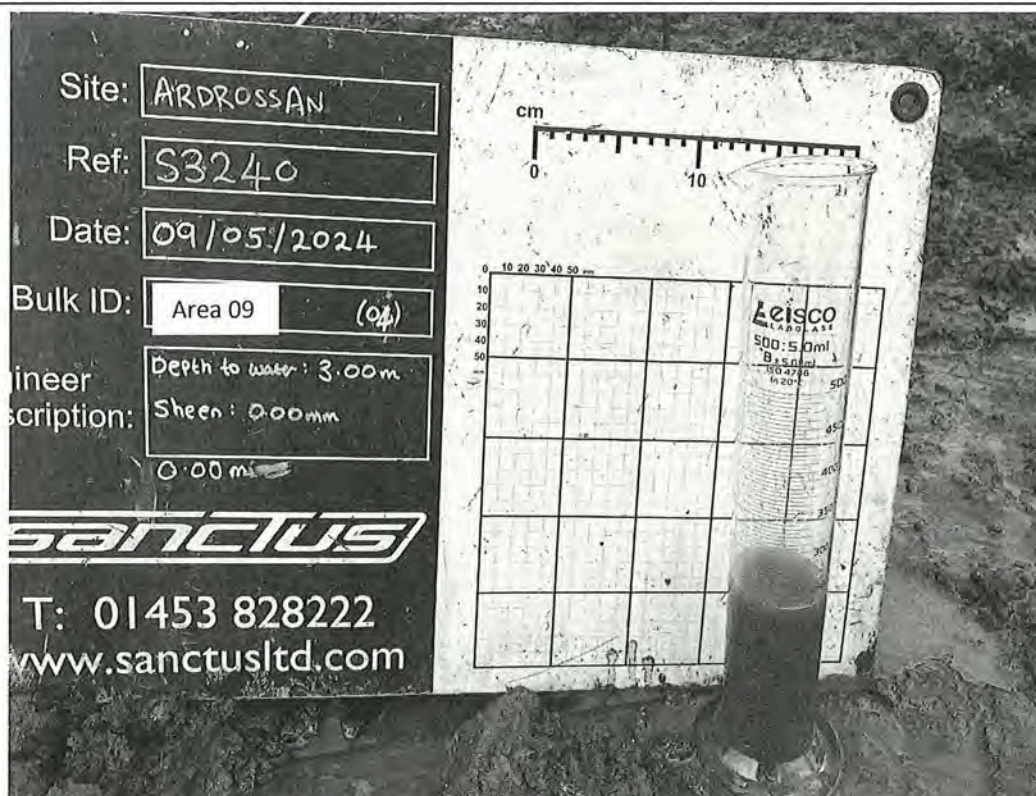


Plate No.: 11

Title.: Area 09 Water Validation 04 showing 0.00mm of sheen after 0 minutes.

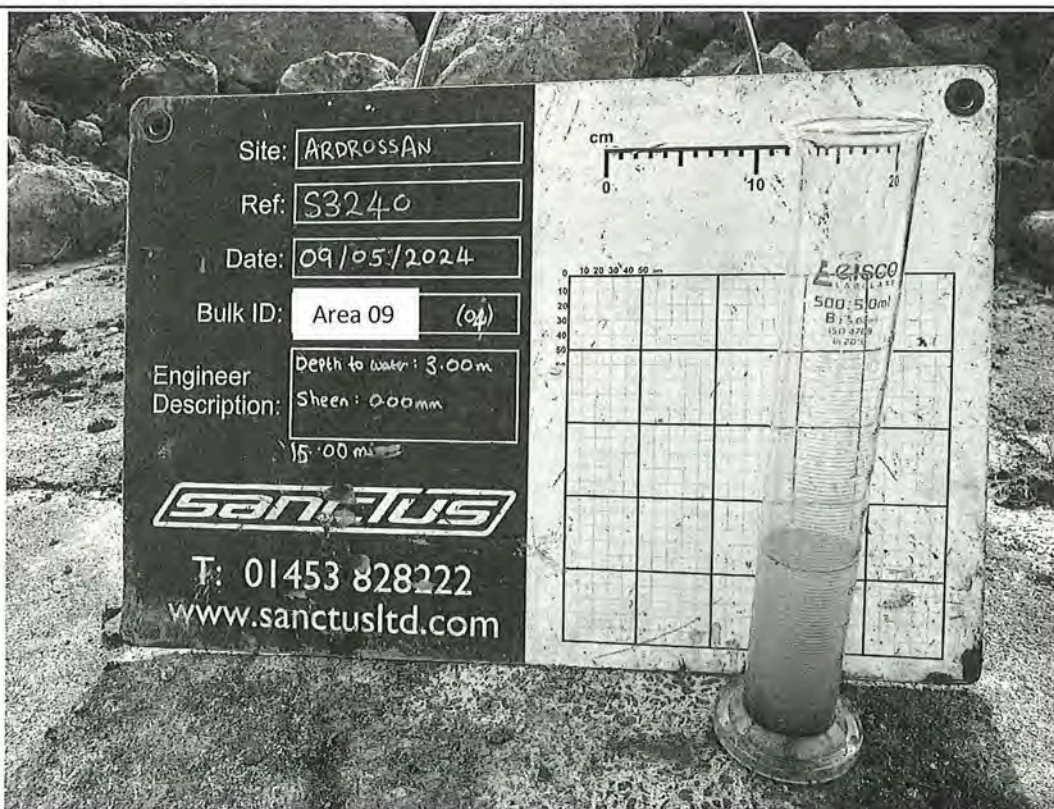


Plate No.: 12

Title.: Area 09 Water Validation 04 showing 0.00mm of sheen after 15 minutes.



Contract No.: S3240

Date: 09/05/2024

Contract Name: Ardrossan, North Shore

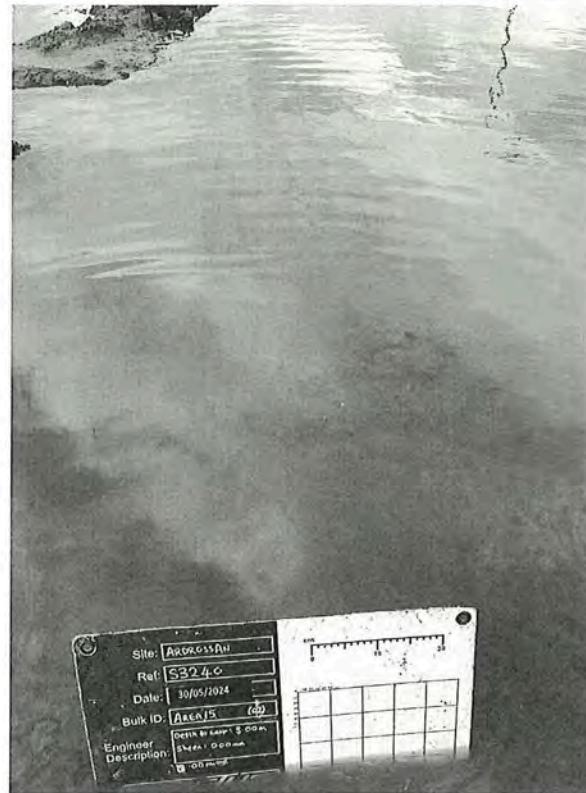


Plate No.: 12

Title.: Area 15 Water Validation 02 Location, with minimal sheen. Looking West.

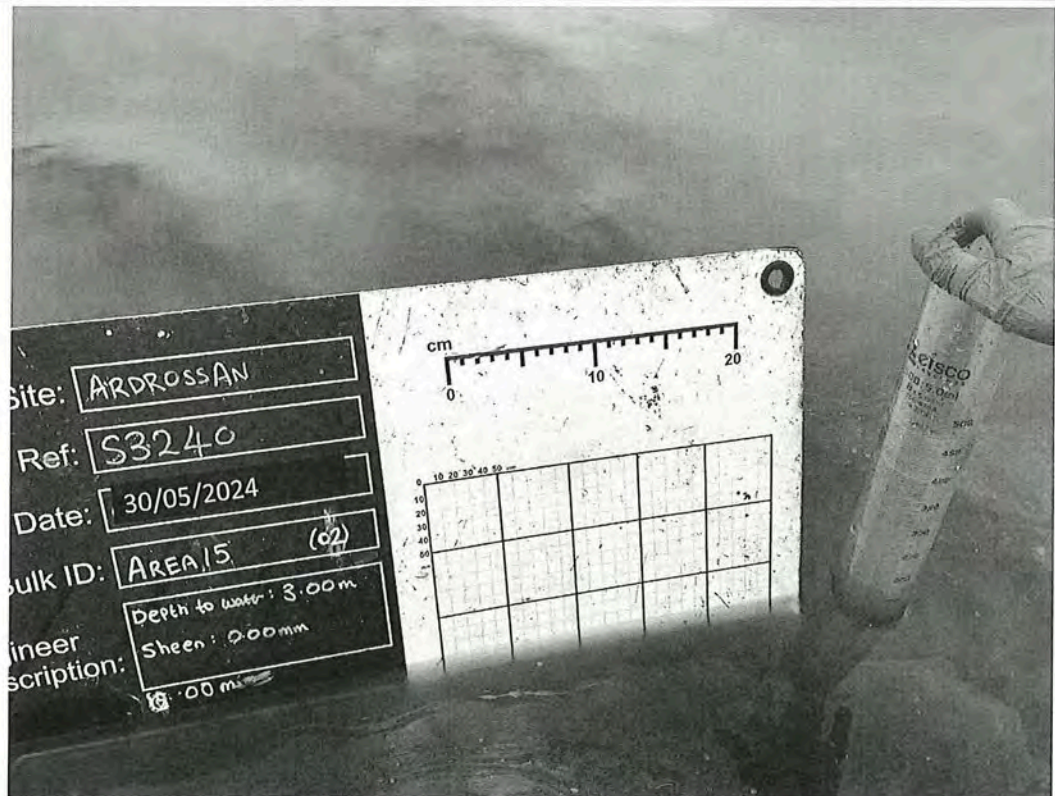


Plate No.: 13

Title.: Area 15 Water Validation 02 showing 0.00mm of sheen after 0.00 minutes.

SANCTUS

Contract No.: S3240

Date: 30/05/2024

Contract Name: Ardrossan, North Shore

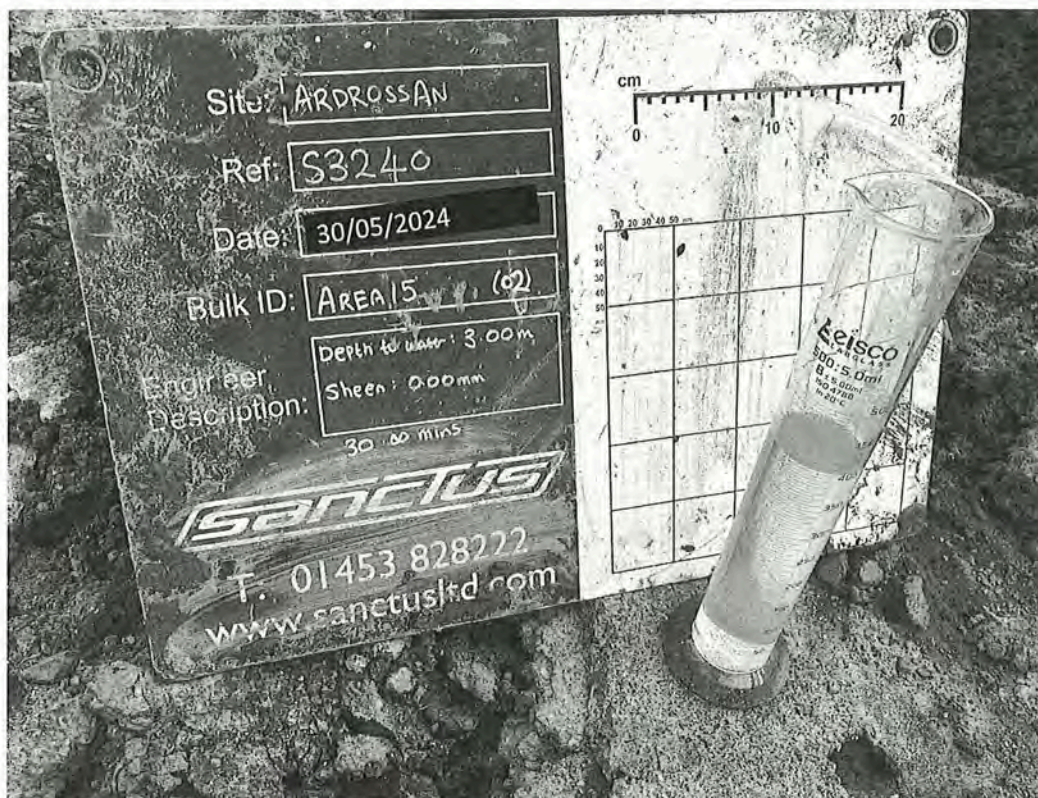


Plate No.: 14

Title.: Area 15 Water Validation 02 showing 0.00mm of sheen after 30 minutes.

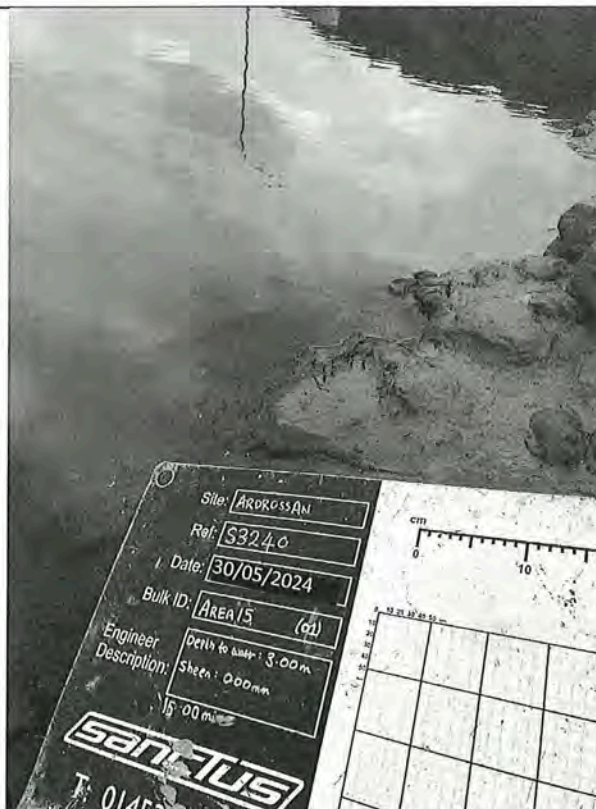


Plate No.: 15

Title.: Area 15 Water Validation location 02 showing no sheen, Looking East.



Contract No.: S3240

Date: 30/05/2024

Contract Name: Ardrossan, North Shore



Plate No.: 16

Title.: Area 15 Water Validation 02 Location showing 0.00mm after 0.00 minutes.

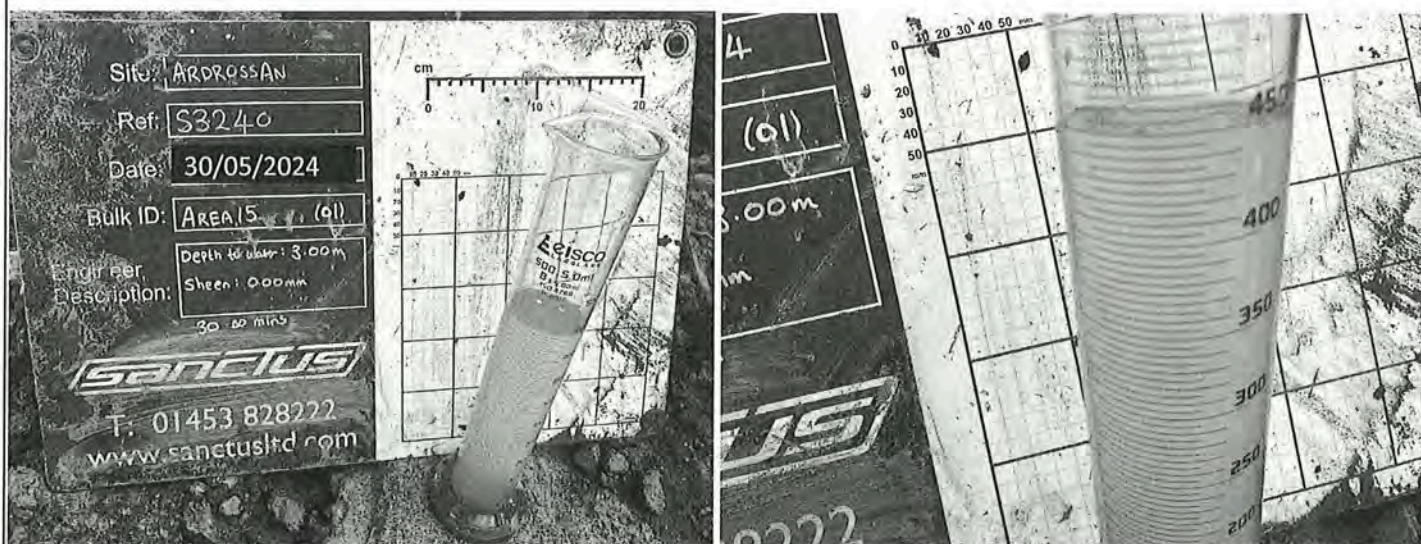


Plate No.: 17

Title.: Area 15 Water Validation 02 showing 0.00mm of sheen after 30.00 minutes.

Sanctus

Contract No.: S3240

Date: 30/05/2024

Contract Name: Ardrossan, North Shore

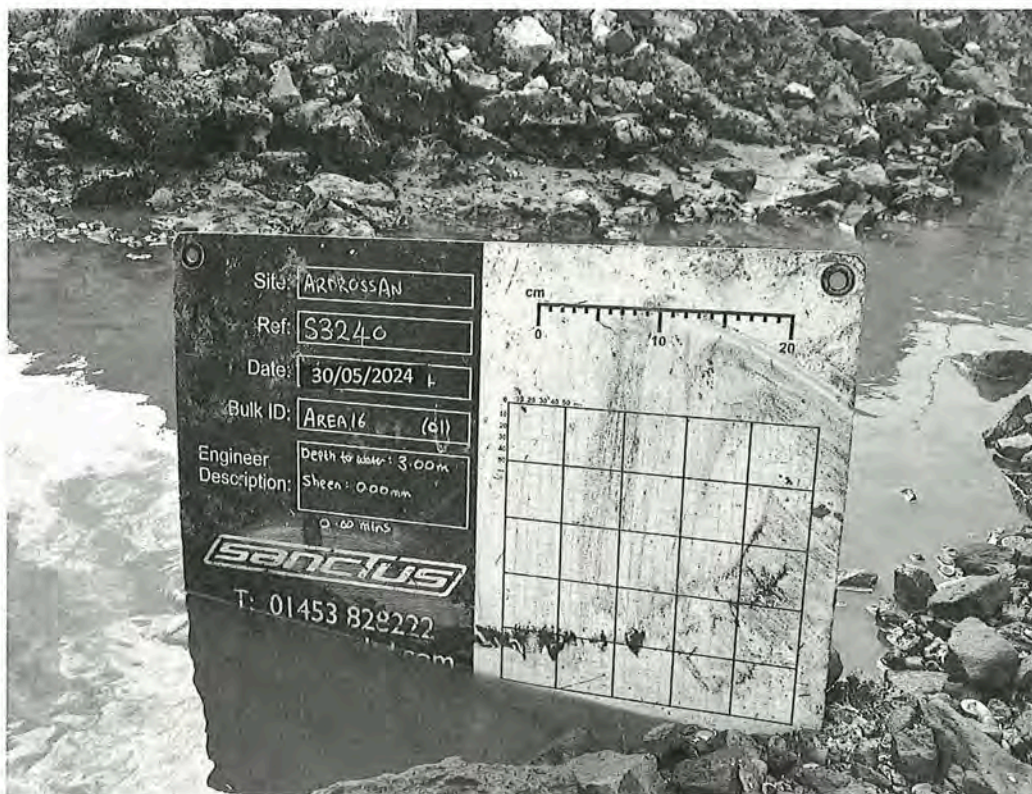


Plate No.: 18

Title.: Area 16 Water Validation 01 Location, showing no sheen. Looking West.



Plate No.: 19

Title.: Area 16 Water Validation 01 showing 0.00mm of sheen after 0.00 minutes.

sanctus

Contract No.: S3240

Date: 30/05/2024

Contract Name: Ardrossan, North Shore

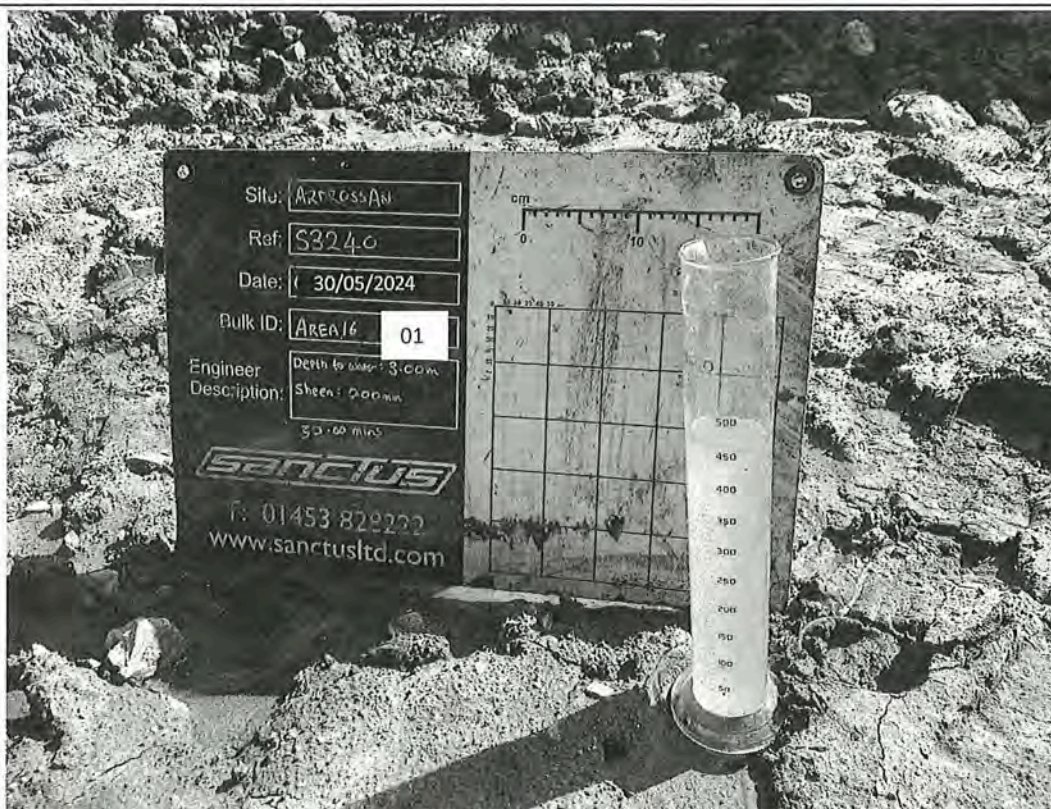


Plate No.: 20

Title.: Area 16 Water Validation 01 showing 0.00mm of sheen after 30 minutes.

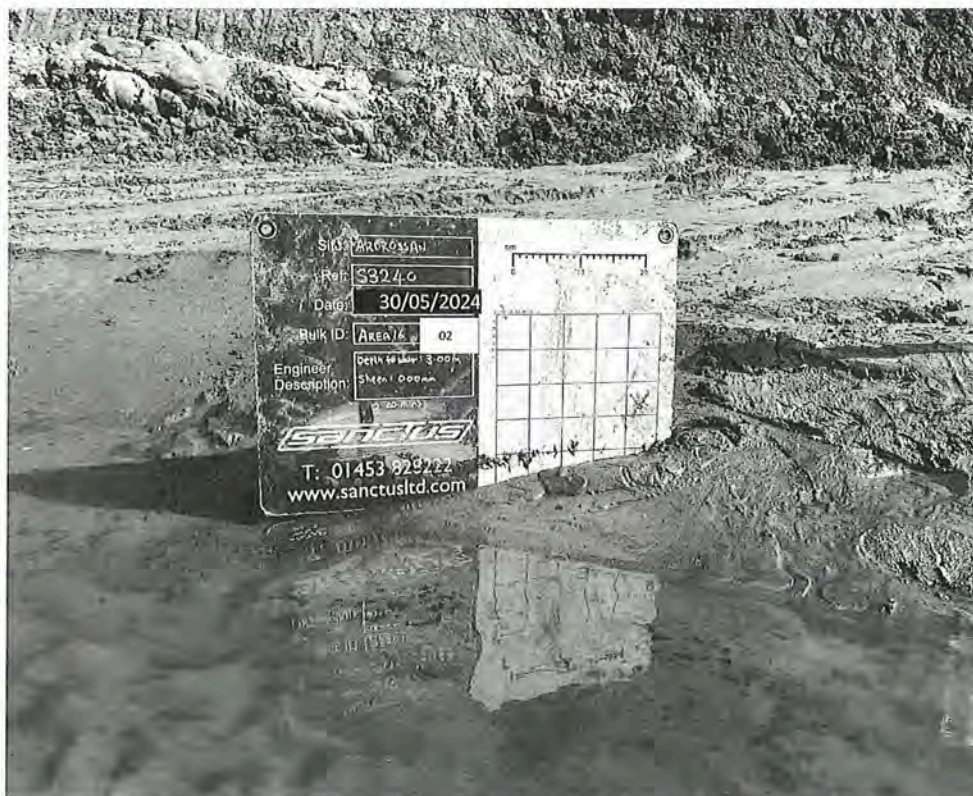


Plate No.: 21

Title.: Area 16 Water Validation 02 showing no sheen, looking West. .

sanctus

Contract No.: S3240

Date: 030/05/2024

Contract Name: Ardrossan, North Shore



Plate No.: 22

Title.: Area 16 Water Validation 02 showing 0.00mm of sheen after 0 minutes.

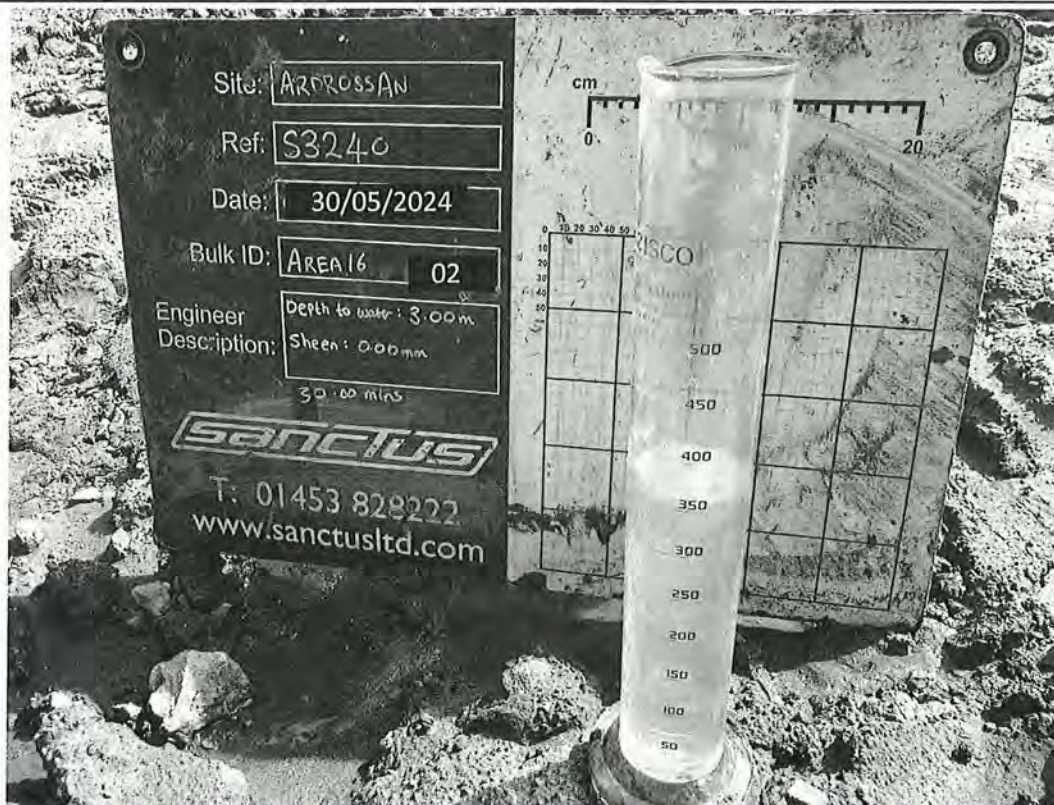


Plate No.: 23

Title.: Area 16 Water Validation location 02 showing 0.00mm sheen after 30 minutes.

sanctus

Contract No.: S3240

Date: 30/05/2024

Contract Name: Ardrossan, North Shore



Plate No.: 24

Title.: Area 12/ 23 Groundwater looking East, showing no sheen or free product.

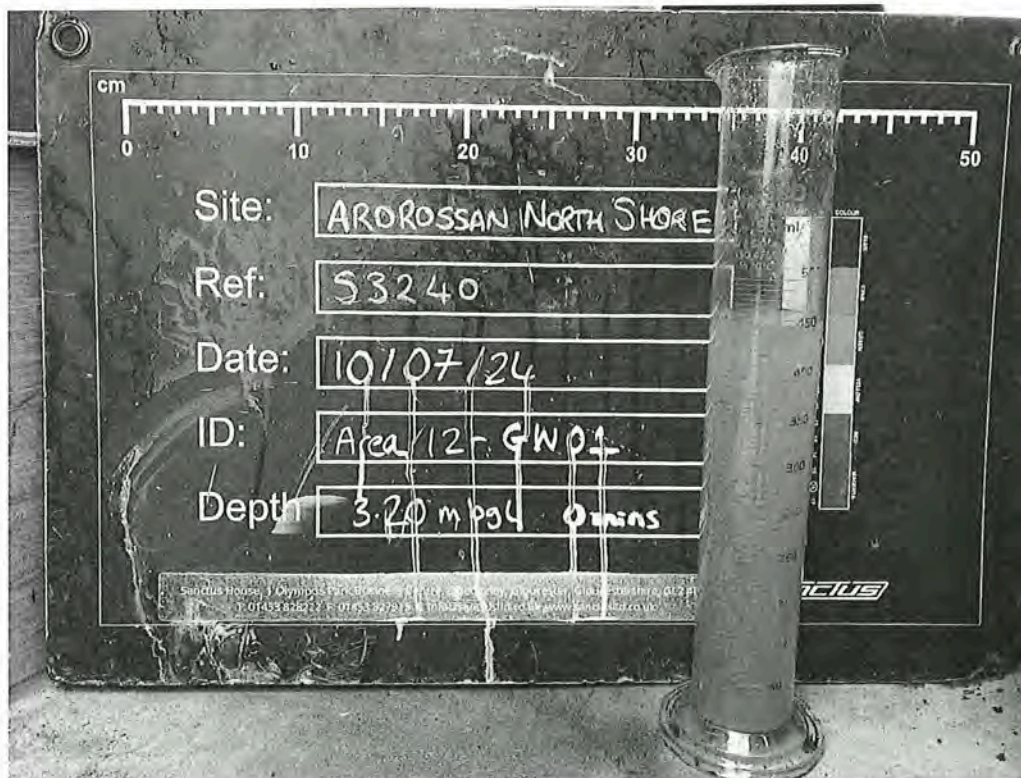


Plate No.: 25

Title.: Area 12/23 Groundwater validation No 1, at 0 minutes showing no sheen or free product



Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

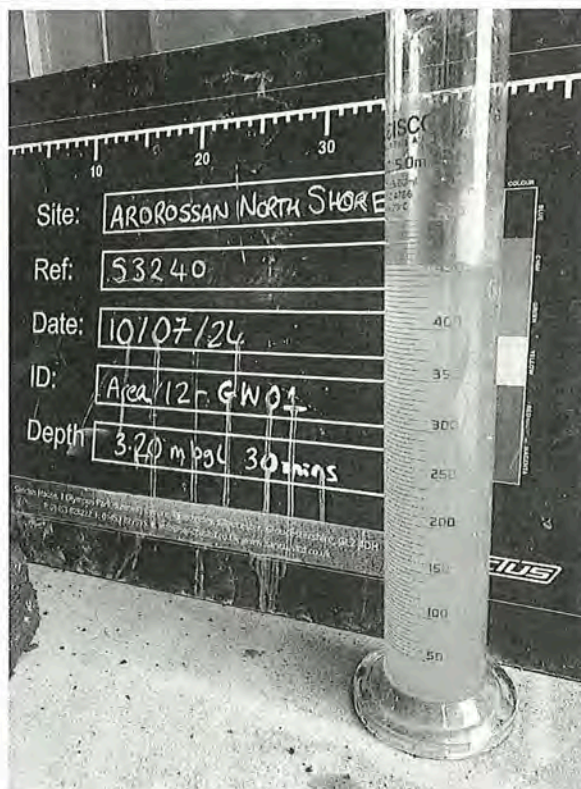


Plate No.: 26

Title.: Area 12/23 Groundwater No 1 after 30 minutes. No sheen or Free Product.



Plate No.: 27

Title.: Area 12 Groundwater No 2, looking south.



Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

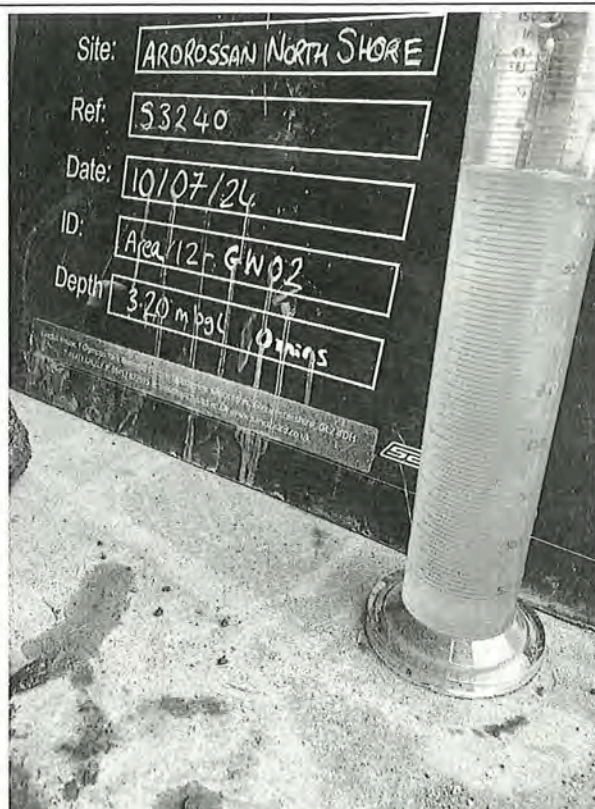


Plate No.: 28

Title.: Area 12 Groundwater No 2, at 0 minutes showing no sheen or free product.

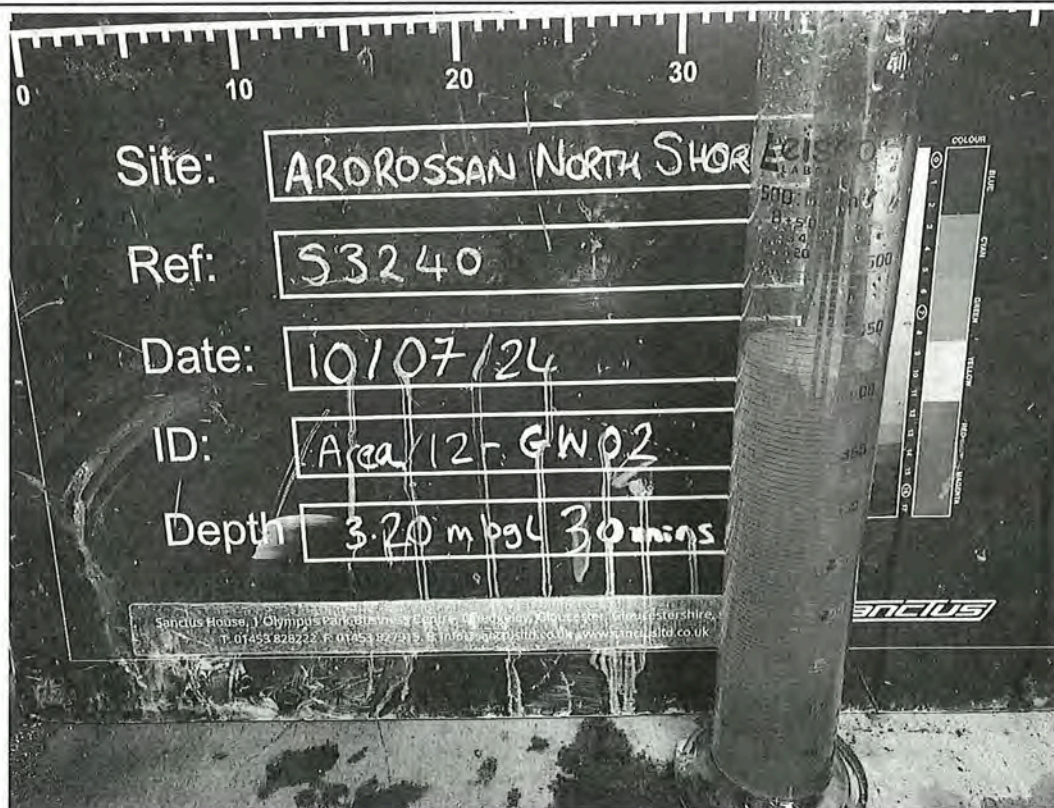


Plate No.: 29

Title.: Area 12 groundwater No 2 after 30 minutes, showing no sheen or free product.

sanclius

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 30

Title.: Area 19 Groundwater Showing free product, prior to remediation.



Plate No.: 31

Title.: Area 19 Groundwater following removal of Free Product. No sheen or product remaining.

sanctus

Contract No.: S3240

Date:11/09/2024

Contract Name: Ardrossan, North Shore

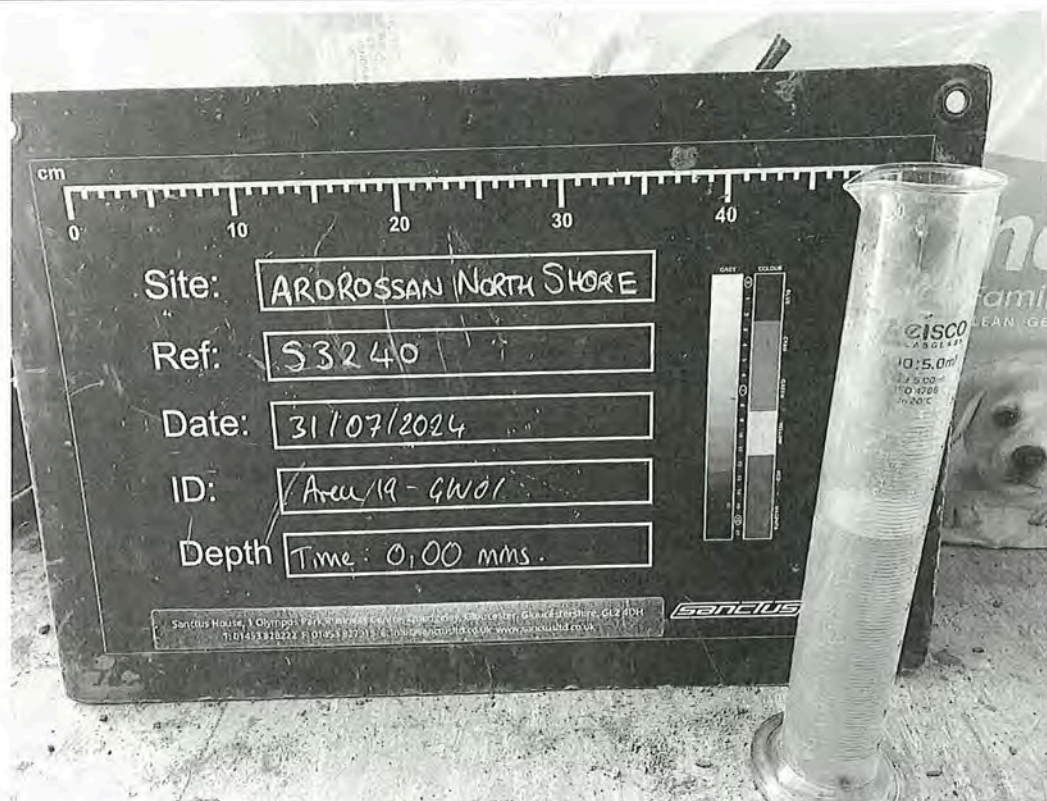


Plate No.: 32

Title.: Area 19 Groundwater No 1, at 0 minutes showing no sheen or free product.

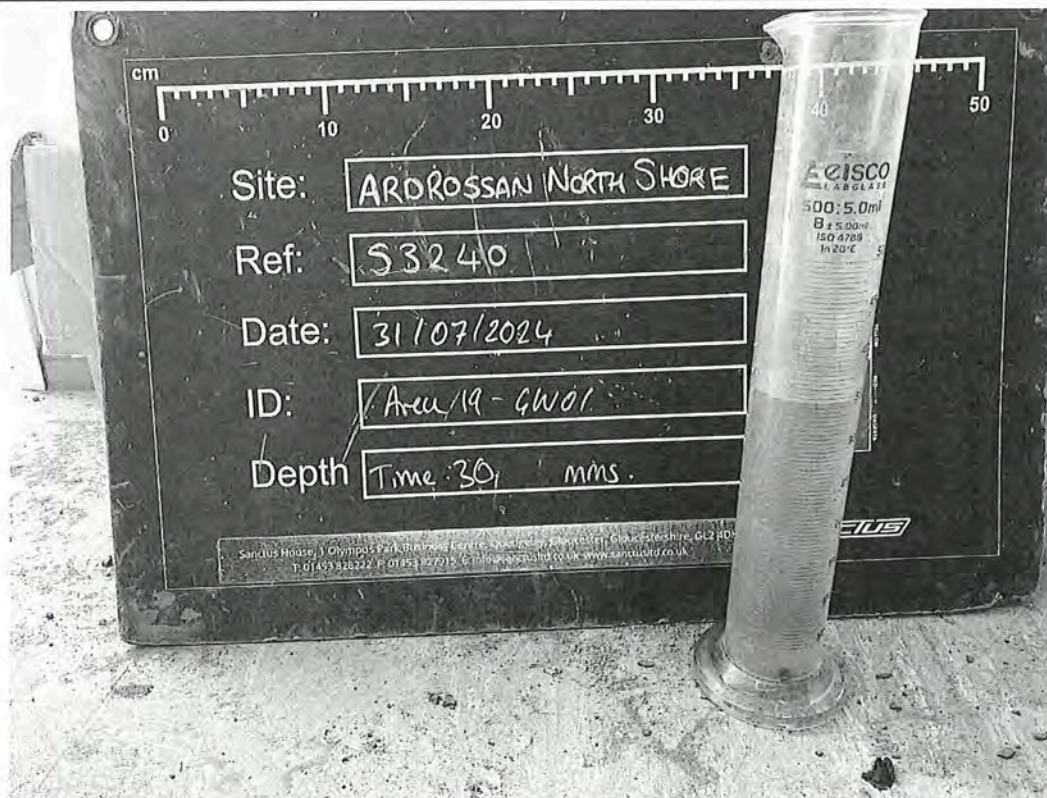


Plate No.: 33

Title.: Area 19 Groundwater No 1 after 30 minutes, showing no sheen or free product.

sanclius

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 34

Title.: Cell D (Areas 12&16) Groundwater general view.



Plate No.: 35

Title.: Cell D groundwater No 1, showing no sheen or free product.

sanctus

Contract No.: S3240

Date:11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 36

Title.: Cell D groundwater No 2, showing no sheen or free product.



Plate No.: 37

Title.: Cell D groundwater No 3, showing no sheen or free product.



Contract No.: S3240

Date:11/09/2024

Contract Name: Ardrossan, North Shore

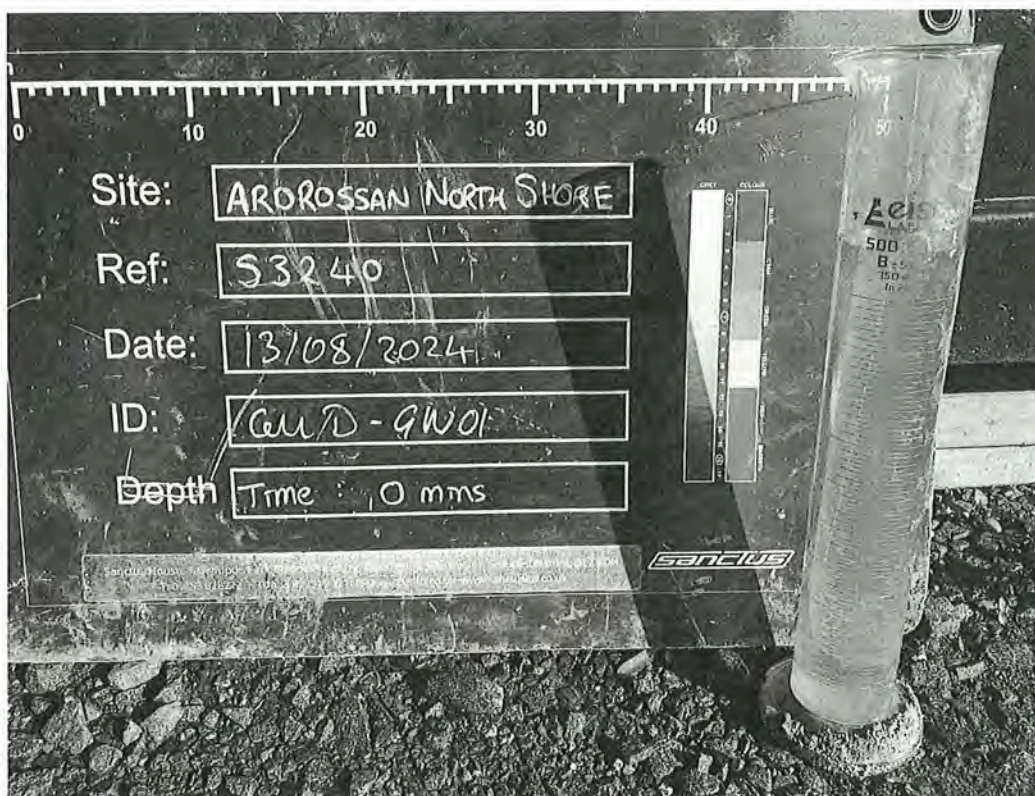


Plate No.: 38

Title.: Cell D Groundwater No 1, at 0 minutes showing no sheen or free product.

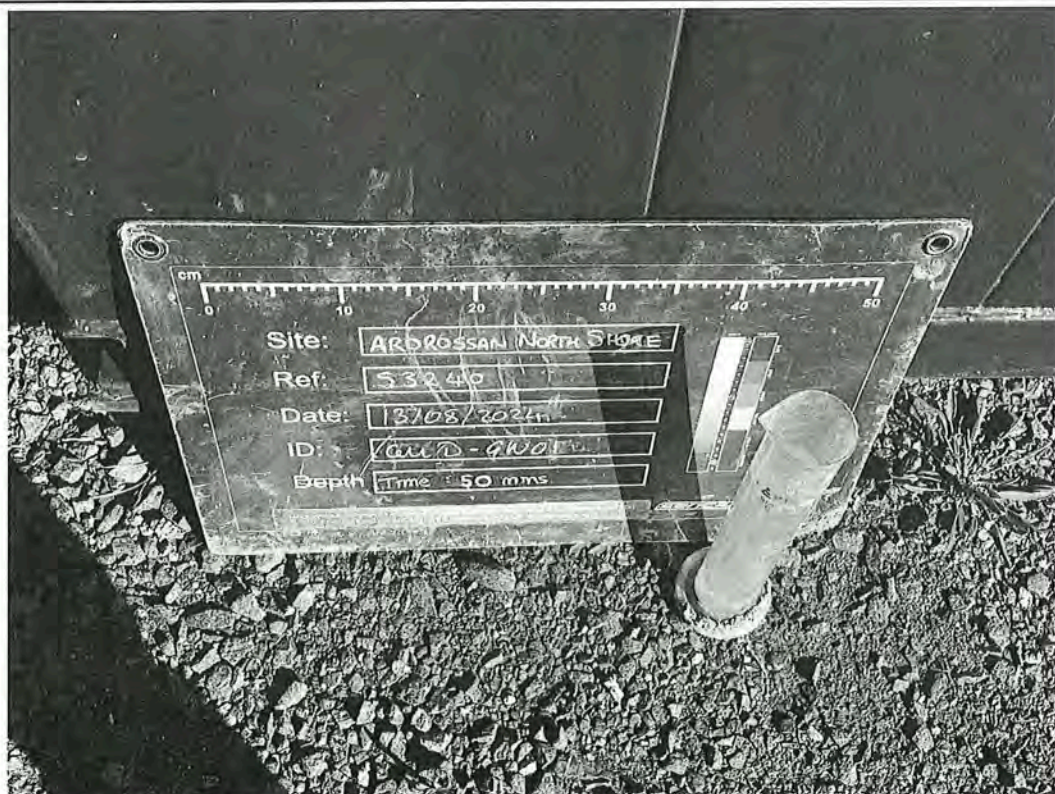


Plate No.: 39

Title.: Cell D Groundwater No 1, at 50 minutes showing no sheen or free product

sanclius

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

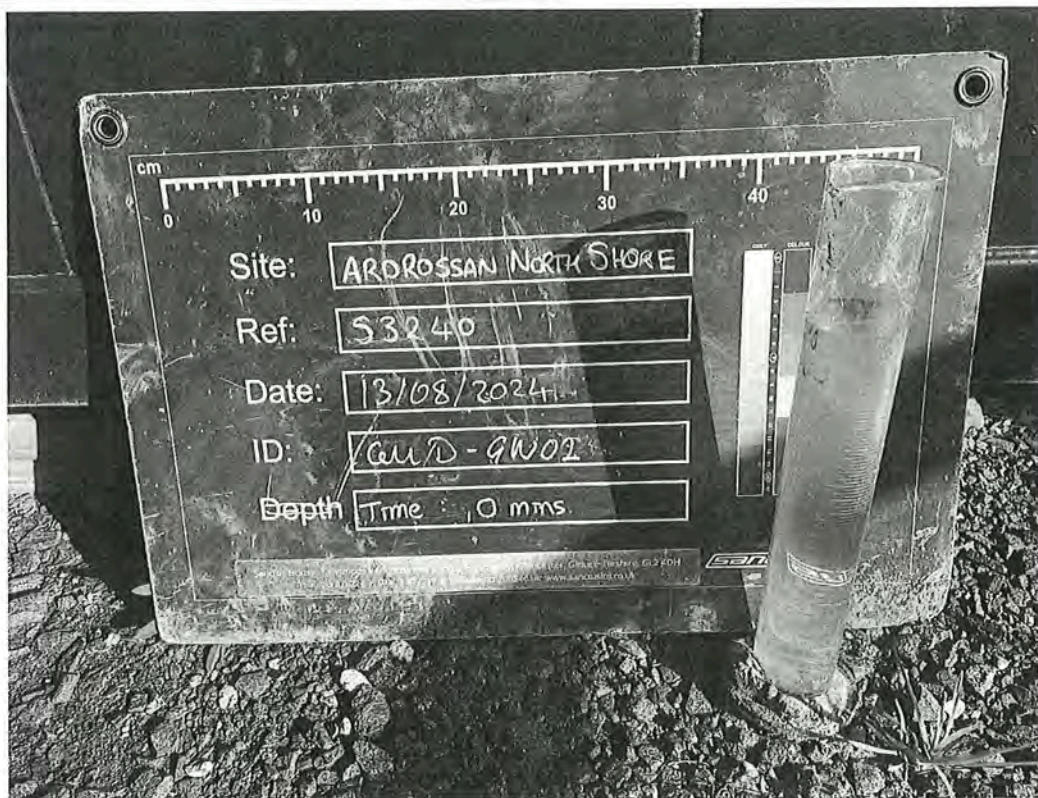


Plate No.: 40

Title.: Cell D Groundwater No 2, at 0 minutes showing no sheen or free product.

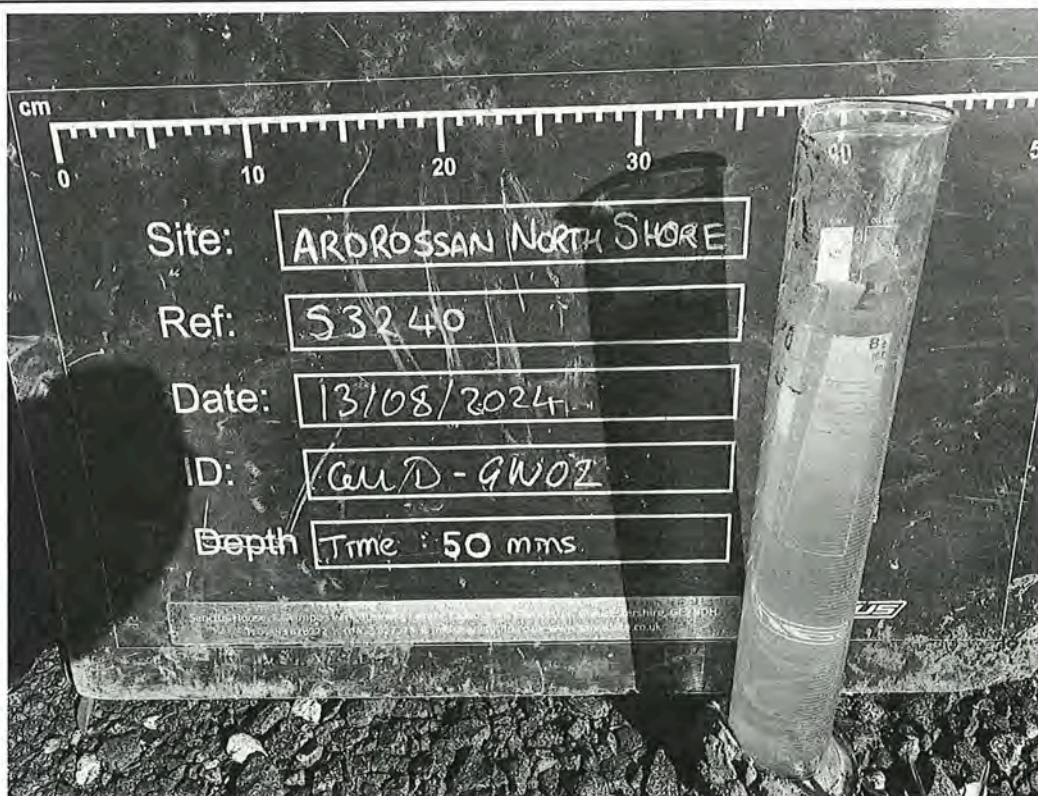


Plate No.: 41

Title.: Cell D Groundwater No 2, at 50 minutes showing no sheen or free product.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

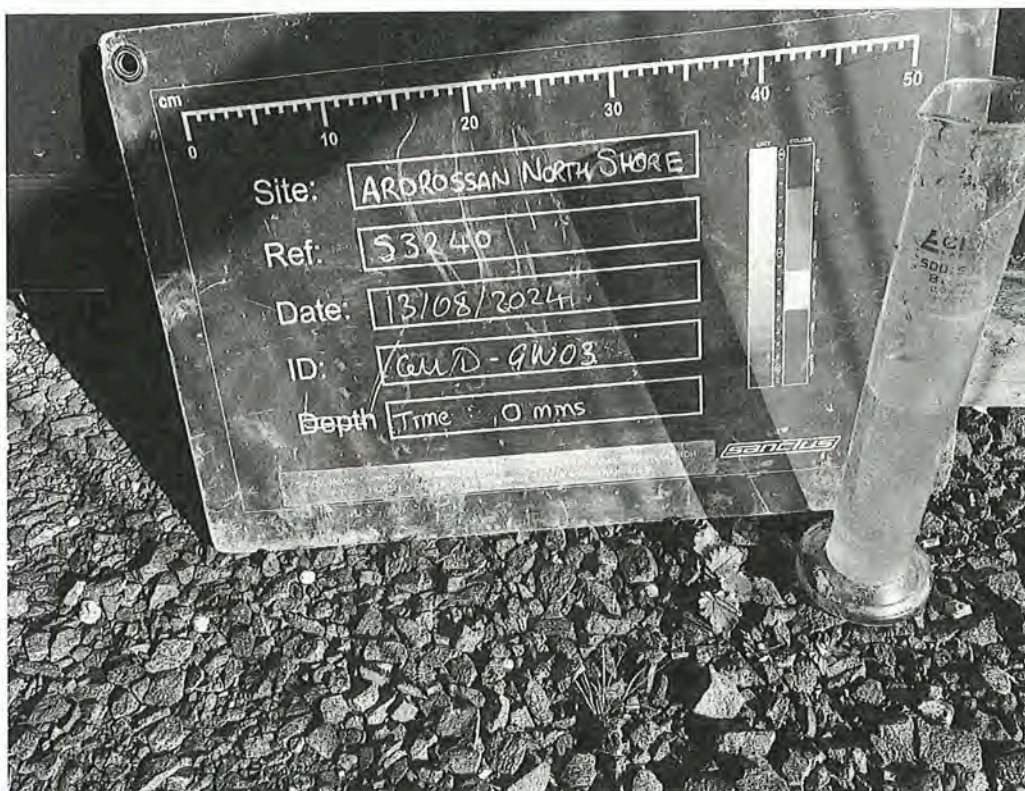


Plate No.: 42

Title.: Cell D Groundwater No 3, at 0 minutes showing no sheen or free product.

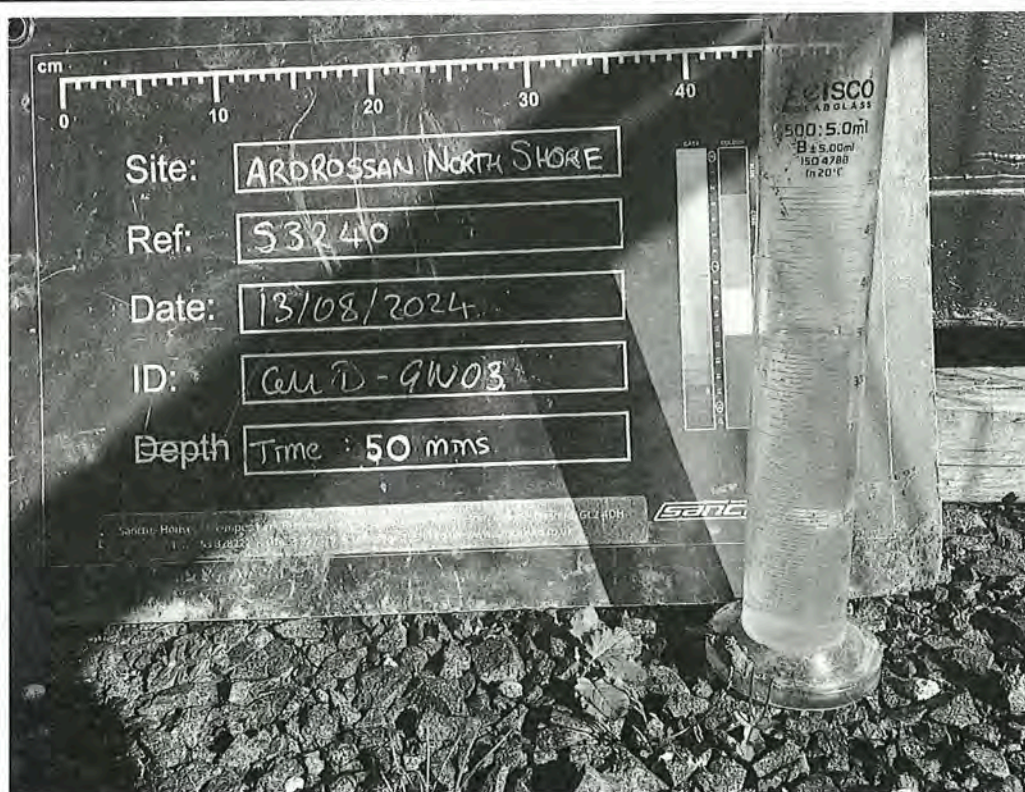


Plate No.: 43

Title.: Cell D Groundwater No 3, at 50 minutes showing no sheen or free product.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 1

Title.: Area 12/ 23 Groundwater looking East, showing no sheen or free product.

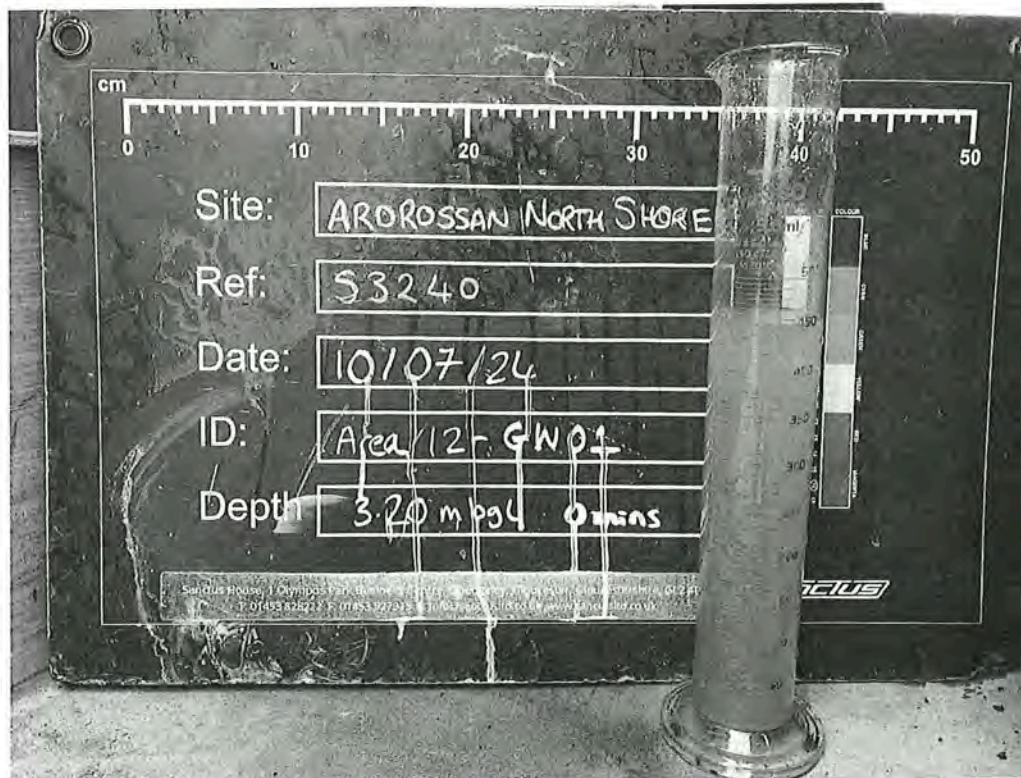


Plate No.: 2

Title.: Area 12/23 Groundwater validation No 1, at 0 minutes showing no sheen or free product



Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

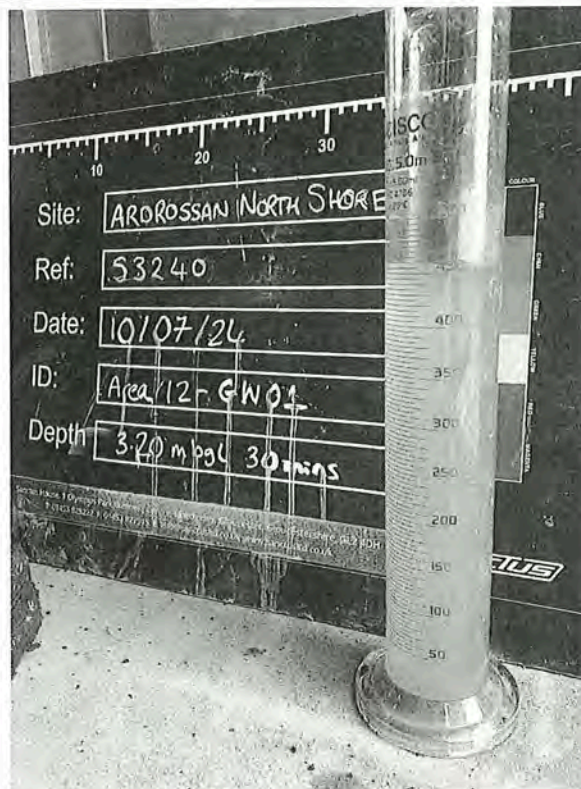


Plate No.: 3

Title.: Area 12/23 Groundwater No 1 after 30 minutes. No sheen or Free Product.



Plate No.: 4

Title.: Area 12 Groundwater No 2, looking south.



Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

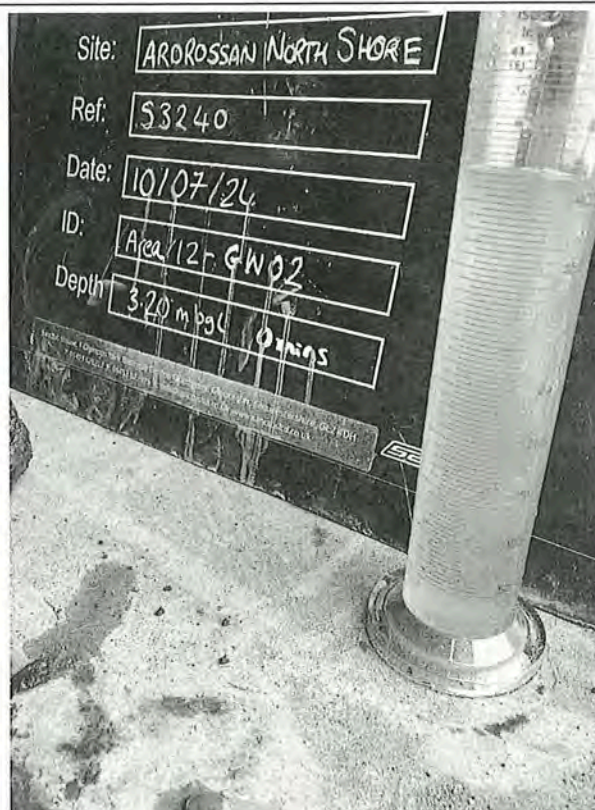


Plate No.: 5

Title.: Area 12 Groundwater No 2, at 0 minutes showing no sheen or free product.

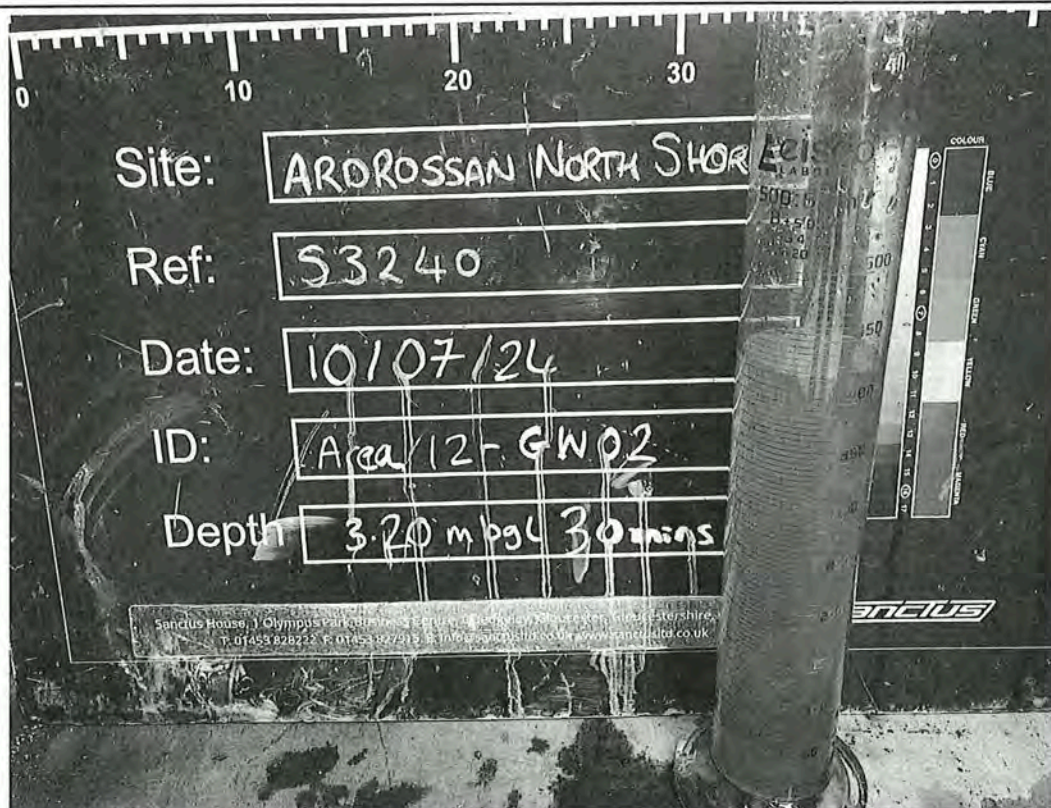


Plate No.: 6

Title.: Area 12 groundwater No 2 after 30 minutes, showing no sheen or free product.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 5

Title.: Area 19 Groundwater Showing free product, prior to remediation.



Plate No.: 6

Title.: Area 19 Groundwater following removal of Free Product. No sheen or product remaining.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

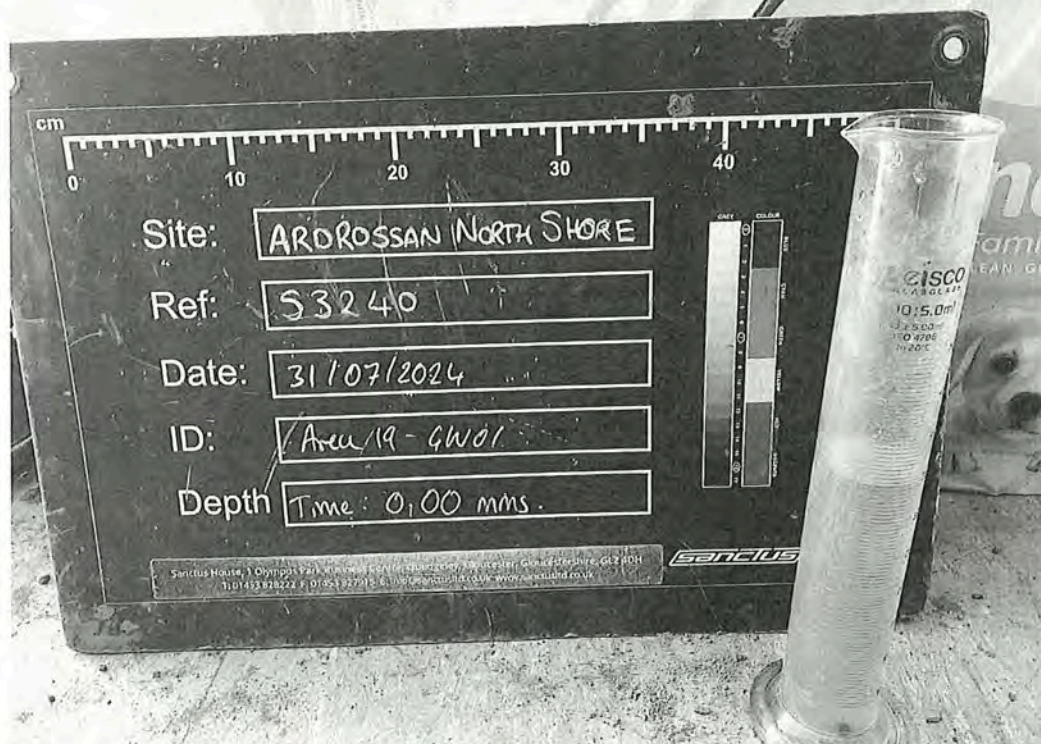


Plate No.: 5

Title.: Area 19 Groundwater No 1, at 0 minutes showing no sheen or free product.

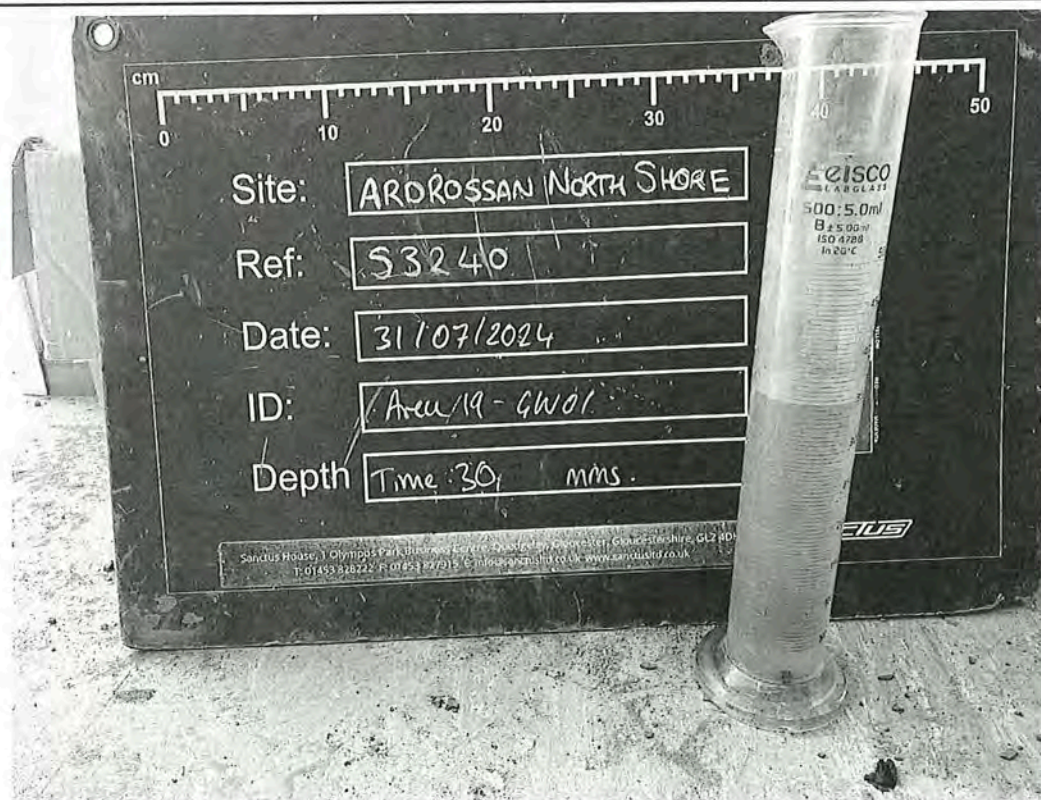


Plate No.: 6

Title.: Area 19 Groundwater No 1 after 30 minutes, showing no sheen or free product.

Sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 5

Title.: Cell D (Areas 12&16) Groundwater general view.



Plate No.: 6

Title.: Cell D groundwater No 1, showing no sheen or free product.



Contract No.: S3240

Date:11/09/2024

Contract Name: Ardrossan, North Shore



Plate No.: 5

Title.: Cell D groundwater No 2, showing no sheen or free product.



Plate No.: 6

Title.: Cell D groundwater No 3, showing no sheen or free product.

sanctus

Contract No.: S3240

Date:11/09/2024

Contract Name: Ardrossan, North Shore

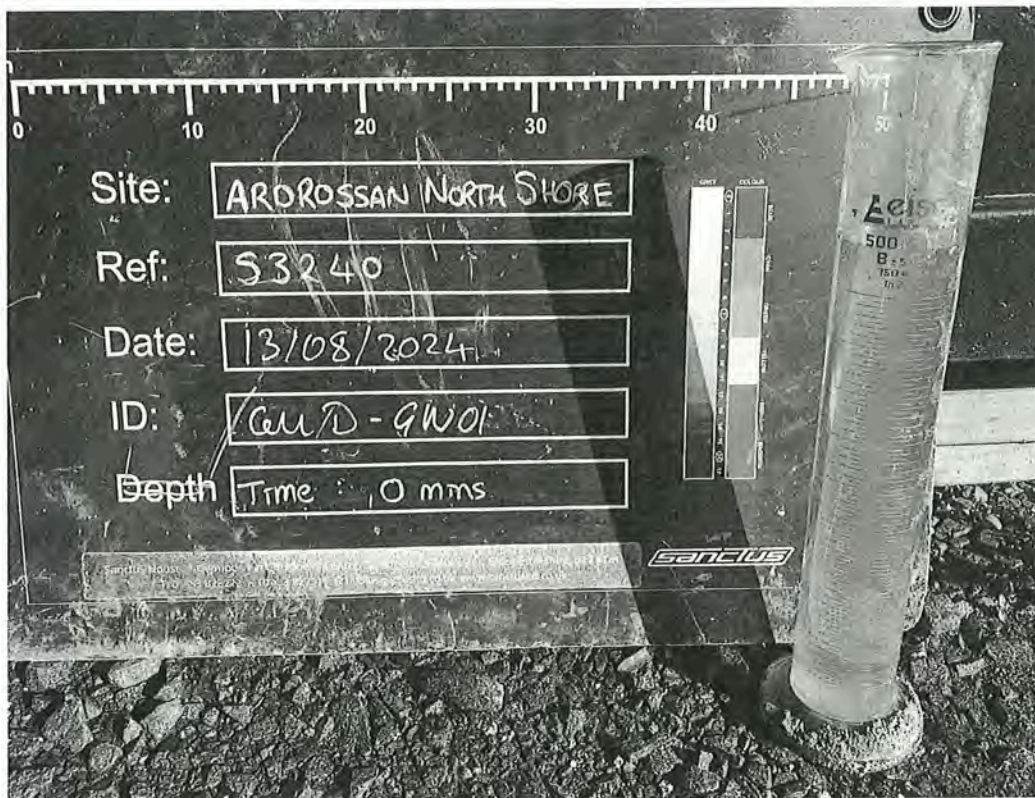


Plate No.: 5

Title.: Cell D Groundwater No 1, at 0 minutes showing no sheen or free product.

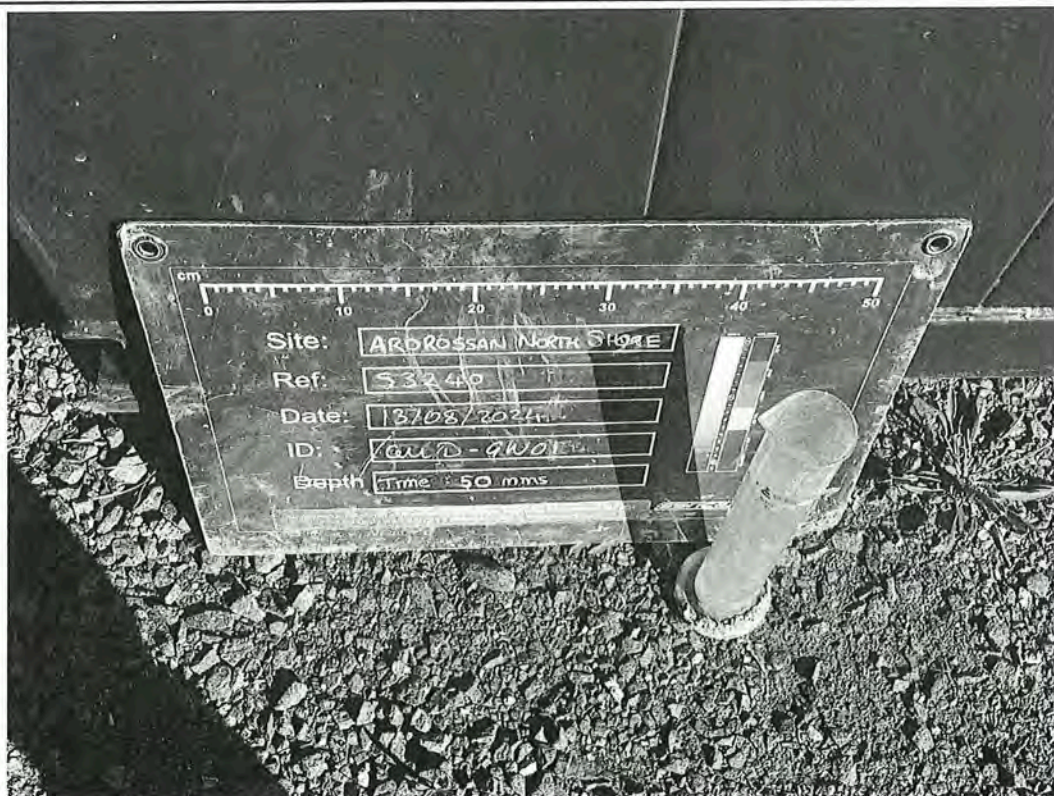


Plate No.: 6

Title.: Cell D Groundwater No 1, at 50 minutes showing no sheen or free product

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

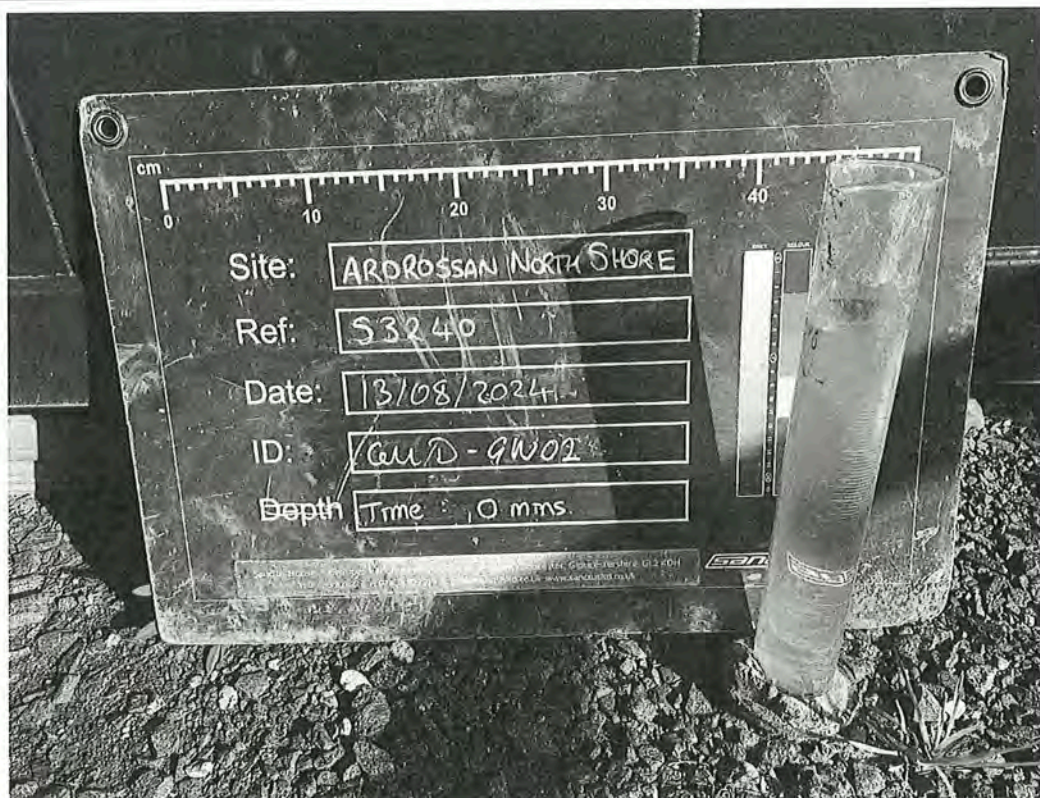


Plate No.: 5

Title.: Cell D Groundwater No 2, at 0 minutes showing no sheen or free product.

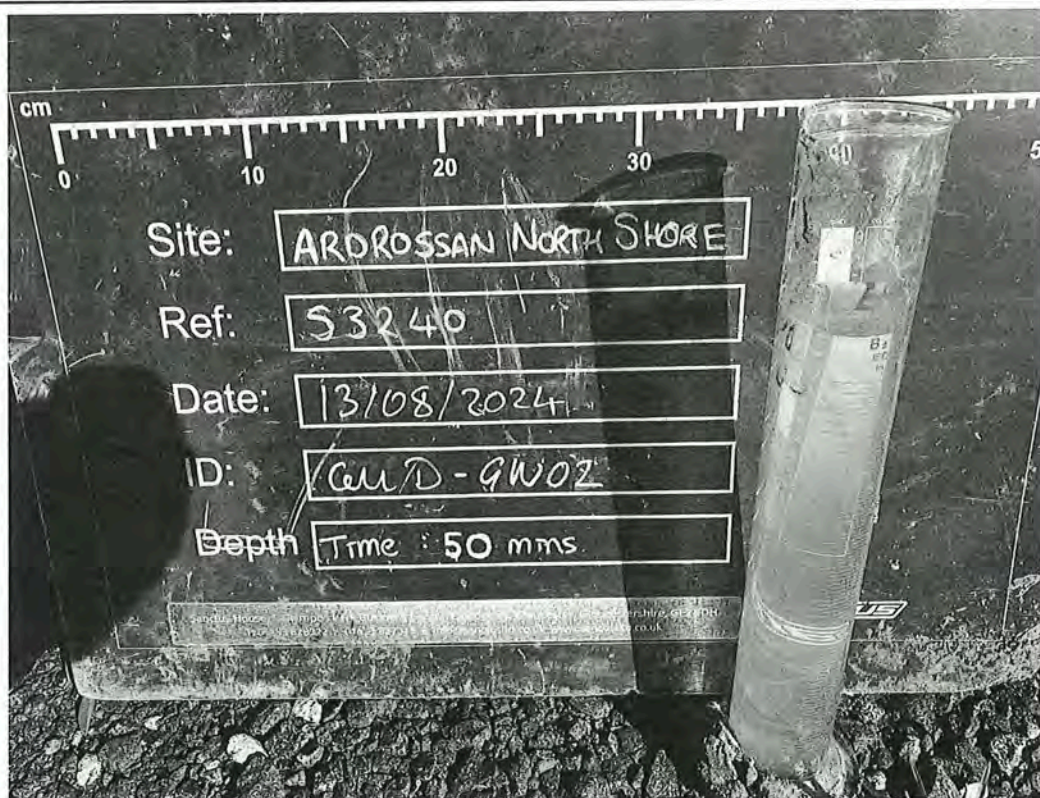


Plate No.: 6

Title.: Cell D Groundwater No 2, at 50 minutes showing no sheen or free product.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

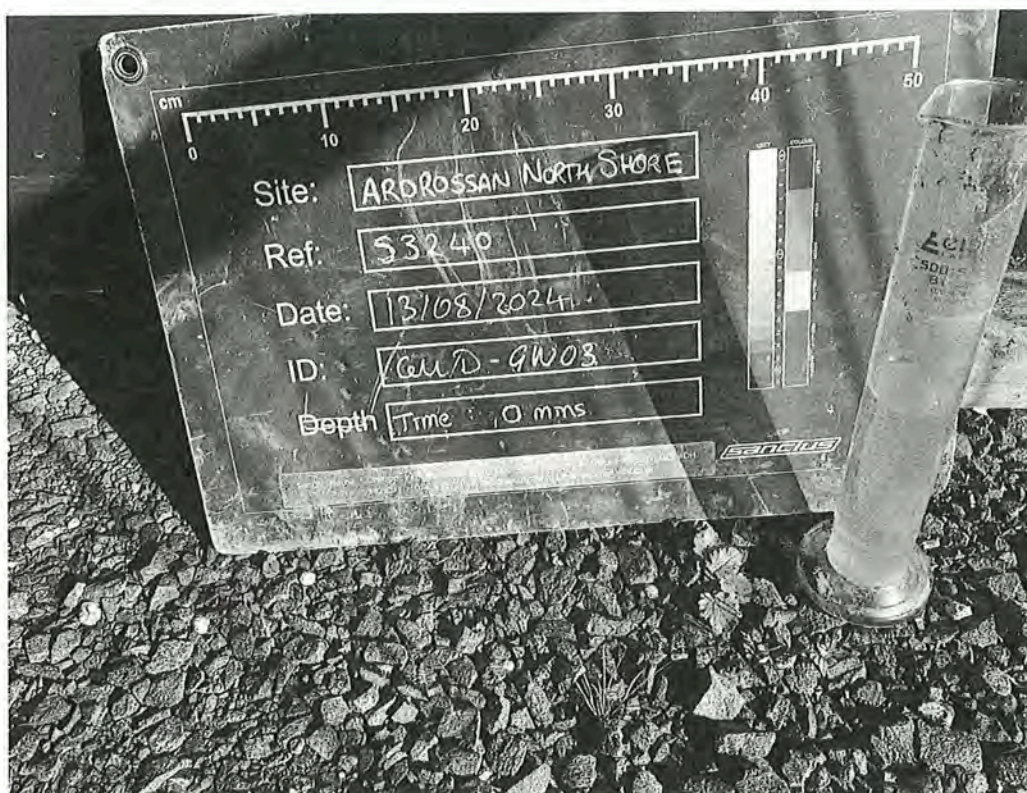


Plate No.: 5

Title.: Cell D Groundwater No 3, at 0 minutes showing no sheen or free product.

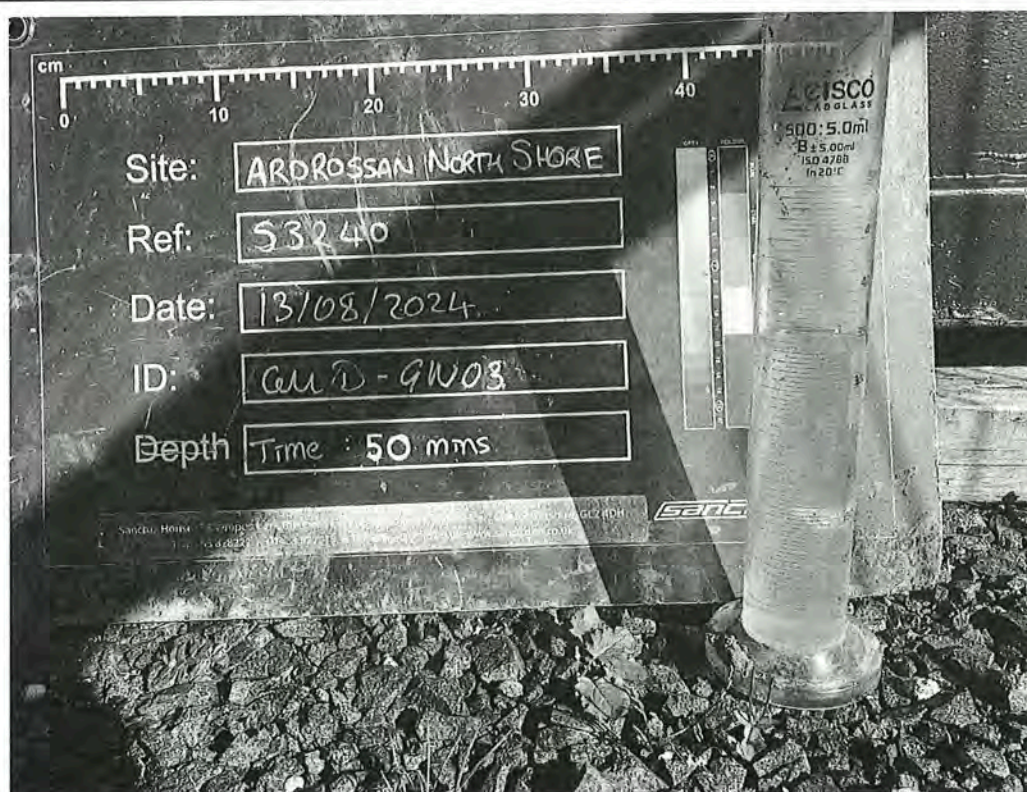


Plate No.: 6

Title.: Cell D Groundwater No 3, at 50 minutes showing no sheen or free product.

sanctus

Contract No.: S3240

Date: 11/09/2024

Contract Name: Ardrossan, North Shore

Appendix D Site Specific Remedial Criteria

Table 0-1: Sanctus Remedial Criteria

Determinant	Units	Remedial Target Criteria: Remediation (all verification samples)
Petroleum Hydrocarbons		
Ali C5-6	mg/kg	78
Ali C6-8	mg/kg	230
Ali C8-10	mg/kg	65
Ali C10-12	mg/kg	330
Ali C12-16	mg/kg	1000
Ali C16-21	mg/kg	1000
Ali C21-35	mg/kg	1000
Aro C5-7	mg/kg	140
Aro C7-8	mg/kg	290
Aro C8-10*	mg/kg	7.34
Aro C10-12*	mg/kg	48.3
Aro C12-16*	mg/kg	173.47
Aro C16-21*	mg/kg	540
Aro C21-35	mg/kg	<1,000
Aro C5-35*	mg/kg	<1,000
Total Petroleum Hydrocarbons*	mg/kg	Total of all TPH Fractions <1000mg/kg
Speciated PAHs		
Naphthalene*	mg/kg	3.7
Acenaphthylene*	mg/kg	109.9
Acenaphthene	mg/kg	141
Fluorene	mg/kg	400
Phenanthrene	mg/kg	220
Anthracene	mg/kg	<1,000
Fluoranthene	mg/kg	560
Pyrene	mg/kg	<1,000
Benzo(a)anthracene	mg/kg	11
Chrysene	mg/kg	22
Benzo(b)fluoranthene*	mg/kg	20.4
Benzo(k)fluoranthene	mg/kg	93
Benzo(a)pyrene*	mg/kg	25.1
Indeno (1,2,3-c-d)pyrene	mg/kg	36
Dibenz(a,h)anthracene*	mg/kg	48.6
Benzo(g,h,i)perylene	mg/kg	340
Total PAHs	Mg/kg	Total of all PAH Fractions <1000mg/kg
Monoaromatics & Oxygenates		
Benzene	mg/kg	0.170
Toluene	mg/kg	290

Determinant	Units	Remedial Target Criteria: Remediation (all verification samples)
Ethylbenzene	mg/kg	110
o-xylene	mg/kg	140
Asbestos		
Asbestos (Non-Visible)	N/A	<0.01%
Note: *Denotes values calculated from Sanctus Site Specific Modelling and assumptions detailed within Section 8.0 of the Sanctus Remediation Strategy (1)		

Appendix E Sanctus Stratigraphic Logs



- Legend:
- Site Boundary
 - Sanctus Trial Pit Location
 - - - Phasing Sequence Line
 - Area 8 - Proposed Excavation Extents

STP019

Area 8

STP020

Calderdale Ponds

Grass

0m 1.25m 2.5m 5m

Site Overview:

Area of Interest:

Scale: 1:12,500



Sanctus House, 1 Olympus Park Business Centre,
Quedgeley, Glos, GL2 4DH
T: 01453 828222
E: info@sanctusltd.co.uk www.sanctusltd.com

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	03/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Sanctus Area 08 Investigation Location Plan

Contract No:
S3240

Drawn By:
MW

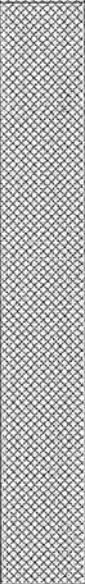
Drawing No:
D3240/090

QC Check By:
JH

Scale @ A3:
1:125

Approved By:
ARW

		Trial Pit Log					
Project Name: Ardrossan North Shore			Client: North Ayrshire Council			Date: 11/04/2024	
Location: Ardrossan, Scotland			Contractor:			Equipment: 20t 360 Excavator	
Project No. : S3240 Remediation							
Location Number STP019		Location Type TP		Level		Logged By LD Scale 1:25 Page Number Sheet 1 of 1	
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.20			Concrete Layer
				0.60			Dark grey, sandy, clayey, GRAVEL with a high, subrounded to angular concrete and sandstone cobble and boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of concrete and sandstone. (MADE GROUND)
	0.90 - 3.00	ES		0.90			Reddish brown, sandy, silty, gravelly, CLAY with a high angular to subrounded, brick and concrete content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of brick, concrete and sandstone. (MADE GROUND)
							Grey, slightly gravelly, SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone, brick, and concrete. Rare shell fragments. (MADE GROUND) Large black pipe. 0.20m Diameter running North to South.
				3.00			End of Trial Pit at 3.00m
Remarks							Dimensions Pit Length Pit Width 2.00 1.50 Shoring Used None
- Sanctus Remediation Area 08 - Machine Excavated - No ground water encountered - Terminated due to target depth achieved - Logged for environmental purposes only							

		Trial Pit Log									
Project Name: Ardrossan North Shore				Client: North Ayrshire Council				Date: 11/04/2024			
Location: Ardrossan, Scotland				Contractor:				Equipment: 20t 360 Excavator			
Project No. : S3240 Remediation											
Location Number STP020		Location Type TP		Level		Logged By LD		Scale 1:25		Page Number Sheet 1 of 1	
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description				
	Depth (m)	Type	Results								
	2.00 - 3.50	ES		0.50			Dark brown, slightly gravelly, sandy, silty, CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to rounded of brick, concrete and sandstone. Rare rootlets. (MADE GROUND)		1		
				1.50			Reddish brown slightly gravelly, SAND. Sand is fine to coarse. Gravel is fine to medium, of sandstone. (MADE GROUND)				
				3.50			Brown, slightly gravelly, SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to rounded of sandstone, brick and concrete. (MADE GROUND)				
				End of Trial Pit at 3.50m		4					
Remarks										Dimensions	
- Sanctus Remediation Area 08 - Machine Excavated - No ground water encountered - Terminated due to target depth achieved - Logged for environmental purposes only										Pit Length	Pit Width
										2.00	1.50
										Shoring Used None	

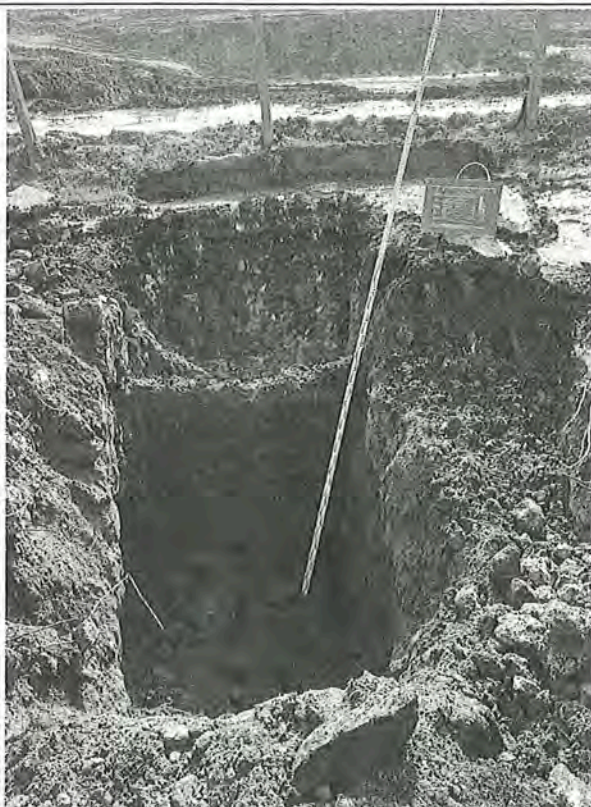


Plate No.: 1

Title.: Trial Pit STP019 located west of the sea wall in Area 08 from 0.00 – 3.00m bgl.

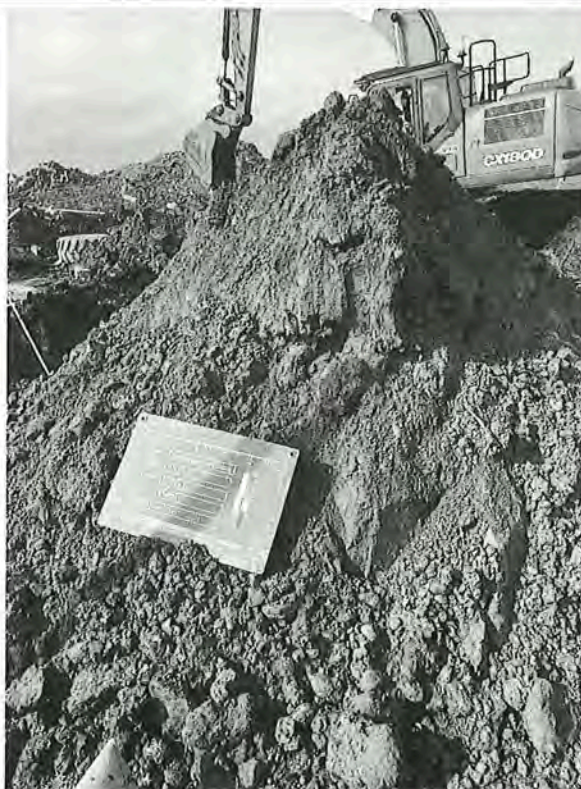


Plate No.: 2

Title.: Arisings from STP019 from 0.00 – 3.00m bgl.

sanctus

Contract No.: S3240

Date: 11/04/2024

Contract Name: Ardrossan, North Shore



Plate No.: 3

Title.: STP020 Trial Pit located west of the sea wall in Area 07 from 0.00 – 3.50m bgl.



Plate No.: 4

Title.: Arisings from STP020 from 0.00 – 3.50m bgl.

sanctus

Contract No.: S3240

Date: 11/04/2024

Contract Name: Ardrossan, North Shore



Environmental Science

Analytical Report Number : 24-013898

Project / Site name: Ardorssan North Shore

Samples received on: 12/04/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 12/04/2024

Your order number: S3240

Analysis completed by: 19/04/2024

Report Issue Number: 1

Report issued on: 19/04/2024

Samples Analysed: 2 soil samples

Signed:

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-013898
Project / Site name: Ardorssan North Shore
Your Order No: S3240

Lab Sample Number				169358	169359
Sample Reference				STPD19	STPD20
Sample Number				None Supplied	None Supplied
Depth (m)				1.50-3.00	2.00-3.50
Date Sampled				11/04/2024	11/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	14
Total mass of sample received	kg	0.1	NONE	0.9	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Amosite detected	Type	N/A	ISO 17025	Not-detected	Detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Detected	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	< 0.001	0.008
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	Loose Fibres
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS, ID, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH, CU, ID, AL}	mg/kg	1	MCERTS	1.2	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH, CU, ID, AL}	mg/kg	2	MCERTS	9.3	5.1
TPHCWG - Aliphatic >C16 - C21 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	25	18
TPHCWG - Aliphatic >C21 - C35 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	56	44
TPHCWG - Aliphatic >C5 - C35 _{EH, CU+HS, ID, AL}	mg/kg	10	NONE	92	67

TPHCWG - Aromatic >EC5 - EC7 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS, ID, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH, CU, ID, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH, CU, ID, AR}	mg/kg	2	MCERTS	3.8	2.4
TPHCWG - Aromatic >EC16 - EC21 _{EH, CU, ID, AR}	mg/kg	10	MCERTS	33	23
TPHCWG - Aromatic >EC21 - EC35 _{EH, CU, ID, AR}	mg/kg	10	MCERTS	65	44
TPHCWG - Aromatic >EC5 - EC35 _{EH, CU+HS, ID, AR}	mg/kg	10	NONE	100	69

TPH (C10 - C40) _{EH, CU, ID, TOTAL}	mg/kg	10	MCERTS	220	160
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.17	0.09
Acenaphthylene	mg/kg	0.05	MCERTS	0.08	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.09	0.07



Analytical Report Number: 24-013898
Project / Site name: Ardorssan North Shore
Your Order No: S3240

Lab Sample Number				169358	169359
Sample Reference				STP019	STP020
Sample Number				None Supplied	None Supplied
Depth (m)				1.50-3.00	2.00-3.50
Date Sampled				11/04/2024	11/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter: (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Fluorene	mg/kg	0.05	MCERTS	0.16	0.08
Phenanthrene	mg/kg	0.05	MCERTS	1.5	0.79
Anthracene	mg/kg	0.05	MCERTS	0.96	0.45
Fluoranthene	mg/kg	0.05	MCERTS	5.2	2.6
Pyrene	mg/kg	0.05	MCERTS	5	2.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.1	1.7
Chrysene	mg/kg	0.05	MCERTS	2.7	1.5
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3.7	1.8
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.2	0.8
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.2	1.7
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.5	0.82
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.59	0.35
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.8	0.97
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	31	16.4

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-013898
Project / Site name: Ardorssan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
169358	STP019	1.50-3.00	157	Loose Fibres	Chrysotile	< 0.001	< 0.001
169359	STP020	2.00-3.50	164	Loose Fibres	Amosite & Chrysotile	0.008	0.008

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Iss No 24-013898-1-Ardorssan North Shore S3240_SCO

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The results included within the report are representative of the samples submitted for analysis.



Environmental Science

Analytical Report Number : 24-013898

Project / Site name: Ardorssan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
169358	STP019	None Supplied	1.50-3.00	Brown sandy clay with gravel
169359	STP020	None Supplied	2.00-3.50	Brown sandy clay with gravel

Analytical Report Number : 24-013898
Project / Site name: Ardorssan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 261 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in the United Kingdom.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 300°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The Instructed on date indicates the date on which this information was provided to the laboratory.

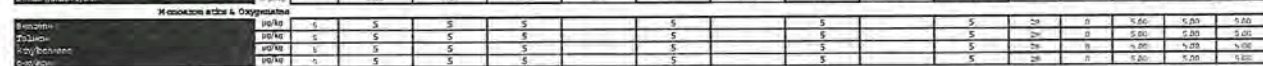
Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Appendix F Excavation Validations, Screening and Chemical Analysis

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Project / 02a dan e Adresarea, W orth Rhone
Project 01/03/2020

Date / 01/03/2020		28/03/2020		29/03/2020		30/03/2020		31/03/2020		01/04/2020		02/04/2020		03/04/2020		04/04/2020		05/04/2020		06/04/2020		07/04/2020		08/04/2020		09/04/2020		10/04/2020		11/04/2020		12/04/2020		13/04/2020		14/04/2020		15/04/2020		16/04/2020		17/04/2020		18/04/2020		19/04/2020		20/04/2020		21/04/2020		22/04/2020		23/04/2020		24/04/2020		25/04/2020		26/04/2020		27/04/2020		28/04/2020		29/04/2020		30/04/2020		01/05/2020		02/05/2020		03/05/2020		04/05/2020		05/05/2020		06/05/2020		07/05/2020		08/05/2020		09/05/2020		10/05/2020		11/05/2020		12/05/2020		13/05/2020		14/05/2020		15/05/2020		16/05/2020		17/05/2020		18/05/2020		19/05/2020		20/05/2020		21/05/2020		22/05/2020		23/05/2020		24/05/2020		25/05/2020		26/05/2020		27/05/2020		28/05/2020		29/05/2020		30/05/2020		31/05/2020		01/06/2020		02/06/2020		03/06/2020		04/06/2020		05/06/2020		06/06/2020		07/06/2020		08/06/2020		09/06/2020		10/06/2020		11/06/2020		12/06/2020		13/06/2020		14/06/2020		15/06/2020		16/06/2020		17/06/2020		18/06/2020		19/06/2020		20/06/2020		21/06/2020		22/06/2020		23/06/2020		24/06/2020		25/06/2020		26/06/2020		27/06/2020		28/06/2020		29/06/2020		30/06/2020		01/07/2020		02/07/2020		03/07/2020		04/07/2020		05/07/2020		06/07/2020		07/07/2020		08/07/2020		09/07/2020		10/07/2020		11/07/2020		12/07/2020		13/07/2020		14/07/2020		15/07/2020		16/07/2020		17/07/2020		18/07/2020		19/07/2020		20/07/2020		21/07/2020		22/07/2020		23/07/2020		24/07/2020		25/07/2020		26/07/2020		27/07/2020		28/07/2020		29/07/2020		30/07/2020		31/07/2020		01/08/2020		02/08/2020		03/08/2020		04/08/2020		05/08/2020		06/08/2020		07/08/2020		08/08/2020		09/08/2020		10/08/2020		11/08/2020		12/08/2020		13/08/2020		14/08/2020		15/08/2020		16/08/2020		17/08/2020		18/08/2020		19/08/2020		20/08/2020		21/08/2020		22/08/2020		23/08/2020		24/08/2020		25/08/2020		26/08/2020		27/08/2020		28/08/2020		29/08/2020		30/08/2020		31/08/2020		01/09/2020		02/09/2020		03/09/2020		04/09/2020		05/09/2020		06/09/2020		07/09/2020		08/09/2020		09/09/2020		10/09/2020		11/09/2020		12/09/2020		13/09/2020		14/09/2020		15/09/2020		16/09/2020		17/09/2020		18/09/2020		19/09/2020		20/09/2020		21/09/2020		22/09/2020		23/09/2020		24/09/2020		25/09/2020		26/09/2020		27/09/2020		28/09/2020		29/09/2020		30/09/2020		01/10/2020		02/10/2020		03/10/2020		04/10/2020		05/10/2020		06/10/2020		07/10/2020		08/10/2020		09/10/2020		10/10/2020		11/10/2020		12/10/2020		13/10/2020		14/10/2020		15/10/2020		16/10/2020		17/10/2020		18/10/2020		19/10/2020		20/10/2020		21/10/2020		22/10/2020		23/10/2020		24/10/2020		25/10/2020		26/10/2020		27/10/2020		28/10/2020		29/10/2020		30/10/2020		31/10/2020		01/11/2020		02/11/2020		03/11/2020		04/11/2020		05/11/2020		06/11/2020		07/11/2020		08/11/2020		09/11/2020		10/11/2020		11/11/2020		12/11/2020		13/11/2020		14/11/2020		15/11/2020		16/11/2020		17/11/2020		18/11/2020		19/11/2020		20/11/2020		21/11/2020		22/11/2020		23/11/2020		24/11/2020		25/11/2020		26/11/2020		27/11/2020		28/11/2020		29/11/2020		30/11/2020		01/12/2020		02/12/2020		03/12/2020		04/12/2020		05/12/2020		06/12/2020		07/12/2020		08/12/2020		09/12/2020		10/12/2020		11/12/2020		12/12/2020		13/12/2020		14/12/2020		15/12/2020		16/12/2020		17/12/2020		18/12/2020		19/12/2020		20/12/2020		21/12/2020		22/12/2020		23/12/2020		24/12/2020		25/12/2020		26/12/2020		27/12/2020		28/12/2020		29/12/2020		30/12/2020		31/12/2020		01/01/2021		02/01/2021		03/01/2021		04/01/2021		05/01/2021		06/01/2021		07/01/2021		08/01/2021		09/01/2021		10/01/2021		11/01/2021		12/01/2021		13/01/2021		14/01/2021		15/01/2021		16/01/2021		17/01/2021		18/01/2021		19/01/2021		20/01/2021		21/01/2021		22/01/2021		23/01/2021		24/01/2021		25/01/2021		26/01/2021		27/01/2021		28/01/2021		29/01/2021		30/01/2021		31/01/2021		01/02/2021		02/02/2021		03/02/2021		04/02/2021		05/02/2021		06/02/2021		07/02/2021		08/02/2021		09/02/2021		10/02/2021		11/02/2021		12/02/2021		13/02/2021		14/02/2021		15/02/2021		16/02/2021		17/02/2021		18/02/2021		19/02/2021		20/02/2021		21/02/2021		22/02/2021		23/02/2021		24/02/2021		25/02/2021		26/02/2021		27/02/2021		28/02/2021		29/02/2021		01/03/2021		02/03/2021		03/03/2021		04/03/2021		05/03/2021		06/03/2021		07/03/2021		08/03/2021		09/03/2021		10/03/2021		11/03/2021		12/03/2021		13/03/2021		14/03/2021		15/03/2021		16/03/2021		17/03/2021		18/03/2021		19/03/2021		20/03/2021		21/03/2021		22/03/2021		23/03/2021		24/03/2021		25/03/2021		26/03/2021		27/03/2021		28/03/2021		29/03/2021		30/03/2021		31/03/2021		01/04/2021		02/04/2021		03/04/2021		04/04/2021		05/04/2021		06/04/2021		07/04/2021		08/04/2021		09/04/2021		10/04/2021		11/04/2021		12/04/2021		13/04/2021		14/04/2021		15/04/2021		16/04/2021		17/04/2021		18/04/2021		19/04/2021		20/04/2021		21/04/2021		22/04/2021		23/04/2021		24/04/2021		25/04/2021		26/04/2021		27/04/2021		28/04/2021		29/04/2021		30/04/2021		01/05/2021		02/05/2021		03/05/2021		04/05/2021		05/05/2021		06/05/2021		07/05/2021		08/05/2021		09/05/2021		10/05/2021		11/05/2021		12/05/2021		13/05/2021		14/05/2021		15/05/2021		16/05/20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[illegible]



Analysis Report Form for Vastase

Project / Site name Address, North Stone

Project No: 03240

Sample No	
Sample ID	
Depth	
Date Sampled	

Reference Document: Draw by D3240/005

Analysis Item	Unit	Test Method	Result
Moisture Content	%	ASTM D 1555	0.93
Maximum Compaction	%	ASTM D 1555	94.20
Field Compaction	%	ASTM D 1555	1.20

Asbestos

Asbestos Type	Type	Result
Asbestos Type 1	Type	N/A
Asbestos Type 2	Type	N/A
Asbestos Type 3	Type	N/A
Asbestos Type 4	Type	N/A
Asbestos Type 5	Type	N/A
Asbestos Type 6	Type	N/A
Asbestos Type 7	Type	N/A

Asbestos Type 8	%	0.001
Asbestos Type 9	Type	N/A

Petroleum Hydrocarbons

Asbestos Type 10	m.g/kg	0.02	0.02
Asbestos Type 11	m.g/kg	0.02	0.02
Asbestos Type 12	m.g/kg	0.02	0.02
Asbestos Type 13	m.g/kg	1	1.01
Asbestos Type 14	m.g/kg	2	2.02
Asbestos Type 15	m.g/kg	8	79.20
Asbestos Type 16	m.g/kg	8	108.24

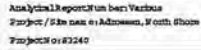
Asbestos Type 17	m.g/kg	0.01	0.01
Asbestos Type 18	m.g/kg	0.01	0.01
Asbestos Type 19	m.g/kg	0.02	0.02
Asbestos Type 20	m.g/kg	1	2.30
Asbestos Type 21	m.g/kg	2	15.21
Asbestos Type 22	m.g/kg	10	19.21
Asbestos Type 23	m.g/kg	10	130.00
Asbestos Type 24	m.g/kg	10	493.21

Specified PAHs

Asbestos Type 25	m.g/kg	0.02	0.04
Asbestos Type 26	m.g/kg	0.02	0.02
Asbestos Type 27	m.g/kg	0.02	0.02
Asbestos Type 28	m.g/kg	0.02	0.27
Asbestos Type 29	m.g/kg	0.02	0.42
Asbestos Type 30	m.g/kg	0.02	0.18
Asbestos Type 31	m.g/kg	0.02	0.63
Asbestos Type 32	m.g/kg	0.02	0.71
Asbestos Type 33	m.g/kg	0.02	0.31
Asbestos Type 34	m.g/kg	0.02	0.04
Asbestos Type 35	m.g/kg	0.02	0.34
Asbestos Type 36	m.g/kg	0.02	0.02
Asbestos Type 37	m.g/kg	0.02	0.02
Asbestos Type 38	m.g/kg	0.02	0.02
Asbestos Type 39	m.g/kg	0.02	0.02
Asbestos Type 40	m.g/kg	0.02	0.02

Non-specified PAHs & Organochlorines

Asbestos Type 41	m.g/kg	1	1.50
Asbestos Type 42	m.g/kg	1	1.50
Asbestos Type 43	m.g/kg	1	1.50
Asbestos Type 44	m.g/kg	1	1.50

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Результат гидрокабора																									
Алгоритм КС-01	в/с/к	0,02	78	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,05	0,01	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
Алгоритм КС-02	в/с/к	0,02	239	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Алгоритм КС-03	в/с/к	0,06	65	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
Алгоритм КС-04	в/с/к	1	130	1	1	1	1	1	1	1	1	1	1	1	9,2	11	11	9,2	9	13	13	7,6	18	7,4	43
Алгоритм КС-05	в/с/к	2	1000	2	2	2	2	2	2	2	2	2	2	2	3,6	11	16	4,3	3,7	7,9	24	2,2	4,5	4,1	19
Алгоритм КС-06	в/с/к	8	1005	8	8	8	8	8	8	8	8	8	8	8	2	2	14	3	2	4,1	3,5	2	2	18	180
Алгоритм КС-07	в/с/к	8	1050	8	8	8	8	8	8	8	8	8	8	8	21	22	23	23	23	25	33	25	23	3	4,7
Алгоритм КС-08	в/с/к	0,01	149	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
Алгоритм КС-09	в/с/к	0,01	296	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
Алгоритм КС-10	в/с/к	0,01	734	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
Алгоритм КС-11	в/с/к	1	49,3	1	1	1	1	1	1	1	1	1	1	1	2,6	3,7	1,3	1	1	2,4	3,3	2,2	4,8	1	3,2
Алгоритм КС-12	в/с/к	2	173,47	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	5,1	1	1	1	1	9,1
Алгоритм КС-13	в/с/к	10	940	10	10	10	10	10	10	10	10	10	10	10	2	3,2	5,3	3,8	4,8	3,7	10	4,5	4,1	3,1	9,9
Алгоритм КС-14	в/с/к	10	1000	10	10	10	10	10	10	10	10	10	10	10	4,1	4,6	4,9	3,9	3,4	5,5	4,4	6,2	3,9	2	7,1
Алгоритм КС-15	в/с/к	10	1000	10	10	16	10	10	10	10	10	10	10	10	69	86	110	75	71	89	150	120	77	20	76

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Project No. 87240

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[illegible]

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Project No: S1240

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Abbreviations

[illegible]

Reference

1. Information on the company 1.1. Company name 1.2. Company address 1.3. Company telephone 1.4. Company fax 1.5. Company e-mail 1.6. Company website 1.7. Company registration number 1.8. Company VAT number 1.9. Company legal form 1.10. Company capital 1.11. Company shareholders 1.12. Company directors 1.13. Company managers 1.14. Company auditors 1.15. Company bank account 1.16. Company bank reference 1.17. Company bank statement 1.18. Company bank reference 1.19. Company bank statement 1.20. Company bank reference 1.21. Company bank statement 1.22. Company bank reference 1.23. Company bank statement 1.24. Company bank reference 1.25. Company bank statement 1.26. Company bank reference 1.27. Company bank statement 1.28. Company bank reference 1.29. Company bank statement 1.30. Company bank reference 1.31. Company bank statement 1.32. Company bank reference 1.33. Company bank statement 1.34. Company bank reference 1.35. Company bank statement 1.36. Company bank reference 1.37. 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Project registration number 2.8. Project VAT number 2.9. Project legal form 2.10. Project capital 2.11. Project shareholders 2.12. Project directors 2.13. Project managers 2.14. Project auditors 2.15. Project bank account 2.16. Project bank reference 2.17. Project bank statement 2.18. Project bank reference 2.19. Project bank statement 2.20. Project bank reference 2.21. Project bank statement 2.22. Project bank reference 2.23. Project bank statement 2.24. Project bank reference 2.25. Project bank statement 2.26. Project bank reference 2.27. Project bank statement 2.28. Project bank reference 2.29. Project bank statement 2.30. Project bank reference 2.31. Project bank statement 2.32. Project bank reference 2.33. Project bank statement 2.34. Project bank reference 2.35. Project bank statement 2.36. Project bank reference 2.37. Project bank statement 2.38. Project bank reference 2.39. Project bank statement 2.40. Project bank reference 2.41. Project bank statement 2.42. 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Contract directors 3.13. Contract managers 3.14. Contract auditors 3.15. Contract bank account 3.16. Contract bank reference 3.17. Contract bank statement														
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Leum Hydrocarbonate

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Specialized PAIN

[illegible]

Hydrogenation & Oxidation

[illegible]



Analytical Report Number: Various
Project / Site name / Address, North Shore

Project No: 03240

Sample Ref	1851834	1851835
Sample ID	V002	V003
Depth	2.1-2.1	2.1-2.0
Sample point	13/08/2024	13/08/2024

Sancus Detection Reference (Drawing D3240/070)

Analytical Parameter (No. Analyte)	Unit	Lab Reference	Result	Result	Result	Result	Result	Result
Trace Content	%	ND/NL	-	-	70	0	0.10	0.10
Maximum Content	%	ND/NL	11	11	70	0	0.05	0.05
Trace Content (No. Analyte)	%	ND/NL	-	-	70	0	1.1	1.7

Asbestos	Type	N/A	Not-detected	Not-detected	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+
Asbestos detected	Type	N/A	-	-	+	+	+	+

Asbestos (by hand picking)	%	0.001	-	-	-	-	-	-
Asbestos (by hand picking)	%	0.001	-	-	-	-	-	-

Petroleum Hydrocarbons	Type	N/A	Not-detected	Not-detected	+	+	+	+
Aliphatic C ₁₀ -C ₁₅	mg/kg	0.02	0.05	0.05	70	0	0.02	0.02
Aliphatic C ₁₆ -C ₂₀	mg/kg	0.02	0.1	0.1	70	0	0.02	0.02
Aliphatic C ₂₁ -C ₂₅	mg/kg	0.02	0.05	0.05	70	0	0.02	0.02
Aliphatic C ₂₆ -C ₃₀	mg/kg	1	5.8	21	70	0	1.00	21.00
Aliphatic C ₃₁ -C ₃₅	mg/kg	2	40	94	70	0	1.00	94.00
Aliphatic C ₃₆ -C ₄₀	mg/kg	8	64	130	70	0	2.00	130.00
Aliphatic C ₄₁ -C ₄₅	mg/kg	8	67	130	70	0	2.00	130.00

Aliphatic C ₁₀ -C ₁₅	mg/kg	0.01	0.05	0.05	70	0	0.01	0.05
Aliphatic C ₁₆ -C ₂₀	mg/kg	0.01	0.05	0.05	70	0	0.01	0.05
Aliphatic C ₂₁ -C ₂₅	mg/kg	0.05	0.05	0.05	70	0	0.05	0.05
Aliphatic C ₂₆ -C ₃₀	mg/kg	1	1	2	70	0	1.00	2.00
Aliphatic C ₃₁ -C ₃₅	mg/kg	2	8.2	13	70	0	1.00	13.00
Aliphatic C ₃₆ -C ₄₀	mg/kg	10	79	62	70	0	2.00	79.00
Aliphatic C ₄₁ -C ₄₅	mg/kg	10	96	35	70	0	2.00	160.00

Petroleum Hydrocarbons	mg/kg <td>10</td> <td>400</td> <td>520</td> <td>70</td> <td>0</td> <td>10.00</td> <td>570.00</td>	10	400	520	70	0	10.00	570.00
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Acenaphthylene*	mg/kg	0.05	0.21	0.15	70	0	0.05	0.05	0.11
Acenaphthylene*	mg/kg	0.05	0.1	0.1	70	0	0.05	0.13	0.08
Acenaphthene	mg/kg	0.05	0.14	0.1	70	0	0.05	0.14	0.09
Fluorene	mg/kg	0.05	0.11	0.1	70	0	0.05	0.46	0.09
Phenanthrene	mg/kg	0.05	0.62	0.61	70	0	0.05	1.00	0.20
Anthracene	mg/kg	0.05	0.23	0.2	70	0	0.05	0.44	0.10
Fluoranthene	mg/kg	0.05	1.5	1.4	70	0	0.05	2.00	0.34
Pyrene	mg/kg	0.05	1.3	1.3	70	0	0.05	2.00	0.31
Benz[a]anthracene	mg/kg	0.05	0.71	0.73	70	0	0.05	1.10	0.19
Chrysene	mg/kg	0.05	0.71	0.64	70	0	0.05	1.20	0.20
Benz[b]fluoranthene*	mg/kg	0.05	1.2	1.1	70	0	0.05	2.00	0.27
Benz[k]fluoranthene	mg/kg	0.05	0.47	0.41	70	0	0.05	0.79	0.14
Benz[a]pyrene*	mg/kg	0.05	1	0.93	70	0	0.05	1.60	0.23
Benz[e]pyrene	mg/kg	0.05	0.79	0.71	70	0	0.05	1.20	0.20
Benz[a]anthracene	mg/kg	0.05	0.23	0.14	70	0	0.05	0.47	0.10
Benz[b]fluoranthene	mg/kg	0.05	0.83	0.75	70	0	0.05	1.20	0.19

Monocyclic Aromatic Hydrocarbons								
Substance	mg/kg	1	1	70	0	1.00	1.00	3.37
Naphthalene	mg/kg	1	1	70	0	1.00	1.00	3.37
Phenanthrene	mg/kg	1	1	70	0	1.00	1.00	3.37
Pyrene	mg/kg	1	1	70	0	1.00	1.00	3.37

Analytical Report Number : 23-71189

Project / Site name: Ardrossan North Shore

Samples received on: 24/11/2023

Your job number: S3240

**Samples instructed on/
Analysis started on:** 24/11/2023

Your order number: S3240

Analysis completed by: 01/12/2023

Report Issue Number: 1

Report issued on: 01/12/2023

Samples Analysed: 16 soil samples

Signed

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



4041



Environmental Science

Analytical Report Number: 23-71189

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	2890492	2890493	2890494	2890495	2890496	2890497
Sample Reference	V030	V031	V032	V033	V034	V035
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.45	0.45	0.00-0.45	0.00-0.45	0.00-0.45	0.00-0.45
Date Sampled	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.4	7.1	6.6
Total mass of sample received	kg	0.001	NONE	1.4	1.2	1.4

Asbestos in Soil	Type	I/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	I/A	I/A	I/A	KSZ	KSZ	KSZ	KSZ	KSZ	KSZ

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH C10 - C40 _{EH, CU, ID, TOTAL}	mg/kg	10	MCERTS	< 10	< 10	90	< 10	< 10	89
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TPH-CWG - Aliphatic >EC5 - EC6 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, ID, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, ID, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, ID, AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	8	< 2.0	< 2.0	9.8
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	33	< 8.0	< 8.0	35
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	15	< 8.0	< 8.0	21
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU, HS, ID, AL}	mg/kg	10	NONE	< 10	< 10	55	< 10	< 10	65

TPH-CWG - Aromatic >EC5 - EC7 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 _{HS, ID, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, ID, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Analytical Report Number: 23-71189
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				2890492	2890493	2890494	2890495	2890496	2890497
Sample Reference				V030	V031	V032	V033	V034	V035
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.45	0.45	0.00-0.45	0.00-0.45	0.00-0.45	0.00-0.45
Date Sampled				24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_10_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	4.1	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_10_AR	mg/kg	10	MCERTS	< 10	< 10	19	< 10	< 10	13
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_10_AR	mg/kg	10	MCERTS	< 10	< 10	11	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_10_AR	mg/kg	10	NONE	< 10	< 10	35	< 10	< 10	23

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not Detected



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Environmental Science

Analytical Report Number: 23-71189

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	2890498	2890499	2890500	2890501	2890502	2890503
Sample Reference	V036	V037	V038	V039	V040	V041
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.45	0.00-0.45	0.55	0.30	0.00-0.30	0.00-0.30
Date Sampled	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.3	5.8	7.1
Total mass of sample received	kg	0.001	NONE	1.5	1.3	1.2

Asbestos in Soil	Type	I/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	I/A	I/A	I/A	KSZ	KSZ	KSZ	KSZ	ASE	ASE

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH C10 - C40 _{EH, CU, ID, TOTAL}	mg/kg	10	MCERTS	60	170	88	< 10	< 10	180
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TPH-CWG - Aliphatic >EC5 - EC6 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, ID, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, ID, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, ID, AL}	mg/kg	2	MCERTS	13	18	8.2	< 2.0	< 2.0	26
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	29	62	28	< 8.0	< 8.0	66
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	19	33	26	< 8.0	< 8.0	37
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU, HS, ID, AL}	mg/kg	10	NONE	60	110	61	< 10	< 10	130

TPH-CWG - Aromatic >EC5 - EC7 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 _{HS, ID, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, ID, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Analytical Report Number: 23-71189
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number				2890498	2890499	2890500	2890501	2890502	2890503
Sample Reference				V036	V037	V038	V039	V040	V041
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.45	0.00-0.45	0.55	0.30	0.00-0.30	0.00-0.30
Date Sampled				24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	7.1	< 2.0	< 2.0	< 2.0	8.1
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	36	14	< 10	< 10	29
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	18	11	< 10	< 10	17
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	61	26	< 10	< 10	54

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not Detected



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Environmental Science

Analytical Report Number: 23-71189

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				2890504	2890505	2890506	2890507
Sample Reference				V042	V043	V044	V045
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.55	0.00-0.55	0.00-0.55	0.00-0.30
Date Sampled				24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.3	5.4	6.2	5.2
Total mass of sample received	kg	0.001	NONE	1.4	1.2	1.3	1.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	ASE	ASE	ASE	ASE

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.14	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80
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Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH C10 - C40 _{EH, CU, ID, TOTAL}	mg/kg	10	MCERTS	240	260	< 10	240
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TPH-CWG - Aliphatic >EC5 - EC6 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, ID, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, ID, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, ID, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, ID, AL}	mg/kg	2	MCERTS	37	< 2.0	< 2.0	33
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	90	93	< 8.0	99
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, ID, AL}	mg/kg	8	MCERTS	49	62	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU, HS, ID, AL}	mg/kg	10	NONE	180	150	< 10	130

TPH-CWG - Aromatic >EC5 - EC7 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 _{HS, ID, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 _{HS, ID, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, ID, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Analytical Report Number: 23-71189
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number				2890504	2890505	2890506	2890507
Sample Reference				V042	V043	V044	V045
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.55	0.00-0.55	0.00-0.55	0.00-0.30
Date Sampled				24/11/2023	24/11/2023	24/11/2023	24/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
TPH-CWG - Aromatic >EC12 - EC16 EH, CU, 1D, AR	mg/kg	2	MCERTS	7.7	10	< 2.0	9.4
TPH-CWG - Aromatic >EC16 - EC21 EH, CU, 1D, AR	mg/kg	10	MCERTS	33	59	< 10	51
TPH-CWG - Aromatic >EC21 - EC35 EH, CU, 1D, AR	mg/kg	10	MCERTS	27	35	< 10	43
TPH-CWG - Aromatic (EC5 - EC35) BH, CU+HS, 1D, AR	mg/kg	10	NONE	67	100	< 10	100

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not Detected



Analytical Report Number : 23-71189
Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2890492	V030	None Supplied	0.45	Brown sand with gravel.
2890493	V031	None Supplied	0.45	Brown sand with gravel.
2890494	V032	None Supplied	0.00-0.45	Brown sand with gravel.
2890495	V033	None Supplied	0.00-0.45	Brown sand with gravel and vegetation.
2890496	V034	None Supplied	0.00-0.45	Brown sand with gravel.
2890497	V035	None Supplied	0.00-0.45	Brown sand.
2890498	V036	None Supplied	0.00-0.45	Brown sand.
2890499	V037	None Supplied	0.00-0.45	Brown sand.
2890500	V038	None Supplied	0.55	Brown sand with gravel.
2890501	V039	None Supplied	0.3	Brown sand.
2890502	V040	None Supplied	0.00-0.30	Brown sand with gravel.
2890503	V041	None Supplied	0.00-0.30	Brown sand with gravel.
2890504	V042	None Supplied	0.00-0.55	Brown sand.
2890505	V043	None Supplied	0.00-0.55	Brown sand.
2890506	V044	None Supplied	0.00-0.55	Brown sand.
2890507	V045	None Supplied	0.00-0.30	Brown sand with gravel.

Analytical Report Number : 23-71189
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (20 °C)	In house method.	L019-UK/PL	W	NOTIE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NOTIE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260. Refer to CoA for analyte specific accreditation	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/clean up.	L076-PL	D	MCERTS
p.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NOTIE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



Analytical Report Number : 24-016557

Project / Site name: Ardrossan North Shore

Samples received on: 26/04/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 26/04/2024

Your order number: S3240

Analysis completed by: 03/05/2024

Report Issue Number: 1

Report issued on: 07/05/2024

Samples Analysed: 24 soil samples

Signature

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Environmental Science

Analytical Report Number: 24-016557

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	182589	182590	182591	182592	182593
Sample Reference	V239	V240	V241	V242	V243
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.00	3.00	3.00	3.00	3.00
Date Sampled	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	21	20
Total mass of sample received	kg	0.1	NONE	1.3	1.4

Asbestos

Asbestos in Soil Detected/Not Detected	Type	H/A	ISO 17025	Not-detected	Detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	H/A	H/A	H/A	PDO	PDO	PDO	PDO	PDO
Actinolite detected	Type	H/A	ISO 17025	-	Not-detected	Not-detected	-	-
Amosite detected	Type	H/A	ISO 17025	-	Not-detected	Not-detected	-	-
Anthophyllite detected	Type	H/A	ISO 17025	-	Not-detected	Not-detected	-	-
Chrysotile detected	Type	H/A	ISO 17025	-	Detected	Detected	-	-
Crocidolite detected	Type	H/A	ISO 17025	-	Detected	Not-detected	-	-
Tremolite detected	Type	H/A	ISO 17025	-	Not-detected	Not-detected	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	H/A	ISO 17025	-	Loose Fibres	Loose Fibres	-	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS,10,AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH,CU,10,AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH,CU,10,AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	6.4	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 _{EH,CU,10,AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	34	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 _{EH,CU,10,AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	50	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 _{EH,CU+HS,10,AL}	mg/kg	10	NONE	< 10	< 10	90	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,10,AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH,CU,10,AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH,CU,10,AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH,CU,10,AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH,CU,10,AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH,CU+HS,10,AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH (C10 - C40) _{EH,CU,10,TOTAL}	mg/kg	10	MCERTS	< 10	< 10	100	< 10	< 10
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number				182589	182590	182591	182592	182593
Sample Reference				V239	V240	V241	V242	V243
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	3.00	3.00	3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.13	< 0.05	0.14
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.16
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1	< 0.05	0.09
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.1	< 0.05	0.1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.07
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.1
Speciated Total EPA-16 PAHs				mg/kg	0.8	ISO 17025	< 0.80	< 0.80

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-016557

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				182594	182595	182596	182597	182598
Sample Reference				V244	V245	V246	V247	V248
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	23	7.5	4.9	6.9
Total mass of sample received	kg	0.1	NONE	1.3	1.4	1.3	1.4	1.4

Asbestos

Asbestos in Soil Detected/Not Detected	Type	H/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	H/A	H/A	H/A	PDO	PDO	PDO	PDO	SSZ
Actinolite detected	Type	H/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	H/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	H/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	H/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	H/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	H/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	H/A	ISO 17025	-	-	-	-	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS,1D,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS,1D,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS,1D,AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 _{EH,CU+HS,1D,AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH,CU+HS,1D,AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH (C10 - C40) _{EH,CU,1D,TOTAL}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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Environmental Science

Analytical Report Number: 24-016557

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				182594	182595	182596	182597	182598
Sample Reference				V244	V245	V246	V247	V248
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				182599	182600	182601	182602	182603
Sample Reference				V249	V250	V251	V252	V253
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7	4.7	6.4	6.9	7.2
Total mass of sample received	kg	0.1	NONE	1.4	1.2	1.2	1.2	1.4

Asbestos

Asbestos in Soil Detected/Not Detected	Type	I/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Analyst ID	I/A	I/A	I/A	EWS	EWS	EWS	EWS	EWS
Actinolite detected	Type	I/A	ISO 17025	-	-	-	Not-detected	-
Amosite detected	Type	I/A	ISO 17025	-	-	-	Not-detected	-
Anthophyllite detected	Type	I/A	ISO 17025	-	-	-	Not-detected	-
Chrysotile detected	Type	I/A	ISO 17025	-	-	-	Detected	-
Crocidolite detected	Type	I/A	ISO 17025	-	-	-	Not-detected	-
Tremolite detected	Type	I/A	ISO 17025	-	-	-	Not-detected	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	0.011	-
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Asbestos Containing Material Types Detected (ACM)	Type	I/A	ISO 17025	-	-	-	Loose Fibres, Sheeting/Board Debris	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS, 1D, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	1.8	3.2	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	< 2.0	48	34	14	< 2.0
TPHCWG - Aliphatic >C16 - C21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	< 8.0	86	130	39	< 8.0
TPHCWG - Aliphatic >C21 - C35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	< 8.0	39	94	150	< 8.0
TPHCWG - Aliphatic >C5 - C35 _{EH, CU+HS, 1D, AL}	mg/kg	10	NONE	< 10	170	260	200	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	< 2.0	19	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	< 10	34	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	< 10	18	< 10	71	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH, CU+HS, 1D, AR}	mg/kg	10	NONE	< 10	71	< 10	71	< 10

TPH (C10 - C40) _{EH, CU, 1D, TOTAL}	mg/kg	10	MCERTS	< 10	240	270	340	< 10
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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Environmental Science

Analytical Report Number: 24-016557

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				182599	182600	182601	182602	182603
Sample Reference				V249	V250	V251	V252	V253
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.09	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.52	0.1
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.48	0.12
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.32	0.06
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.42	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.15	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.25	< 0.05
Speciated Total EPA-16 PAHs				mg/kg	0.8	ISO 17025	< 0.80	< 0.80
							< 0.80	3.29
							< 0.80	< 0.80

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	182604	182605	182606	182607	182608
Sample Reference	V254	V255	V256	V257	V258
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Unit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7.9	5.1
Total mass of sample received	kg	0.1	NONE	1.2	1.1
				1.2	1.4
				1.4	1.4

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MJN	MJN	MJN	MJN	DSA
Actinolite detected	Type	N/A	ISO 17025	-	-	-	Not-detected	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	Not-detected	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	Not-detected	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	Detected	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	Not-detected	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	Not-detected	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	0.003	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	Loose Fibrous Debris	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS ID AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS ID AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS ID AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH CU ID AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH CU ID AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH CU ID AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH CU ID AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH CU+HS ID AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS ID AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS ID AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS ID AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH CU ID AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH CU ID AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH CU ID AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH CU ID AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS ID AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH (C10 - C40) EH CU ID TOTAL	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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Environmental Science

Analytical Report Number: 24-016557

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				182604	182605	182606	182607	182608
Sample Reference				V254	V255	V256	V257	V258
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.12	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.06	0.14	0.25	0.07
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.06	0.14	0.26	0.07
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	0.15	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	0.14	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.1	0.17	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.08	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	0.15	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.08	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.11	< 0.05
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	1.52	< 0.80

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	182609	182610	182611	182612
Sample Reference	V259	V260	V261	V262
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled	25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9
Total mass of sample received	kg	0.1	NONE	1.7

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA
Actinolite detected	Type	N/A	ISO 17025	Not-detected	-	-	-
Amosite detected	Type	N/A	ISO 17025	Not-detected	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	Detected	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	-	-	-
Tremolite detected	Type	N/A	ISO 17025	Not-detected	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	0.004	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	-	-	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS, 1D, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	38	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	58	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	170	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 _{EH, CU+HS, 1D, AL}	mg/kg	10	NONE	270	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	6.9	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	23	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	160	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH, CU+HS, 1D, AR}	mg/kg	10	NONE	190	< 10	< 10	< 10

TPH (C10 - C40) _{EH, CU, 1D, TOTAL}	mg/kg	10	MCERTS	570	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.55	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05



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Environmental Science

Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number				182609	182610	182611	182612
Sample Reference				V259	V260	V261	V262
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.00	1.00-3.00	1.00-3.00	1.00-3.00
Date Sampled				25/04/2024	25/04/2024	25/04/2024	25/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Acenaphthene	mg/kg	0.05	MCERTS	0.74	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.46	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.3	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.2	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	1.2	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.65	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.67	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.3	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.61	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.28	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	7.97	< 0.80	< 0.80	< 0.80

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-016557
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
182590	V240	3.00	140	Loose Fibres	Chrysotile & Crocidolite	< 0.001	< 0.001
182591	V241	3.00	147	Loose Fibres	Chrysotile	< 0.001	< 0.001
182602	V252	1.00-3.00	159	Loose Fibres, Sheeting/Board Debris	Chrysotile	0.011	0.011
182607	V257	1.00-3.00	152	Loose Fibrous Debris	Chrysotile	0.003	0.003
182609	V259	1.00-3.00	159	Loose Fibres	Chrysotile	0.004	0.004

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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The results included within the report are representative of the samples submitted for analysis.

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Environmental Science

Analytical Report Number : 24-016557

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
182589	V239	None Supplied	3	Brown sand with gravel
182590	V240	None Supplied	3	Brown sand with gravel
182591	V241	None Supplied	3	Brown sand with gravel
182592	V242	None Supplied	3	Brown sand with gravel
182593	V243	None Supplied	3	Brown sand with gravel
182594	V244	None Supplied	3	Brown sand with gravel
182595	V245	None Supplied	3	Brown sand with gravel
182596	V246	None Supplied	1.00-3.00	Brown sand
182597	V247	None Supplied	1.00-3.00	Brown sand
182598	V248	None Supplied	1.00-3.00	Brown sand
182599	V249	None Supplied	1.00-3.00	Brown sand
182600	V250	None Supplied	1.00-3.00	Brown sand
182601	V251	None Supplied	1.00-3.00	Brown sand
182602	V252	None Supplied	1.00-3.00	Brown loam and sand with gravel and vegetation
182603	V253	None Supplied	1.00-3.00	Brown sand with gravel
182604	V254	None Supplied	1.00-3.00	Brown sand with gravel
182605	V255	None Supplied	1.00-3.00	Brown sand with gravel
182606	V256	None Supplied	1.00-3.00	Brown sand with gravel
182607	V257	None Supplied	1.00-3.00	Brown loam and sand with gravel
182608	V258	None Supplied	1.00-3.00	Brown sand with gravel
182609	V259	None Supplied	1.00-3.00	Brown loam and sand with tar and gravel
182610	V260	None Supplied	1.00-3.00	Brown sand with gravel
182611	V261	None Supplied	1.00-3.00	Brown sand with gravel
182612	V262	None Supplied	1.00-3.00	Brown sand with gravel

Analytical Report Number : 24-016557
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L0766/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L0766/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The Instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



Environmental Science

Analytical Report Number : 24-018690

Project / Site name: Ardrossan North Shore

Samples received on: 09/05/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 09/05/2024

Your order number: S3240

Analysis completed by: 20/05/2024

Report Issue Number: 1

Report issued on: 20/05/2024

Samples Analysed: 20 soil samples

Signe

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-018690
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	194268	194269	194270	194271	194272
Sample Reference	V263	V264	V265	V266	V267
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	3.60	3.70	3.70	3.60
Date Sampled	08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	48.7	70.9
Moisture Content	%	0.01	NONE	7.7	9.6
Total mass of sample received	kg	0.1	NONE	1.3	1.3
				1.2	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO	KWB	KWB
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS_10_AL	mg/kg	0.02	NONE	< 0.020 ***	< 0.020 ***	< 0.020 ***	< 0.020 ***	< 0.020 ***
TPHCWG - Aliphatic >C6 - C8 HS_10_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_10_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_10_AL	mg/kg	1	MCERTS	2.7	< 1.0	< 1.0	13	6.2
TPHCWG - Aliphatic >C12 - C16 EH_CU_10_AL	mg/kg	2	MCERTS	60	43	38	310	75
TPHCWG - Aliphatic >C16 - C21 EH_CU_10_AL	mg/kg	8	MCERTS	120	90	90	690	130
TPHCWG - Aliphatic >C21 - C35 EH_CU_10_AL	mg/kg	8	MCERTS	260	200	210	1500	270
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_10_AL	mg/kg	10	NONE	450 ***	330 ***	340 ***	2500 ***	490 ***

TPHCWG - Aromatic >EC5 - EC7 HS_10_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_10_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_10_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_10_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.8	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_10_AR	mg/kg	2	MCERTS	22	12	11	93	18
TPHCWG - Aromatic >EC16 - EC21 EH_CU_10_AR	mg/kg	10	MCERTS	160	110	95	760	110
TPHCWG - Aromatic >EC21 - EC35 EH_CU_10_AR	mg/kg	10	MCERTS	390	250	280	1900	230
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_10_AR	mg/kg	10	NONE	560	370	390	2800	350

TPH (C10 - C40) EH_CU_10_TOTAL	mg/kg	10	MCERTS	1100	770	810	5900	920
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.27	0.1	0.08	< 0.05	0.12
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.12	0.25	< 0.05	< 0.05	0.1



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Environmental Science

Analytical Report Number: 24-018690

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				194268	194269	194270	194271	194272
Sample Reference				V263	V264	V265	V266	V267
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.00	3.60	3.70	3.70	3.60
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Fluorene	mg/kg	0.05	MCERTS	0.14	0.41	< 0.05	< 0.05	0.11
Phenanthrene	mg/kg	0.05	MCERTS	0.75	3	0.24	0.2	0.4
Anthracene	mg/kg	0.05	MCERTS	0.3	0.71	0.15	< 0.05	0.19
Fluoranthene	mg/kg	0.05	MCERTS	1.8	5.4	0.6	0.5	1
Pyrene	mg/kg	0.05	MCERTS	1.8	4.8	0.61	0.81	1
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.68	1.9	0.24	< 0.05	0.38
Chrysene	mg/kg	0.05	MCERTS	0.79	1.8	0.27	< 0.05	0.42
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.85	1.6	0.32	< 0.05	0.35
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.39	0.92	0.14	< 0.05	0.22
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.75	1.6	0.27	< 0.05	0.37
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.42	0.76	0.14	< 0.05	0.18
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.1	0.16	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.5	0.91	0.2	< 0.05	0.24
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	9.65	24.3	3.24	1.51	5.12

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-018690
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				194273	194274	194275	194276	194277
Sample Reference				V268	V269	V270	V271	V272
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.70	3.60	1.00-4.20	1.00-4.00	1.00-3.50
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
	%	0.1	NONE	79.7	74.9	< 0.1	59.8	44.2
	%	0.01	NONE	7.7	4.8	13	4.7	4.2
	kg	0.1	NONE	1.3	1.3	1.3	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	KWB	KWB	KWB	KWB	KWB
Actinolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected
Amosite detected	Type	N/A	ISO 17025	-	-	Detected	-	Detected
Anthophyllite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected
Crocidolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected
Tremolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	< 0.001	-	< 0.001
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Loose Fibres	-	Loose Fibres
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS, 1D, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	< 1.0	2.8	27	1.4	4.5
TPHCWG - Aliphatic >C12 - C16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	16	50	300	71	55
TPHCWG - Aliphatic >C16 - C21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	40	110	490	580	330
TPHCWG - Aliphatic >C21 - C35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	72	250	690	540	390
TPHCWG - Aliphatic >C5 - C35 _{EH, CU+HS, 1D, AL}	mg/kg	10	NONE	130	410	1500	1200	770

TPHCWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	< 1.0	1.7	3.5	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	2.3	22	100	9.5	14
TPHCWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	19	100	310	100	91
TPHCWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	33	270	660	260	230
TPHCWG - Aromatic >EC5 - EC35 _{EH, CU+HS, 1D, AR}	mg/kg	10	NONE	54	400	1100	370	330

TPH (C10 - C40) _{EH, CU, 1D, TOTAL}	mg/kg	10	MCERTS	190	900	2900	1700	1200
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.11	0.14	0.21	< 0.05	0.07
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.13	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.47	< 0.05	0.06



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Environmental Science

Analytical Report Number: 24-018690

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				194273	194274	194275	194276	194277
Sample Reference				V268	V269	V270	V271	V272
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.70	3.60	1.00-4.20	1.00-4.00	1.00-3.50
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.39	< 0.05	0.08
Phenanthrene	mg/kg	0.05	MCERTS	0.22	0.34	0.93	0.2	0.28
Anthracene	mg/kg	0.05	MCERTS	0.08	0.12	< 0.05	< 0.05	0.15
Fluoranthene	mg/kg	0.05	MCERTS	0.53	0.46	1.4	0.63	0.82
Pyrene	mg/kg	0.05	MCERTS	0.6	0.42	1.5	0.74	0.85
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.23	< 0.05	0.64	0.33	0.32
Chrysene	mg/kg	0.05	MCERTS	0.26	0.22	0.84	0.41	0.4
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.28	0.18	0.74	0.47	0.4
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.14	0.12	0.32	0.23	0.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.24	0.18	0.68	0.43	0.41
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.11	0.11	0.47	0.31	0.26
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.06
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.14	0.13	0.58	0.43	0.36
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.94	2.4	9.31	4.18	4.72

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-018690
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number	194278	194279	194280	194281	194282
Sample Reference	V273	V274	V275	V276	V277
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-3.50	1.00-3.70	1.00-3.70	1.00-3.70	1.00-3.70
Date Sampled	08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	32.4
Moisture Content	%	0.01	NONE	7	7.4
Total mass of sample received	kg	0.1	NONE	1.3	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KWB	KWB	KWB	KWB	KWB
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS ID AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS ID AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS ID AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH CU ID AL	mg/kg	1	MCERTS	< 1.0	2.8	< 1.0	1.4	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH CU ID AL	mg/kg	2	MCERTS	41	54	4	9.1	14
TPHCWG - Aliphatic >C16 - C21 EH CU ID AL	mg/kg	8	MCERTS	98	200	14	11	45
TPHCWG - Aliphatic >C21 - C35 EH CU ID AL	mg/kg	8	MCERTS	220	330	55	24	96
TPHCWG - Aliphatic >C5 - C35 EH CU HS ID AL	mg/kg	10	NONE	360	590	73	45	160

TPHCWG - Aromatic >EC5 - EC7 HS ID AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS ID AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS ID AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH CU ID AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH CU ID AR	mg/kg	2	MCERTS	13	19	4.8	< 2.0	2.4
TPHCWG - Aromatic >EC16 - EC21 EH CU ID AR	mg/kg	10	MCERTS	72	120	20	< 10	35
TPHCWG - Aromatic >EC21 - EC35 EH CU ID AR	mg/kg	10	MCERTS	270	340	66	< 10	110
TPHCWG - Aromatic >EC5 - EC35 EH CU HS ID AR	mg/kg	10	NONE	350	470	91	< 10	150

TPH (C10 - C40) EH CU ID TOTAL	mg/kg	10	MCERTS	800	1200	210	54	350
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.45	< 0.05	0.23	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.19	0.18	0.09	< 0.05	< 0.05



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Environmental Science

Analytical Report Number: 24-018690

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				194278	194279	194280	194281	194282
Sample Reference				V273	V274	V275	V276	V277
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.50	1.00-3.70	1.00-3.70	1.00-3.70	1.00-3.70
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Fluorene	mg/kg	0.05	MCERTS	0.23	0.14	0.06	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1	1	0.6	0.14	0.09
Anthracene	mg/kg	0.05	MCERTS	0.75	0.32	0.23	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.9	2.3	1.1	0.22	0.13
Pyrene	mg/kg	0.05	MCERTS	1.9	2.1	1.2	0.22	0.15
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.73	0.96	0.62	0.1	0.08
Chrysene	mg/kg	0.05	MCERTS	0.74	0.96	0.64	0.08	0.08
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.2	0.98	0.77	0.11	0.11
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.1	0.58	0.37	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.77	0.96	0.76	< 0.05	0.13
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.4	0.54	0.41	< 0.05	0.07
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.11	0.14	0.1	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.5	0.7	0.49	< 0.05	0.13
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	12	11.9	7.72	0.86	0.97

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-018690
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				194283	194284	194285	194286	194287
Sample Reference				V278	V279	V280	V281	V282
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.60	1.00-3.60	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	62.6	66.8	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	45	9.1	8.7	4.7	6.1
Total mass of sample received	kg	0.1	NONE	1.3	1.3	1.1	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KWB	MMI	MMI	MMI	MMI
Actinolite detected	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	-
Amosite detected	Type	N/A	ISO 17025	-	-	Detected	Not-detected	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	Not-detected	Detected	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	-
Tremolite detected	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	< 0.001	< 0.001	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Loose Fibres	Loose Fibres	-
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Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_ID_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_ID_AL	mg/kg	1	MCERTS	1.5	3.2	2.7	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_ID_AL	mg/kg	2	MCERTS	52	130	64	64	21
TPHCWG - Aliphatic >C16 - C21 EH_CU_ID_AL	mg/kg	8	MCERTS	110	220	130	150	45
TPHCWG - Aliphatic >C21 - C35 EH_CU_ID_AL	mg/kg	8	MCERTS	140	250	200	220	40
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_ID_AL	mg/kg	10	NONE	300	590	400	440	110

TPHCWG - Aromatic >EC5 - EC7 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	25	27	21	36	15
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	110	93	91	140	40
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	220	180	230	330	71
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	360	300	340	510	130

TPH (C10 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	730	970	850	1100	240
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.1	< 0.05	0.19	0.23	0.07
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.07	< 0.05	0.1	0.11	0.08



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Environmental Science

Analytical Report Number: 24-018690

Project / Site name: Ardrossan North Shore

Your Order No: 53240

Lab Sample Number				194283	194284	194285	194286	194287
Sample Reference				V278	V279	V280	V281	V282
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-3.60	1.00-3.60	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled				08/05/2024	08/05/2024	08/05/2024	08/05/2024	08/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Fluorene	mg/kg	0.05	MCERTS	0.07	< 0.05	0.08	0.1	0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.33	< 0.05	0.83	0.43	0.14
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.26	0.13	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.39	0.1	2.2	0.72	0.33
Pyrene	mg/kg	0.05	MCERTS	0.37	0.23	2	0.75	0.41
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	1.1	0.38	0.21
Chrysene	mg/kg	0.05	MCERTS	0.19	< 0.05	0.95	0.46	0.25
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.21	< 0.05	1.2	0.46	0.34
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.14	< 0.05	0.44	0.17	0.12
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.22	< 0.05	1.1	0.41	0.33
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.11	< 0.05	0.51	0.24	0.14
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.13	0.06	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.17	< 0.05	0.65	0.32	0.19
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.58	< 0.80	11.7	4.98	2.65

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-018690
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
194275	V270	1.00-4.20	132	Loose Fibres	Amosite	< 0.001	< 0.001
194277	V272	1.00-3.50	144	Loose Fibres	Amosite	< 0.001	< 0.001
194285	V280	1.00-4.00	168	Loose Fibres	Amosite	< 0.001	< 0.001
194286	V281	1.00-4.00	177	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Environmental Science

Analytical Report Number : 24-018690
Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
194268	V263	None Supplied	4	Brown sand with vegetation and stones
194269	V264	None Supplied	3.6	Brown sand with gravel and stones
194270	V265	None Supplied	3.7	Brown sand with vegetation and stones
194271	V266	None Supplied	3.7	Brown sand with gravel and stones
194272	V267	None Supplied	3.6	Brown sand with gravel and stones
194273	V268	None Supplied	3.7	Brown sand with gravel and stones
194274	V269	None Supplied	3.6	Brown sand with gravel and stones
194275	V270	None Supplied	1.00-4.20	Brown loam and clay with gravel and vegetation
194276	V271	None Supplied	1.00-4.00	Brown sand with gravel and stones
194277	V272	None Supplied	1.00-3.50	Brown sand with gravel and stones
194278	V273	None Supplied	1.00-3.50	Brown sand with gravel
194279	V274	None Supplied	1.00-3.70	Brown loam and sand with vegetation and stones
194280	V275	None Supplied	1.00-3.70	Brown loam and sand with vegetation and stones
194281	V276	None Supplied	1.00-3.70	Brown sand with gravel and stones
194282	V277	None Supplied	1.00-3.70	Brown sand with vegetation and stones
194283	V278	None Supplied	1.00-3.60	Brown clay and sand with gravel and stones
194284	V279	None Supplied	1.00-3.60	Brown clay and sand with gravel and stones
194285	V280	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
194286	V281	None Supplied	1.00-4.00	Brown clay and sand with gravel
194287	V282	None Supplied	1.00-4.00	Brown clay and sand with gravel

Analytical Report Number : 24-018690
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



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Environmental Science

Analytical Report Number : 24-018690

Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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- Quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and may be compromised.



Analytical Report Number : 24-020034

Project / Site name: Ardrossan North Shore

Samples received on: 16/05/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 16/05/2024

Your order number: S3240

Analysis completed by: 24/05/2024

Report Issue Number: 1

Report issued on: 24/05/2024

Samples Analysed: 3 soil samples

Signature

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Environmental Science

Analytical Report Number: 24-020034

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				201245	201246	201247
Sample Reference				V283	V284	V285
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.00	0.00	0.00
Date Sampled				16/05/2024	16/05/2024	16/05/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	20	8.7	10
Total mass of sample received	kg	0.1	NONE	0.3	0.3	0.4

Monoaromatics

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 _{HS_ID_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 _{HS_ID_AL}	mg/kg	0.02	NONE	0.047	0.12	< 0.020
TPHCWG - Aliphatic >C8 - C10 _{HS_ID_AL}	mg/kg	0.05	NONE	0.19	0.14	< 0.050
TPHCWG - Aliphatic >C10 - C12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	240	7.2	< 1.0
TPHCWG - Aliphatic >C12 - C16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	3600	79	30
TPHCWG - Aliphatic >C16 - C21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	3000	130	70
TPHCWG - Aliphatic >C21 - C35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	1600	150	130
TPHCWG - Aliphatic >C5 - C35 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	8400	360	230

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	40	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	1300	23	6.4
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	2300	82	45
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	3400	150	120
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	7000	250	180

TPH (C10 - C40) _{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	16000	690	550
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number : 24-020034

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
201245	V283	None Supplied	0	Brown clay and sand with gravel and oil / petroleum
201246	V284	None Supplied	0	Brown sand with gravel
201247	V285	None Supplied	0	Brown loam and sand with gravel

Analytical Report Number : 24-020034
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PRW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



Analytical Report Number : 24-022307

Project / Site name: Ardrossan North Shore

Samples received on: 30/05/2024

Your job number: S3240

Samples instructed on/
Analysis started on: 31/05/2024

Your order number: S3240

Analysis completed by: 06/06/2024

Report Issue Number: 1

Report issued on: 07/06/2024

Samples Analysed: 15 soil samples

Signe

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils ~ 4 weeks from reporting
leachates ~ 2 weeks from reporting
waters ~ 2 weeks from reporting
asbestos ~ 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-022307
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	213371	213372	213373	213374	213375
Sample Reference	V286	V287	V288	V289	V290
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00	4.00	4.00
Date Sampled	29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	20	14	15	19
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.2	1.4	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	DBU	WEM	WEM	DBU
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.24	0.11	< 0.05	0.39	0.08
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.09	0.13	0.08	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	0.13	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.51	0.1	< 0.05	0.36	0.09
Anthracene	mg/kg	0.05	MCERTS	0.23	0.11	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.1	0.55	0.09	0.39	0.19
Pyrene	mg/kg	0.05	MCERTS	1.5	0.63	0.15	0.47	0.23
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.63	0.46	< 0.05	0.2	0.1
Chrysene	mg/kg	0.05	MCERTS	0.82	0.39	< 0.05	0.21	0.11
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.94	0.39	< 0.05	0.16	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.39	0.16	< 0.05	0.08	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.91	0.37	< 0.05	0.14	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.51	0.11	< 0.05	0.07	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.64	0.14	< 0.05	0.08	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	8.64	3.63	< 0.80	2.91	< 0.80
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 H5,10,AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 H5,10,AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	0.05	< 0.020
TPHCWG - Aliphatic >C8 - C10 H5,10,AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	0.52	< 0.050
TPHCWG - Aliphatic >C10 - C12 H1,CO,12,AL	mg/kg	1	MCERTS	1.7	< 1.0	2.2	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 H1,CO,10,AL	mg/kg	2	MCERTS	100	10	22	13	11
TPHCWG - Aliphatic >C16 - C21 H1,CO,10,AL	mg/kg	8	MCERTS	270	25	37	17	27
TPHCWG - Aliphatic >C21 - C35 H1,CO,10,AL	mg/kg	8	MCERTS	380	22	31	15	63
TPHCWG - Aliphatic >C5 - C35 H1,CO,H5,10,AL	mg/kg	10	NONE	760	57	92	45	100

TPHCWG - Aromatic >EC5 - EC7 H5,10,AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
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Environmental Science

Analytical Report Number: 24-022307

Project / Site name: Ardrossan North Shore

Your Order No: 53240

Lab Sample Number				213371	213372	213373	213374	213375
Sample Reference				V286	V287	V288	V289	V290
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.00	4.00	4.00	4.00	4.00
Date Sampled				29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	27	3.7	< 2.0	6.6	2.5
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	200	21	11	21	32
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	450	23	< 10	34	81
TPHCWG - Aromatic >EC35 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	680	48	11	62	120
TPH (C10 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	1600	110	110	110	250

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-022307

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	213376	213377	213378	213379	213380
Sample Reference	V291	V292	V293	V294	V295
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00	4.00	1.00-4.00
Date Sampled	29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	21.7	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	19	22	12	16
Total mass of sample received	kg	0.1	NONE	1.2	1.3	1.2	1.3	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	PDO	WEM	WEM	PDO
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.19	1.4	0.23	< 0.05	0.54
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05	< 0.05	0.08
Acenaphthene	mg/kg	0.05	MCERTS	0.09	0.46	0.62	< 0.05	0.09
Fluorene	mg/kg	0.05	MCERTS	0.08	0.42	0.11	< 0.05	0.13
Phenanthrene	mg/kg	0.05	MCERTS	0.15	0.58	0.48	< 0.05	0.6
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.28	0.2	< 0.05	0.18
Fluoranthene	mg/kg	0.05	MCERTS	0.13	0.58	0.85	0.09	0.76
Pyrene	mg/kg	0.05	MCERTS	0.2	0.59	0.78	0.13	0.92
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.17	0.41	0.14	0.49
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.19	0.44	0.13	0.53
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.39	0.14	0.51
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.12	0.09	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.32	0.17	0.54
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.14	0.08	0.25
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.16	0.11	0.31

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	0.83	4.75	5.25	1.08	6.14
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 H ₅ ID _{AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 H ₅ ID _{AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 H ₅ ID _{AL}	mg/kg	0.05	NONE	< 0.050	0.059	< 0.050	< 0.050	1.7
TPHCWG - Aliphatic >C10 - C12 H ₅ ID _{AL}	mg/kg	1	MCERTS	< 1.0	1.6	< 1.0	< 1.0	2.9
TPHCWG - Aliphatic >C12 - C16 H ₅ ID _{AL}	mg/kg	2	MCERTS	12	22	< 2.0	< 2.0	23
TPHCWG - Aliphatic >C16 - C21 H ₅ ID _{AL}	mg/kg	8	MCERTS	39	55	< 8.0	< 8.0	24
TPHCWG - Aliphatic >C21 - C35 H ₅ ID _{AL}	mg/kg	8	MCERTS	39	54	< 8.0	12	33
TPHCWG - Aliphatic >C5 - C35 H ₅ ID _{AL}	mg/kg	10	NONE	90	130	< 10	12	85

TPHCWG - Aromatic >EC5 - EC7 H ₅ ID _{AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
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Environmental Science

Analytical Report Number: 24-022307

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				213376	213377	213378	213379	213380			
Sample Reference				V291	V292	V293	V294	V295			
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				4.00	4.00	4.00	4.00	1.00-4.00			
Date Sampled				29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024			
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050			
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	1.1	20	< 1.0	< 1.0	< 1.0			
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	8.4	29	< 2.0	< 2.0	3.7			
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	36	65	< 10	< 10	17			
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	56	84	< 10	< 10	36			
TPHCWG - Aromatic >EC35 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	100	200	< 10	< 10	57			
TPH (C10 - C40) _{EH_CU_ID_TOTAL}				mg/kg	10	MCERTS	210	350	< 10	20	150

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-022307
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number	213381				213382	213383	213384	213385
Sample Reference	V296				V297	V298	V299	V300
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-4.00				1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled	29/05/2024				29/05/2024	29/05/2024	29/05/2024	29/05/2024
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	11	15	13	15
Total mass of sample received	kg	0.1	NONE	1.4	1.3	1.2	1.3	1.2

Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM	PDO	PDO	DBU
Actinolite detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-
Amosite detected	Type	N/A	ISO 17025	-	Not-detected	Detected	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	Detected	Not-detected	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	Detected	Not-detected	-	-
Tremolite detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	< 0.001	0.004	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	Loose Fibres	Loose Fibrous Debris	-	-
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Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.16	0.68	6	0.94	1.5
Acenaphthylene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.67	< 0.05	0.27
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.21	0.72	0.31	0.68
Fluorene	mg/kg	0.05	MCERTS	0.06	0.18	1.1	0.24	1.1
Phenanthrene	mg/kg	0.05	MCERTS	0.61	1.2	2.3	0.38	2.4
Anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	0.87	< 0.05	1.4
Fluoranthene	mg/kg	0.05	MCERTS	1.1	1.9	2.4	0.83	2.9
Pyrene	mg/kg	0.05	MCERTS	1.2	2.3	2.8	0.92	2.8
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.67	1	1.1	0.38	1.3
Chrysene	mg/kg	0.05	MCERTS	0.64	1.4	1.2	0.4	1.7
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.65	1.1	1.1	0.41	1.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.22	0.53	0.42	0.12	0.58
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.64	1.2	1.1	0.39	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.28	0.57	0.58	0.18	0.72
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.35	0.67	0.73	0.24	0.97

Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	6.79	12.8	23	5.73	20.8

Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 H ₅ , ₁₀ , _{AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 H ₅ , ₁₀ , _{AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	0.042
TPHCWG - Aliphatic >C8 - C10 H ₅ , ₁₀ , _{AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	0.051	0.074	0.22
TPHCWG - Aliphatic >C10 - C12 H ₅ , ₁₀ , _{AL}	mg/kg	1	MCERTS	< 1.0	13	19	< 1.0	8.3
TPHCWG - Aliphatic >C12 - C16 H ₅ , ₁₀ , _{AL}	mg/kg	2	MCERTS	< 2.0	150	320	42	110
TPHCWG - Aliphatic >C16 - C21 H ₅ , ₁₀ , _{AL}	mg/kg	8	MCERTS	< 8.0	270	470	90	150
TPHCWG - Aliphatic >C21 - C35 H ₅ , ₁₀ , _{AL}	mg/kg	8	MCERTS	19	610	520	81	220
TPHCWG - Aliphatic >C5 - C35 H ₅ , ₁₀ , _{AL}	mg/kg	10	NONE	19	1000	1300	210	500

TPHCWG - Aromatic >EC5 - EC7 H ₅ , ₁₀ , _{AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
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Environmental Science

Analytical Report Number: 24-022307
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				213381	213382	213383	213384	213385
Sample Reference				V296	V297	V298	V299	V300
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled				29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	15	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	< 2.0	34	120	17	64
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	11	340	400	83	210
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	25	960	700	100	320
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	35	1300	1200	200	590
TPH (C10 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	64	2700	2800	450	1200

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-022307
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
213382	V297	1.00-4.00	162	Loose Fibres	Chrysotile & Crocidolite	< 0.001	< 0.001
213383	V298	1.00-4.00	154	Loose Fibrous Debris	Amosite	0.004	0.004

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



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Environmental Science

Analytical Report Number : 24-022307

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
213371	V286	None Supplied	4	Brown loam and clay with gravel and vegetation
213372	V287	None Supplied	4	Brown sand
213373	V288	None Supplied	4	Brown sand
213374	V289	None Supplied	4	Brown sand with gravel
213375	V290	None Supplied	4	Brown sand
213376	V291	None Supplied	4	Brown clay and sand with gravel and stones
213377	V292	None Supplied	4	Brown sand with gravel
213378	V293	None Supplied	4	Brown sand with gravel
213379	V294	None Supplied	4	Brown sand
213380	V295	None Supplied	1.00-4.00	Brown sandy clay with gravel
213381	V296	None Supplied	1.00-4.00	Brown sandy clay with gravel
213382	V297	None Supplied	1.00-4.00	Brown loam and sand with gravel
213383	V298	None Supplied	1.00-4.00	Brown clay and loam with gravel and vegetation
213384	V299	None Supplied	1.00-4.00	Brown sand with gravel
213385	V300	None Supplied	1.00-4.00	Brown sand with gravel



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Environmental Science

Analytical Report Number : 24-022307

Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In-house method based on HSG 248, 2021	A601B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1946, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A606B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic.	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS.	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in the United Kingdom.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 24-022577

Project / Site name: Ardrossan North Shore

Samples received on: 31/05/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 31/05/2024

Your order number: S3240

Analysis completed by: 07/06/2024

Report Issue Number: 1

Report issued on: 07/06/2024

Samples Analysed: 3 soil samples

Sig

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Environmental Science

Analytical Report Number: 24-022577

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	214752	214769	214770
Sample Reference	V263A	V266A	V281A
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	4.50	4.20	1.00-4.00
Date Sampled	29/05/2024	29/05/2024	29/05/2024
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	10	12
Total mass of sample received	kg	0.1	NONE	1.3	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.65	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.18	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.15	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.62	< 0.05	0.09
Anthracene	mg/kg	0.05	MCERTS	0.33	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.6	< 0.05	0.29
Pyrene	mg/kg	0.05	MCERTS	2.1	< 0.05	0.37
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.85	< 0.05	0.18
Chrysene	mg/kg	0.05	MCERTS	1.1	< 0.05	0.23
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.5	< 0.05	0.21
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.5	< 0.05	0.09
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.3	< 0.05	0.22
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.75	< 0.05	0.12
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.16	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.9	< 0.05	0.18

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	12.6	< 0.80	1.99
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 H5_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 H5_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 H5_ID_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 H11_CU_ID_AL	mg/kg	1	MCERTS	1.6	< 1.0	1.2
TPHCWG - Aliphatic >C12 - C16 H17_CU_ID_AL	mg/kg	2	MCERTS	57	< 2.0	39
TPHCWG - Aliphatic >C16 - C21 H23_CU_ID_AL	mg/kg	8	MCERTS	180	< 8.0	85
TPHCWG - Aliphatic >C21 - C35 H31_CU_ID_AL	mg/kg	8	MCERTS	270	< 8.0	170
TPHCWG - Aliphatic >C5 - C35 H41_CU+H5_ID_AL	mg/kg	10	NONE	500	< 10	300

TPHCWG - Aromatic >EC5 - EC7 H5_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 H5_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 H5_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 H11_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 H17_CU_ID_AR	mg/kg	2	MCERTS	26	< 2.0	13
TPHCWG - Aromatic >EC16 - EC21 H23_CU_ID_AR	mg/kg	10	MCERTS	190	< 10	79
TPHCWG - Aromatic >EC21 - EC35 H31_CU_ID_AR	mg/kg	10	MCERTS	380	< 10	200
TPHCWG - Aromatic >EC5 - EC35 H41_CU+H5_ID_AR	mg/kg	10	NONE	600	< 10	290

TPH (C10 - C40) H11_CU_ID_TOTAL	mg/kg	10	MCERTS	1200	< 10	640
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VOCs



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Environmental Science

Analytical Report Number: 24-022577

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				214752	214769	214770
Sample Reference				V263A	V266A	V281A
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				4.50	4.20	1.00-4.00
Date Sampled				29/05/2024	29/05/2024	29/05/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 24-022577
Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
214752	V263A	None Supplied	4.5	Brown sand with gravel
214769	V266A	None Supplied	4.2	Brown loam and sand with gravel and vegetation
214770	V281A	None Supplied	1.00-4.00	Brown sand with gravel



Analytical Report Number : 24-022577
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 20/1	A001B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L054B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

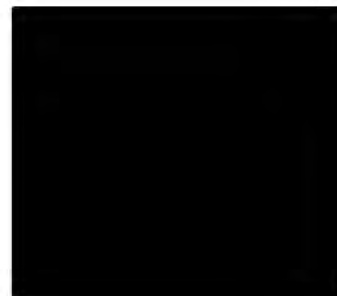
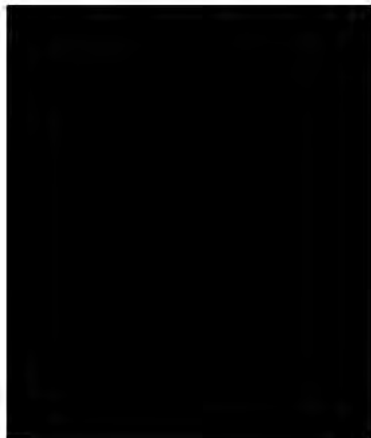
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



Environmental Science



Analytical Report Number : 24-022592

Project / Site name: Ardrossan North Shore

Samples received on: 31/05/2024

Your job number: S3240

Samples instructed on/
Analysis started on: 31/05/2024

Your order number: S3240

Analysis completed by: 07/06/2024

Report Issue Number: 1

Report issued on: 10/06/2024

Samples Analysed: 1 soil sample

Sign

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Environmental Science

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



4041



Environmental Science

Analytical Report Number: 24-022592

Project / Site name: Ardrossan North Shore

Your Order No: 53240

Lab Sample Number				214824
Sample Reference				V283A
Sample Number				None Supplied
Depth (m)				0.10
Date Sampled				29/05/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	14
Total mass of sample received	kg	0.1	NONE	0.4

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS_10_AL	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_10_AL	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_10_AL	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_10_AL	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_10_AL	mg/kg	2	MCERTS	110
TPHCWG - Aliphatic >C16 - C21 EH_CU_10_AL	mg/kg	8	MCERTS	430
TPHCWG - Aliphatic >C21 - C35 EH_CU_10_AL	mg/kg	8	MCERTS	3600
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_10_AL	mg/kg	10	NONE	4100

TPHCWG - Aromatic >EC5 - EC7 HS_10_AR	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_10_AR	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_10_AR	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_10_AR	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_10_AR	mg/kg	2	MCERTS	32
TPHCWG - Aromatic >EC16 - EC21 EH_CU_10_AR	mg/kg	10	MCERTS	220
TPHCWG - Aromatic >EC21 - EC35 EH_CU_10_AR	mg/kg	10	MCERTS	1600
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_10_AR	mg/kg	10	NONE	1900

TPH (C10 - C40) EH_CU_10_TOTAL	mg/kg	10	MCERTS	6700
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Environmental Science

Analytical Report Number : 24-022592

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
214824	V283A	None Supplied	0.1	Brown sand with gravel

Analytical Report Number : 24-022592
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L015B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L015B	D	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in the United Kingdom
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



Analytical Report Number : 24-025018

Project / Site name: Ardrossan North Shore

Samples received on: 13/06/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 14/06/2024

Your order number: S3240

Analysis completed by: 20/06/2024

Report Issue Number: 1

Report issued on: 20/06/2024

Samples Analysed: 5 soil samples

Signature

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-025018
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number	227116	227117	227118	227119	227120
Sample Reference	V286A	V297A	V298A	V300A	V263B
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.50	1.00-4.50	1.00-4.50	1.00-4.50	5.00
Date Sampled	12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.9	8.5	7.8	8.7	9.1
Total mass of sample received	kg	0.1	NONE	1.5	1.4	1.5	1.5	1.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	KWB	MBI	MBI	MBI	KWB
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Amosite detected	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Detected	Not-detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Detected	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	< 0.001	0.001
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	Loose Fibres	Loose Fibres	Loose Fibres	Loose Fibres
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.51	0.56	0.48	2	0.57
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05	0.07	0.07
Acenaphthene	mg/kg	0.05	MCERTS	0.13	0.37	0.12	0.35	0.19
Fluorene	mg/kg	0.05	MCERTS	0.13	0.44	0.11	0.3	0.19
Phenanthrene	mg/kg	0.05	MCERTS	0.6	4.1	0.47	1.5	1.4
Anthracene	mg/kg	0.05	MCERTS	0.3	1.6	1.2	0.46	0.46
Fluoranthene	mg/kg	0.05	MCERTS	1.7	7.8	1.4	2.8	2.6
Pyrene	mg/kg	0.05	MCERTS	1.8	7.1	1.6	2.8	2.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.87	3.2	0.73	1.3	1.3
Chrysene	mg/kg	0.05	MCERTS	1	3.3	0.9	1.4	1.2
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.2	3.7	1.2	1.7	1.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.53	1.4	0.38	0.67	0.56
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.1	3.4	0.96	1.6	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.58	1.7	0.5	0.83	0.83
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.24	0.53	0.17	0.35	0.26
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.72	1.9	0.61	0.95	0.97

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	11.4	41.1	10.8	19.1	16.4
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS,10,AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH,CU,10,AL}	mg/kg	1	MCERTS	3.1	5.8	9.5	7.7	1.6
TPHCWG - Aliphatic >EC12 - EC16 _{EH,CU,10,AL}	mg/kg	2	MCERTS	100	120	120	120	62
TPHCWG - Aliphatic >EC16 - EC21 _{EH,CU,10,AL}	mg/kg	8	MCERTS	230	260	230	250	130
TPHCWG - Aliphatic >EC21 - EC35 _{EH,CU,10,AL}	mg/kg	8	MCERTS	370	420	540	400	180
TPHCWG - Aliphatic >EC35 - EC35 _{EH,CU+HS,10,AL}	mg/kg	10	NONE	700	800	900	780	370

TPHCWG - Aromatic >EC5 - EC7 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010



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Environmental Science

Analytical Report Number: 24-025018
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number				227116	227117	227118	227119	227120
Sample Reference				V286A	V297A	V298A	V300A	V263B
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.50	1.00-4.50	1.00-4.50	1.00-4.50	5.00
Date Sampled				12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
TPHCWG - Aromatic >EC8 - EC10 _{EH, ID, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH, CU, ID, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH, CU, ID, AR}	mg/kg	2	MCERTS	21	20	15	20	11
TPHCWG - Aromatic >EC16 - EC21 _{EH, CU, ID, AR}	mg/kg	10	MCERTS	100	130	98	130	75
TPHCWG - Aromatic >EC21 - EC35 _{EH, CU, ID, AR}	mg/kg	10	MCERTS	260	350	340	360	180
TPHCWG - Aromatic >EC5 - EC35 _{EH, CU + HS, ID, AR}	mg/kg	10	NONE	390	500	460	510	260
TPH (EC10 - EC40) _{EH, CU, ID, TOTAL}	mg/kg	10	MCERTS	1200	1500	1600	1500	720
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



4041



Environmental Science

Analytical Report Number: 24-025018
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
227116	V286A	4.50	163	Loose Fibres	Amosite	< 0.001	< 0.001
227117	V297A	1.00-4.50	159	Loose Fibres	Amosite	< 0.001	< 0.001
227118	V298A	1.00-4.50	164	Loose Fibres	Chrysotile	< 0.001	< 0.001
227119	V300A	1.00-4.50	163	Loose Fibres	Amosite & Chrysotile	< 0.001	< 0.001
227120	V263B	5.00	161	Loose Fibres	Chrysotile	0.001	0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 24-025018

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of soil should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
227116	V286A	None Supplied	4.5	Brown loam with gravel and vegetation
227117	V297A	None Supplied	1.00-4.50	Brown loam with gravel and vegetation
227118	V298A	None Supplied	1.00-4.50	Brown loam with gravel and vegetation
227119	V300A	None Supplied	1.00-4.50	Brown loam with gravel and vegetation
227120	V263B	None Supplied	5	Brown loam with gravel and vegetation

Analytical Report Number : 24-025018

Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements	L019B	D	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in the United Kingdom

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on wet samples the results obtained are multiplied by a moisture

correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution



Analytical Report Number : 24-025022

Project / Site name: Ardrossan North Shore

Samples received on: 13/06/2024

Your job number: S3240

**Samples instructed on /
Analysis started on:** 14/06/2024

Your order number: S3240

Analysis completed by: 20/06/2024

Report Issue Number: 1

Report issued on: 20/06/2024

Samples Analysed: 1 soil sample

Signature

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 5 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-025022
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number	227137			
Sample Reference	V283B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	13/06/2024			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9.2
Total mass of sample received	kg	0.1	NONE	0.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.52
Acenaphthylene	mg/kg	0.05	MCERTS	0.08
Acenaphthene	mg/kg	0.05	MCERTS	0.21
Fluorene	mg/kg	0.05	MCERTS	0.22
Phenanthrene	mg/kg	0.05	MCERTS	1.9
Anthracene	mg/kg	0.05	MCERTS	0.65
Fluoranthene	mg/kg	0.05	MCERTS	4.2
Pyrene	mg/kg	0.05	MCERTS	4
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2
Chrysene	mg/kg	0.05	MCERTS	2.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.5
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.36
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	24.4
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS,10,AL}	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS,10,AL}	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH,CU,10,AL}	mg/kg	1	MCERTS	5.3
TPHCWG - Aliphatic >EC12 - EC16 _{EH,CU,10,AL}	mg/kg	2	MCERTS	140
TPHCWG - Aliphatic >EC16 - EC21 _{EH,CU,10,AL}	mg/kg	8	MCERTS	270
TPHCWG - Aliphatic >EC21 - EC35 _{EH,CU,10,AL}	mg/kg	8	MCERTS	420
TPHCWG - Aliphatic >EC5 - EC35 _{EH,CU+HS,10,AL}	mg/kg	10	NONE	830

TPHCWG - Aromatic >EC5 - EC7 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,10,AR}	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,10,AR}	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH,CU,10,AR}	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH,CU,10,AR}	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH,CU,10,AR}	mg/kg	10	MCERTS	140
TPHCWG - Aromatic >EC21 - EC35 _{EH,CU,10,AR}	mg/kg	10	MCERTS	360
TPHCWG - Aromatic >EC5 - EC35 _{EH,CU+HS,10,AR}	mg/kg	10	NONE	500

TPH (EC10 - EC40) _{EH,CU,10,TOTAL}	mg/kg	10	MCERTS	1500
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0



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Environmental Science

Analytical Report Number: 24-025022

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number		227137		
Sample Reference		V283B		
Sample Number		None Supplied		
Depth (m)		None Supplied		
Date Sampled		13/06/2024		
Time Taken		None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
p & m-Xylene	µg/kg	5	MCERTS	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number : 24-025022

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
227137	V283B	None Supplied	None Supplied	Brown loam with gravel and vegetation

Analytical Report Number : 24-025022
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and NCERTS requirements.	L019B	D	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	NCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	NCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic.	In-house method	L0769/L088	D/W	NCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L0769/L088	D/W	NCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution



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M CERTS



Environmental Science

Analytical Report Number : 24-025258

Project / Site name: Ardrossan North Shore

Samples received on: 14/06/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 14/06/2024

Your order number: S3240

Analysis completed by: 22/06/2024

Report Issue Number: 1

Report issued on: 24/06/2024

Samples Analysed: 18 soil samples

Signed

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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MCERTS



Environmental Science

Analytical Report Number: 24-025258
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number	228516	228517	228518	228519	228520
Sample Reference	V302	V303	V304	V305	V306
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5.3	4.9	5.9	6.1	6.5
Total mass of sample received	kg	0.1	NONE	1.3	1	1.3	1.3	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM	WEM	WEM	WEM
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Amosite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	< 0.001	0.005	< 0.001	< 0.001	0.003
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	Loose Fibres	Loose Fibres	Loose Fibres	Loose Fibrous Debris
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.46	0.52	0.65	0.46	0.39
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07	0.06
Acenaphthene	mg/kg	0.05	MCERTS	0.15	0.21	0.14	0.15	0.14
Fluorene	mg/kg	0.05	MCERTS	0.15	0.19	0.12	0.15	0.12
Phenanthrene	mg/kg	0.05	MCERTS	0.8	0.93	0.5	1	0.62
Anthracene	mg/kg	0.05	MCERTS	0.41	0.47	0.32	0.49	0.31
Fluoranthene	mg/kg	0.05	MCERTS	2.3	2.6	1.8	2.6	1.7
Pyrene	mg/kg	0.05	MCERTS	3	2.8	2	2.7	2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.4	1.3	0.91	1.3	0.93
Chrysene	mg/kg	0.05	MCERTS	1.3	1.3	0.97	1.3	1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.8	1.5	1.3	1.6	1.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.64	0.74	0.38	0.45	0.47
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.6	1.5	1.1	1.3	1.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.81	0.78	0.56	0.68	0.59
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.2	0.19	0.16	0.16	0.17
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.93	0.88	0.66	0.81	0.71

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	16	15.9	11.6	15.2	11.7
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Environmental Science

Analytical Report Number: 24-025258
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number	228516	228517	228518	228519	228520
Sample Reference	V302	V303	V304	V305	V306
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	7.9	8.8	8.4	14	5
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	92	94	100	130	98
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	170	180	190	230	190
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	220	240	240	290	260
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	480	520	540	660	560

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	33	24	31	45	30
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	140	120	150	190	150
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	290	250	310	390	300
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	470	390	480	620	470

TPH (EC10 - EC40) _{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	1100	1000	1200	1400	1200
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-025258
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	228521	228522	228523	228524	228525
Sample Reference	V307	V308	V309	V310	V311
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5.1	6.1	5.6	14	14
Total mass of sample received	kg	0.1	NONE	1.2	1.3	1.3	1.2	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	MWI	MWI	MWI
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Amosite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Chrysotile detected	Type	N/A	ISO 17025	Detected	Not-detected	Detected	-	-
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	-	-
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	Loose Fibres	Loose Fibres	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.47	0.4	0.4	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.1	< 0.05	0.06	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.17	0.15	0.16	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.17	0.17	0.15	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.87	0.78	0.51	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.39	0.71	0.31	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.4	2.2	1.8	< 0.05	0.12
Pyrene	mg/kg	0.05	MCERTS	2.5	2.4	1.9	< 0.05	0.17
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.1	1	0.99	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.3	1.3	1	< 0.05	0.18
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.5	1.4	1.4	< 0.05	0.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.61	0.59	0.37	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.4	1.3	1.2	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.7	0.65	0.61	< 0.05	0.08
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.18	0.17	0.16	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.81	0.74	0.69	< 0.05	0.1

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	14.6	14	11.7	< 0.80	0.85
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Environmental Science

Analytical Report Number: 24-025258
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number	228521	228522	228523	228524	228525
Sample Reference	V307	V308	V309	V310	V311
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00-4.00	1.00-4.00	1.00-4.00	1.00-4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_ID_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	0.072	0.084
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_ID_AL	mg/kg	1	MCERTS	7.8	8.5	8.9	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_ID_AL	mg/kg	2	MCERTS	140	92	100	< 2.0	12
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_ID_AL	mg/kg	8	MCERTS	230	180	190	< 8.0	32
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_ID_AL	mg/kg	8	MCERTS	320	250	260	< 8.0	59
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_ID_AL	mg/kg	10	NONE	700	520	560	< 10	100

TPHCWG - Aromatic >EC5 - EC7 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	2.5	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	50	30	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	200	140	160	< 10	17
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	400	290	340	< 10	34
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	650	460	490	< 10	51

TPH (EC10 - EC40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	1500	1100	1200	< 10	160
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-025258

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	228526	228527	228528	228529	228530
Sample Reference	V312	V313	V314	V315	V316
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00	4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	14	13	14	12
Total mass of sample received	kg	0.1	NONE	1.3	1.3	1.2	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA	DSA
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.11	0.1	0.06	< 0.05	0.08
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Environmental Science

Analytical Report Number: 24-025258
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	228526	228527	228528	228529	228530
Sample Reference	V312	V313	V314	V315	V316
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00	4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	0.024	0.023
TPHCWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.05	NONE	0.12	0.075	0.087	0.12	0.15
TPHCWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0	1.4	< 1.0	2.4	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	13	19	11	42	36
TPHCWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	32	39	20	74	60
TPHCWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	46	54	36	130	110
TPHCWG - Aliphatic >EC5 - EC35 _{EH,CU+HS,1D,AL}	mg/kg	10	NONE	91	110	67	250	210

TPHCWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	6.1	9.5	6.9	19	16
TPHCWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	34	37	32	75	59
TPHCWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	53	54	47	120	98
TPHCWG - Aromatic >EC5 - EC35 _{EH,CU+HS,1D,AR}	mg/kg	10	NONE	93	100	86	220	170

TPH (EC10 - EC40) _{EH,CU,1D,TOTAL}	mg/kg	10	MCERTS	200	230	170	500	410
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-025258
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number	228531	228532	228533
Sample Reference	V317	V318	V319
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	13	12
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA
Actinolite detected	Type	N/A	ISO 17025	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.1	0.06	0.08
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80
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Environmental Science

Analytical Report Number: 24-025258
 Project / Site name: Ardrossan North Shore
 Your Order No: S3240

Lab Sample Number	228531	228532	228533
Sample Reference	V317	V318	V319
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	4.00	4.00	4.00
Date Sampled	13/06/2024	13/06/2024	13/06/2024
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_ID_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_ID_AL	mg/kg	0.05	NONE	0.075	0.27	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_ID_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_ID_AL	mg/kg	2	MCERTS	32	8.6	13
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_ID_AL	mg/kg	8	MCERTS	64	24	29
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_ID_AL	mg/kg	8	MCERTS	110	40	41
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_ID_AL	mg/kg	10	NONE	210	72	84

TPHCWG - Aromatic >EC5 - EC7 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	16	7.2	7.2
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	66	32	35
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	110	51	50
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	190	91	92

TPH (EC10 - EC40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	430	180	190
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number: 24-025258
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
228516	V302	1.00-4.00	174	Loose Fibres	Chrysotile	< 0.001	< 0.001
228517	V303	1.00-4.00	166	Loose Fibres	Chrysotile & Crocidolite	0.005	0.005
228518	V304	1.00-4.00	155	Loose Fibres	Chrysotile	< 0.001	< 0.001
228519	V305	1.00-4.00	160	Loose Fibres	Chrysotile	< 0.001	< 0.001
228520	V306	1.00-4.00	165	Loose Fibrous Debris	Chrysotile	0.003	0.003
228521	V307	1.00-4.00	171	Loose Fibres	Chrysotile	< 0.001	< 0.001
228522	V308	1.00-4.00	166	Loose Fibres	Crocidolite	< 0.001	< 0.001
228523	V309	1.00-4.00	167	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 24-025258

Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
228516	V302	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228517	V303	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228518	V304	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228519	V305	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228520	V306	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228521	V307	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228522	V308	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228523	V309	None Supplied	1.00-4.00	Brown loam and sand with gravel and vegetation
228524	V310	None Supplied	1.00-4.00	Brown sand
228525	V311	None Supplied	4	Brown sand
228526	V312	None Supplied	4	Brown sand
228527	V313	None Supplied	4	Brown sand
228528	V314	None Supplied	4	Brown sand
228529	V315	None Supplied	4	Brown sand
228530	V316	None Supplied	4	Brown sand
228531	V317	None Supplied	4	Brown sand
228532	V318	None Supplied	4	Brown sand
228533	V319	None Supplied	4	Brown sand



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Environmental Science

Analytical Report Number : 24-025258

Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS
Asbestos Quant if Screen/ID positive	In-house method	In-house method		D	NONE



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MCCERTS



Environmental Science

Analytical Report Number : 24-025258

Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos types if id positive	In-house method	In-house method		D	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 300C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH-CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution



Environmental Science

Analytical Report Number : 24-027500

Project / Site name: Ardrossan North Shore

Samples received on: 26/06/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 27/06/2024

Your order number: S3240

Analysis completed by: 04/07/2024

Report Issue Number: 1

Report issued on: 04/07/2024

Samples Analysed: 4 soil samples

Signed:

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-027500
Project / Site name: Ardrossan North Shore
Your Order No: 53240

Lab Sample Number	240093	240094	240095	240096
Sample Reference	V320	V321	V322	V323
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.40	3.40	2.80-3.40	2.80-3.40
Date Sampled	26/06/2024	26/06/2024	26/06/2024	26/06/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	8.4	8.5	8.8
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.2	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	MBI	MBI	MBI	MBI
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Amosite detected	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Detected	Not-detected	Detected	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	< 0.001	0.021	< 0.001	< 0.001
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	Loose Fibrous Debris	Loose Fibres	Loose Fibres
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.69	0.41	0.52
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	0.09
Acenaphthene	mg/kg	0.05	MCERTS	0.27	0.23	0.16	0.21
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.19	0.13	0.16
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.98	0.51	0.62
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.43	< 0.05	0.29
Fluoranthene	mg/kg	0.05	MCERTS	1.3	2.5	0.97	1.3
Pyrene	mg/kg	0.05	MCERTS	1.6	2.6	1.3	1.7
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.49	1.1	0.52	0.71
Chrysene	mg/kg	0.05	MCERTS	0.79	1.3	0.74	0.96
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	1.3	0.87	1.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.46	0.29	0.43
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.6	1.4	0.85	1.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.33	0.77	0.5	0.76
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.15	0.09	0.17
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.42	0.93	0.67	0.94

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	5.81	15.2	8.06	11.4
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Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS, 10, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS, 10, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS, 10, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH, CU, 10, AL}	mg/kg	1	MCERTS	77	14	12	11
TPHCWG - Aliphatic >EC12 - EC16 _{EH, CU, 10, AL}	mg/kg	2	MCERTS	750	200	180	200
TPHCWG - Aliphatic >EC16 - EC21 _{EH, CU, 10, AL}	mg/kg	8	MCERTS	1200	330	290	380
TPHCWG - Aliphatic >EC21 - EC35 _{EH, CU, 10, AL}	mg/kg	8	MCERTS	1400	470	430	520
TPHCWG - Aliphatic >EC35 - EC35 _{EH, CU+HS, 10, AL}	mg/kg	10	NONE	3400	1000	910	1100
TPHCWG - Aromatic >EC5 - EC7 _{HS, 10, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010



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Environmental Science

Analytical Report Number: 24-027500

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				240093	240094	240095	240096
Sample Reference				V320	V321	V322	V323
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.40	3.40	2.80-3.40	2.80-3.40
Date Sampled				26/06/2024	26/06/2024	26/06/2024	26/06/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	2	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	220	42	28	34
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	830	250	200	240
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	1200	510	430	460
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	2200	800	660	740
TPH (EC10 - EC40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	6100	2000	1700	2000

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-027500
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
240093	V320	3.40	275	Loose Fibres	Chrysotile	< 0.001	< 0.001
240094	V321	3.40	168	Loose Fibrous Debris	Amosite	0.021	0.021
240095	V322	2.80-3.40	165	Loose Fibres	Chrysotile	< 0.001	< 0.001
240096	V323	2.80-3.40	164	Loose Fibres	Amosite & Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 24-027500
Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
240093	V320	None Supplied	3.4	Brown clay and sand with gravel
240094	V321	None Supplied	3.4	Brown loam and sand with gravel and vegetation
240095	V322	None Supplied	2.80-3.40	Brown loam and sand with gravel and vegetation
240096	V323	None Supplied	2.80-3.40	Brown loam and sand with gravel and vegetation

Analytical Report Number : 24-027500
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - In house method based on references	HSE Report no: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Speciated PAHs and/or Semi volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution.



Environmental Science

Analytical Report Number : 24-028786

Project / Site name: Ardrossan North Shore

Samples received on: 03/07/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 04/07/2024

Your order number: S3240

Analysis completed by: 10/07/2024

Report Issue Number: 1

Report issued on: 10/07/2024

Samples Analysed: 4 soil samples

Signed

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at:

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-028786
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Lab Sample Number	246979	246980	246981	246982
Sample Reference	V324	V325	V326	V327
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.40	2.80-3.40	2.80-3.40	2.80-3.40
Date Sampled	02/07/2024	02/07/2024	02/07/2024	02/07/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NOIE	32.2	< 0.1	< 0.1	83.3
Moisture Content	%	0.01	NOIE	2.5	6.5	5.5	10
Total mass of sample received	kg	0.1	NOIE	1.3	1.2	1.3	1.2

Asbestos							
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	JSW	JSW	JSW	JSW
Actinolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Amosite detected	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Not-detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	0.002	< 0.001	< 0.001	< 0.001
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibrous Debris	Loose Fibres	Loose Fibres	Loose Fibres
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Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	0.22	0.17	0.24	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.22	0.13	0.14	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.19	0.13	0.17	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.65	0.47	0.55	0.22
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07
Fluoranthene	mg/kg	0.05	MCERTS	1.3	1.1	1.1	0.7
Pyrene	mg/kg	0.05	MCERTS	1.6	1.6	1.5	0.66
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.68	0.57	0.62	0.46
Chrysene	mg/kg	0.05	MCERTS	1	0.87	0.79	0.5
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.85	1.1	1	0.72
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.35	0.26	0.28	0.23
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.78	0.9	0.82	0.58
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.49	0.57	0.52	0.29
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.1	0.11	< 0.05	0.06
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.62	0.7	0.63	0.31

Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	9.07	8.61	8.36	4.8

Petroleum Hydrocarbons							
TPHCWG - Aliphatic >EC5 - EC6 _{HS, 10, AL}	mg/kg	0.02	NOIE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS, 10, AL}	mg/kg	0.02	NOIE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS, 10, AL}	mg/kg	0.05	NOIE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH, CU, 10, AL}	mg/kg	1	MCERTS	3.1	6.7	5.2	1.7
TPHCWG - Aliphatic >EC12 - EC16 _{EH, CU, 10, AL}	mg/kg	2	MCERTS	110	140	150	9.1
TPHCWG - Aliphatic >EC16 - EC21 _{EH, CU, 10, AL}	mg/kg	8	MCERTS	360	300	310	42
TPHCWG - Aliphatic >EC21 - EC35 _{EH, CU, 10, AL}	mg/kg	8	MCERTS	550	440	480	57
TPHCWG - Aliphatic >EC35 - EC35 _{EH, CU, 10, AL}	mg/kg	10	NOIE	1000	890	930	110
TPHCWG - Aromatic >EC5 - EC7 _{HS, 10, AL}	mg/kg	0.01	NOIE	< 0.010	< 0.010	< 0.010	< 0.010



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Environmental Science

Analytical Report Number: 24-028786

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	246979	246980	246981	246982
Sample Reference	V324	V325	V326	V327
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.40	2.80-3.40	2.80-3.40	2.80-3.40
Date Sampled	02/07/2024	02/07/2024	02/07/2024	02/07/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
TPHCWG - Aromatic >EC7 - EC8 HS_10_AR	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_10_AR	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_10_AR	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_10_AR	mg/kg	2	MCERTS	52
TPHCWG - Aromatic >EC16 - EC21 EH_CU_10_AR	mg/kg	10	MCERTS	340
TPHCWG - Aromatic >EC21 - EC35 EH_CU_10_AR	mg/kg	10	MCERTS	760
TPHCWG - Aromatic >EC35 - EC35 EH_CU_10_AR	mg/kg	10	NONE	1200
TPH (EC10 - EC40) EH_CU_10_TOTAL	mg/kg	10	MCERTS	2500

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: 24-028786
Project / Site name: Ardrossan North Shore
Your Order No: S3240

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
246979	V324	3.40	181	Loose Fibrous Debris	Amosite	0.002	0.002
246980	V325	2.80-3.40	175	Loose Fibres	Amosite	< 0.001	< 0.001
246981	V326	2.80-3.40	175	Loose Fibres	Chrysotile	< 0.001	< 0.001
246982	V327	2.80-3.40	179	Loose Fibres	Crocidolite	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



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Environmental Science

Analytical Report Number : 24-028786**Project / Site name: Ardrossan North Shore**

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
246979	V324	None Supplied	3.4	Brown loam with vegetation and stones
246980	V325	None Supplied	2.80-3.40	Brown loam with gravel and vegetation
246981	V326	None Supplied	2.80-3.40	Brown loam with gravel and vegetation
246982	V327	None Supplied	2.80-3.40	Brown loam with fibres and stones

Analytical Report Number : 24-028786
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	None
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	None
Specified PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in the United Kingdom.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution



Analytical Report Number : 24-77138

Project / Site name: Ardrossan North Shore

Samples received on: 05/01/2024

Your job number: S3240

**Samples instructed on/
Analysis started on:** 05/01/2024

Your order number: S3240

Analysis completed by: 15/01/2024

Report Issue Number: 1

Report issued on: 15/01/2024

Samples Analysed: 10 soil samples

Signature

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Environmental Science

Analytical Report Number: 24-77138

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number	2922829	2922830	2922831	2922832	2922833
Sample Reference	V070	V071	V072	V073	V074
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.70	0.00-1.70	0.00-1.70	0.00-1.70	0.00-1.70
Date Sampled	04/01/2024	04/01/2024	04/01/2024	04/01/2024	04/01/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	12
Total mass of sample received	kg	0.001	NONE	0.9	1

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	EWS	EWS	EWS	EWS

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.06	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.07	< 0.05	0.09	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.07	0.05	0.1	< 0.05	0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.06	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.05	< 0.05	0.07	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH C10 - C40 _{EH, CU, 1D, TOTAL}	mg/kg	10	MCERTS	< 10	< 10	16	< 10	< 10
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TPH-CWG - Aliphatic >EC5 - EC6 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, 1D, AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, 1D, AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU, HS, 1D, AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



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Environmental Science

Analytical Report Number: 24-77138

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				2922829	2922830	2922831	2922832	2922833
Sample Reference				V070	V071	V072	V073	V074
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.00-1.70	0.00-1.70	0.00-1.70	0.00-1.70
Date Sampled				04/01/2024	04/01/2024	04/01/2024	04/01/2024	04/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
TPH-CWG - Aromatic >EC12 - EC16 EH, CU, 1D, AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH, CU, 1D, AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 EH, CU, 1D, AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) EH, CU+HS, 1D, AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not Detected



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Environmental Science

Analytical Report Number: 24-77138

Project / Site name: Ardrossan North Shore

Your Order No: S3240

Lab Sample Number				2922834	2922835	2922836	2922837	2922838
Sample Reference				V075	V076	V077	V078	V079
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	0.00-1.20	0.00-1.20	0.00-1.20	0.00-1.20
Date Sampled				04/01/2024	04/01/2024	04/01/2024	04/01/2024	04/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	11	12	13	12
Total mass of sample received	kg	0.001	NONE	1	0.9	0.9	0.9	1.1

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	EWS	EWS	EWS	EWS

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.19	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	< 0.05	0.09	0.09	0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.21	0.15	0.09
Pyrene	mg/kg	0.05	MCERTS	0.09	< 0.05	0.22	0.16	0.08
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.11	0.07	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.05	< 0.05	0.14	0.09	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	0.96	< 0.80	< 0.80
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Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH C10 - C40 EH, CU, ID, TOTAL	mg/kg	10	MCERTS	< 10	11	< 10	< 10	< 10
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TPH-CWG - Aliphatic >EC5 - EC6 HS, ID, AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 HS, ID, AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 HS, ID, AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 EH, CU, ID, AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH, CU, ID, AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH, CU, ID, AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH, CU, ID, AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) EH, CU, HS, ID, AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 HS, ID, AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 HS, ID, AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 HS, ID, AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 EH, CU, ID, AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



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Environmental Science

Analytical Report Number: 24-77138

Project / Site name: Ardrossan North Shore

Your Order No: 53240

Lab Sample Number				2922834	2922835	2922836	2922837	2922838
Sample Reference				V075	V076	V077	V078	V079
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	0.00-1.20	0.00-1.20	0.00-1.20	0.00-1.20
Date Sampled				04/01/2024	04/01/2024	04/01/2024	04/01/2024	04/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
TPH-CWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) _{EH, CU+HS, 1D, AR}	mg/kg	10	NOTE	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not Detected

Analytical Report Number : 24-77138
Project / Site name: Ardrossan North Shore

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2922829	V070	None Supplied	1.7	Brown clay and sand with gravel.
2922830	V071	None Supplied	0.00-1.70	Brown clay and sand with gravel.
2922831	V072	None Supplied	0.00-1.70	Brown sand with gravel.
2922832	V073	None Supplied	0.00-1.70	Brown sand with gravel.
2922833	V074	None Supplied	0.00-1.70	Brown sand with gravel.
2922834	V075	None Supplied	1.2	Brown clay.
2922835	V076	None Supplied	0.00-1.20	Brown clay and sand.
2922836	V077	None Supplied	0.00-1.20	Brown clay and sand.
2922837	V078	None Supplied	0.00-1.20	Brown clay and sand.
2922838	V079	None Supplied	0.00-1.20	Brown clay and sand.



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Analytical Report Number : 24-77138
Project / Site name: Ardrossan North Shore

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 2-8	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 °C)	In house method.	L019 UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019 UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260. Refer to CoA for analyte specific accreditation	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 300C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



Final Report

Report No.: 24-22163-1

Initial Date of Issue: 16-Jul-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Ardrossan North Shore

Quotation No.: Q24-35340

Date Received: 12-Jul-2024

Order No.: S3240

Date Instructed: 12-Jul-2024

No. of Samples: 21

Turnaround (Wkdays): 3

Results Due: 16-Jul-2024

Date Approved: 16-Jul-2024

Approved By:

Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834394	1834395	1834396	1834397	1834398	1834399	1834400	1834401			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V328	V329	V330	V331	V332	V333	V334	V335			
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'			
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):	3.20	2.90	2.90	2.90	3.30	3.30	3.10	3.30			
		Bottom Depth (m):	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20			
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024			
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB			
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	15	15	15	14	15	16	16	14
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	9.2	11	11	9.2	9.0	13	13	7.6
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.6	11	16	4.3	3.7	7.9	24	2.2
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	14	< 2.0	< 2.0	4.1	25	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	21	22	23	23	20	25	33	25
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	17	18	21	19	18	17	19	29
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	34	44	64	37	32	50	95	35
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	51	62	85	56	50	67	110	64
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	2.6	3.7	1.3	< 1.0	< 1.0	2.4	3.3	2.2
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.1	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	3.2	5.3	3.8	4.8	3.7	10	4.5
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	4.1	4.6	4.9	3.9	3.4	5.5	4.4	6.2
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	10	11	11	11	11	11	12	47
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	7.8	12	12	8.2	9.2	11	23	13
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	18	23	24	19	21	22	35	59
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	42	56	76	45	42	61	120	48
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	69	86	110	75	71	89	150	120
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834394	1834395	1834396	1834397	1834398	1834399	1834400	1834401		
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V328	V329	V330	V331	V332	V333	V334	V335		
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'		
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
		Top Depth (m):	3.20	2.90	2.90	2.90	3.30	3.30	3.10	3.30		
		Bottom Depth (m):	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20		
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024		
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB		
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.16	< 0.10	1.1	1.0
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.19	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.31	0.32	0.31	0.28	0.31
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.30	< 0.10	0.17	0.25
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	1.1	0.61	0.68	0.48	0.94
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	1.2	0.65	0.69	0.54	1.1
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.65	< 0.10	0.27	0.26
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.61	< 0.10	0.29	0.33
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.75	< 0.10	0.45	0.65
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.64	< 0.10	0.23	0.27
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.67	< 0.10	0.42	0.52
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.75	< 0.10	1.2	0.82
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.65	< 0.10	1.6	0.81
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.71	< 0.10	0.92	0.72
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	2.6	7.9	< 2.0	8.0	8.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834402	1834403	1834404	1834405	1834406	1834407	1834408	1834409			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V336	V337	V338	V339	V340	V341	V342	V343			
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'			
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):	3.30	1.20	1.20	1.20	1.30	1.40	1.40	1.40			
		Bottom Depth (m):	3.20	3.20	3.20	3.20	2.90	2.90	2.90	3.20			
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024			
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB			
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	14	16	14	13	13	27	13	10
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	10	14	8.1	8.2	7.4	13	42	7.7
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	4.5	9.8	6.4	13	4.1	19	280	4.8
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	2.8	< 2.0	11	< 2.0	18	280	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	23	25	< 3.0	< 3.0	3.0	4.7	110	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	16	22	< 10	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	37	52	17	35	14	55	720	15
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	53	74	17	35	14	55	720	15
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	4.8	4.5	2.0	< 1.0	< 1.0	3.2	8.0	1.3
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	2.4	< 1.0	< 1.0	< 1.0	3.9	91	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	4.1	5.8	4.4	3.8	3.1	9.9	120	3.4
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.9	6.0	< 2.0	< 2.0	< 2.0	2.4	7.1	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	11	11	27	1.5	1.7	1.6	2.0	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	13	19	8.2	< 5.0	< 5.0	19	220	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	24	29	35	< 10	< 10	21	230	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	50	70	25	40	18	74	950	20
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	77	100	52	42	20	76	950	20
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834402	1834403	1834404	1834405	1834406	1834407	1834408	1834409		
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation		
		Client Sample ID.:	V336	V337	V338	V339	V340	V341	V342	V343		
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'		
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
		Top Depth (m):	3.30	1.20	1.20	1.20	1.30	1.40	1.40	1.40		
		Bottom Depth (m):	3.20	3.20	3.20	3.20	2.90	2.90	2.90	3.20		
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024		
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB		
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	0.78	< 0.10	1.1	0.83	< 0.10	< 0.10	1.2
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.43	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.39	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.28	0.42	0.64	< 0.10	< 0.10	0.26	0.26
Anthracene		M	2800	mg/kg	0.10	0.25	0.25	0.33	< 0.10	< 0.10	0.17	0.22
Fluoranthene		M	2800	mg/kg	0.10	0.76	0.94	0.95	0.35	< 0.10	0.48	< 0.10
Pyrene		M	2800	mg/kg	0.10	0.82	0.97	0.99	0.49	< 0.10	0.52	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.22	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.30	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.49	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.17	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.40	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.38	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.37	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	2.9	2.6	7.1	< 2.0	< 2.0	< 2.0	3.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834410	1834411	1834412	1834413	1834414
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V344	V345	V346	V347	V348
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	1.40	1.40	1.40	1.40	1.40
		Bottom Depth (m):	3.20	3.20	3.20	3.30	3.30
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	9.6	12
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Stones
Soil Texture		N	2040		N/A	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	7.8	13
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.7	410
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	360
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	20	150
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	33	1000
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	33	1000
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	13
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	98
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.1	130
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	8.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.6	3.2
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	5.0	250
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	250
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	38	1200
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	40	1200
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-22163	24-22163	24-22163	24-22163	24-22163
Quotation No.: Q24-35340		Chemtest Sample ID.:	1834410	1834411	1834412	1834413	1834414
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V344	V345	V346	V347	V348
		Sample Location:	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'	Cell 'C'
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	1.40	1.40	1.40	1.40	1.40
		Bottom Depth (m):	3.20	3.20	3.20	3.30	3.30
		Date Sampled:	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024	10-Jul-2024
		Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.45	0.28
Anthracene		M	2800	mg/kg	0.10	0.38	0.42
Fluoranthene		M	2800	mg/kg	0.10	0.84	1.2
Pyrene		M	2800	mg/kg	0.10	0.77	1.2
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	2.4	3.1

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7, >C7–C8, >C8–C10 Aromatics: >C5–C7, >C7–C8, >C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Amended Report

Report No.: 24-22166-2

Initial Date of Issue: 16-Jul-2024 Date of Re-Issue: 29-Jul-2024

Re-Issue Details: This report has been revised and directly supersedes 24-22166-1 in its entirety

Client: Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project: S3240 Ardrossan North Shore

Quotation No.: Q24-35340 Date Received: 12-Jul-2024

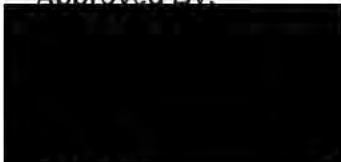
Order No.: S3240 Date Instructed: 12-Jul-2024

No. of Samples: 3

Turnaround (Wkdays): 12 Results Due: 29-Jul-2024

Date Approved: 29-Jul-2024

Approved By:



Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-22166	24-22166	24-22166
Quotation No.: Q24-35340		Chemtest Sample ID.:				1834422	1834423	1834424
Order No.: S3240		Client Sample Ref.:				Validation	Validation	Validation
		Client Sample ID.:				V324 A	V325 A	V326 A
		Sample Location:				Cell 'A'	Cell 'A'	Cell 'A'
		Sample Type:				SOIL	SOIL	SOIL
		Top Depth (m):				3.90	2.80	2.80
		Bottom Depth (m):				3.90	3.40	3.40
		Date Sampled:				10-Jul-2024	10-Jul-2024	10-Jul-2024
Determinand	HWOL Code	Accred.	SOP	Units	LOD			
Moisture		N	2030	%	0.020	11	11	10
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones	Stones and Roots
Soil Texture		N	2040		N/A	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	6.1	9.2	7.4
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.6	2.7	4.1
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	5.8
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	< 3.0	4.2
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	12	13	21
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	12	13	21
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	6.2	8.0	10
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	9.4	9.2	16
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	3.0	1.8	14
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	16	18	26
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	19	19	40
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	28	31	48
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	31	33	62
Naphthalene		M	2700	mg/kg	0.10	1.0	0.50	0.98
Acenaphthylene		M	2700	mg/kg	0.10	0.37	0.35	0.35
Acenaphthene		M	2700	mg/kg	0.10	0.21	0.22	0.21
Fluorene		M	2700	mg/kg	0.10	0.12	< 0.10	0.17
Phenanthrene		M	2700	mg/kg	0.10	0.87	0.87	1.2

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-22166	24-22166	24-22166
Quotation No.: Q24-35340		Chemtest Sample ID.:				1834422	1834423	1834424
Order No.: S3240		Client Sample Ref.:				Validation	Validation	Validation
		Client Sample ID.:				V324 A	V325 A	V326 A
		Sample Location:				Cell 'A'	Cell 'A'	Cell 'A'
		Sample Type:				SOIL	SOIL	SOIL
		Top Depth (m):				3.90	2.80	2.80
		Bottom Depth (m):				3.90	3.40	3.40
		Date Sampled:				10-Jul-2024	10-Jul-2024	10-Jul-2024
Determinand	HWOL Code	Accred.	SOP	Units	LOD			
Anthracene		M	2700	mg/kg	0.10	0.33	0.41	0.49
Fluoranthene		M	2700	mg/kg	0.10	1.8	2.2	3.1
Pyrene		M	2700	mg/kg	0.10	2.0	2.2	3.3
Benzo[a]anthracene		M	2700	mg/kg	0.10	1.4	1.6	1.8
Chrysene		M	2700	mg/kg	0.10	1.7	1.5	2.2
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	2.4	2.3	3.3
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	1.0	0.91	1.2
Benzo[a]pyrene		M	2700	mg/kg	0.10	1.9	1.6	2.7
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	1.8	1.3	2.2
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	0.70	0.59	0.76
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	2.1	1.5	2.4
Total Of 16 PAH's		M	2700	mg/kg	2.0	20	18	26
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	

Report Information

Key

U	UKAS accredited
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N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request.

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory.

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Amended Report

Report No.: 24-23210-2

Initial Date of Issue: 24-Jul-2024

Date of Re-Issue: 29-Jul-2024

Re-Issue Details: This report has been revised and directly supersedes 24-23210-1 in its entirety

Client: Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project: S3240 Ardrossan North Shore

Quotation No.: Q24-35340

Date Received: 22-Jul-2024

Order No.: S3240

Date Instructed: 22-Jul-2024

No. of Samples: 1

Turnaround (Wkdays): 6

Results Due: 29-Jul-2024

Date Approved: 29-Jul-2024

Approved By:

Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-23210
Quotation No.: Q24-35340		Chemtest Sample ID.:				1838877
Order No.: S3240		Client Sample Ref.:				Validation
		Client Sample ID.:				V345A
		Sample Location:				Cell 'C'
		Sample Type:				SOIL
		Top Depth (m):				1.4
		Bottom Depth (m):				3.2
		Date Sampled:				17-Jul-2024
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Moisture		N	2030	%	0.020	6.2
Soil Colour		N	2040		N/A	Brown
Other Material		N	2040		N/A	Stones
Soil Texture		N	2040		N/A	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	6.3
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	36
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	63
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	26
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	130
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	130
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	2.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	9.8
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	26
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	9.9
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	27
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	47
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	74
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	180
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	210
Naphthalene		M	2700	mg/kg	0.10	0.64
Acenaphthylene		M	2700	mg/kg	0.10	0.43
Acenaphthene		M	2700	mg/kg	0.10	1.1
Fluorene		M	2700	mg/kg	0.10	1.2
Phenanthrene		M	2700	mg/kg	0.10	0.64
Anthracene		M	2700	mg/kg	0.10	0.28

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-23210
Quotation No.: Q24-35340		Chemtest Sample ID.:				1838877
Order No.: S3240		Client Sample Ref.:				Validation
		Client Sample ID.:				V345A
		Sample Location:				Cell 'C'
		Sample Type:				SOIL
		Top Depth (m):				1.4
		Bottom Depth (m):				3.2
		Date Sampled:				17-Jul-2024
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Fluoranthene		M	2700	mg/kg	0.10	1.0
Pyrene		M	2700	mg/kg	0.10	1.1
Benzo[a]anthracene		M	2700	mg/kg	0.10	0.16
Chrysene		M	2700	mg/kg	0.10	0.16
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	0.21
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	0.11
Benzo[a]pyrene		M	2700	mg/kg	0.10	0.28
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	0.26
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	0.12
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	0.69
Total Of 16 PAH's		M	2700	mg/kg	2.0	8.4
Benzene		M	2760	µg/kg	1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils (Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description (Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7, >C7–C8, >C8–C10 Aromatics: >C5–C7, >C7–C8, >C8–C10	Water extraction / Headspace GCxGC FID detection	

Report Information

Key

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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

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Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-23947-1

Initial Date of Issue: 05-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Ardrossan North Store

Quotation No.: Q24-35340

Date Received: 26-Jul-2024

Order No.: S3240

Date Instructed: 31-Jul-2024

No. of Samples: 4

Turnaround (Wkdays): 5

Results Due: 06-Aug-2024

Date Approved: 05-Aug-2024

Approved By:



Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Ardrossan North Store

Client: Sanctus Limited		Chemtest Job No.:				24-23947	24-23947	24-23947	24-23947
Quotation No.: Q24-35340		Chemtest Sample ID.:				1841714	1841715	1841716	1841717
		Client Sample ID.:				V349	V350	V351	V352
		Sample Location:				V349	V350	V351	V352
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				1.4	1.4	1.4	1.4
		Bottom Depth (m):				3.2	3.2	3.2	3.2
		Date Sampled:				22-Jul-2024	22-Jul-2024	22-Jul-2024	22-Jul-2024
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
ACM Type		U	2192		N/A	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	4.4	3.7	6.9	4.1
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	U	2690	mg/kg	2.00	< 2.0	15	< 2.0	< 2.0
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	U	2690	mg/kg	1.00	1.1	170	2.7	5.1
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	U	2690	mg/kg	2.00	4.6	210	7.7	12
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	U	2690	mg/kg	3.00	23	120	11	8.7
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	U	2690	mg/kg	5.00	29	510	22	26
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	29	510	22	26
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	7.2	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	47	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	5.1	87	9.5	9.9
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	5.8	22	5.8	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	4.2	22	21	2.7
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	11	160	15	11
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	15	190	37	14
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	40	680	38	37
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	44	700	59	40
Benzene		U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Ardrossan North Store

Client: Sanctus Limited		Chemtest Job No.:	24-23947	24-23947	24-23947	24-23947
Quotation No.: Q24-35340		Chemtest Sample ID.:	1841714	1841715	1841716	1841717
		Client Sample ID.:	V349	V350	V351	V352
		Sample Location:	V349	V350	V351	V352
		Sample Type:	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	1.4	1.4	1.4	1.4
		Bottom Depth (m):	3.2	3.2	3.2	3.2
		Date Sampled:	22-Jul-2024	22-Jul-2024	22-Jul-2024	22-Jul-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
m & p-Xylene		U	2760	µg/kg	1.0	< 1.0
o-Xylene		U	2760	µg/kg	1.0	< 1.0
Methyl Tert-Butyl Ether		U	2760	µg/kg	1.0	< 1.0
Naphthalene		U	2800	mg/kg	0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10
Acenaphthene		U	2800	mg/kg	0.10	< 0.10
Fluorene		U	2800	mg/kg	0.10	< 0.10
Phenanthrene		U	2800	mg/kg	0.10	< 0.10
Anthracene		U	2800	mg/kg	0.10	< 0.10
Fluoranthene		U	2800	mg/kg	0.10	< 0.10
Pyrene		U	2800	mg/kg	0.10	< 0.10
Benzo[a]anthracene		U	2800	mg/kg	0.10	< 0.10
Chrysene		U	2800	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene		U	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene		U	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene		U	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		U	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene		U	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40 Aromatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5-C6, >C6-C7,>C7-C8,>C8-C10 Aromatics: >C5-C7,>C7-C8,>C8-C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-24799-1

Initial Date of Issue: 08-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Ardrossan North Shore

Quotation No.: Q24-35340

Date Received: 02-Aug-2024

Order No.: S3240

Date Instructed: 02-Aug-2024

No. of Samples: 5

Turnaround (Wkdays): 5

Results Due: 08-Aug-2024

Date Approved: 08-Aug-2024

Approved By:



Details:  Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-24799	24-24799	24-24799	24-24799	24-24799
Quotation No.: Q24-35340		Chemtest Sample ID.:	1845389	1845390	1845391	1845392	1845393
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V358	V359	V360	V361	V362
		Sample Location:	Area 11	Area 11	Area 11	Area 11	Area 11
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	3.3	2.7	2.7	2.7	2.7
		Bottom Depth (m):	3.3	3.3	3.3	3.3	3.3
		Date Sampled:	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	9.9	9.2
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones	None
Soil Texture		N	2040		N/A	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	13	11
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.8	2.5
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	18	13
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	18	13
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.1	3.8
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	< 1.0	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	< 5.0	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	21	17
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	21	17
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-24799	24-24799	24-24799	24-24799	24-24799
Quotation No.: Q24-35340		Chemtest Sample ID.:	1845389	1845390	1845391	1845392	1845393
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V358	V359	V360	V361	V362
		Sample Location:	Area 11	Area 11	Area 11	Area 11	Area 11
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	3.3	2.7	2.7	2.7	2.7
		Bottom Depth (m):	3.3	3.3	3.3	3.3	3.3
		Date Sampled:	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40 Aromatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5-C6, >C6-C7,>C7-C8,>C8-C10 Aromatics: >C5-C7,>C7-C8,>C8-C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request.

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory.

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-24803-1

Initial Date of Issue: 09-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3420 Ardrossan North Shore

Quotation No.: Q24-35340

Date Received: 02-Aug-2024

Order No.: S3420

Date Instructed: 02-Aug-2024

No. of Samples: 5

Turnaround (Wkdays): 5

Results Due: 08-Aug-2024

Date Approved: 09-Aug-2024

Approved By:

Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3420 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-24803	24-24803	24-24803	24-24803	24-24803
Quotation No.: Q24-35340		Chemtest Sample ID.:				1845404	1845405	1845406	1845407	1845408
Order No.: S3420		Client Sample Ref.:				Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:				V353	V354	V355	V356	V357
		Sample Location:				Area 19	Area 19	Area 19	Area 19	Area 19
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				2.9	2.2	2.2	2.2	2.2
		Bottom Depth (m):				2.9	2.9	2.9	2.9	2.9
		Date Sampled:				30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		U	2192		N/A	Fibres/Clumps	Fibres/Clumps	Fibres/Clumps	Fibres/Clumps	-
Asbestos Identification		U	2192		N/A	Amosite	Chrysotile	Chrysotile	Crocidolite	No Asbestos Detected
Asbestos by Gravimetry		U	2192	%	0.001	0.008	0.001	0.001	0.002	
Total Asbestos		U	2192	%	0.001	0.008	0.001	0.001	0.002	
Moisture		N	2030	%	0.020	11	11	9.4	11	8.0
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	10	< 2.0	2.8	< 2.0	< 2.0
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.0	3.7	9.9	2.6	2.2
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	14	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	13	5.5	29	< 5.0	< 5.0
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	13	< 10	29	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	5.3	2.4	8.4	2.3	2.3
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	2.1	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.1	25	< 1.0	< 1.0	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	5.3	< 5.0	11	< 5.0	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	25	11	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	18	< 10	40	< 10	< 10
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	19	25	40	< 10	< 10

Results - Soil

Project: S3420 Ardrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-24803	24-24803	24-24803	24-24803	24-24803
Quotation No.: Q24-35340		Chemtest Sample ID.:	1845404	1845405	1845406	1845407	1845408
Order No.: S3420		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V353	V354	V355	V356	V357
		Sample Location:	Area 19	Area 19	Area 19	Area 19	Area 19
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	2.9	2.2	2.2	2.2	2.2
		Bottom Depth (m):	2.9	2.9	2.9	2.9	2.9
		Date Sampled:	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

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>	"greater than"
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All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

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Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
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SA - Saline Water
SW - Surface Water
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UL - Unspecified Liquid

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HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-26234-1

Initial Date of Issue: 20-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Adrossan North Shore

Quotation No.: Q24-35340

Date Received: 15-Aug-2024

Order No.: S3240

Date Instructed: 15-Aug-2024

No. of Samples: 32

Turnaround (Wkdays): 4

Results Due: 20-Aug-2024

Date Approved: 20-Aug-2024

Approved By:

Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851804	1851805	1851806	1851807	1851808	1851809	1851810	1851811			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V372	V373	V374	V375	V376	V377	V378	V379			
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D			
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024			
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	9.9	10	8.7	10	9.8	10	10	9.9
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	3.7	2.3	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	3.2	3.2	1.6	6.2	4.5	< 1.0	1.0	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	2.5	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	< 3.0	< 3.0	3.4	< 3.0	< 3.0	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	6.1	5.8	< 5.0	16	8.4	< 5.0	< 5.0	< 5.0
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	16	< 10	< 10	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	4.0	4.5	4.3	4.0	4.8	4.1	5.1	4.7
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	2.1	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	3.8	3.5	1.7	3.6	3.1	1.2	1.9	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	5.9	6.4	6.0	6.7	6.8	5.7	6.7	6.8
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	10	< 10	< 10	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	12	12	< 10	22	15	< 10	10	< 10
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	16	16	< 10	26	18	< 10	12	< 10
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851804	1851805	1851806	1851807	1851808	1851809	1851810	1851811			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V372	V373	V374	V375	V376	V377	V378	V379			
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D			
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024			
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	0.17	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851812	1851813	1851814	1851815	1851816	1851817	1851818	1851819			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V380	V381	V382	V383	V384	V385	V386	V387			
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D			
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):	3.5	3.5	3.5	3.5	2.1	2.1	2.1	2.1			
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024			
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			
Deferinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	10	9.9	10	10	9.9	9.4	8.3	9.5
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	6.1	3.1	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5.9
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	11	9.7	1.0	< 1.0	< 1.0	1.9	< 1.0	11
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	2.9	4.4	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	4.5
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	7.1	8.2	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	27	25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	23
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	27	25	< 10	< 10	< 10	< 10	< 10	23
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	4.7	4.1	4.9	4.3	4.9	4.6	5.1	4.9
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	2.4	2.4	1.3	< 1.0	1.3	< 1.0	1.4	3.5
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	6.7	5.3	6.3	5.4	6.6	6.9	5.6	7.1
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	34	31	< 10	< 10	< 10	10	< 10	30
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	36	33	< 10	< 10	< 10	10	< 10	33
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851812	1851813	1851814	1851815	1851816	1851817	1851818	1851819		
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V380	V381	V382	V383	V384	V385	V386	V387		
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D		
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
		Top Depth (m):	3.5	3.5	3.5	3.5	2.1	2.1	2.1	2.1		
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851820	1851821	1851822	1851823	1851824	1851825	1851826	1851827	1851828	1851829	1851830
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V388	V389	V390	V391	V392	V393	V394	V395	V396	V397	V398
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	9.9	14	9.5	9.8	9.2	8.1	9.0	8.9
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Loam	Sand	Sand	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	3.1	2.4	7.5	< 2.0	< 2.0	3.1	< 2.0	3.4
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	9.1	2.7	48	< 1.0	< 1.0	3.6	2.3	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	2.6	< 2.0	80	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	< 3.0	89	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	17	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	16	5.3	220	< 5.0	< 5.0	9.0	5.0	< 5.0
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	16	< 10	240	< 10	< 10	< 10	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	1.4	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	8.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	5.8	4.5	36	3.0	4.0	4.8	4.3	4.0
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	21	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	2.9	27	28	1.1	< 1.0	1.4	1.1	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	8.4	6.9	67	< 5.0	< 5.0	5.6	5.6	5.3
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	11	34	95	< 10	< 10	< 10	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	24	12	290	< 10	< 10	15	11	10
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	27	40	340	< 10	< 10	16	12	10
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851820	1851821	1851822	1851823	1851824	1851825	1851826	1851827		
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V388	V389	V390	V391	V392	V393	V394	V395		
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D		
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
		Top Depth (m):	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1		
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024		
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	0.48	< 0.10	< 0.10	0.31	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	1.7	< 0.10	< 0.10	0.15	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	1.5	< 0.10	< 0.10	0.13	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	0.98	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	0.98	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	1.6	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.59	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	1.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	1.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	12	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851828	1851829	1851830	1851831	1851832	1851833	1851834	1851835			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V396	V397	V398	V399	V400	V401	V402	V403			
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3	3.1	3			
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	13	13	13	13	13	13	11	11
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones	Stones
Soil Texture		N	2040		N/A	Loam	Loam	Loam	Loam	Loam	Loam	Loam	Loam
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	[C] < 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	10	2.3	5.5	[C] 2.8	5.8	3.1	5.8	21
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	87	51	25	[C] 29	29	31	40	94
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	150	80	51	[C] 56	64	85	64	130
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	99	73	45	[C] 64	64	69	67	130
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	11	11	[C] 13	< 10	< 10	14	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	350	210	130	[C] 150	160	190	180	380
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	350	220	140	[C] 160	160	190	190	380
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	[C] < 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	[C] < 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	2.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	14	8.5	8.9	[C] 6.5	9.8	5.1	8.2	13
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	56	44	20	[C] 24	33	34	79	62
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	33	31	15	[C] 9.6	15	27	96	35
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	20	17	7.7	[C] 9.9	13	22	26	31
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	100	83	43	[C] 40	57	66	180	110
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	120	100	51	[C] 50	70	89	210	140
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	450	290	170	[C] 190	220	260	360	490
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	470	320	190	[C] 210	230	280	400	520
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234	24-26234
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851828	1851829	1851830	1851831	1851832	1851833	1851834	1851835			
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V396	V397	V398	V399	V400	V401	V402	V403			
		Sample Location:	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D	Cell D
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		Bottom Depth (m):	3.5	3.5	3.5	3.5	3.5	3	3.1	3			
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	0.13	0.51	0.16	0.11	0.20	0.35	0.21	0.15
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	0.14	< 0.10	< 0.10	0.17	< 0.10	0.14	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	0.10	< 0.10	< 0.10	0.15	< 0.10	0.11	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.53	0.85	0.58	0.66	1.3	1.5	0.62	0.61
Anthracene		M	2800	mg/kg	0.10	0.24	0.25	0.27	0.25	0.44	0.19	0.23	0.20
Fluoranthene		M	2800	mg/kg	0.10	1.6	2.1	1.9	1.9	2.5	1.9	1.5	1.4
Pyrene		M	2800	mg/kg	0.10	1.5	1.7	1.7	1.6	2.2	1.7	1.3	1.3
Benzo[a]anthracene		M	2800	mg/kg	0.10	1.0	0.91	0.87	0.81	1.1	0.95	0.71	0.73
Chrysene		M	2800	mg/kg	0.10	0.90	0.89	0.81	0.83	1.2	0.88	0.71	0.64
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	1.5	1.3	1.3	1.3	2.0	1.5	1.2	1.1
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.78	0.49	0.43	0.44	0.64	0.55	0.47	0.41
Benzo[a]pyrene		M	2800	mg/kg	0.10	1.4	1.2	0.98	1.0	1.6	1.1	1.0	0.83
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	1.2	0.87	0.72	0.80	1.2	0.92	0.79	0.71
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	0.47	0.17	< 0.10	0.19	0.31	< 0.10	0.23	0.14
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	1.2	0.82	0.80	0.73	1.1	0.88	0.83	0.75
Total Of 16 PAH's		N	2800	mg/kg	2.0	13	12	11	11	16	12	10	9.0

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1851831	Validation	V399	Cell D	13-Aug-2024	C	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40 Aromatics: >C10-C12, >C12-C16, >C16-C21, >C21- C35, >C35- C40	Acelone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5-C6, >C6-C7,>C7-C8,>C8-C10 Aromatics: >C5-C7,>C7-C8,>C8-C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request.

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory.

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-26273-1

Initial Date of Issue: 20-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Adrossan North Shore

Quotation No.: Q24-35340

Date Received: 15-Aug-2024

Order No.: S3240

Date Instructed: 15-Aug-2024

No. of Samples: 5

Turnaround (Wkdays): 4

Results Due: 20-Aug-2024

Date Approved: 20-Aug-2024

Approved By:



Details: Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26273	24-26273	24-26273	24-26273	24-26273
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851912	1851913	1851914	1851915	1851916
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V363	V364	V365	V366	V367
		Sample Location:	Area 20	Area 20	Area 20	Area 20	Area 20
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	1.8	0.3	0.3	0.3	0.3
		Bottom Depth (m):	1.8	1.8	1.8	1.8	1.8
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	13	13
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	None	None
Soil Texture		N	2040		N/A	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	< 1.0	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0	4.8
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	< 5.0	8.5
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.9	4.0
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.6	1.2
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	< 5.0	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	< 10	13
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	< 10	14
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26273	24-26273	24-26273	24-26273	24-26273
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851912	1851913	1851914	1851915	1851916
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation	Validation
		Client Sample ID.:	V363	V364	V365	V366	V367
		Sample Location:	Area 20	Area 20	Area 20	Area 20	Area 20
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	1.8	0.3	0.3	0.3	0.3
		Bottom Depth (m):	1.8	1.8	1.8	1.8	1.8
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

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SOP	Standard operating procedure
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Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Final Report

Report No.: 24-26275-1

Initial Date of Issue: 20-Aug-2024

Re-Issue Details:

Client Sanctus Limited

Client Address: 1 Olympus Park Business Centre
Quedgeley
Gloucester
Gloucestershire
GL2 4DH

Contact(s): Labs

Project S3240 Adrossan North Shore

Quotation No.: Q24-35340

Date Received: 15-Aug-2024

Order No.: S3240

Date Instructed: 15-Aug-2024

No. of Samples: 4

Turnaround (Wkdays): 4

Results Due: 20-Aug-2024

Date Approved: 20-Aug-2024

Approved By:

Details: [Redacted] Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:				24-26275	24-26275	24-26275	24-26275
Quotation No.: Q24-35340		Chemtest Sample ID.:				1851919	1851920	1851921	1851922
Order No.: S3240		Client Sample Ref.:				Validation	Validation	Validation	Validation
		Client Sample ID.:				V368	V369	V370	V371
		Sample Location:				Area 10	Area 10	Area 10	Area 10
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				3.5	3.5	3.5	3.5
		Bottom Depth (m):				3.5	3.5	3.5	3.5
		Date Sampled:				13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SQP	Units	LOD				
ACM Type		U	2192		N/A	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	14	13	15	13
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	None	None	None	None
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	< 1.0	1.1	< 1.0	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	15	32	16	37
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	11	15	13	15
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	15	35	17	38
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	26	50	29	52
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.3	2.7	2.9	2.6
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	2.3	2.2	2.5	2.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	< 5.0	< 5.0	< 5.0	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	20	39	21	43
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	33	57	36	59
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: S3240 Adrossan North Shore

Client: Sanctus Limited		Chemtest Job No.:	24-26275	24-26275	24-26275	24-26275
Quotation No.: Q24-35340		Chemtest Sample ID.:	1851919	1851920	1851921	1851922
Order No.: S3240		Client Sample Ref.:	Validation	Validation	Validation	Validation
		Client Sample ID.:	V368	V369	V370	V371
		Sample Location:	Area 10	Area 10	Area 10	Area 10
		Sample Type:	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	3.5	3.5	3.5	3.5
		Bottom Depth (m):	3.5	3.5	3.5	3.5
		Date Sampled:	13-Aug-2024	13-Aug-2024	13-Aug-2024	13-Aug-2024
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request.

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory.

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

-
- A - Date of sampling not supplied
 - B - Sample age exceeds stability time (sampling to extraction)
 - C - Sample not received in appropriate containers
 - D - Broken Container
 - E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

-
- DW - Drinking Water
 - GW - Ground Water
 - LE - Land Leachate
 - NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com