ENERSYS NEWPORT, STEPHENSON STREET, NEWPORT, NP19 4XJ, UK

GROUNDWATER MONITORING REPORT 2018

ECL Ref: ECL.012.01.03/GMR
May 2018

GROUNDWATER MONITORING REPORT

ENERSYS NEWPORT, STEPHENSON STREET, NEWPORT, NP19 4XJ, UK

TABLE OF CONTENTS

ACRONYMS / TERMS USED IN THIS REPORT

AOD	Above Ordnance Datum
BH	Borehole
ECL	Environmental Compliance Limited
EnerSys	EnerSys Newport
EQS	Environmental Quality Standard
NRW	Natural Resources Wales

1. SUMMARY

1.1. EnerSys Newport is required by Natural Resources Wales ("NRW") to undertake routine groundwater sampling at its site. The results outlined in this report represent the current groundwater conditions within the installation boundary.

1.2. The site groundwater sampling was undertaken on the 24th April 2018. The sampling was undertaken by Environmental Compliance Ltd ("ECL"). The locations of the current groundwater installations/boreholes ("BH") are identified in the Borehole Location Diagram found in Appendix A of this report.

1.3. Three boreholes exceeded the Environmental Quality Standard ("EQS") guideline levels for lead. A full table of results may be found in Appendix C and a trend analysis of selected contaminants can be found in Chapter 5 of this report.

1.4. BH01 exceeds the lead EQS (a result of 64µg/l was obtained), the concentration has increased from April 2017.

1.5. BH03/12 exceeds the lead EQS (a result of 59µg/l was obtained), the concentration has increased from April 2017.

1.6. BH09 exceeds the EQS for lead (a result of 61µg/l was obtained), this is an increase from the April 2017 data and shows an increasing trend.

1.7. The exceedance of the EQS in BH01, BH03/12 and BH09 can be explained by the high volume of lead processing in these areas since the 1950's, resulting in a legacy of lead related issues.

2. INTRODUCTION

2.1. SITE LOCATION

The site is located at:

EnerSys Newport.
Stephenson Street
Newport
Gwent
NP19 4XJ

2.2. DETAILS OF INSTALLATION

The installation is designed for the manufacturing of specialised lead acid batteries.

2.3. GROUNDWATER MONITORING APPROACH

2.3.1. Previous groundwater monitoring has been undertaken by Terrafirma in October 2007, July 2008, November 2010 and by Environmental Compliance ("ECL") in 2013, 2014, 2015, 2016 and 2017.

2.3.2. This report is updated following each round of groundwater monitoring and contains the following:

- results of on-going monitoring,
- graphs to identify any trends; and
- laboratory testing results.

3. INVESTIGATION AND SAMPLING STRATEGY

3.1. GENERAL

3.1.1. The groundwater monitoring was undertaken on the 24th April 2018.

3.1.2. The sampling was undertaken by ECL. The locations of the groundwater installations/boreholes ("BH") are identified in the Borehole Location Diagram found in Appendix A of this report.

3.2. SAMPLING HISTORY

3.2.1. Results for aliphatic/aromatics may deviate for BH06 in April 2013 due to inappropriate sample containment. This was due to the limited availability of groundwater, only 1 litre was obtained without purging from BH06.

3.2.2. Sample data for BH01 and BH08 is unavailable for October 2007 due to insufficient samples retrieved at the time of the survey.

3.2.3. Sample data for BH06 and BH07 is unavailable for July 2008 due to insufficient samples retrieved at the time of the survey.

3.2.4. From November 2010 onwards, there is no sample data for BH02, BH05 and BH07 as they were accidentally destroyed. These were replaced by BH9, BH10 and BH11 which are located in the vicinity of the original.

3.2.5. Groundwater temperature is unavailable for the October 2007 survey.

3.2.6. Data for groundwater temperature and depth to groundwater is unavailable for the April 2008 and November 2010 surveys.

3.2.7. During the April 2015 survey, BH3 was being relocated due to safety issues. Groundwater samples were taken from the original BH3 before it was in filled and relocated 1.5m away from the path. This is now known as BH12, however, due to the close proximity to BH3 the results will be grouped with BH3 in order to continue trend analysis.

3.3. GROUNDWATER SAMPLING TECHNIQUES AND PROTOCOLS

3.3.1. **Groundwater Sampling, Collection and Analysis Protocol**

1. Depth to groundwater was recorded using a dip meter.
2. Boreholes were purged using a bailer prior to sample extraction.
3. Groundwater was extracted using a baler and stored in a one litre plastic bottle, a one litre glass bottle and one 40ml septum-capped vial.
4. Sample temperature, turbidity, colour, odour and any discernible sheens were recorded on a borehole record form.
5. Samples were immediately placed in cool boxes to minimised the potential for deterioration
6. Samples were labelled prior to dispatch to the accredited laboratory for analysis.
7. All samples were accompanied by a chain of custody form.

3.3.2. **Determination of Groundwater Level Above Ordnance Datum**

Determination of groundwater level Above Ordnance Datum ("AOD") for each borehole was calculated using the nearest known AOD manhole height, minus the measured depth below ground level of the groundwater. The drainage plan for the site used to determine the nearest manhole can be found in Appendix G. Table 1 lists the borehole IDs, nearest manhole IDs and manhole heights AOD taken from the drainage plan.

Table 1: Borehole IDs, Nearest Manhole IDs and Manhole Heights.

Borehole ID	Manhole ID	Manhole Height (AOD)
BW01	S17	6.205m
BW03/BH12	S8	5.75m
BW04	F43	5.855m
BW06	F33	6.265m
BW08	S27	6.305m
BW09	F46	5.97m
BW10	S13	6.05m
BW11	F35	5.03m

3.3.3. **Analytical Suites**

The analytical suite used for the groundwater samples is as follows:

- lead, dissolved;
- sulphate;
- pH;
- total petroleum hydrocarbons (TPH);
- TPH aliphatic C_5-C_{44} (total and split);
- TPH aromatic C_6-C_{44} (total and split)

3.3.4. **Methodology for Data Analysis**

Results of the groundwater chemical analysis have been compared with Environmental Quality Standards ("EQSs"), or in their absence, other appropriate reference values detailed in Appendix J (Groundwater) of the EA's Horizontal Guidance Note H1 *Environmental risk assessment for permits Dec 2011 v2.1*.

4. RESULTS OF THE GROUNDWATER MONITORING

4.1. SUMMARY OF THE GROUNDWATER MONITORING SAMPLE CONDITIONS

A summary of the groundwater monitoring conditions can be found in Appendix B.

4.2. LABORATORY RESULTS

The results for the groundwater samples extracted on 24th April 2018 are provided in Appendix C. Determinants that have exceeded their EQS are highlighted in bold.

The laboratory certificate of analysis is in Appendix F.

5. TREND ANALYSIS

5.1. Tables containing results for each determinant, and each individual borehole, from October 2007 to April 2018 (using results from ECL and Terrafirma's previous monitoring campaigns), can be found in Appendix D, Trend Tables.

5.2. Graphs for temperature, the depth to groundwater, lead, sulphate and TPH from October 2007 to April 2018 are shown in Appendix E, Trend Charts. Charts showing trends for groundwater temperature and depth to groundwater can also be found in Appendix E.

5.3. None of the boreholes exceeded the EQS for sulphate (250,000µg/l). Results obtained in April 2018 show a decreasing trend in boreholes 1, 3/12, 4, 9 and 11. However, there still remains considerable variance in the results compared to earlier data.

5.4. A result of 64µg/l of Pb was obtained for BH01, exceeding the 25µg/l EQS for lead. This result was an increase on the April 2017 result (44µg/l).

5.5. A result of 24µg/l of Pb was obtained for BH04. This is below the EQS for lead, indicating a potentially decreasing trend.

5.6. A result of 61µg/l of Pb was obtained for BH09, again exceeding the EQS. The result from BH09 is an increase on the data obtained from April 2017 (40 µg/l). This demonstrates the trend of increasing lead concentration at BH09.

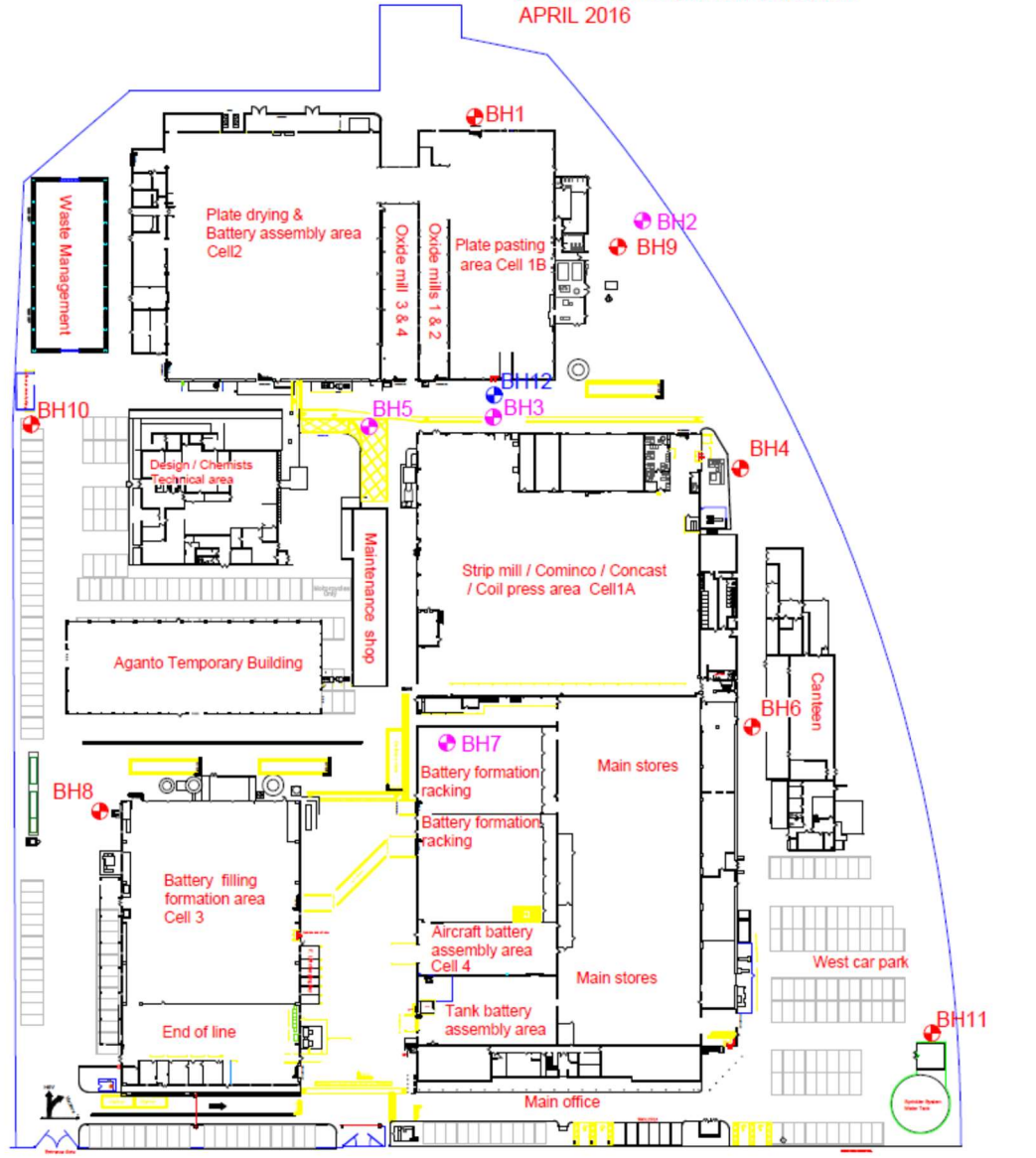
5.7. A result of 59µg/l of Pb was obtained for BH03/12, exceeding the EQS. The result from BH03/12 was an increase on the data obtained from April 2017 (9.6µg/l). However, this still shows a decrease from data obtained during the May 2016 survey and the subsequent retest (280µg/l and 82µg/l). This decrease shows further indication that the high concentrations of lead seen in May 2016 could be an anomaly.

5.8. Following discussion with the operator, the exceedance of the EQS in boreholes BH01, BH03/12 and BH 09 can be explained by the fact that all of these boreholes are located in areas of the site in which large amounts of lead have historically (since the 1950s) been used in oxide manufacture and pasting. Therefore there is an existing legacy of lead issues in these areas.

5.9. There is no clear trend in either to depth of the groundwater or temperature.

APPENDIX A
ENERSYS NEWPORT BOREHOLE LOCATION DIAGRAM

BOREHOLE LOCATION DIAGRAM
APRIL 2016



ENERSYS NEWPORT

KEY

- EXISTING BOREHOLE LOCATION (1,4,6 ,8 ,9,10 & 11)
- NEW BOREHOLE LOCATION BH 12
- DESTROYED BOREHOLE LOCATION (BH 2,3,5 & 7)

APPENDIX B
SUMMARY OF THE GROUNDWATER MONITORING CONDITIONS

Summary of the Groundwater Monitoring Sample Conditions 24th April 2018

Sample ID	BH01	BH04	BH06	BH08	BH09	BH10	BH11	BH12
Sampling Date	24/04/2018							
Depth (AOD) in Metres	6.205	5.855	6.265	6.305	5.97	6.05	5.03	5.75
Temperature (°C)	11.5	11.6	14.2	12.1	10.9	11.1	11.1	11.6
Sampling Time	10:18	11:45	12:05	12:34	13:50	10:45	13:10	14:50
Monitored by	Alessio Morteo and Tim Heard							
Sheens	None	None	None	None	None	Yes	None	Yes
Odours	None	None	None	None	None	None	None	Yes – Hydrocarbon odour
Turbidity	High	Medium	Medium	Medium	Medium	Low-Medium	Medium	Medium
Colour	Dark Brown	Brown	Dark Brown	Dark Brown	Brown	Brown/Yellow	Dark Brown	Light Yellow
Sampling Method	Bailer							
Sample Containers	1x1l Plastic 1x 1l Glass 1 x 40ml vial							

APPENDIX C
ANALYSIS RESULTS 24th APRIL 2018

Summary of Chemical Analysis - Water Samples 24th April 2018

Test	Units	EQS*	BH01	BH03/12	BH04	BH06	BH08	BH09	BH10	BH11
Lead, Dissolved	ug/l	25	**64**	**59**	24	0.8	0.3	**61**	17	9.2
pH	-	n/a	7.06	7.11	7.11	8.49	7.01	7.42	7.03	8.03
Sulphate	ug/l	250000	16000	13000	19000	58000	900	500	600	1300
Aliphatic C5-C6	ug/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	10	140	10	10	10	10	10	100
Aliphatic C12-C16	ug/l	n/a	10	280	10	10	10	10	30	130
Aliphatic C16-C21	ug/l	n/a	10	40	10	10	10	10	540	330
Aliphatic C21-C35	ug/l	n/a	10	100	40	10	10	10	540	1200
Aliphatic C35-C44	ug/l	n/a	10	30	10	10	10	10	10	530
Aromatic C6-C7	ug/l	30	10	10	10	10	10	10	10	10
Aromatic C7-C8	ug/l	40	10	10	10	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a	10	10	10	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	10	20	10	10	10	10	10	100
Aromatic C12-C16	ug/l	n/a	10	40	40	10	50	10	20	240
Aromatic C16-C21	ug/l	n/a	40	80	90	40	80	30	60	1600
Aromatic C21-C35	ug/l	n/a	70	90	160	160	140	100	40	5000
Aromatic C35-C44	ug/l	n/a	10	10	10	10	10	10	10	130
Aliphatic C5-C44	ug/l	n/a	10	570	40	10	10	10	1100	1700
Aromatic C6-C44	ug/l	n/a	120	230	280	200	260	130	130	6800
TPH Ali/Aro	ug/l	n/a	120	790	320	200	260	130	1200	8500

APPENDIX D
TREND TABLES

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 1

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16	Dec-16	Apr-17	Apr-18
Temperature	°C	n/a	I/S	n/d	n/d	10.0	12.0	12.0	10.0	10.0	12.0	11.5
Depth (AOD)	m	n/a	I/S	n/d	n/d	6.095	6.39	6.03	5.925	6.33	5.845	6.205
Lead, Dissolved	ug/l	25	I/S	**50**	**55**	**130**	**72**	**100**	**39**	**37**	**44**	**64**
pH	pH units	n/a	I/S	7.4	7.2	7.5	7.2	6.9	6.9	7.7	7.1	7.06
Sulphate	ug/l	250000	I/S	46000	67200	35000	32000	19000	24000	17000	13000	16000
Aliphatic C5-C6	ug/l	n/a	I/S	n/d	n/d	0.1	10	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	I/S	5	10	19	10	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	I/S	5	10	1.8	10	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	I/S	5	10	1.3	10	10	100($)	10	10	10
Aliphatic C12-C16	ug/l	n/a	I/S	8.7	10	1	10	10	100($)	10	10	10
Aliphatic C16-C21	ug/l	n/a	I/S	33	10	2.6	10	10	100($)	10	10	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	100($)	20	10	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	100($)	10	10	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	100($)	10	10	10
Aromatic C7-C8	ug/l	40	I/S	2.5	10	0.1	10	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a	I/S	5	10	0.1	10	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	I/S	5	10	7.2	10	10	10	10	10	10
Aromatic C12-C16	ug/l	n/a	I/S	5	10	12	10	10	100($)	10	10	10
Aromatic C16-C21	ug/l	n/a	I/S	14	10	67	10	20	100($)	20	10	40
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	78	10	10	100($)	10	10	70
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	100($)	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	N.D.	100($)	20	10	10
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	20	100($)	20	10	120
TPH Ali/Aro	ug/l	n/a	I/S	270	10	190	N.D.	10	10	40	10	120
Aromatic C5-C7(1)	ug/l	30	I/S	2.5	10	0.1	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	25	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	160	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	I/S	140	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	I/S	75	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	I/S	180	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	I/S	89	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 03/12

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	May-13	Apr-15	May/June-16	Dec-16	Apr-17	Apr-18
Temperature	°C	n/a	n/d	n/d	n/d	11.0	13.0	13.0	14.0	8.0	14.0	11.6
Depth (AOD)	m	n/a	6.1	n/d	n/d	6.35	6.39	6.25	5.15	5.25	5.19	5.75
Lead, Dissolved	ug/l	25	**50**	**50**	5	**25**	1.2	2.1	**280/89**	21	9.6	**59**
pH	pH units	n/a	I/S	6.9	6.8	7.1	7	7	6.9	7.6	7.7	7.11
Sulphate	ug/l	250000	30000.0	20000	34600	33000	97000	19000	18000	11000	12000	13000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	5.0	5	10	0.1	10	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	5.0	78	10	0.1	10	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	5.0	450	10	1	10	10	10	10	10	140
Aliphatic C12-C16	ug/l	n/a	5.0	350	10	1	20	10	10	10	10	280
Aliphatic C16-C21	ug/l	n/a	8.0	68	10	1	10	10	10	10	10	40
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10	10	10	100
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10	10	10	30
Aromatic C6-C7	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10	10	10	10
Aromatic C7-C8	ug/l	30	n/d	n/d	n/d	n/d	10	10	10	10	10	10
Aromatic C8-C10	ug/l	40	2.5	2.5	5	0.1	10	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	5.0	5	10	0.1	10	10	10	10	10	20
Aromatic C12-C16	ug/l	n/a	5.0	44	10	1	10	40	30	20	30	40
Aromatic C16-C21	ug/l	n/a	5.0	47	10	1	10	40	30	40	10	80
Aromatic C21-C35	ug/l	n/a	8.0	13.0	10.0	1	10	10	10	10	10	90
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	1.0	10	10	10	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	40	N.D.	N.D.	10	10	570
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	90	60	50	30	230
TPH Ali/Aro	ug/l	n/a	100.0	1300	10	10	40	90	10	50	10	790
Aromatic C5-C7(1)	ug/l	30	2.5	2.5	5	0.1	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	22.0	190	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	22.0	42	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	50.0	1100	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	50.0	150	10	n/d	n/d	n/d	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 4

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	May-13	Apr-15	May-16	Apr-17	Apr-18
Temperature	°C	n/a	n/d	n/d	n/d	10.0	12.0	12.0	14.0	12.0	11.6
Depth (AOD)	m	n/a	6.6	n/d	n/d	6.715	6.52	5.71	6.115	5.935	5.855
Lead, Dissolved	ug/l	25	**50.0**	**240**	5	16	11	24	15	**30**	24
pH	pH units	n/a	11.2	7.6	7.3	7.2	7.7	7.5	7.1	7.3	7.11
Sulphate	ug/l	250000	51000.0	20000	6800	11000	12000	8700	7800	6400	19000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	5.0	5	10	0.1	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	5.0	5	10	0.1	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	5.0	5	10	1	10	10	10	10	10
Aliphatic C12-C16	ug/l	n/a	5.0	5	10	1	10	10	10	10	10
Aliphatic C16-C21	ug/l	n/a	8.0	8	10	1	10	10	10	10	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10	10	40
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10	10	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10	10	10
Aromatic C7-C8	ug/l	40	2.5	2.5	10	0.1	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a	5.0	5	10	0.1	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	5.0	5	10	1	10	10	10	10	10
Aromatic C12-C16	ug/l	n/a	5.0	5	10	1	10	10	10	10	40
Aromatic C16-C21	ug/l	n/a	8.0	8	10	1	10	20	10	10	90
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10	10	160
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	N.D.	N.D.	n/a	40
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	20	N.D.	n/a	280
TPH Ali/Aro	ug/l	n/a	100.0	100	10	10	N.D.	20	10	10	320
Aromatic C5-C7[(1)]	ug/l	30	2.5	2.5	10	0.1	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35[(1)]	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35[(1)]	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40[(1)]	ug/l	n/a	98.0	98	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40[(1)]	ug/l	n/a	22.0	22	10	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40[(1)]	ug/l	n/a	98.0	98	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40[(1)]	ug/l	n/a	50.0	50	10	n/d	n/d	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 6

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16	Apr-17	Apr-18
Temperature	°C	n/a	n/d	n/d	n/d	10.0	12.0	12.0	16.0	14.0	14.2
Depth (AOD)	m	n/a	6.4	n/d	n/d	6.225	6.25	5.9	6.195	6.245	6.265
Lead, Dissolved	ug/l	25	**50.0**	I/S	5	1.8	1.5	4.7	0.9	2.1	0.8
pH	pH units	n/a	10.1	I/S	8.2	8	8.1	8.7	7.9	7.4	8.49
Sulphate	ug/l	250000	76000.0	I/S	41700	37000	41000	31000	60000	49000	58000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	5.0	I/S	10	0.1	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	5.0	I/S	10	0.1	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	5.0	I/S	10	10	200$	10	100($)	20	10
Aliphatic C12-C16	ug/l	n/a	32.0	I/S	10	10	200$	10	100($)	20	10
Aliphatic C16-C21	ug/l	n/a	80.0	I/S	10	10	300	10	100($)	20	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	10	350	10	100($)	40	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	200$	10	100($)	20	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10	10	10
Aromatic C7-C8	ug/l	40	2.5	I/S	5	0.1	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a	5.0	I/S	10	0.1	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	5.0	I/S	10	10	200$	10	100($)	20	10
Aromatic C12-C16	ug/l	n/a	8.5	I/S	10	10	200$	10	100($)	20	10
Aromatic C16-C21	ug/l	n/a	25.0	I/S	10	10	200$	10	100($)	60	40
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	10	200$	10	100($)	270	160
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	200$	10	100($)	20	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	650	n/d	100($)	40	10
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	n/d	100($)	330	200
TPH Ali/Aro	ug/l	n/a	240.0	I/S	10	80	650	n/d	10	370	200
Aromatic C5-C7(1)	ug/l	30	2.5	I/S	5	0.1	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	40	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	40	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	91.0	I/S	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	22.0	I/S	10	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	200.0	I/S	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	50.0	I/S	10	n/d	n/d	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 8

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16	Apr-17	Apr-18
Temperature	°C	n/a	n/d	n/d	n/d	11.0	12.0	12.0	12.0	14.0	12.1
Depth (AOD)	m	n/a	I/S	n/d	n/d	6.355	6.33	6.08	6.275	6.195	6.305
Lead, Dissolved	ug/l	25	I/S	**50**	5	0.52	0.5	9.6	0.3	0.6	0.3
pH	pH units	n/a	I/S	7.3	7.1	7.2	7.6	7.2	7	7.5	7.01
Sulphate	ug/l	250000	I/S	20000	5000	69000	110000	89000	99000	140000	900
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a	I/S	5	10	0.1	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a	I/S	5	10	0.1	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a	I/S	5	10	1	100$	20	10	10	10
Aliphatic C12-C16	ug/l	n/a	I/S	5	10	1	100$	20	10	10	10
Aliphatic C16-C21	ug/l	n/a	I/S	8	10	1	100$	30	10	10	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	100$	50	10	10	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	100$	10	10	10	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10	10	10
Aromatic C7-C8	ug/l	40	I/S	2.5	10	0.1	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a	I/S	5	10	0.1	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a	I/S	5	10	1	100$	40	10	10	10
Aromatic C12-C16	ug/l	n/a	I/S	5	10	1	100$	80	50	30	50
Aromatic C16-C21	ug/l	n/a	I/S	8	10	1	100$	30	50	50	80
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	100$	10	40	10	140
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	100$	10	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	120	N.D	10	10
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	N.D.	150	150	90	260
TPH Ali/Aro	ug/l	n/a	I/S	100	10	10	N.D.	270	10	90	260
Aromatic C5-C7(1)	ug/l	30	I/S	2.5	10	0.1	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	I/S	60	1	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	I/S	22	10	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	I/S	60	10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	I/S	50	10	n/d	n/d	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018- Borehole 9

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16 (and retest)	Dec-16	Apr-17	Apr-18
Temperature	°C	n/a				10.0	12.0	12.0	14.0	10.0	12.0	10.9
Depth (AOD)	m	n/a				5.82	5.65	5.57	5.57	5.97	5.61	5.97
Lead, Dissolved	ug/l	25				4.3	12	14	**35 (29)**	**44**	**40**	**61**
pH	pH units	n/a				7.2	7.3	7.5	7.5	7.9	8.1	7.42
Sulphate	ug/l	250000				30000	28000	33000	17000	11000	11000	500
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a				1	10	10	100($)	10	10	10
Aliphatic C12-C16	ug/l	n/a				1	10	10	100($)	10	10	10
Aliphatic C16-C21	ug/l	n/a				1	10	10	100($)	10	10	10
Aliphatic C21-C35	ug/l	n/a				1	30	20	100($)	10	10	10
Aliphatic C35-C44	ug/l	n/a				n/d	10	10	100($)	10	10	10
Aromatic C6-C7	ug/l	30				n/d	10	10	10	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a				1	10	10	100($)	10	10	10
Aromatic C12-C16	ug/l	n/a				1	10	50	100($)	10	10	10
Aromatic C16-C21	ug/l	n/a				1.8	10	20	100($)	10	10	30
Aromatic C21-C35	ug/l	n/a				3.1	10	10	100($)	10	10	100
Aromatic C35-C44	ug/l	n/a				n/d	10	10	100($)	10	10	10
Aliphatic C5-C44	ug/l	n/a				n/d	40	20	100($)	20	10	10
Aromatic C6-C44	ug/l	n/a				n/d	N.D.	70	100($)	10	10	130
TPH Ali/Aro	ug/l	n/a				10	40	90	10	40	10	130
Aromatic C5-C7(1)	ug/l	30				0.1	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a				10	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a				10	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d	n/d

Borehole installed March 2013 - No data available before this date

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 10

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16	Apr-17	Apr-18
Temperature	°C	n/a				10.0	12.0	12.0	12.0	12.0	11.1
Depth (AOD)	m	n/a				6.13	6.07	5.32	6.05	5.95	6.05
Lead, Dissolved	ug/l	25				1.3	4.3	2.8	0.8	4	17
pH	pH units	n/a				7.3	6.8	7.4	6.9	7.5	7.03
Sulphate	ug/l	250000				16000	59000	54000	58000	51000	600
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a				2.4	10	10	10	10	10
Aliphatic C12-C16	ug/l	n/a				370	130	10	20	10	30
Aliphatic C16-C21	ug/l	n/a				3500	1600	30	390	10	540
Aliphatic C21-C35	ug/l	n/a				3200	1200	150	280	10	540
Aliphatic C35-C44	ug/l	n/a				n/d	10	10	10	10	10
Aromatic C6-C7	ug/l	30				n/d	10	10	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a				1	10	10	10	10	10
Aromatic C12-C16	ug/l	n/a				34	10	30	20	20	20
Aromatic C16-C21	ug/l	n/a				340	10	120	50	10	60
Aromatic C21-C35	ug/l	n/a				350	10	10	10	10	40
Aromatic C35-C44	ug/l	n/a				n/d	10	10	10	10	10
Aliphatic C5-C44	ug/l	n/a				n/d	2900	180	700	10	1100
Aromatic C6-C44	ug/l	n/a				n/d	N.D.	150	90	20	130
TPH Ali/Aro	ug/l	n/a				7700	2900	330	10	20	120
Aromatic C5-C7(1)	ug/l	30				0.1	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a				7000	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a				720	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d

Borehole installed March 2013 - No data available before this date

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to April 2018 - Borehole 11

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16	Apr-17	Apr-18
Temperature	°C	n/a				10.0	12.0	12.0	16.0	12.0	11.1
Depth (AOD)	m	n/a				5.47	4.99	4.82	4.96	4.91	5.03
Lead, Dissolved	ug/l	25				0.81	1.5	3.9	5.4	2.1	9.2
pH	pH units	n/a				8.2	7.8	7.6	7.9	7.7	8.03
Sulphate	ug/l	250000				12000	43000	39000	30000	34000	1300
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10
Aliphatic C10-C12	ug/l	n/a				1	200$	10	100($)	10	100
Aliphatic C12-C16	ug/l	n/a				11	200$	10	100($)	150	130
Aliphatic C16-C21	ug/l	n/a				110	360	10	100($)	100	330
Aliphatic C21-C35	ug/l	n/a				590	1100	50	100($)	560	1200
Aliphatic C35-C44	ug/l	n/a				n/d	300	10	100($)	260	530
Aromatic C6-C7	ug/l	30				n/d	10	10	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10	10	10
Aromatic C10-C12	ug/l	n/a				1	200$	10	100($)	100	100
Aromatic C12-C16	ug/l	n/a				21	320	10	100($)	140	240
Aromatic C16-C21	ug/l	n/a				420	1900	30	100($)	890	1600
Aromatic C21-C35	ug/l	n/a				1300	5800	50	110	1800	5000
Aromatic C35-C44	ug/l	n/a				n/d	200$	10	100($)	100	130
Aliphatic C5-C44	ug/l	n/a				n/d	1500	70	100($)	810	1700
Aromatic C6-C44	ug/l	n/a				n/d	8300	90	100($)	2900	6800
TPH Ali/Aro	ug/l	n/a				2500	9800	160	10	3700	8500
Aromatic C5-C7(1)	ug/l	30				0.1	n/d	n/d	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a				710	n/d	n/d	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a				1800	n/d	n/d	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d	n/d	n/d

Borehole installed March 2013 - No data available before this date

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

N.D. = Not Detected

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

APPENDIX E
TREND CHARTS

Figure 1: TPH Concentration

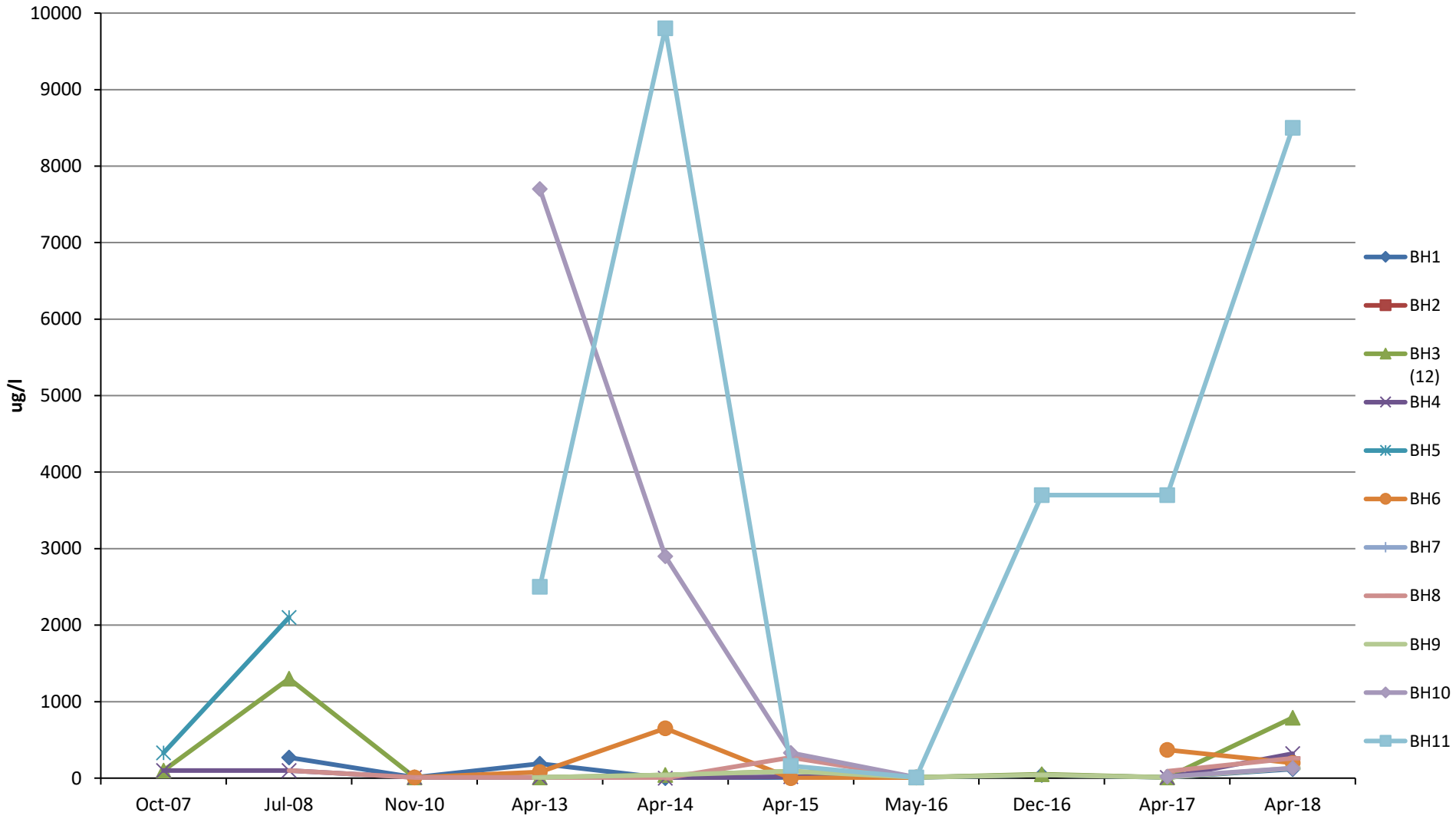


Figure 2: Sulphate Concentration

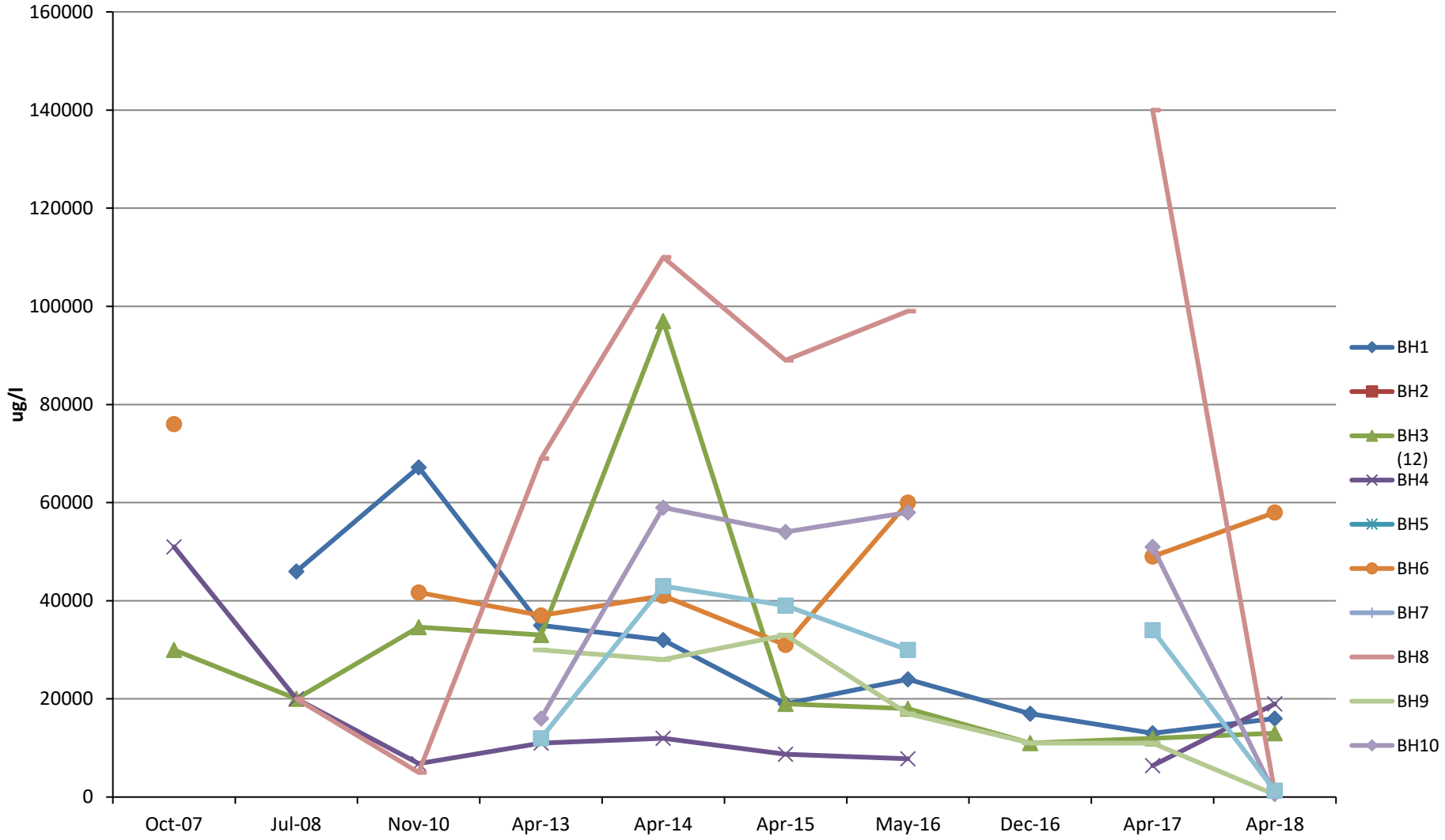


Figure 3: Lead Concentration

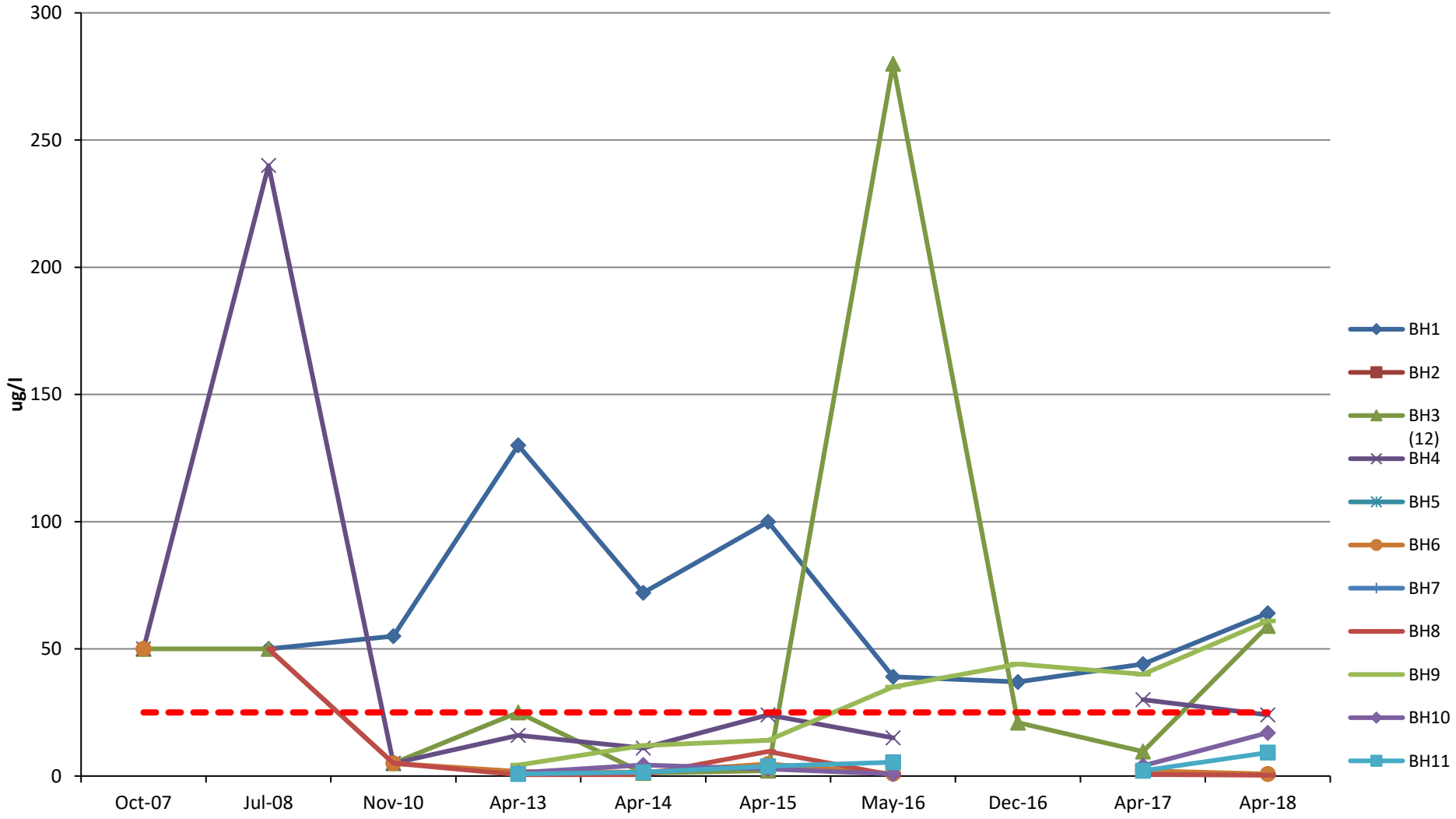


Figure 4: Depth of Groundwater Above Ordnance Datum

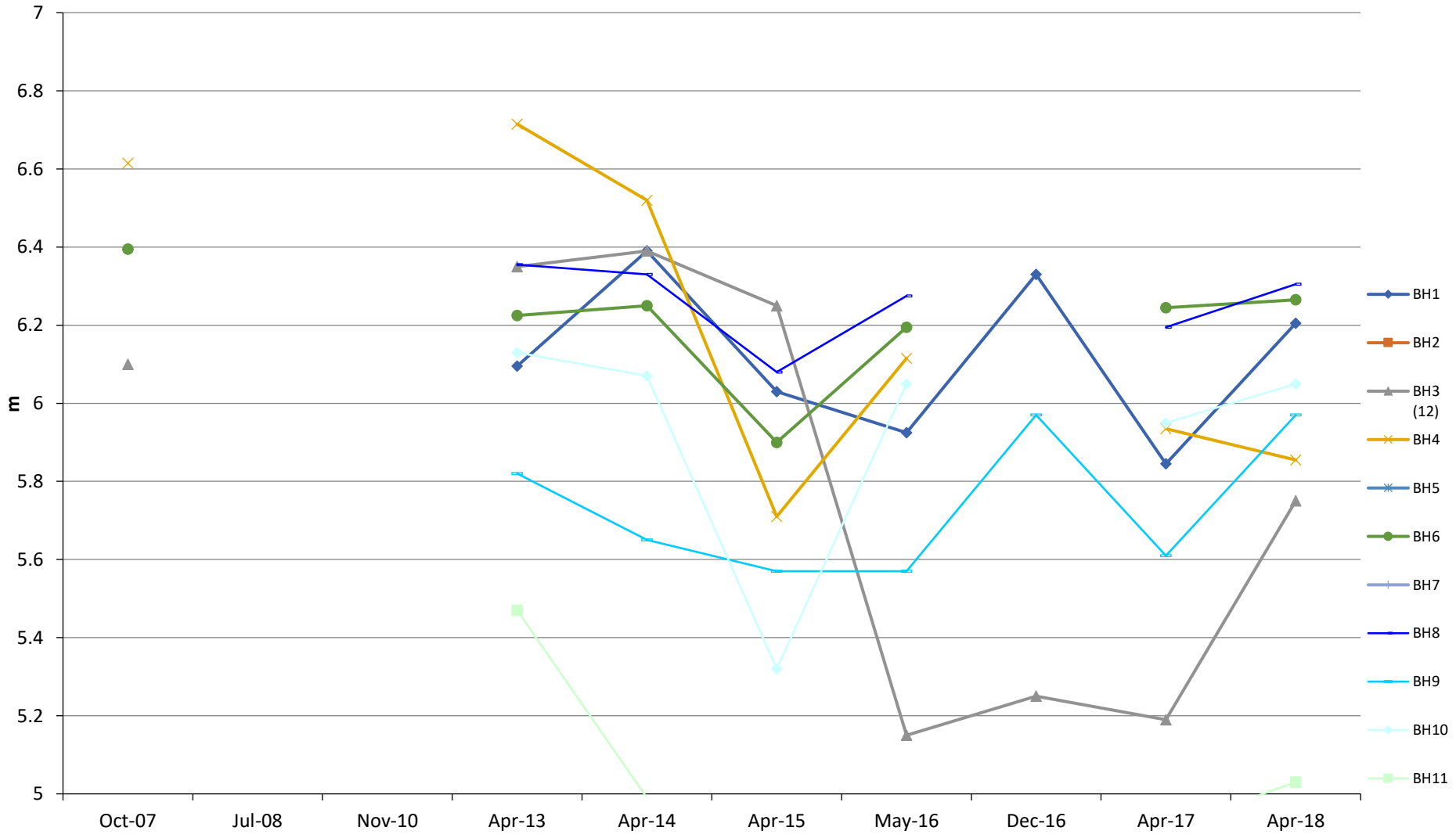
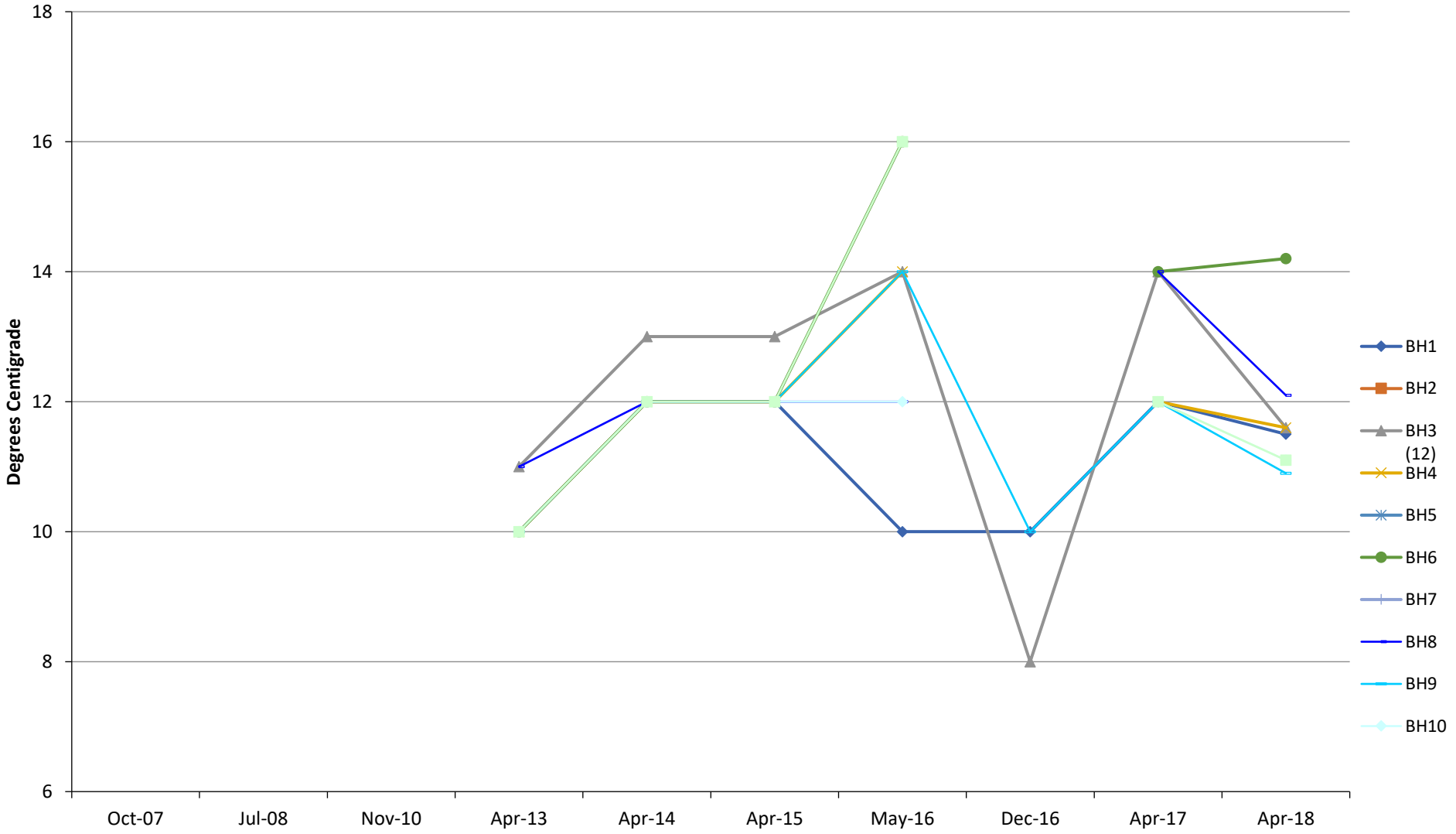


Figure 5: Temperature



APPENDIX F
LABORATORY CERTIFICATE OF ANALYSIS

CONCEPT LIFE SCIENCES
DELIVERING SCIENCE

Concept Life Sciences is a trading name of Concept Life Sciences Analytical & Development Services Limited registered in England and Wales (No 2514788)

Concept Life Sciences

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Report Number: 732794-1

Date of Report: 09-May-2018

Customer: Environmental Compliance Ltd
Unit G1
Main Avenue
Treforest Industrial Estate
Pontypridd
CF37 5BF

Customer Contact: Mr Tim Heard

Customer Job Reference: 012.01.03
Customer Purchase Order: E7844
Customer Site Reference: Enersys Newport
Date Job Received at Concept: 27-Apr-2018
Date Analysis Started: 01-May-2018
Date Analysis Completed: 09-May-2018

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

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

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with Concept Life Sciences SOPs

All results have been reviewed in accordance with Section 25 of the Concept Life Sciences, Analytical Services Quality Manual

UKAS TESTING
1549

Report checked
and authorised by :
Aneta Dybek-Echtermeyer
Customer Service Advisor

Issued by :
Aneta Dybek-Echtermeyer
Customer Service Advisor

Concept Reference: 732794
Project Site: Enersys Newport
Customer Reference: 012.01.03

Water Analysed as Water
Miscellaneous

				Concept Reference	**732794 001**	**732794 002**	**732794 003**	**732794 004**	**732794 005**
				Customer Sample Reference	**BW1**	**BW4**	**BW6**	**BW8**	**BW9**
				Depth	**0.82**	**1.26**	**0.63**	**0.77**	**1.10**
				Top Depth	**0.82**	**1.26**	**0.63**	**0.77**	**1.10**
				Sample Reference	**ECL/1914/1915/1916**	**ECL/1917/1918/1919**	**ECL/1920/1921/1922**	**ECL/1923/1924/1925**	**ECL/1926/1927/1928**
				Date Sampled	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**
				Sample Received (ml)	**2040**	**2040**	**2040**	**2040**	**2040**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**					
Pb (Dissolved)	T281	F	0.3	µg/l	**64**	**24**	**0.8**	<0.3	**61**
pH	T7	AR			**7.06**	**7.11**	**8.49**	**7.01**	**7.42**
Sulphate	T686	F	0.5	mg/l	**16**	**19**	**58**	**0.9**	<0.5

Concept Reference: 732794
Project Site: Enersys Newport
Customer Reference: 012.01.03

Water Analysed as Water
Miscellaneous

				Concept Reference	**732794 006**	**732794 007**	**732794 008**
				Customer Sample Reference	**BW10**	**BW11**	**BW12**
				Depth	**1.10**	**1.63**	**1.30**
				Top Depth	**1.10**	**1.63**	**1.30**
				Sample Reference	**ECL/1929/1930/1931**	**ECL/1932/1933/1934**	**ECL/1935/1936/1937**
				Date Sampled	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**
				Sample Received (ml)	**2040**	**2040**	**2040**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**			
Pb (Dissolved)	T281	F	0.3	µg/l	**17**	**9.2**	**59**
pH	T7	AR			**7.03**	**8.03**	**7.11**
Sulphate	T686	F	0.5	mg/l	**0.6**	**1.3**	**13**

Concept Reference: 732794
Project Site: Enersys Newport
Customer Reference: 012.01.03

Water Analysed as Water
TPH UKCWG

				Concept Reference	**732794 001**	**732794 002**	**732794 003**	**732794 004**	**732794 005**
				Customer Sample Reference	**BW1**	**BW4**	**BW6**	**BW8**	**BW9**
				Depth	**0.82**	**1.26**	**0.63**	**0.77**	**1.10**
				Top Depth	**0.82**	**1.26**	**0.63**	**0.77**	**1.10**
				Sample Reference	**ECL/1914/1915/ 1916**	**ECL/1917/1918/ 1919**	**ECL/1920/1921/ 1922**	**ECL/1923/1924/ 1925**	**ECL/1926/1927/ 1928**
				Date Sampled	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**
				Sample Received (ml)	**2040**	**2040**	**2040**	**2040**	**2040**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**					
Benzene	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1	(13) <1	(13) <1
EthylBenzene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
M/P Xylene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	T54	AR	1	µg/l	<1	<1	<1	<1	<1
O Xylene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
Toluene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	(13) <0.01	(13,100) <0.01	(13) <0.01	(13) <0.01
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	(13) <0.01	(13,100) <0.01	(13) <0.01	(13) <0.01
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	(13) <0.01	(13,100) <0.01	(13) <0.01	(13) <0.01
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	**(13) 0.04**	(100,13) <0.01	(13) <0.01	(13) <0.01
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	**(13) 0.01**	**(13) 0.01**	(13) <0.01	(13) <0.01
TPH (Aliphatic) total	T85	AR		mg/l	(13) <0.01	**(13) 0.04**	(13) <0.01	(13) <0.01	(13) <0.01
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	(13) <0.01	(13) <0.01	(13,100) <0.01	(13) <0.01	(13) <0.01
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	**(13) 0.01**	**(13) 0.04**	(13,100) <0.01	**(13) 0.05**	(13) <0.01
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	**(13) 0.04**	**(13) 0.09**	**(13) 0.04**	**(13) 0.08**	**(13) 0.03**
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	**(13) 0.07**	**(13) 0.16**	**(13) 0.16**	**(13) 0.14**	**(13) 0.10**
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	(13) <0.01	**(13) 0.01**	**(13) 0.01**	(13) <0.01	(13) <0.01
TPH (Aromatic) total	T85	AR		mg/l	**(13) 0.12**	**(13) 0.28**	**(13) 0.20**	**(13) 0.26**	**(13) 0.13**
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	**(13) 0.12**	**(13) 0.32**	**(13) 0.20**	**(13) 0.26**	**(13) 0.13**
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	<10	<10	<10	<10	<10

Concept Reference: 732794
Project Site: Enersys Newport
Customer Reference: 012.01.03

Water Analysed as Water
TPH UKCWG

				Concept Reference	**732794 006**	**732794 007**	**732794 008**
				Customer Sample Reference	**BW10**	**BW11**	**BW12**
				Depth	**1.10**	**1.63**	**1.30**
				Top Depth	**1.10**	**1.63**	**1.30**
				Sample Reference	**ECL/1929/1930/1931**	**ECL/1932/1933/1934**	**ECL/1935/1936/1937**
				Date Sampled	**24-APR-2018**	**24-APR-2018**	**24-APR-2018**
				Sample Received (ml)	**2040**	**2040**	**2040**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**			
Benzene	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1
EthylBenzene	T54	AR	1	µg/l	<1	<1	<1
M/P Xylene	T54	AR	1	µg/l	<1	<1	<1
Methyl tert-Butyl Ether	T54	AR	1	µg/l	<1	<1	<1
O Xylene	T54	AR	1	µg/l	<1	<1	<1
Toluene	T54	AR	1	µg/l	<1	<1	<1
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	(13,100) <0.10	**(13) 0.14**
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	**(13) 0.03**	**(13) 0.13**	**(13) 0.28**
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	**(13) 0.54**	**(13) 0.33**	**(13) 0.04**
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	**(13) 0.54**	**(13) 1.2**	**(13) 0.10**
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	(13) <0.01	**(13) 0.53**	**(13) 0.03**
TPH (Aliphatic) total	T85	AR		mg/l	**(13) 1.1**	**(13) 1.7**	**(13) 0.57**
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	(13) <0.01	(100,13) <0.10	**(13) 0.02**
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	**(13) 0.02**	**(13) 0.24**	**(13) 0.04**
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	**(13) 0.06**	**(13) 1.6**	**(13) 0.08**
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	**(13) 0.04**	**(13) 5.0**	**(13) 0.09**
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	(13) <0.01	**(13) 0.13**	(13) <0.01
TPH (Aromatic) total	T85	AR		mg/l	**(13) 0.13**	**(13) 6.8**	**(13) 0.23**
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	**(13) 1.2**	**(13) 8.5**	**(13) 0.79**
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	<10	<10	<10

Index to symbols used in 732794-1

Value	Description
AR	As Received
F	Filtered
13	Results have been blank corrected.
100	LOD determined by sample aliquot used for analysis
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

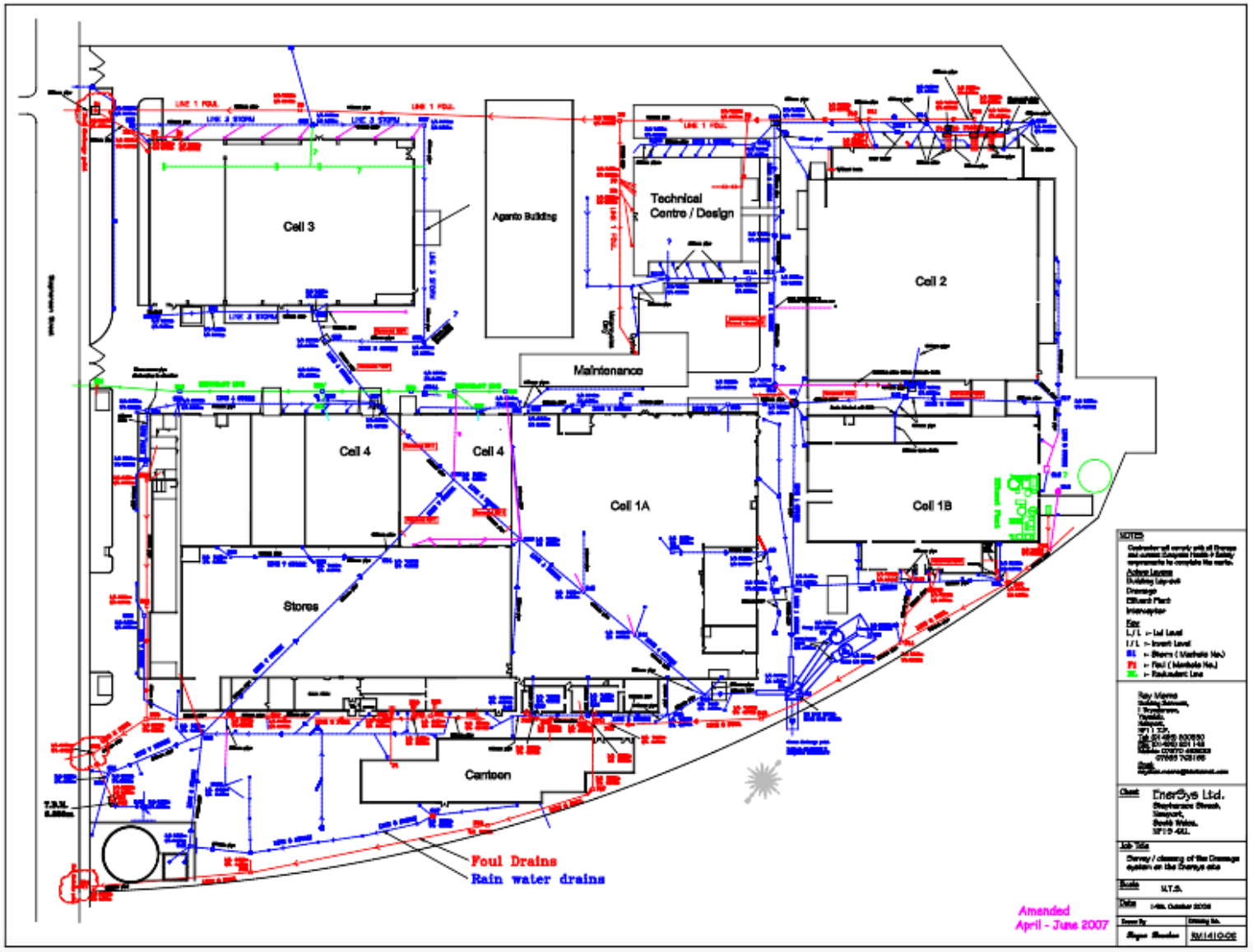
Method Index

Value	Description
T281	ICP/MS (Filtered)
T7	Probe
T54	GC/MS (Headspace)
T686	Discrete Analyser
T215	GC/MS (Headspace)(LV)
T81	GC/FID (LV)
T85	Calc

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Benzene	T54	AR	1	µg/l	U	001-008
EthylBenzene	T54	AR	1	µg/l	U	001-008
M/P Xylene	T54	AR	1	µg/l	U	001-008
Methyl tert-Butyl Ether	T54	AR	1	µg/l	U	001-008
O Xylene	T54	AR	1	µg/l	U	001-008
Toluene	T54	AR	1	µg/l	U	001-008
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH (Aliphatic) total	T85	AR		mg/l	N	001-008
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH (Aromatic) total	T85	AR		mg/l	N	001-008
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	N	001-008
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	N	001-008
Pb (Dissolved)	T281	F	0.3	µg/l	U	001-008
pH	T7	AR			U	001-008
Sulphate	T686	F	0.5	mg/l	U	001-008

APPENDIX G
ENERSYS NEWPORT DRAINAGE PLAN


Cell 3
Aganto Building
Technical Centre / Design
Cell 2
Maintenance
Cell 4
Cell 4
Cell 1A
Cell 1B
Stores
Canteen
Foul Drains
Rain water drains
Amended April - June 2007