



APPENDIX B

PERMITS

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 3515-8M4PWM

Issue Date: March 15, 2012

Harold Sutherland Construction Ltd.
R.R. 2
Georgian Bluffs, Ontario
N0H 1S0

Site Location: Harold Sutherland's - Keppel Quarry
Lot 28, Concession 10
Township of Georgian Bluffs, County of Grey

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

modifications to the existing sewage works for the collection, transmission, treatment and disposal of stormwater and groundwater associated with the Harold Sutherland's - Keppel Quarry, in the Township of Georgian Bluffs, County of Grey, discharging to the Tributary of Park Head Creek, southern branch, consisting of the following:

relocation of the existing 250 mm diameter discharge forcemain to the new location: from the existing dewatering pump located in the south-west corner of the quarry to the entrance to the Harold Sutherland's - Keppel Quarry on County Road 17, across County Road 17 in a 500 mm diameter culvert and on Private Land (Harold Sutherland Construction Ltd. Land) for approx. 250 m south parallel to the western side of County Road 17, discharging via rip-rap to the Tributary of Park Head Creek, southern branch;

all in accordance with the application dated August 8, 2011 and received on August 9, 2011, final plans, the revised plans submitted September 1 and 2, 2011 and specifications and the revised plan and specifications submitted January 26, 2012, all prepared by Genivar Inc.

EXISTING WORKS

the establishment of sewage works for the collection, transmission, treatment and disposal of wastewater associated with a Dolostone Bedrock quarry consisting of the following:

- four (4) settling ponds in series, located at the quarry floor, with the following approximate dimensions;

Pond #1: 20 metres by 20 metres by 1.5 metres deep
Pond #2: 25 metres by 30 metres by 1.5 metres deep
Pond #3: 35 metres by 20 metres by 1.5 metres deep
Sump Pond : 35 metres by 45 metres by 3 metres deep and
one discharge sump pond, 35 metres by 45 metres by 3 metres deep
remaining in the same location as in 2004;

- one (1) 0.6 metre by 0.6 metre seepage trench constructed along the bottom of the quarry face for draining quarry water to the settling ponds;
- one (1) pumping system with approximate capacity of 3000 litres per minute;
- all other controls, electrical equipment, instrumentation, piping, valves and appurtenances for the proper operation of the aforementioned sewage works;

all in accordance with the following documents:

1. Application for the of plans and specifications for the construction of Works for the collection, transmission, treatment and discharge of industrial wastewater prepared by Henderson, Paddon and Associates on behalf of Harold Sutherland Construction Ltd. including an application form signed by Harold Sutherland, dated July 11, 1989.
2. Engineering report dated September, 1986 and a supplemental Engineering Report dated February 1989, as well as an Impact Assessment of Proposed Sutherland Quarry on Surface Water and Groundwater dated October 1986 and an addendum to this report dated February 1989; all of which were prepared by Henderson, Paddon & Associates Limited.
3. Verbal information from B. Henderson, dated August 4, 1989.
4. Application for Approval of Industrial Sewage Works dated May 2, 2001 and signed by David Greene, Quality Control Coordinator/Health and Safety Representative, Harold Sutherland Construction Ltd. and all supporting information.
5. Application for Approval of Industrial Sewage Works dated June 15 and signed by Jennifer Sutherland, Vice President Finance and Administration, Harold Sutherland Construction Ltd. and all supporting information.

For the purpose of this environmental compliance approval, the following definitions apply:

- (1) "Approval" means this Environmental Compliance Approval and any Schedules to it, including the application and supporting documentation.
- (2) "Director" means any Ministry employee appointed by the Minister pursuant to Section 5 of the *Ontario Water Resources Act* ;

- (3) "District Manager" means the District Manager of the Owen Sound Office of the Ministry;
- (4) "Environmental Appeal Board" means the Environmental Review Tribunal established pursuant to the Environmental Review Tribunal Act;
- (5) "grab sample" is defined in Section 3.1.1 of the Ministry publication, "Protocol For the Sampling and Analysis of Industrial/Municipal Waste Water" dated August, 1994, and as amended;
- (6) "mg/L" means milligrams per litre;
- (7) "Ministry" means the Ontario Ministry of the Environment;
- (8) "Owner" means Harold Sutherland Construction Ltd., and includes its future successors and assignees;
- (9) "quarry" means land or land under water from which consolidated aggregate is being or has been excavated, and that has not been rehabilitated, but does not mean land or land under water excavated for a building or other work on the excavation site or in relation to which an order has been made;
- (10) "works" means the facility approved by the within Approval as described in its preamble, in the Owner's application and in supporting information submitted by the Owner and to the extent approved by this Approval; and
- (11) the following symbols are abbreviations for the frequencies indicated:

"W" means weekly or once in every 7 days with at least three days between successive samples, and

"M" means monthly or once in each month with at least two weeks between successive samples.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL CONDITION

- 1.1 Except as otherwise provided by these Conditions, the Owner shall design, build, install, operate and maintain the works in accordance with the description given in this Approval, the application for approval of the works and the submitted supporting documents and plans and specifications as listed in this Approval.

1.2 Where there is a conflict between a provision of any submitted document referred to in this Approval and the Conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

2. OPERATION AND MAINTENANCE

- 2.1 The Owner shall ensure that the works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained. The Owner shall check all of the sumps and discharge pumps on a monthly basis and keep a log or record of the inspections at the quarry.
- 2.2 The Owner shall carry out on a regular basis, specific maintenance requirements associated with the settling pond and sump pump.
- 2.3 The Owner shall use best efforts to immediately identify and cleanup all losses of oil and fuel which can drain to the sump and the settling pond.
- 2.4 The Owner shall, upon identification of a loss of oil and fuel take immediate action to prevent the further occurrence of such loss.
- 2.5 In furtherance of, but without limiting the generality of, the obligation imposed by subsection (1), the Owner shall ensure that equipment and material for the containment, cleanup and disposal of oil and fuel and materials contaminated with oil or fuel are kept on hand and in good repair for immediate use in the event of:
- (a) loss of oil or fuel during refuelling or equipment maintenance
 - (b) a spill within the meaning of Part X of the *Environmental Protection Act* ; or
 - (c) the identification of an abnormal amount of oil or fuel in the sump.

3. OPERATIONS MANUAL

- 3.1 In furtherance of, but without limiting the generality of the obligation imposed by Condition No. 2, the Owner shall prepare an operations manual within 90 days of the issuance of this Approval.
- 3.2 The Owner shall ensure that the manual includes:
- (a) a spill contingency plan in the event of loss of oil or fuel at the quarry;
 - (b) operating procedures for routine operation of the works;
 - (c) inspection programs, including frequency of inspection, for the works and the

- methods or tests employed to detect when maintenance is necessary;
- (d) repair and maintenance programs, including the frequency of repair and maintenance, for the works;
- 3.3 The Owner shall keep a log book or record of completed maintenance and inspections and an up to date operations manual at the location of the works, for so long as it is in operation, and shall make both available for inspection and copying by the Ministry employees upon request.

4. EFFLUENT LIMITS

- 4.1 The Owner shall design, construct and operate the works such that the concentrations of the materials named in the table below as effluent parameters are not exceeded in the effluent from the settling pond, calculated in accordance with subsection 2.

EFLUENT PARAMETERS	MONTHLY AVERAGE CONCENTRATION
Oil and Grease	15 mg/L
Total Suspended Solids	15 mg/L
Un-Ionized Ammonia	0.02 mg/L

- 4.2 For the purposes of determining compliance with and enforcing subsection (1), exceedance of a monthly average concentration is deemed to have occurred when the arithmetic mean concentration of all samples taken in a calendar month, analysed for a parameter named in subsection (1) is greater than the corresponding monthly average concentration set in subsection (1).

5. EFFLUENT - VISUAL OBSERVATIONS

Notwithstanding any other Condition in this Approval, the Owner shall ensure that the effluent is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam on the receiving waters.

6. SAMPLES AND MEASUREMENTS

The Owner shall ensure that samples and measurements taken for the purposes of this Approval are taken at a time and in a location characteristic of the quality of the effluent stream or receiving water body, as the case may be, over the time period being monitored.

7. EFFLUENT QUALITY MONITORING

- 7.1 The effluent from the forcemain to the tributary of Park Head Creek shall be sampled in accordance with the measurement frequency and sample type specified for each parameter named below, unless otherwise required in writing by this Approval or by the District Manager.

EFFLUENT PARAMETERS	MEASUREMENT FREQUENCY	SAMPLE TYPE
Oil and Grease	M	Grab
Total Suspended Solids	M	Grab
Un-Ionized Ammonia	M	Grab

- 7.2 The Owner shall carry out the following effluent monitoring programme immediately after a spill as defined under Condition No. 2, Subsection (5)(b) or;

In the event of an exceedance of one of the limits set out in Condition No. 4, subsection (1) until it is demonstrated to the District Manager that the discharge complies with the said limits.

EFFLUENT PARAMETERS	MEASUREMENT FREQUENCY	SAMPLE TYPE
Oil and Grease	W	Grab
Total Suspended Solids	W	Grab
Un-Ionized Ammonia	W	Grab

- 7.3 The methods and protocols for sampling, analysis, and recording shall conform, in order of precedence, to the methods and protocols specified in the following publications:

Ministry of the Environment, "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (dated August, 1994), as amended from time to time by more recently published editions; and,

"Standard Methods for the Examination of Water and Wastewater" (19th edition, dated 1995), as amended from time to time by more recently published editions.

8. REPORTING EMERGENCIES

As related to the approved works, the Owner shall ensure that, upon the occurrence of any spill, oil and grease, fuel or any other polluting substance into the environment, such occurrence be immediately reported to the District Manager, or his/her

designate, during normal working hours, or otherwise the Spills Action Centre for the Ministry (Telephone No. 1-800-268-6060). In addition, within 10 working days of the occurrence, the Owner shall submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

9. RECORD KEEPING

The Owner shall maintain a log-book at the site at all times, which shall be made available for inspection and copying by Ministry personnel upon request. The log-book shall contain the following:

- (a) Results of visual inspections as per Condition No. 5; and,
- (b) Effluent monitoring results as per Condition No. 7.

10. ANNUAL PERFORMANCE REPORTING

The owner shall prepare and submit a performance report to the District Manager on an annual basis, and the submission shall be made no later than 90 working days following the end of each calendar year. The first such report shall cover the period from the commencement of operation of the works until the end of the first calendar year in which the works is operated. The reports shall contain, but shall not be limited to, the following information in a format acceptable to the District Manager:

- (a) a summary and comprehensive interpretation of all monitoring data and analytical data collected relative to the works during the reporting period and a comparison to the effluent quality criteria described in Condition No. 4;
- (b) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming a part of the works;
- (d) a description of any operating problems encountered and corrective actions taken during the reporting period;
- (e) a summary of any proposed alteration, extension or replacement in the process or operation of the works to be completed over the next reporting period which may require approval under the *Ontario Water Resources Act* ;
- (f) an evaluation of the calibration and maintenance procedures conducted on all monitoring equipment;

- (g) an evaluation of the need for modifications to the works to improve performance and reliability and to minimize upsets.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition No.1 is imposed to ensure that the works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
2. Condition No. 2 is included to ensure that the works will be operated and maintained in a manner enabling compliance with the terms and conditions of this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person or property is minimised and/or prevented.
3. Condition No. 3 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a bench mark for Ministry staff when reviewing the operation of the works.
4. Condition No. 4 is imposed to establish enforceable effluent quality limits which the Owner is obligated to strive to achieve on an ongoing basis. It is also imposed to establish appropriate actions to be taken to minimize environmental impact in the event the limits are exceeded.
5. Condition Nos. 5, 6, 7, 8, 9, 10 & 11 are related to sampling, monitoring, reporting and record keeping. They have been imposed to require the Owner to demonstrate on a continual basis that, the performance of the approved works is at a level consistent with the design for the achievement of the effluent limits and objectives specified in the Approval, and does not cause any impairment to the receiving watercourse; and, that all pertinent information is available for evaluation of the settling pond performance.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4616-6EFKEJ issued on July 20, 2005.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

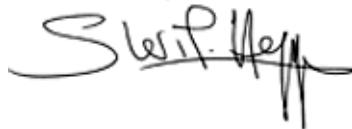
AND

The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 314-4506 or www.ert.gov.on.ca

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 15th day of March, 2012



Sherif Hegazy, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

KC/

c: District Manager, MOE Owen Sound District Office
Ross Slaughter, P.Eng., Genivar Inc.
Rick Winters, Operations Manager, Township of Georgian Bluffs



PERMIT TO TAKE WATER
Ground Water
NUMBER 4028-8RCKTY

Pursuant to Section 34 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

Harold Sutherland Construction Ltd.
323545 East Linton Rd
Kemble, Ontario, N0H 1S0
Canada

For the water Keppel Sump Pond

taking from:

*Located at: Lot 28, Concession 10
Georgian Bluffs, County of Grey*

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

DEFINITIONS

- (a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34, OWRA.
- (b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.
- (c) "Ministry" means Ontario Ministry of the Environment.
- (d) "District Office" means the Owen Sound District Office.
- (e) "Permit" means this Permit to Take Water No. 4028-8RCKTY including its Schedules, if any, issued in accordance with Section 34 of the OWRA.
- (f) "Permit Holder" means Harold Sutherland Construction Ltd..
- (g) "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O. 40, as amended.

You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. Compliance with Permit

- 1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated October 5, 2011 and signed by Jennifer Sutherland, and all Schedules included in this Permit.
- 1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.
- 1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.
- 1.4 This Permit is not transferable to another person.
- 1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.
- 1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.
- 1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

2. General Conditions and Interpretation

2.1 Inspections

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the *OWRA*, the *Environmental Protection Act*, R.S.O. 1990, the *Pesticides Act*, R.S.O. 1990, or the *Safe Drinking Water Act*, S.O. 2002.

2.2 Other Approvals

The issuance of, and compliance with this Permit, does not:

(a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act*, and the *Environmental Protection Act*, and any regulations made thereunder; or

(b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including

the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

- (a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or
- (b) acceptance by the Ministry of the information's completeness or accuracy.

2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

3. Water Takings Authorized by This Permit

3.1 Expiry

This Permit expires on **March 31, 2022**. No water shall be taken under authority of this Permit after the expiry date.

3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

Table A

	Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1	Keppel Sump Pond	Pond Online	Pits and Quarries	Dewatering	3,000	12	2,160,000	365	17 500510 4942695
					Total Taking:	2,160,000			

4. Monitoring

- 4.1 The Permit Holder shall maintain a record of all water takings. This record shall include the dates and times of water takings, and the total measured amounts of water pumped per day for each day that water is taken under the authorization of this Permit. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The total amounts of water pumped shall be measured using a flow meter. Continuous care shall be taken to properly maintain and calibrate the flow meter.
- 4.2 The Permit Holder shall measure and record static water levels in Observation Wells 3, 4, 7, 14, 28, 30, & 53 on a monthly basis.
- 4.3 The Permit Holder shall submit to the Director, an operational report which presents the monitoring data required by Conditions 4.1 and 4.2 of this Permit. The report shall be submitted to the Director by March 31, 2017, and include the monitoring data from the period beginning April 1, 2012, and ending December 31, 2016. The report shall provide a discussion of the operations within the existing quarry under Aggregate Resources Act Licence Number 4882, including the status of extractions and planned rehabilitation activities. The Director shall consider the information to determine any amendments to the Permit including the expiry date or the expiry of the permit.
- 4.4 Any application submitted to the Ministry for renewal or amendment of this Permit shall be accompanied by all records required by Condition 4.2 of this Permit.

5. Impacts of the Water Taking

5.1 Notification

The Permit Holder shall immediately notify the local District Office of any complaint arising

from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

5.2 For Groundwater Takings

If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

6. Director May Amend Permit

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act*, Section 100 (4).

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.
2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.
3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

*In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written notice served upon me, the Environmental Review Tribunal and the Environmental Commissioner, **Environmental Bill of Rights**, R.S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 101 of the Ontario Water Resources Act, as amended provides that the Notice requiring a hearing shall state:*

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these legal requirements, the Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Permit to Take Water number;
6. The date of the Permit to Take Water;
7. The name of the Director;
8. The municipality within which the works are located;

This notice must be served upon:

*The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON
M5G 1E5
Fax: (416) 314-4506*

*AND
The Environmental Commissioner
1075 Bay Street
6th Floor, Suite 605
Toronto, Ontario M5S 2W5*

*AND
The Director, Section 34
Ministry of the Environment
733 Exeter Rd
London ON N6E 1L3
Fax: (519)873-5020*

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:

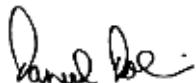
by telephone at (416) 314-4600

by fax at (416) 314-4506

by e-mail at www.ert.gov.on.ca

*This instrument is subject to Section 38 of the **Environmental Bill of Rights** that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.*

Dated at London this 15th day of March, 2012.



Dan Dobrin
Director, Section 34
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 4028-8RCKTY, dated March 15, 2012.

Niagara Escarpment Commission

P.O. Box 308, 99 King Street East
Thornbury, ON N0H 2P0
Tel: 519-599-3340
Fax: 519-599-6326
www.escarpment.org

Commission de l'escarpement du Niagara

p.o.b. 308, 99, rue King est
Thornbury, ON N0H 2P0
No de tel. 519-599-3340
Télécopieur 519-599-6326
www.escarpment.org



Ontario's Niagara Escarpment
A World Biosphere Reserve

March 9, 2012

Harold Sutherland Construction Ltd.
323545 East Linton Rd W
Kemble, Ontario N0H 1S0

Dear Mr. Sutherland,

**Re: Development Permit # 6468/G/E/2011-2012/9072
Lot 27 & 28, Concession 10
Township of Georgian Bluffs (Keppel), Grey County**

Enclosed please find your **Development Permit**. A copy of your Development Permit application is attached to the Permit. The information contained in this copy of the application constitutes the information (construction details, site plan, etc.) which was approved by the Commission and the Niagara Escarpment Hearing Officer upon appeal. Your development must proceed in accordance with this information, and with the **Conditions of the Permit**.

Also please note that changes or alterations to the approved construction details or the site plans are not permitted (see Conditions 1 and 4). Contact us immediately if changes are required.

If you have any questions, please contact me at 519-599-3740.

Yours truly,

Rick Watt
Planner

c Township of Georgian Bluffs
Drysdale Aggregate Consulting
GSCA
Grey County Transportation Services Dept.
MOE – Bill Armstrong, Ian Mitchell
MNR – Dave Munro
David White



NIAGARA ESCARPMENT DEVELOPMENT PERMIT

6468/G/E/2011-2012/9072



FILE NUMBER: G/E/2011-2012/9072

APPLICANT: Harold Sutherland Construction Ltd.
AGENT: Drysdale Aggregate Consulting - Don Drysdale
OWNER: same as applicant

LOCATION: Lot 27 & 28, Concession 10
Township of Georgian Bluffs (Keppel), Grey County

DESCRIPTION of PROPOSED DEVELOPMENT:

To undertake the following:

- dewater the floor of the existing Keppel Quarry (a new Permit to Take Water is also required from the Ministry of the Environment); (i.e., maximum 3000 litres/min; maximum daily pumping of 12 hours; maximum volume per day of 2,160,000 litres; maximum annual number of pumping days of 365).
- remove/discontinue use of the existing water discharge forcemain pipe for the quarry from adjacent private lands.
- reroute the forcemain through the quarry to the quarry entrance and install a new buried 250 mm diameter forcemain from the quarry entrance within a new culvert under Grey Road 17.
- continue a buried forcemain southwards on the applicant's lands on the west side of County Road 17 for a distance of approximately 250 m, to a discharge outlet area on the west side of Grey Road 17.

Pursuant to the authority to issue Development Permits under Section 24 of the *Niagara Escarpment Planning and Development Act, R.S.O. 1990, Chapter N.2*, delegated by the Minister of Natural Resources under Section 25 of the Act, the Niagara Escarpment Commission hereby issues this **DEVELOPMENT PERMIT** for the proposed development described above, **subject to the attached Conditions**.

SIGNED: _____
Don Scott
Chair
Niagara Escarpment Commission

DATE: March 9, 2012

This Development Permit is **transferable** provided the new Permit holder develops strictly in accordance with the conditions of the Development Permit.

DEVELOPMENT PERMIT CONDITIONS

6468/G/E/2011-2012/9072

1. Non-fulfillment or breach of anyone of the conditions shall render the Development Permit void.
2. A site inspection(s) to the property may be undertaken by the Niagara Escarpment Commission to ensure that the development complies with the conditions of the Development Permit. Persons may accompany the Commission representatives on the site inspection(s) who possess expert or special knowledge related to the conditions of the Development Permit.
3. No Building Permit or other license, certificate, permit or similar permission relating to development shall be issued or be considered to be in force unless the Development Permit is in effect.
4. Development shall take place only in accordance with the Site Plan and Development Permit Application as approved, and in accordance with the terms and conditions of the Ministry of the Environment Permit to Take Water, and Certificate of Approval for effluent discharge to be issued under Condition 5.
5. Development shall not commence and water taking shall not occur prior to the issuance by the Ministry of the Environment of a Permit to Take Water and Certificate of Approval for Discharge that is in accordance with the Development Permit issued. A copy of the Permit to Take Water and Certificate of Approval shall be filed with the Niagara Escarpment Commission.
6. Water taking and effluent discharge under this Development Permit shall be permitted for a period of no more than ten (10) years from the date of issuance of the Permit to Take Water and Certificate of Approval referred to in Condition 5, and shall cease when the taking of water and effluent discharge to facilitate extraction within the existing quarry under Aggregate Resources Act Licence Number 4882 is no longer required, recognizing that progressive rehabilitation may be ongoing during extraction. A further Development Permit will be required for any water taking and effluent discharge associated with final rehabilitation after extraction has ceased and/or for after uses.
7. The Development Permit shall expire concurrently with the date of expiry of the Permit to Take Water which shall be no later than ten (10) years from date of issuance, or sooner in accordance with Condition 6.
8. Any amendments or replacements of the Permit to Take Water or Certificate of Approval shall require a further Development Permit.
9. This Development Permit shall apply to the works and related activities: i) within the existing quarry, ii) in the County Road 17 road allowance, and iii) in the area shown as "Infiltration Area" on the site plans approved as part of this Development Permit. The Infiltration Area is shown on the enclosed Fig. 1.
10. No grading of the existing contours in the Infiltration Area is permitted.

DEVELOPMENT PERMIT CONDITIONS continued
6468/G/E/2011-2012/9072

11. No trees or vegetation other than dead or diseased trees and vegetation shall be cut or removed from the Infiltration Area.
12. Appropriate erosion and sediment controls shall be implemented, as may be required, to ensure no material run-off during construction and operation of the forcemain.
13. Effluent discharge shall occur in the Infiltration Area.
14. As there is no defined water course south of Con Rd X, quarry effluent discharge rates will be managed to prevent surface effluent outflow over Con Rd X.
15. Effluent discharge monitoring and reporting shall be in accordance with the Certificate of Approval. The Operator will continue to undertake routine Oil and Grease, Total Suspended Solids and Un-ionized Ammonia analysis of effluent discharge water at monthly intervals in accordance with the Certificate of Approval. Industrial Sewage Works pH and Temperature will be field observed at the time of sampling.
16. Expanded parameter water quality monitoring at Observation Well OW10s, OW10d, OW11s and OW11d, at the end of the pipe for effluent discharge and at all domestic wells within 600 m of the existing quarry or the Infiltration Area shall be undertaken on or about July 31, Aug 31 and Sept 30 of each year. Group parameters to be analyzed for include:
 - a. nutrients (phosphorous, nitrogen)
 - b. hardness, alkalinity, pH, conductivity
 - c. nitrate, nitrite
 - d. chlorides and other anions
 - e. major cations (magnesium, calcium, manganese)
 - f. sulphur
 - g. metals scan (i.e., zinc, copper, nickel, cadmium, arsenic, etc)The above analyses are also to include Total Dissolved Carbon and Organic Nitrogen.

17. In addition to the above, effluent discharge is to be sampled on or about July 31, Aug 31 and Sept 30 of each year and analyzed for:
 - a. total petroleum hydrocarbons (TPH)
 - b. BTEX (benzene, toluene, ethylene, xylene)
 - c. total PAH (Polycyclic Aromatic Hydrocarbons)
18. Chain of Custody sampling and laboratory QA/QC (Quality Assurance / Quality Control) procedures are to be documented with each sample event. pH and Temperature are to be observed at the time of sampling.
19. The laboratory undertaking the sample analysis will be accredited by the Standards Council of Canada and the Canadian Association of Environmental Laboratories (CAEL).
20. All Water Quality Analysis will be reported in Annual Performance Reports as required in the Certificate of Approval.

DEVELOPMENT PERMIT CONDITIONS continued
6468/G/E/2011-2012/9072

21. All Water Quality Results will be released to the Citizens' Liaison Committee (CLC) (see Condition 24) within 30 days of sampling events. Annual Performance Reports will be released within 30 days of the reporting year-end.
22. Any recycled asphalt will be stored in the north east corner of the existing quarry, protected from contact with any surface water.
23. A Citizens' Liaison Committee shall be formed consisting of representatives of Harold Sutherland Construction Ltd., neighbouring property owners including Garnet and Isabel Cramp, Gillian and Les Highfield, and Grey Sauble Conservation Authority, the Saugeen Ojibway Nation, the Metis Nation of Ontario, and the Township of Georgian Bluffs and County of Grey. Effluent discharge monitoring results shall be provided to the CLC as well as a Ministry of the Environment contact. This committee will meet on or about Feb 15 of each year or more frequently if required to review quarry operational and compliance issues. This review will include the adequacy of the water quality analytical parameters and sampling frequency as appropriate based on the number of Ontario Drinking Water Standards (2006) exceedances and other factors. For any new application to NEC, MOE or MNR, prior notice will be given to members of the CLC.
24. This Development Permit relates to the existing quarry under Aggregate Resources Act Licence Number 4882 on lands identified as Lot 28, Concession 10, Township of Georgian Bluffs only. (Note: Dewatering associated with the proposed expansion of the existing quarry shall be dealt with under Development Permit Application G/E/2007-2008/9099).
25. The filtration pond cannot impede the remaining extraction within the existing quarry.
26. The asphalt plant and the recycled asphalt pavement (RAP) material will be removed from the existing quarry by December 31, 2014.



NIAGARA ESCARPMENT COMMISSION

NIAGARA ESCARPMENT DEVELOPMENT PERMIT APPLICATION - NEC4

(Revised June 12, 2002)

THE NIAGARA ESCARPMENT PLANNING AND DEVELOPMENT ACT, RSO, 1990, AS AMENDED

<p>NIAGARA ESCARPMENT COMMISSION 232 GUELPH STREET GEORGETOWN, ONTARIO L7G 4B1</p> <p>Phone: 905-877-5191 Fax: 905-873-7452 Website: http://www.escarpment.ca</p> <p>Serving the areas of: Dufferin County Region of Halton Region of Peel Region of Niagara City of Hamilton</p>	<p>NIAGARA ESCARPMENT COMMISSION 99 KING STREET EAST, BOX 308 THORNBURY, ONTARIO N0H 2P0</p> <p>Phone: 519-599-3340 Fax: 519-599-6326 Website: http://www.escarpment.org</p> <p>Serving the areas of: Bruce County Grey County Simcoe County</p>
RECEIVED JUL 29 2011 NIAGARA ESCARPMENT COMMISSION	

Please ensure that the information you provide in this application is complete and accurate as this is the information that is reviewed by the Commission and if approved, all development must occur in accordance with this information.

Please contact your local Commission office if you would like assistance in completing this application.

1. APPLICANT

Name: HAROLD SUTHERLAND CONSTRUCTION LTD.
 Address: 323545 East Linton Road W
Kemble, Ontario Postal Code: N0H 1S0
 Phone: (519) 376-5698 Fax: (519) 371-6121 E-mail: jennifer@hsc-ltd.com

2. AGENT (if any)

Name: DRYSDALE AGGREGATE CONSULTING
 Address: 720 THIRD AVENUE EAST, OWEN SOUND, ONTARIO Postal Code: N4K 2K3
 Phone: (519) 376-6600 Fax: (519) 376-7300 E-mail: dondrysdale@rogers.com

3. OWNER (if different from applicant)

Name: same as above (applicant)
 Address: _____ Postal Code: _____
 Phone: _____ Fax: _____ E-mail: _____

Note: All correspondence will be sent to the Agent where an Agent is designated.

4. PROPERTY LOCATION

County/Region - GREY Municipality - GEORGIAN BLUFFS (former Municipality) - KEPPEL TWP.

27+

Lot PART 28 Concession 10 Lot _____ Plan _____

Civic Addressing # _____ Street Address _____
(Fire/emergency#)**5. LOT INFORMATION NOT APPLICABLE**

Lot Size _____	Proposed Lot Size _____ (If applicable)
Frontage _____	Frontage _____
Depth _____	Depth _____

6. SERVICING

Road Frontage:	<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Private	<input type="checkbox"/> Right-of-Way	<input checked="" type="checkbox"/> Year-round	<input type="checkbox"/> Summer
Water Supply:	<input type="checkbox"/> Municipal	<input type="checkbox"/> Communal	<input checked="" type="checkbox"/> Private Well	<input type="checkbox"/> Other _____	
Sewage System:	<input type="checkbox"/> Municipal	<input type="checkbox"/> Communal	<input checked="" type="checkbox"/> Private Septic	<input type="checkbox"/> Other _____	

7. LAND USE

	Existing (describe)	Proposed (describe)
Residential	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Agricultural	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Commercial	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Industrial	<input checked="" type="checkbox"/> LICENCED QUARRY	X redirection of 250mm forcemain for dewatering existing licenced quarry
Institutional	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Other	<input checked="" type="checkbox"/> MINERAL RESOURCE EXTRACTION	<input checked="" type="checkbox"/> Rural - NEC

8. EASEMENTS, COVENANTS, AGREEMENTS, ETC.

Please describe the type and terms of any easements, covenants, agreements or other restrictions registered on or affecting the title of the property: _____

N/A

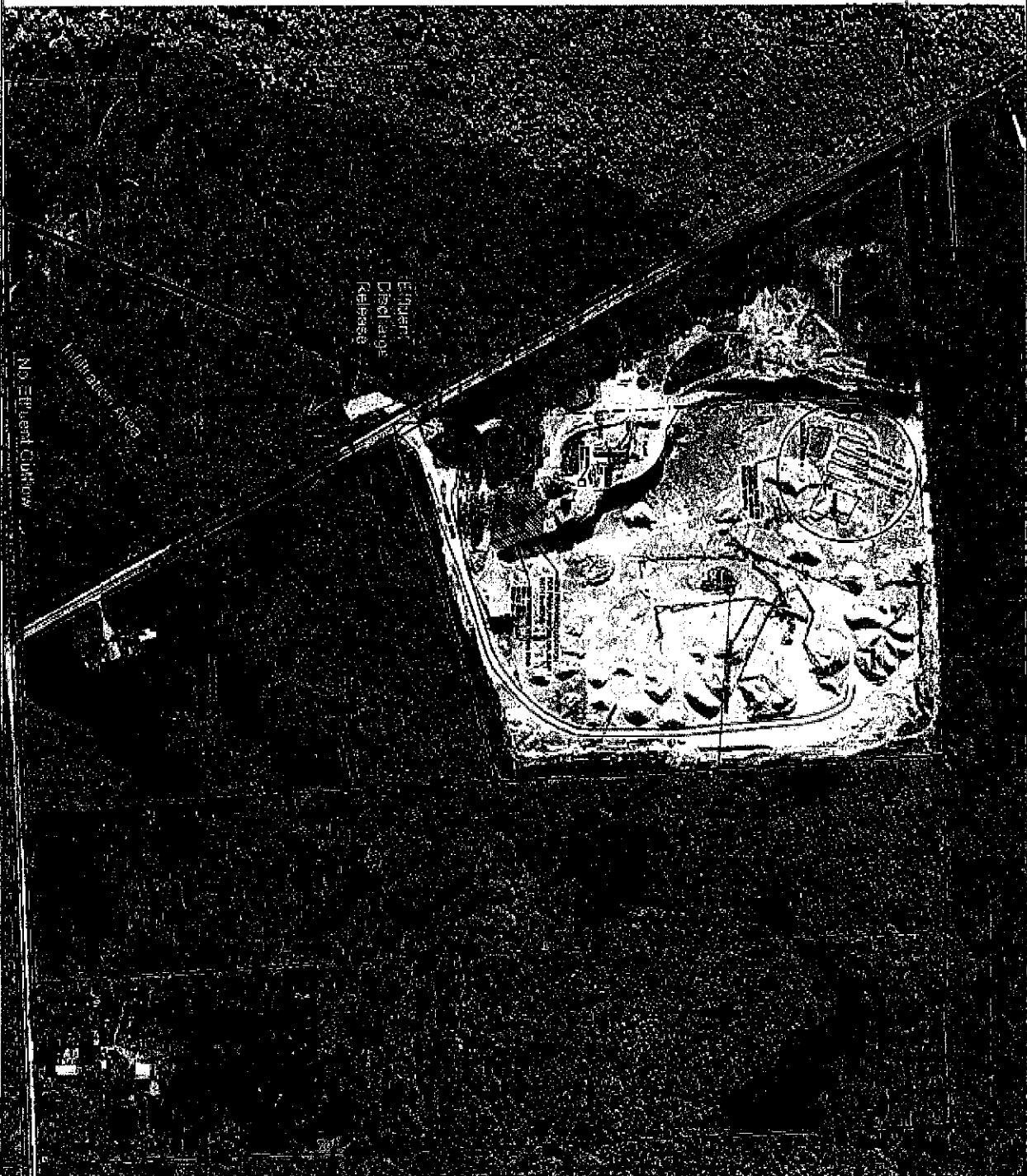
9. DATE OF PURCHASE

Date of purchase by current owner: 1985

NOTEDEPENDING ON THE NATURE OF THE PROPOSED DEVELOPMENT AND/OR THE CHARACTERISTICS OF THE PROPERTY,
SUPPORTING INFORMATION SUCH AS LANDSCAPING PLANS, EROSION CONTROL PLANS, GRADING PLANS, OR AN
ENVIRONMENTAL IMPACT ASSESSMENT MAY BE REQUIRED.

NEW

FIGURE 1 - SITE PLAN

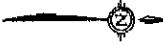


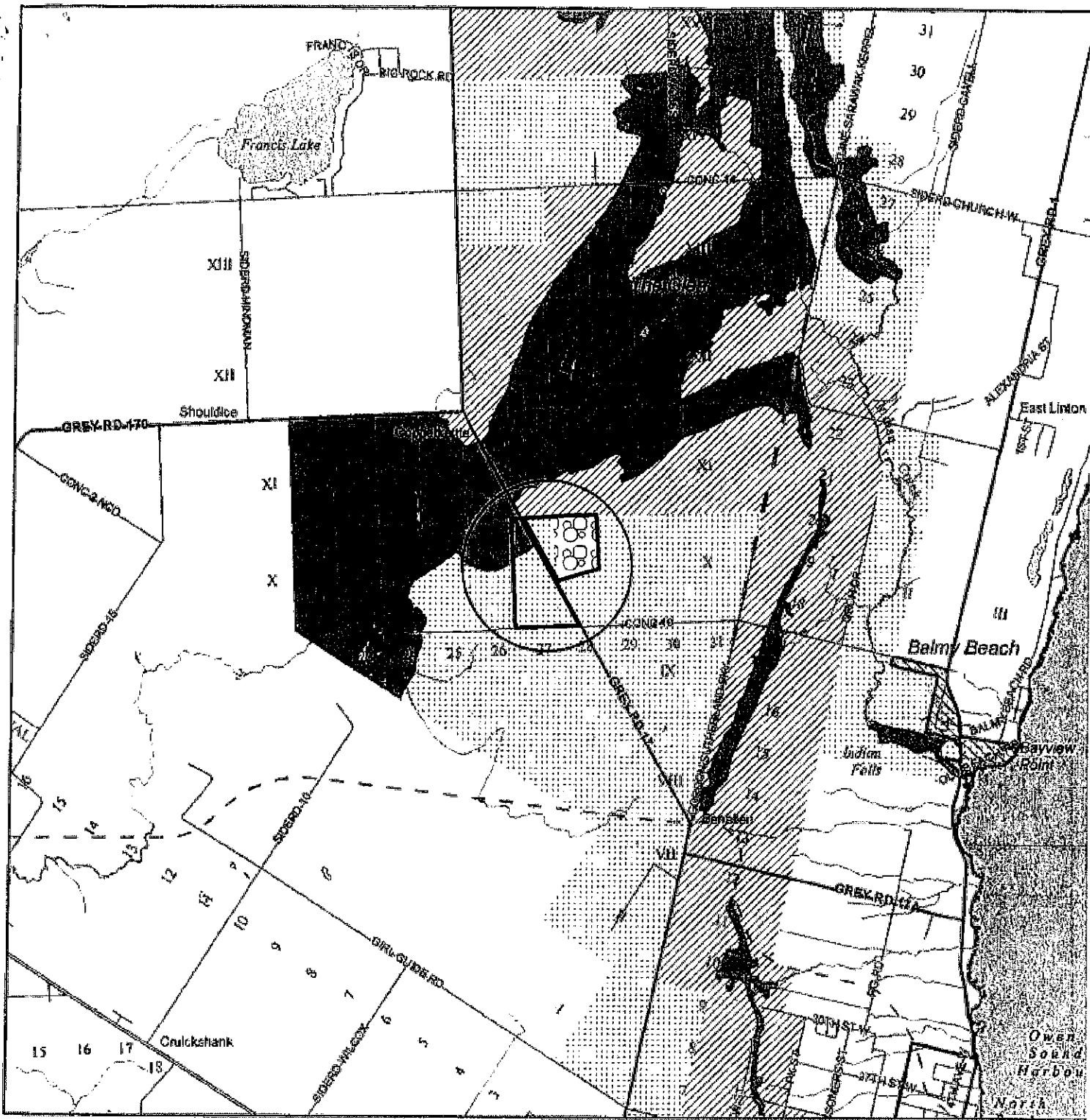
COLOUR MAP SOURCE:
BASE MAP DATA ORIGINATED BY THE
COUNTRY OF BRUCE, SPRING OF 2006

ITEM #	NAME	NUMBER	TYPE	SIZE	STATUS
1	Eldon	1	Building	Large	Occupied
2	Refinery	1	Building	Medium	Occupied
3	Marine	1	Building	Medium	Occupied
4	NO ELDON CRATER	1	Other	Small	Empty

 GENIVAR

EASTING / NEW TERRAPAC THERMOPRIME
AND FIBER LOCATING PIPE
PROPOSED FINAL LOCATION OF PUMP AND
SETTLING POND - KEPPEL QUARRY
HAROLD SOUTHERLAND EXPLORATION LTD.
MAP SCALE: 1:2000
DATE: Sept 2006
DRAWING NO.: 1111987-0001





MAP 1
NIAGARA ESCARPMENT PLAN
FILE NO. G/E/2011-2012/9072
HAROLD SUTHERLAND
APPLICANT: CONSTRUCTION

NOTE: The Niagara Escarpment Plan Designation boundaries shown on this map are approximate and subject to confirmation through Site Inspection and the application of the 'Interpretation of Boundaries' section of the Niagara Escarpment Plan.
Printed on Jan 19, 2008 using



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LEGEND

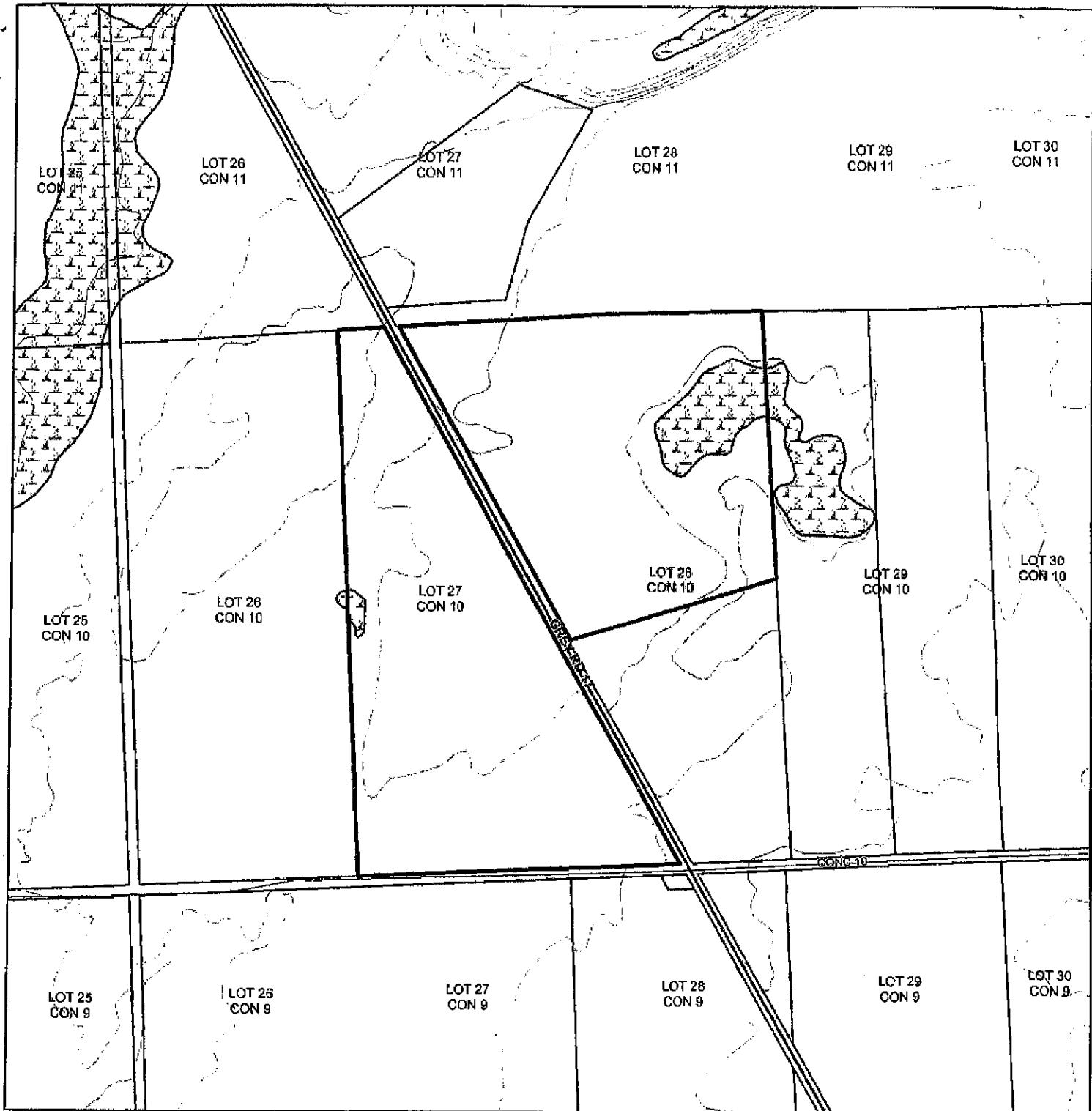
- | | | | |
|--------------------------|----------------------------------|--|--|
| | Subject Property | | Minor Urban Centre |
| Plan Designations | | Minor Urban Centre (Boundary Undefined) | |
| | Escarpment Natural Area | | Public Land (in Parks and Open Space System) |
| | Escarpment Protection Area | | Special Policy Areas |
| | Escarpment Rural Area | | |
| | Mineral Resource Extraction Area | | |
| | Escarpment Recreation Area | | |
| | Urban Area | | |

Approximate Scale 1:50,000



0 500 1000 1500 2000 2500
Metres





MAP 2 LOT CONFIGURATION

FILE NO. G/E/2011-2012/9072

HAROLD SUTHERLAND
APPLICANT: CONSTRUCTION

LEGEND

- Subject Property
- Contour (5 metre intervals)

Approximate Scale 1:10000



0 100 200 300 400 500
Metres





APPENDIX C

WATER RESOURCES MONITORING PROGRAM



APPENDIX C1

GROUNDWATER MONITOR DETAILS

Table C-1 : Monitoring Station Details

Location	Northing	Easting	Stick-up (m)	Depth (mBGS)	Ground Elevation (mAMSL)	Reference Elevation (pipe-top) (mAMSL)	Revised Reference Elevation (pipe-top) (mAMSL)	Water Level Reference Point	Tip Separation (m)
OW3	4942599	500834	2.06	18.43	250.07	252.13	-	T/PVC Pipe	-
OW4	4942370	500575	0.59	21.48	250.81	251.40	-	T/PVC Pipe	-
OW7s	4942285	500449	0.74	8.20	250.95	251.68	-	T/PVC Pipe	14.92
OW7d	4942285	500449	0.57	22.95	250.94	251.51	-	T/PVC Pipe	
OW8s	4942237	499664	0.74	8.62	246.99	247.72	-	T/PVC Pipe	13.97
OW8d	4942237	499664	0.62	22.47	246.99	247.60	-	T/PVC Pipe	
OW9s	4941874	499719	0.79	8.18	246.30	247.08	-	T/PVC Pipe	13.07
OW9d	4941874	499719	0.53	21.00	246.30	246.83	-	T/PVC Pipe	
OW10s	4941907	500462	0.29	8.57	248.29	248.58	-	T/PVC Pipe	12.62
OW10d	4941907	500462	0.24	21.15	248.30	248.54	-	T/PVC Pipe	
OW11s	destroyed	destroyed	0.56	9.01	249.07	249.63	-	T/PVC Pipe	13.70
OW11d	destroyed	destroyed	0.51	22.64	249.06	249.56	-	T/PVC Pipe	
OW12s	4942532	499697	0.52	8.20	248.62	249.13	-	T/PVC Pipe	11.46
OW12d	4942532	499697	0.38	19.51	248.60	248.98	-	T/PVC Pipe	
OW13s	4942868	499924	0.75	8.61	249.30	250.05	-	T/PVC Pipe	11.99
OW13d	4942868	499924	0.57	20.42	249.31	249.87	-	T/PVC Pipe	
OW14s	4942695	500210	0.49	9.12	250.32	250.81	-	T/PVC Pipe	12.27
OW14d	4942695	500210	0.41	21.31	250.33	250.73	-	T/PVC Pipe	
OW15s	4942087	499757	0.53	7.61	248.59	249.12	-	T/PVC Pipe	13.01
OW15d	4942087	499757	0.40	20.50	248.61	249.00	-	T/PVC Pipe	
OW16s	destroyed	destroyed	0.05	8.76	250.55	250.58	-	T/PVC Pipe	13.46
OW16d	destroyed	destroyed	-0.12	22.10	250.55	250.46	-	T/PVC Pipe	
OW24	4942344	499242	0.29	17.90	240.39	240.68	¹ 241.81	T/PVC Pipe	-
OW25s	4942539	499530	0.65	7.80	243.48	244.13	-	T/PVC Pipe	-
OW25d	4942539	499530	0.46	17.90	243.49	243.95	-	T/PVC Pipe	10.28
OW26	4942006	499426	0.84	17.10	243.61	244.45	-	T/PVC Pipe	
OW27s	4941847	499276	0.53	10.20	244.41	244.94	-	T/PVC Pipe	11.57
OW27d	4941847	499276	0.50	21.75	244.41	244.91	-	T/PVC Pipe	
OW28s	4942888	500172	1.05	10.58	251.22	252.27	-	T/PVC Pipe	6.75
OW28d	4942888	500172	0.65	16.96	251.25	251.90	-	T/PVC Pipe	
OW29s	4942035	500592	1.10	9.10	249.03	250.13	-	T/PVC Pipe	11.59
OW29d	4942035	500592	1.12	20.75	249.07	250.19	-	T/PVC Pipe	
OW30s	4942380	500471	1.15	8.50	250.44	251.59	-	T/PVC Pipe	12.50
OW30d	4942380	500471	0.85	20.73	250.47	251.32	-	T/PVC Pipe	
OW31s	4942875	500104	0.63	8.40	249.79	250.42	-	T/PVC Pipe	12.63
OW31d	4942875	500104	1.10	21.50	249.79	250.89	-	T/PVC Pipe	
OW32s	4942916	500134	0.73	9.90	249.52	250.25	-	T/PVC Pipe	11.59
OW32d	4942916	500134	0.93	21.70	249.53	250.46	-	T/PVC Pipe	
OW33s	4943045	500068	0.65	8.55	248.65	249.30	-	T/PVC Pipe	8.84
OW33d	4943045	500068	0.80	17.55	248.66	249.46	-	T/PVC Pipe	
OW34	4942687	500390	0.85	18.35	248.95	249.80	-	T/PVC Pipe	-
OW35	4942688	500354	0.46	18.04	249.63	250.09	-	T/PVC Pipe	-
OW36	4942688	500324	1.15	18.05	250.05	251.20	-	T/PVC Pipe	-
OW37	4942902	500398	1.14	18.89	251.61	252.75	-	T/PVC Pipe	-
OW38	4942896	500302	1.08	18.47	249.15	250.23	-	T/PVC Pipe	-
OW39	4942349	500431	0.50	17.90	250.85	251.35	-	T/PVC Pipe	-
OW40	destroyed	destroyed	0.21	16.82	250.64	250.85	-	T/PVC Pipe	-
OW41s	4942657	500028	0.56	10.14	250.04	250.60	-	T/PVC Pipe	9.45
OW41d	4942657	500028	0.74	20.11	250.38	251.12	-	T/PVC Pipe	
OW42s	4942282	500143	0.21	10.53	249.56	249.76	-	T/PVC Pipe	9.01
OW42d	4942282	500143	0.47	19.58	249.34	249.81	-	T/PVC Pipe	
OW43s	4942125	500247	0.89	10.26	250.69	251.58	-	T/PVC Pipe	10.27
OW43d	4942125	500247	1.00	20.85	250.90	251.90	-	T/PVC Pipe	
OW44s	4941721	500381	1.20	10.20	248.10	249.30	-	T/PVC Pipe	10.75
OW44d	4941721	500381	1.33	20.87	247.89	249.22	-	T/PVC Pipe	
OW45	4941475	500328	1.10	9.66	246.51	247.61	-	T/PVC Pipe	-
OW46k	4941724	500082	1.18	7.20	247.50	248.68	-	T/PVC Pipe	-
OW46s	4941724	500082	1.14	9.91	247.54	248.68	-	T/PVC Pipe	10.42
OW46d	4941724	500082	1.30	20.54	247.58	248.88	-	T/PVC Pipe	
OW47s	4941620	499998	1.25	9.51	247.47	248.72	-	T/PVC Pipe	11.15
OW47d	4941620	499998	1.48	20.85	247.43	248.91	-	T/PVC Pipe	
OW48	4941481	499943	1.19	9.66	247.10	248.29	-	T/PVC Pipe	-
OW49	4943008	500452	1.28	20.26	252.10	253.38	-	T/PVC Pipe	-
OW50	4943089	500496	1.21	19.82	252.29	253.50	-	T/PVC Pipe	-
OW51	4943194	500504	0.80	20.67	251.00	251.80	-	T/PVC Pipe	-
OW52	4943251	500523	0.73	20.55	252.00	252.73	-	T/PVC Pipe	-
OW53	4942551	501021	1.07	18.46	250.24	251.31	-	T/PVC Pipe	-
MP54(in)	4942707	499549	1.27 *	2.13	239.53	240.80	-	T/PVC Pipe	-
MP54(out)	4942707	499549	1.27 *	2.13	239.53	240.80	-	T/PVC Pipe	-
MP55(in)	4942185	498593	1.02 *	2.13	239.53	240.55	-	T/PVC Pipe	-
MP55(out)	4942185	498593	1.02 *	2.13	239.53	240.55	-	T/PVC Pipe	-
MP56(in)	4942459	499297	1.3 *	1.80	239.52	240.82	-	T/PVC Pipe	-
MP56(out)	4942459	499297							

Table C-1 : Monitoring Station Details

Location	Northing	Easting	Stick-up (m)	Depth (mBGS)	Ground Elevation (mAMSL)	Reference Elevation (pipe-top) (mAMSL)	Revised Reference Elevation (pipe-top) (mAMSL)	Water Level Reference Point	Tip Separation (m)
OW59s	4942548	499401	0.89	6.07	239.79	240.68	-	T/PVC Pipe	6.01
OW59d	4942548	499401	0.78	12.19	240.01	240.79	-	T/PVC Pipe	
OW60s	4942416	499264	0.78	6.40	239.99	240.77	-	T/PVC Pipe	7.22
OW60d	4942416	499264	0.77	13.41	239.79	240.56	-	T/PVC Pipe	
OW62k	4942027	499951	0.79	6.10	245.59	246.38	-	T/PVC Pipe	4.82
OW62s	4942027	499951	0.40	10.80	245.47	245.87	-	T/PVC Pipe	6.84
OW62d	4942027	499951	0.50	17.50	245.33	245.83	-	T/PVC Pipe	
OW63s	499951	4942272	1.33	11.23	246.18	248.09	-	T/PVC Pipe	8.23
OW63d	499951	4942272	1.31	19.46	246.19	247.52	-	T/PVC Pipe	
OW64s	499832	4942258	0.98	14.00	248.95	250.03	-	T/PVC Pipe	3.20
OW64d	499832	4942258	1.20	17.20	248.95	250.19	-	T/PVC Pipe	
OW65s	500064	4942424	1.73	11.43	249.00	250.73	-	T/PVC Pipe	9.57
OW65d	500064	4942424	1.42	21.00	249.00	250.42	-	T/PVC Pipe	
OW71k	4941845	499757	0.70	7.20	245.26	245.96	-	T/PVC Pipe	3.17
OW71s	4941845	499757	0.78	10.36	245.25	246.02	-	T/PVC Pipe	7.64
OW71d	4941845	499757	0.85	17.98	245.23	246.08	-	T/PVC Pipe	
TP16	4942350	499256	1.10	1.75	240.75	241.85	-	T/ABS Pipe	-
TP17	4942399	499265	1.21	1.83	240.43	241.64	-	T/ABS Pipe	-
TP18	4942561	499515	1.24	5.20	243.32	244.56	-	T/ABS Pipe	-
TP19	4942570	499463	1.20	1.31	240.08	241.28	-	T/ABS Pipe	-
SG1 (plate)	4943465	500217	-	-	-	242.69	-	B/Plate	-
SG1 (pvc)	4943465	500217	1.21	1.21			-	T/PVC	-
Ritchie	Discontinued	Discontinued	-	-	-	-	-	T/breeth tube	-
Cramp	4941974	500710	-	23.00	250.57	251.46	-	T/case	-
S.Ruthven	4941936	501100	-	19.00	255.00	255.00	-	T/floor	-
Sutherland	-	-	-	-	251.00	-	-	T/case	-
Jenks	-	-	-	-	255.00	-	-	T/case	-
Thompson	-	-	-	-	255.00	-	-	T/case	-
Porter	-	-	-	-	253.00	-	-	T/case	-
S8	4942621	499475	-	1.69	240.74	240.74	-	-	-
S13	4941746	499749	-	1.39	243.53	243.53	-	-	-

Notes:
¹ Stick up changed on 8-Jul-09 (1.13 m was added)

* denotes that the stick-up was measured above the wetland bed

mbgs = metres below ground surface

mBTOC = metres below top of case

"-" denotes no data available



APPENDIX C2

GROUNDWATER LEVELS, ELEVATIONS & HYDROGRAPHS

Table C-2.1 : Historical Groundwater Levels (2003-2014)

Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d
15-Sep-03	14.94	7.37	4.85	8.22	4.20	4.75	4.63	4.29	3.05	3.05
17-Oct-03	15.65	3.47	3.85	7.43	3.78	4.07	3.89	3.51	2.20	2.30
28-Nov-03	15.68	3.63	3.81	7.34	3.25	3.74	3.74	3.18	2.22	2.16
26-Feb-04	15.63	-	3.88	7.56	3.83	4.15	4.02	3.57	2.19	2.30
26-Apr-04	15.70	3.81	3.82	7.46	3.77	4.02	3.94	3.50	2.25	2.32
14-May-04	15.66	3.95	3.82	7.36	3.37	3.87	3.80	3.35	2.25	2.25
21-May-04	15.66	3.95	3.85	7.55	3.66	4.00	3.95	3.51	2.30	2.40
28-May-04	-	-	3.69	7.10	2.47	3.22	3.25	3.26	1.29	1.51
4-Jun-04	-	-	3.85	7.45	3.34	3.74	3.77	3.29	2.27	2.28
11-Jun-04	15.73	3.95	3.95	7.54	3.74	4.02	4.07	3.56	2.37	2.42
17-Jun-04	-	-	3.96	7.58	3.84	4.10	4.14	3.64	2.40	2.45
25-Jun-04	-	-	3.84	7.66	3.87	4.16	4.09	3.66	2.26	2.50
9-Jul-04	-	-	4.12	7.79	3.90	4.26	4.21	3.77	2.56	2.60
16-Jul-04	-	-	3.77	7.74	3.89	4.23	4.02	3.65	2.16	2.52
22-Jul-04	-	-	3.93	7.67	3.83	4.16	4.11	3.65	2.35	2.45
29-Jul-04	15.69	6.75	4.08	7.86	3.88	4.27	4.22	3.77	2.61	2.62
5-Aug-04	-	-	4.08	7.86	3.88	4.27	4.22	3.77	2.61	2.62
13-Aug-04	-	-	4.33	8.11	3.95	4.41	4.34	3.91	2.79	2.79
19-Aug-04	15.72	7.96	4.44	8.16	3.99	4.45	4.38	3.95	2.79	2.81
26-Aug-04	-	-	4.59	8.30	4.00	4.56	4.45	4.05	2.91	2.93
2-Sep-04	-	-	4.67	8.36	4.04	4.59	4.44	4.07	2.95	2.96
9-Sep-04	-	-	4.77	8.48	4.06	4.62	4.47	4.11	2.98	2.98
16-Sep-04	15.71	8.77	4.94	8.56	4.08	4.65	4.52	4.16	3.06	3.02
23-Sep-04	-	-	5.10	8.71	4.17	4.80	4.60	4.31	3.17	3.16
7-Oct-04	-	-	5.31	8.93	4.23	4.95	4.80	4.51	3.34	3.35
14-Oct-04	15.75	9.15	5.36	8.93	4.23	4.89	4.83	4.51	3.37	3.33
21-Oct-04	-	-	4.83	8.67	4.22	4.89	4.53	4.29	2.62	3.03
28-Oct-04	-	-	4.83	8.67	4.21	4.80	4.47	4.15	2.62	2.92
3-Nov-04	-	-	4.56	8.63	4.18	4.72	4.33	4.03	2.40	2.80
11-Nov-04	-	-	4.38	8.49	4.10	4.61	4.24	3.91	2.38	2.68
18-Nov-04	-	-	4.43	8.48	4.06	4.53	4.23	3.87	2.43	2.66
25-Nov-04	15.66	8.38	4.42	8.46	4.06	4.47	4.21	3.85	2.32	2.62
2-Dec-04	-	-	3.78	8.04	3.84	4.28	3.76	3.50	2.07	2.35
9-Dec-04	-	-	3.65	7.76	2.98	3.98	3.47	3.18	1.91	2.14
16-Dec-04	-	-	3.81	7.83	3.15	3.78	3.69	3.20	2.14	2.17
23-Dec-04	15.68	7.25	3.91	7.93	3.39	3.94	3.87	3.44	2.30	2.30
13-Jan-05	-	8.83	3.50	7.80	2.96	3.69	3.29	3.11	1.87	2.11
31-Jan-05	-	9.42	3.98	7.95	3.65	4.02	4.01	3.52	2.36	2.32
21-Feb-05	15.71	9.88	3.85	7.86	3.64	4.00	3.89	3.44	2.21	2.24
24-Mar-05	15.62	9.74	3.89	8.02	3.82	4.13	4.02	3.57	2.24	2.37
26-Apr-05	15.49	8.65	3.70	7.76	3.50	3.96	3.61	3.32	2.10	2.29
10-May-05	-	9.37	3.89	7.84	3.57	3.97	3.92	3.45	2.30	2.38
24-May-05	-	10.07	4.20	8.10	3.86	4.19	4.12	3.67	2.47	2.52
1-Jun-05	-	10.92	4.10	8.14	3.90	4.28	4.19	3.74	2.55	2.59
10-Jun-05	-	-	4.21	8.27	3.93	4.36	4.25	3.82	2.70	2.73
17-Jun-05	-	11.09	4.09	8.24	3.95	4.41	4.25	3.82	2.58	2.72
24-Jun-05	-	11.10	4.16	8.25	3.97	4.45	4.27	3.87	2.65	2.73
30-Jun-05	-	-	4.28	8.33	4.03	4.48	4.34	3.92	2.76	2.81
8-Jul-05	-	11.39	4.47	8.50	4.04	4.63	4.43	4.06	2.94	2.97
15-Jul-05	-	11.53	4.65	8.63	4.08	4.72	4.52	4.20	3.08	3.08
22-Jul-05	-	11.66	4.82	8.75	4.14	4.85	4.63	4.36	3.23	3.20
28-Jul-05	-	11.74	4.97	8.85	4.19	4.93	4.74	4.47	3.34	3.29
4-Aug-05	-	-	4.66	8.78	4.23	4.98	4.73	4.48	3.40	3.31
12-Aug-05	15.74	11.55	4.78	8.75	4.25	5.06	4.80	4.56	3.34	3.26
18-Aug-05	15.72	11.64	4.97	8.84	4.31	5.15	4.88	4.84	3.36	3.31
26-Aug-05	-	11.46	4.46	8.59	4.35	4.98	4.88	4.46	3.17	3.15
2-Sep-05	-	11.48	4.59	8.65	4.37	5.03	4.63	4.44	3.06	3.12
9-Sep-05	-	11.04	4.81	8.76	4.43	5.12	4.60	4.44	3.07	3.14
15-Sep-05	-	11.17	4.99	8.87	4.49	5.13	4.65	4.48	3.14	3.22
23-Sep-05	-	11.39	5.21	8.98	4.57	5.20	4.77	4.60	3.24	3.24
30-Sep-05	-	11.18	4.18	8.63	4.53	5.10	4.54	4.40	2.88	2.91
7-Oct-05	-	10.96	4.30	8.52	4.51	4.99	4.47	4.24	2.52	2.70
14-Oct-05	-	11.42	4.49	8.62	4.50	4.93	4.39	4.17	2.60	2.74
21-Oct-05	-	12.24	4.70	8.76	4.51	4.94	4.36	4.15	2.68	2.84
28-Oct-05	-	11.75	4.77	8.87	4.53	4.93	4.34	4.14	2.66	2.86
4-Nov-05	-	11.88	4.75	9.04	4.46	4.79	4.24	4.02	2.46	2.65
11-Nov-05	-	10.20	3.92	8.27	4.07	4.48	4.02	3.76	2.27	2.34
2-Dec-05	-	8.45	3.76	7.87	2.70	3.57	3.42	2.96	2.06	1.87
21-Apr-06	-	10.29	3.85	7.95	3.44	3.85	3.82	3.34	2.29	2.27
15-Aug-06	-	13.30	4.24	8.57	4.09	4.50	4.31	4.01	2.65	2.71
14-Sep-06	-	13.95	4.83	9.10	4.20	4.80	4.38	4.13	2.82	2.94
28-Sep-06	15.68	13.44	4.95	9.21	-	-	-</td			

Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d
6-Nov-06	15.43	10.46	3.80	8.29	-	-	-	-	-	-
10-Nov-06	15.59	10.37	3.80	8.25	3.11	3.97	3.67	3.42	2.14	2.24
14-Nov-06	15.59	10.36	3.81	8.21	-	-	-	-	2.14	2.19
17-Nov-06	15.36	10.29	3.77	8.25	3.16	3.94	3.62	3.37	2.13	2.22
24-Nov-06	15.63	10.81	3.87	8.28	3.31	3.98	3.78	3.45	2.22	2.28
1-Dec-06	15.36	10.31	3.72	8.19	3.42	3.92	3.66	3.40	1.96	2.21
15-Dec-06	15.10	9.86	3.68	8.01	2.43	3.66	3.23	3.07	1.83	1.91
26-Jan-07	15.68	11.60	3.91	8.26	3.73	4.03	3.99	3.55	2.29	2.31
9-Apr-07	15.61	10.32	3.82	8.11	3.05	3.71	3.59	3.22	2.14	2.16
21-Jun-07	15.65	13.13	4.10	8.68	3.90	4.32	4.21	3.80	2.64	2.71
27-Jul-07	15.69	13.25	4.74	9.06	4.07	4.70	4.44	4.13	2.97	3.10
22-Aug-07	15.72	13.58	5.39	9.51	4.29	5.08	4.81	4.58	3.39	3.47
31-Aug-07	15.71	13.31	5.27	9.50	4.35	5.15	4.82	4.61	3.24	3.31
26-Sep-07	15.72	13.70	5.50	9.71	4.54	5.25	4.71	4.59	3.21	3.36
19-Oct-07	15.72	13.69	5.40	9.78	4.65	5.29	4.58	4.51	3.04	3.25
17-Nov-07	15.68	13.26	4.63	9.50	4.34	4.92	4.23	4.14	2.39	2.70
20-Dec-07	15.63	13.13	4.02	9.01	3.89	4.36	4.05	3.80	2.26	2.42
7-Mar-08	15.59	12.97	3.86	8.67	3.39	3.95	3.77	3.40	-	-
3-Jun-08	15.70	13.70	3.97	8.86	3.81	4.18	4.04	3.67	2.24	2.43
29-Jul-08	15.70	11.63	4.40	8.88	3.96	4.48	4.29	3.96	2.65	2.71
18-Aug-08	15.68	11.80	4.40	8.93	4.00	4.53	4.26	3.95	2.55	2.66
23-Sep-08	15.72	12.26	4.25	8.87	3.94	4.52	4.19	3.92	2.52	2.62
29-Oct-08	15.71	12.14	4.02	8.81	3.90	4.45	4.02	3.81	2.19	2.39
26-Nov-08	15.71	11.33	3.89	8.43	3.35	3.98	3.82	3.51	2.19	2.21
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	15.72	11.39	4.00	8.36	3.27	3.81	3.62	3.19	2.06	2.21
20-Jan-09	15.63	11.99	4.02	8.39	3.75	4.05	4.16	3.60	2.42	2.32
24-Mar-09	15.61	11.03	3.37	8.30	3.07	3.76	3.60	3.26	2.16	2.12
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	15.64	10.58	3.87	8.24	3.62	3.85	3.62	3.29	2.08	2.11
6-Jun-09	15.73	12.13	4.09	8.57	3.86	4.27	4.15	3.75	2.33	2.55
12-Jun-09	-	-	-	-	-	-	-	-	2.48	2.52
8-Jul-09	15.70	12.09	4.00	8.51	3.85	4.30	4.10	3.75	2.45	2.25
20-Aug-09	15.68	13.03	4.57	8.95	4.03	4.63	4.34	4.02	2.73	2.83
16-Sep-09	15.71	13.34	5.23	9.28	4.16	4.90	4.60	4.38	3.15	3.14
20-Oct-09	15.71	12.93	4.23	8.79	4.05	4.65	4.16	3.92	2.40	2.49
27-Nov-09	15.68	12.82	4.06	8.56	3.82	4.26	4.10	3.74	2.49	2.41
29-Mar-10	15.71	11.93	3.94	8.40	3.47	4.04	3.88	3.54	2.30	2.28
30-Apr-10	15.70	12.45	4.05	8.57	3.81	4.25	4.12	3.74	2.27	2.24
25-May-10	15.67	12.37	4.00	8.52	3.82	4.28	4.11	3.73	2.49	2.45
25-Jun-10	15.64	12.24	3.96	8.49	3.87	4.38	4.09	3.78	2.42	2.08
26-Jul-10	15.65	12.95	4.09	8.64	3.81	4.45	4.17	3.87	2.37	2.60
26-Aug-10	15.64	12.98	4.05	8.65	3.90	4.44	3.86	3.20	2.32	2.49
4-Oct-10	15.68	12.06	3.88	8.33	3.24	4.06	3.80	3.50	1.98	2.17
1-Nov-10	15.83	12.91	4.50	8.61	3.87	4.34	3.79	4.14	2.18	2.40
6-Dec-10	15.56	12.51	4.20	8.42	-	-	3.68	3.39	2.12	2.31
6-Jan-11	15.85	12.48	3.82	8.01	3.93	4.16	3.51	3.24	2.21	2.40
9-Feb-11	15.74	12.65	3.94	8.31	3.89	4.12	4.08	3.64	2.00	2.26
25-Feb-11	15.68	-	-	-	3.92	4.20	-	-	-	-
23-Mar-11	15.51	12.59	3.46	7.91	3.85	4.10	3.01	3.26	1.85	1.82
4-May-11	15.64	11.16	3.83	8.15	3.04	3.76	3.48	3.17	2.19	2.05
24-May-11	15.22	11.10	3.66	8.18	2.71	4.01	3.45	3.15	1.87	2.10
27-Jun-11	15.67	12.09	3.88	8.38	3.78	4.17	3.95	3.58	2.25	2.26
26-Jul-11	15.70	13.56	4.36	8.83	4.97	4.94	4.33	3.93	2.84	2.77
30-Aug-11	15.56	13.55	4.57	8.88	4.00	4.62	4.38	4.04	2.86	2.92
22-Sep-11	15.62	13.48	3.95	8.53	3.90	4.45	4.27	3.91	2.69	2.77
26-Oct-11	15.68	12.84	3.89	8.09	3.13	3.85	3.42	3.20	2.07	2.13
29-Nov-11	15.39	10.93	3.63	8.26	2.90	3.76	3.22	3.07	1.85	2.09
11-Jan-12	15.66	13.02	3.87	8.49	3.55	4.00	3.87	3.47	2.04	2.25
27-Feb-12	15.70	12.58	3.93	8.43	3.75	4.06	3.55	3.99	2.20	2.24
8-Mar-12	-	-	3.53	8.56	-	-	-	-	1.82	2.13
15-Mar-12	-	-	3.77	8.05	-	-	-	-	2.01	2.15
21-Mar-12	-	-	3.87	8.24	-	-	-	-	2.14	2.19
29-Mar-12	15.70	12.54	3.87	8.24	3.61	4.02	3.89	3.48	2.20	2.26
25-Apr-12	15.67	12.94	4.02	8.64	3.83	4.19	4.04	3.68	2.22	2.40
28-May-12	15.68	13.26	4.18	8.85	3.85	4.30	4.22	3.78	2.60	2.61
13-Jun-12	15.67	13.29	4.24	8.90	3.92	4.43	4.25	3.86	2.52	2.65
11-Jul-12	15.78	13.64	4.68	9.12	4.40	4.70	4.42	4.06	2.60	2.84
30-Aug-12	15.70	13.34	4.30	8.99	4.06	4.68	4.25	3.99	2.40	2.62
25-Sep-12	15.69	13.33	4.19	8.96	3.99	4.67	4.15	3.94	2.20	2.56
24-Oct-12	15.62	12.83	3.96	8.57	3.45	4.14	3.86	3.57	2.22</td	

Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	15.75	14.10	5.12	9.54	4.20	4.85	4.33	4.10	2.52	2.88
25-Oct-13	-	-	-	-	-	-	3.63	3.50	2.08	2.20
30-Nov-13	-	13.20	3.90	8.68	3.46	3.98	3.79	3.46	2.16	2.19
18-Dec-13	15.69	13.30	4.12	8.82	3.58	4.01	3.94	3.54	2.27	2.33
15-Mar-14	-	++	3.70	8.18	2.92	3.95	3.44	3.30	2.00	2.07
28-Apr-14	15.60	13.10	3.85	8.50	3.25	3.84	3.65	3.29	2.10	2.15
24-May-14	15.70	13.25	3.94	8.95	3.60	4.07	3.90	3.50	2.16	2.30
27-Jun-14	15.69	13.84	4.34	9.01	3.93	4.45	3.87	4.26	2.44	2.70
15-Jul-14	15.69	13.91	4.54	9.21	4.02	4.62	3.93	4.24	2.30	2.67
12-Sep-14	15.69	14.02	5.10	9.44	4.74	5.07	4.38	4.07	2.61	2.88
23-Oct-14	-	-	-	-	-	-	3.91	3.61	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW11s	OW11d	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d
15-Sep-03	6.19	6.11	5.66	5.86	5.95	8.12	5.65	8.74	5.82	9.10
17-Oct-03	5.94	5.55	5.35	5.25	5.13	6.97	4.02	8.29	5.16	4.95
28-Nov-03	5.88	5.35	5.31	5.08	5.10	6.82	3.89	8.15	4.65	4.69
26-Feb-04	6.06	5.50	5.42	5.31	5.22	7.29	4.34	8.53	5.24	5.05
26-Apr-04	6.09	5.46	5.36	5.23	5.12	7.32	4.05	8.43	5.19	4.98
14-May-04	5.95	5.35	5.25	5.10	5.03	6.90	3.95	8.15	4.78	4.77
21-May-04	6.12	5.45	5.33	5.20	5.15	7.15	4.10	8.30	5.10	4.96
28-May-04	3.69	4.19	4.10	4.38	4.83	6.41	3.54	7.77	3.82	3.91
4-Jun-04	5.93	5.36	5.37	5.06	5.12	6.95	4.01	8.16	4.74	4.75
11-Jun-04	6.16	5.56	5.40	5.23	5.22	7.27	4.25	8.31	5.22	5.05
17-Jun-04	6.18	5.61	5.44	5.30	5.27	7.43	4.52	8.40	5.30	5.12
25-Jun-04	6.04	5.62	5.41	5.34	5.23	7.44	4.52	8.40	5.30	5.14
9-Jul-04	6.19	5.69	5.46	5.41	5.38	7.64	4.92	8.56	5.35	5.23
16-Jul-04	5.88	5.60	5.35	5.40	5.09	7.50	4.31	8.44	5.29	5.13
22-Jul-04	6.17	5.57	5.39	5.30	5.22	7.40	4.36	8.37	5.27	5.11
29-Jul-04	6.18	5.68	5.46	5.40	5.33	7.50	4.70	8.54	5.33	5.21
5-Aug-04	6.18	5.68	5.46	5.40	5.33	7.50	4.70	8.54	5.33	5.21
13-Aug-04	6.17	5.81	5.51	5.51	5.58	7.82	5.13	8.69	5.37	5.35
19-Aug-04	6.17	5.28	5.53	5.55	5.64	7.88	5.24	8.75	5.40	5.39
26-Aug-04	6.18	5.92	5.53	5.62	5.68	7.96	5.38	8.84	5.43	5.48
2-Sep-04	6.17	5.93	5.56	5.66	5.73	8.00	5.51	8.91	5.45	5.53
9-Sep-04	6.17	5.95	5.56	5.67	5.77	7.99	5.58	8.92	5.48	5.57
16-Sep-04	6.17	5.99	5.57	5.69	5.84	8.02	5.66	8.96	5.52	5.64
23-Sep-04	6.18	6.11	5.62	5.78	5.94	8.13	5.80	9.09	5.58	5.76
7-Oct-04	6.18	6.24	5.69	5.88	6.18	8.32	6.07	9.22	5.70	5.95
14-Oct-04	6.18	6.22	5.66	5.86	6.19	8.26	6.08	9.16	5.71	5.97
21-Oct-04	6.18	6.07	5.63	5.86	6.06	8.14	5.83	9.19	5.69	5.84
28-Oct-04	6.18	5.95	5.62	5.83	6.11	8.13	5.88	9.15	5.68	5.77
3-Nov-04	6.16	5.86	5.60	5.80	6.65	8.08	5.83	9.15	5.61	5.67
11-Nov-04	6.18	5.75	5.56	5.71	5.90	7.88	5.50	9.06	5.53	5.53
18-Nov-04	6.18	5.73	5.54	5.63	5.84	7.85	5.54	8.96	5.50	5.47
25-Nov-04	6.18	5.73	5.56	5.60	5.79	7.89	5.56	8.97	5.47	5.43
2-Dec-04	5.48	5.39	5.16	5.34	4.96	7.19	4.24	8.52	5.24	5.03
9-Dec-04	4.78	5.01	4.20	4.82	4.68	6.79	3.75	8.19	4.37	4.48
16-Dec-04	5.60	5.13	5.13	5.01	5.06	6.92	3.89	8.16	4.54	4.62
23-Dec-04	6.15	5.44	5.35	5.14	5.18	7.13	4.05	8.29	4.81	4.83
13-Jan-05	5.08	5.07	4.64	4.97	4.69	6.90	3.65	8.14	4.25	4.44
31-Jan-05	6.18	5.42	5.39	5.26	5.25	7.35	4.13	8.42	5.13	5.04
21-Feb-05	5.94	5.32	5.30	5.18	5.09	7.03	3.91	8.34	5.12	4.90
24-Mar-05	6.08	5.41	5.39	5.29	5.23	7.43	4.19	8.56	5.28	5.08
26-Apr-05	5.27	5.20	4.86	5.07	4.83	7.07	3.81	8.26	4.93	4.80
10-May-05	6.13	5.34	5.32	5.16	5.17	7.19	4.06	8.33	5.02	4.94
24-May-05	6.18	5.51	5.40	5.34	5.29	7.62	4.47	8.60	5.30	5.15
1-Jun-05	6.18	5.56	5.42	5.42	5.34	7.77	4.82	8.73	5.33	5.20
10-Jun-05	6.18	5.64	5.46	5.48	5.43	7.88	4.99	8.83	5.35	5.27
17-Jun-05	6.18	5.66	5.48	5.51	5.47	7.87	5.06	8.89	5.37	5.29
24-Jun-05	6.18	5.66	5.47	5.55	5.54	7.96	5.17	8.95	5.38	5.32
30-Jun-05	6.18	5.69	5.48	5.59	5.58	8.02	5.24	8.97	5.40	5.39
8-Jul-05	6.19	5.82	5.53	5.67	5.68	8.12	5.45	9.12	5.43	5.53
15-Jul-05	6.19	5.91	5.57	5.73	5.76	8.16	5.59	9.16	5.48	5.66
22-Jul-05	6.19	6.00	5.62	5.81	5.84	8.18	5.72	9.25	5.54	5.84
28-Jul-05	6.18	6.08	5.64	5.88	5.92	8.25	5.87	9.31	5.58	5.91
4-Aug-05	6.19	6.10	5.64	5.88	6.00	8.29	5.91	9.30	5.63	5.96
12-Aug-05	6.19	6.10	5.64	5.93	6.07	8.32	5.98	9.34	5.69	6.00
18-Aug-05	6.18	6.15	5.67	6.01	6.16	8.37	6.07	9.43	5.72	6.05
26-Aug-05	6.19	6.02	5.66	5.99	6.19	8.32	6.04	9.41	5.75	6.00
2-Sep-05	6.18	6.00	5.69	6.02	6.26	8.40	6.10	9.50	5.77	6.01
9-Sep-05	6.18	6.00	5.72	6.04	6.32	8.39	6.19	9.46	5.80	6.07
15-Sep-05	6.18	6.06	5.77	6.09	6.38	8.44	6.30	9.55	5.84	6.14
23-Sep-05	6.18	6.13	5.81	6.18	6.46	8.52	6.41	9.52	5.89	6.22
30-Sep-05	6.19	5.98	5.75	6.12	6.30	8.31	6.14	9.46	5.87	6.07
7-Oct-05	6.19	5.83	5.71	6.06	6.30	8.33	6.18	9.50	5.87	5.99
14-Oct-05	6.19	5.79	5.68	6.04	6.34	8.38	6.24	9.49	5.86	5.96
21-Oct-05	6.20	5.82	5.69	6.05	6.40	8.42	6.37	9.56	5.85	5.93
28-Oct-05	6.19	5.84	5.70	6.07	6.41	8.44	6.40	9.57	5.86	5.92
4-Nov-05	6.19	5.72	5.65	5.97	6.32	8.30	6.27	9.48	5.78	5.77
11-Nov-05	6.17	5.51	5.49	5.68	5.30	7.50	5.03	9.03	5.44	5.33
2-Dec-05	4.73	4.58	4.28	4.65	4.89	6.62	3.57	8.11	4.05	4.22
21-Apr-06	6.02	5.25	5.26	5.15	5.11	7.03	3.84	8.52	4.88	4.82

Location	OW11s	OW11d	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d
6-Nov-06	-	-	-	-	-	-	3.87	8.47	-	-
10-Nov-06	5.47	5.15	4.68	4.97	4.96	6.85	3.79	8.42	4.49	4.60
14-Nov-06	-	-	-	-	-	-	3.79	8.38	-	-
17-Nov-06	5.43	5.16	4.90	5.04	4.94	6.88	3.75	8.44	4.53	4.50
24-Nov-06	5.89	5.25	5.27	5.15	5.12	7.00	3.91	8.50	4.74	4.77
1-Dec-06	5.33	5.18	5.04	5.11	4.87	7.02	3.72	8.43	4.90	4.72
15-Dec-06	4.44	4.67	3.90	4.50	4.66	6.47	3.52	8.21	3.84	4.07
26-Jan-07	6.14	5.40	5.33	5.27	5.20	7.25	4.07	8.65	5.24	5.00
9-Apr-07	5.58	5.10	4.84	4.92	5.05	6.86	3.78	8.44	4.44	4.55
21-Jun-07	6.18	5.59	5.42	5.45	5.36	7.69	4.69	8.88	5.33	5.20
27-Jul-07	6.19	5.87	5.51	5.74	5.80	8.08	5.64	9.16	5.44	5.59
22-Aug-07	6.18	6.19	5.70	6.01	6.16	8.45	6.08	9.48	5.66	6.05
31-Aug-07	6.19	6.16	5.73	6.06	6.26	8.42	6.19	9.52	5.73	6.11
26-Sep-07	6.19	6.16	5.83	6.18	6.46	8.51	6.47	9.64	5.87	6.24
19-Oct-07	6.18	6.10	5.83	6.22	6.52	8.55	6.55	9.79	5.94	6.24
17-Nov-07	6.18	5.78	5.67	5.99	6.18	8.30	5.92	9.56	5.60	5.68
20-Dec-07	6.18	5.53	5.45	5.47	5.36	7.60	4.58	8.92	5.28	5.13
7-Mar-08	5.31	5.16	5.12	5.14	5.08	7.06	3.77	8.56	4.84	4.78
3-Jun-08	6.11	5.50	5.30	5.35	5.27	7.55	4.18	8.74	5.28	5.07
29-Jul-08	6.18	5.69	5.40	5.50	5.63	7.90	5.09	9.01	5.37	5.36
18-Aug-08	6.18	5.68	5.40	5.62	5.58	7.83	5.12	9.06	5.40	5.40
23-Sep-08	6.18	5.65	5.37	5.60	5.42	7.67	4.78	9.03	5.39	5.32
29-Oct-08	6.10	5.57	5.37	5.55	5.32	7.64	4.44	9.02	5.34	5.19
26-Nov-08	6.06	5.34	5.17	5.13	5.09	7.08	3.82	8.57	4.77	4.81
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	5.92	5.90	5.21	5.10	5.04	6.95	3.87	8.42	4.67	4.73
20-Jan-09	6.20	5.46	5.30	5.30	5.26	7.40	4.15	8.58	5.27	5.05
24-Mar-09	5.61	5.11	4.84	4.95	5.02	6.95	3.82	8.51	4.46	4.57
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	5.17	5.01	4.93	5.03	5.04	7.00	3.80	8.54	4.58	4.64
6-Jun-09	6.17	5.57	5.29	5.41	5.31	7.68	4.51	8.89	5.32	5.15
12-Jun-09	6.16	5.55	-	-	-	-	-	-	-	-
8-Jul-09	6.16	5.55	5.29	5.40	5.27	7.51	4.30	8.90	5.32	5.11
20-Aug-09	6.17	5.75	5.36	5.68	5.70	8.03	4.34	9.22	5.41	5.47
16-Sep-09	6.16	6.04	5.53	5.89	5.96	8.28	5.72	9.46	5.55	5.83
20-Oct-09	6.16	5.63	5.48	5.73	6.00	8.22	5.53	9.34	5.43	5.38
27-Nov-09	6.16	5.51	5.38	5.36	5.32	7.67	4.30	8.88	5.30	5.11
29-Mar-10	6.12	5.38	5.30	5.23	5.19	7.23	3.96	8.75	4.91	4.90
30-Apr-10	6.16	5.53	5.30	5.23	5.19	7.23	3.96	8.75	4.91	4.90
25-May-10	6.17	5.52	5.33	5.38	5.24	7.68	4.32	8.91	5.29	5.12
25-Jun-10	6.14	5.54	5.37	5.46	5.27	7.59	4.26	8.93	5.32	5.16
26-Jul-10	6.18	5.67	5.41	5.48	5.36	7.61	4.65	8.98	5.54	5.23
26-Aug-10	6.18	5.65	5.43	5.51	5.40	7.69	4.75	9.08	5.36	5.25
4-Oct-10	5.85	5.37	4.41	4.92	5.10	7.50	3.90	8.68	4.64	4.72
1-Nov-10	6.18	5.68	5.42	5.45	6.41	7.78	4.69	9.04	5.32	5.14
6-Dec-10	4.79	4.29	-	-	5.64	7.19	4.05	8.72	-	-
6-Jan-11	5.42	4.97	5.49	5.42	6.11	6.73	4.26	8.91	5.44	5.21
9-Feb-11	6.10	5.12	5.54	5.45	6.16	7.43	4.33	9.05	5.28	5.08
25-Feb-11	-	-	-	-	6.23	7.04	-	-	-	-
23-Mar-11	5.34	4.90	5.48	5.39	5.92	6.62	4.12	8.24	3.26	3.01
4-May-11	5.42	4.93	4.74	4.88	4.99	6.81	3.70	8.50	4.43	4.54
24-May-11	5.03	4.68	4.17	4.92	4.66	6.99	3.70	8.47	4.30	4.47
27-Jun-11	6.06	5.39	5.24	5.29	5.05	7.22	3.98	8.81	5.01	5.23
26-Jul-11	6.16	5.73	5.39	5.55	5.47	7.77	5.72	9.06	5.34	5.36
30-Aug-11	6.16	5.80	5.42	5.67	6.34	7.90	5.27	9.08	5.40	5.46
22-Sep-11	5.70	5.16	5.37	5.52	5.21	7.43	4.30	8.73	5.28	5.36
26-Oct-11	5.52	4.99	4.92	4.99	5.30	7.02	3.97	8.40	4.52	4.61
29-Nov-11	4.96	4.66	3.91	4.65	4.72	6.74	3.56	8.51	3.92	4.15
11-Jan-12	5.43	5.27	5.14	5.18	5.07	6.82	3.93	8.68	4.89	5.04
27-Feb-12	5.55	5.38	5.24	5.20	5.11	7.13	4.01	8.71	4.99	5.24
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	5.72	5.25	5.21	5.25	5.12	7.17	4.84	8.72	4.93	5.08
25-Apr-12	6.09	5.53	5.29	5.32	5.18	7.54	4.28	8.95	5.05	5.27
28-May-12	6.16	5.58	5.32	5.39	5.28	7.58	4.67	8.88	5.17	5.32
13-Jun-12	6.17	5.67	5.38	5.50	5.31	7.60	4.69	8.91	5.26	5.34
11-Jul-12	6.17	5.81	5.51	5.77	5.42	7.77	4.81	9.01	5.42	5.53
30-Aug-12	6.17	5.76	5.43	5.70	5.48	7.76	5.35	9.22	5.47	5.50
25-Sep-12	6.16	5.73	5.40	5.67	5.38	7.64	5.26	9.19	5.40	5.42
24-Oct-12	5.84	5.37	5.12	5.17	5.13	7.12	4.03	8.78	4.87	4.88
27-Nov-12	5.26	5.24	5.08	5.16	5.25	7.18	4.12	8.92	4.91	4.93
19-Dec-12	5.98	5.32	5.20	5.15	4.97	6.98				

Location	OW11s	OW11d	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	6.16	5.80	5.55	5.87	6.00	7.98	5.70	9.30	5.57	5.73
25-Oct-13	5.14	5.08	-	-	-	-	-	-	-	-
30-Nov-13	5.71	5.24	5.15	5.25	5.07	6.92	3.95	8.52	4.87	4.92
18-Dec-13	6.15	5.38	5.35	5.47	5.19	7.12	4.11	8.68	4.91	5.01
15-Mar-14	5.11	5.10	4.40	4.84	4.70	6.63	3.60	8.21	4.30	4.44
28-Apr-14	5.54	5.14	5.03	5.05	4.99	6.82	3.83	8.51	4.67	4.68
24-May-14	6.12	5.48	5.14	5.18	-	-	3.99	8.66	4.93	5.10
27-Jun-14	6.17	5.71	5.42	5.51	5.42	7.63	5.00	9.05	5.29	5.35
15-Jul-14	6.17	5.68	5.53	5.60	5.66	7.67	5.16	9.07	5.40	5.41
12-Sep-14	6.17	5.74	5.73	5.88	5.72	7.81	5.40	9.15	5.46	5.67
23-Oct-14	5.83	5.39	-	-	-	-	-	-	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW16s	OW16d	OW24	OW25s	OW25d	OW26	OW27s	OW27d	OW28s	OW28d
15-Sep-03	4.90	4.86	-	-	-	-	-	-	-	-
17-Oct-03	3.55	3.57	-	-	-	-	-	-	-	-
28-Nov-03	3.44	3.41	-	-	-	-	-	-	-	-
26-Feb-04	4.17	4.23	-	-	-	-	-	-	-	-
26-Apr-04	2.79	4.38	-	-	-	-	-	-	-	-
14-May-04	3.75	4.13	-	-	-	-	-	-	-	-
21-May-04	3.95	3.97	-	-	-	-	-	-	-	-
28-May-04	3.55	3.53	-	-	-	-	-	-	-	-
4-Jun-04	3.75	3.81	-	-	-	-	-	-	-	-
11-Jun-04	3.95	4.08	-	-	-	-	-	-	-	-
17-Jun-04	4.00	4.21	-	-	-	-	-	-	-	-
25-Jun-04	3.92	3.94	-	-	-	-	-	-	-	-
9-Jul-04	4.30	4.45	-	-	-	-	-	-	-	-
16-Jul-04	3.78	3.81	-	-	-	-	-	-	-	-
22-Jul-04	3.99	4.03	-	-	-	-	-	-	-	-
29-Jul-04	4.29	4.34	-	-	-	-	-	-	-	-
5-Aug-04	4.29	4.34	-	-	-	-	-	-	-	-
13-Aug-04	4.58	4.58	-	-	-	-	-	-	-	-
19-Aug-04	4.83	4.95	-	-	-	-	-	-	-	-
26-Aug-04	5.04	5.06	-	-	-	-	-	-	-	-
2-Sep-04	4.99	5.09	-	-	-	-	-	-	-	-
9-Sep-04	4.99	5.01	-	-	-	-	-	-	-	-
16-Sep-04	5.24	5.29	-	-	-	-	-	-	-	-
23-Sep-04	5.45	5.43	-	-	-	-	-	-	-	-
7-Oct-04	5.67	5.62	-	-	-	-	-	-	-	-
14-Oct-04	5.64	5.59	-	-	-	-	-	-	-	-
21-Oct-04	4.74	4.76	-	-	-	-	-	-	-	-
28-Oct-04	4.83	4.88	-	-	-	-	-	-	-	-
3-Nov-04	4.65	4.87	-	-	-	-	-	-	-	-
11-Nov-04	4.51	4.86	-	-	-	-	-	-	-	-
18-Nov-04	4.72	4.79	-	-	-	-	-	-	-	-
25-Nov-04	4.81	4.95	-	-	-	-	-	-	-	-
2-Dec-04	3.96	4.36	-	-	-	-	-	-	-	-
9-Dec-04	3.63	4.37	-	-	-	-	-	-	-	-
16-Dec-04	3.76	4.17	-	-	-	-	-	-	-	-
23-Dec-04	3.88	4.64	-	-	-	-	-	-	-	-
13-Jan-05	3.29	-	-	-	-	-	-	-	-	-
31-Jan-05	3.93	5.31	-	-	-	-	-	-	-	-
21-Feb-05	3.71	5.17	-	-	-	-	-	-	-	-
24-Mar-05	3.95	5.76	-	-	-	-	-	-	-	-
26-Apr-05	3.56	6.47	-	-	-	-	-	-	-	-
10-May-05	3.79	7.25	-	-	-	-	-	-	-	-
24-May-05	3.86	9.03	-	-	-	-	-	-	-	-
1-Jun-05	3.93	10.07	-	-	-	-	-	-	-	-
10-Jun-05	4.05	10.30	-	-	-	-	-	-	-	-
17-Jun-05	3.75	10.00	-	-	-	-	-	-	-	-
24-Jun-05	3.97	10.00	-	-	-	-	-	-	-	-
30-Jun-05	4.18	10.12	-	-	-	-	-	-	-	-
8-Jul-05	4.43	10.27	-	-	-	-	-	-	-	-
15-Jul-05	4.64	10.39	-	-	-	-	-	-	-	-
22-Jul-05	4.86	10.45	-	-	-	-	-	-	-	-
28-Jul-05	4.98	10.40	-	-	-	-	-	-	-	-
4-Aug-05	4.40	9.88	-	-	-	-	-	-	-	-
12-Aug-05	4.46	9.84	-	-	-	-	-	-	-	-
18-Aug-05	4.72	10.17	-	-	-	-	-	-	-	-
26-Aug-05	4.21	9.73	-	-	-	-	-	-	-	-
2-Sep-05	4.28	9.93	-	-	-	-	-	-	-	-
9-Sep-05	4.56	10.30	-	-	-	-	-	-	-	-
15-Sep-05	4.67	10.45	-	-	-	-	-	-	-	-
23-Sep-05	4.88	10.75	-	-	-	-	-	-	-	-
30-Sep-05	3.87	9.82	-	-	-	-	-	-	-	-
7-Oct-05	3.97	10.00	-	-	-	-	-	-	-	-
14-Oct-05	4.28	10.38	-	-	-	-	-	-	-	-
21-Oct-05	4.46	10.06	-	-	-	-	-	-	-	-
28-Oct-05	4.42	10.85	-	-	-	-	-	-	-	-
4-Nov-05	4.03	10.63	-	-	-	-	-	-	-	-
11-Nov-05	3.50	10.08	-	-	-	-	-	-	-	-
2-Dec-05	3.15	10.07	-	-	-	-	-	-	-	-
21-Apr-06	3.26	11.01	-	-	-	-	-	-	-	-
15-Aug-06	3.96	12.51	-	-	-	-	-	-	9.25	13.60
14-Sep-06	4.38	13.33	-	-	-	-	-	-	9.32	13.67
28-Sep-06	-	-	-	-	-	-	-	-	9.32	13.67
5-Oct-06	5.38	9.41	-	-	-	-	-	-	9.32	13.54
6-Oct-06	5.42	9.44	1.10	4.70	-	4.17	-	-	9.35	13.66
10-Oct-06	-	-	1.02	4.71	4.03	3.95	-	-	-	-
17-Oct-06	4.80	8.25	0.83	4.55	4.18	6.77	4.71	4.56	9.22	11.84
20-Oct-06	4.75	7.79	0.80	4.15	4.46	-	4.30	4.43	9.23	12.17
27-Oct-06	4.82	7.23	0.66	4.31	4.05	3.04	3.95	4.04	9.18	10.55
3-Nov-06	4.86	7.36	0.56	4.25	3.97	2.71	3.68	3.85	9.19	10.90

Location	OW16s	OW16d	OW24	OW25s	OW25d	OW26	OW27s	OW27d	OW28s	OW28d
6-Nov-06	4.75	7.15	-	-	-	-	-	-	-	-
10-Nov-06	4.76	7.40	-	-	-	-	-	-	-	-
14-Nov-06	4.74	7.53	-	-	-	-	-	-	9.13	9.54
17-Nov-06	4.67	7.56	0.42	4.14	3.87	2.45	3.44	3.70	8.98	8.75
24-Nov-06	4.79	7.94	0.43	4.21	3.90	2.49	3.52	3.71	9.20	10.85
1-Dec-06	4.69	7.51	0.27	4.15	3.85	-	3.41	3.65	8.96	8.71
15-Dec-06	4.56	7.70	Submerged	3.83	3.70	2.14	3.16	3.55	7.73	7.44
26-Jan-07	4.84	8.92	0.41	4.24	3.92	2.83	3.65	3.74	9.20	12.20
9-Apr-07	4.63	9.07	Submerged	4.05	3.78	2.33	3.37	3.58	9.07	9.08
21-Jun-07	4.55	11.17	0.64	4.38	4.03	3.22	4.26	4.13	9.23	13.15
27-Jul-07	7.02	8.61	0.90	4.61	4.26	3.98	5.12	4.64	9.26	13.61
22-Aug-07	6.35	14.89	1.16	4.87	4.51	4.53	5.75	5.10	9.36	13.68
31-Aug-07	8.12	15.36	1.12	4.79	4.45	4.60	5.71	5.14	9.38	13.67
26-Sep-07	-	-	1.19	4.87	4.53	4.75	5.85	5.25	9.37	13.69
19-Oct-07	-	-	1.12	4.83	4.50	4.70	5.75	5.19	9.27	13.66
17-Nov-07	-	-	0.95	4.68	4.36	4.16	5.09	4.75	9.25	13.56
20-Dec-07	-	-	0.71	4.48	4.18	3.24	4.34	4.11	9.23	12.97
7-Mar-08	-	-	0.33	4.14	3.84	2.45	3.53	3.72	8.95	9.55
3-Jun-08	-	-	0.46	4.23	3.90	2.85	3.80	3.88	9.15	12.66
29-Jul-08	-	-	0.68	4.40	4.06	3.63	4.62	4.32	-	13.47
18-Aug-08	-	-	0.68	4.40	4.07	3.71	4.75	4.34	9.22	13.39
23-Sep-08	-	-	0.67	4.37	4.06	3.63	4.60	4.30	9.25	13.18
29-Oct-08	-	-	0.59	4.32	4.02	3.46	4.30	4.14	9.23	12.12
26-Nov-08	-	-	0.34	4.16	3.87	2.46	3.60	3.70	9.11	10.28
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	0.29	4.16	3.86	2.11	3.37	3.43	9.15	9.53
20-Jan-09	-	-	0.37	4.21	3.91	2.60	3.69	3.74	9.21	12.55
24-Mar-09	-	-	0.26	4.05	3.79	2.23	3.40	3.60	9.10	9.86
8-Apr-09	-	-	0.20	4.05	3.77	2.29	3.41	3.63	8.94	8.75
15-Apr-09	-	-	0.28	4.05	3.77	2.29	3.41	3.63	9.14	9.47
6-Jun-09	-	-	0.50	4.27	3.97	2.98	3.91	3.95	9.25	12.97
12-Jun-09	-	-	1.62	-	-	-	-	-	-	-
8-Jul-09	-	-	1.63	4.26	3.97	3.00	3.89	3.93	9.21	11.76
20-Aug-09	-	-	1.79	4.41	4.10	3.78	4.38	4.81	9.25	13.55
16-Sep-09	-	-	2.07	4.60	4.29	4.18	5.25	5.67	9.42	13.65
20-Oct-09	-	-	1.88	4.43	4.14	3.67	4.63	4.27	9.23	13.55
27-Nov-09	-	-	1.70	4.30	4.03	2.89	3.86	3.88	9.23	13.12
29-Mar-10	-	-	1.51	4.17	3.93	2.59	3.59	3.72	9.16	12.23
30-Apr-10	-	-	1.63	4.17	3.93	2.59	3.86	3.92	9.17	13.02
25-May-10	-	-	1.67	4.27	4.01	3.01	3.92	3.98	9.18	13.20
25-Jun-10	-	-	1.69	4.28	4.00	3.23	3.90	3.93	9.20	12.84
26-Jul-10	-	-	1.71	4.30	4.02	3.39	3.92	3.94	9.21	13.11
26-Aug-10	-	-	1.75	4.33	4.05	3.33	4.40	4.21	9.24	13.28
4-Oct-10	-	-	1.52	4.15	3.88	2.62	3.81	3.59	9.16	10.52
1-Nov-10	-	-	1.59	4.25	3.96	3.47	3.86	3.93	9.26	13.25
6-Dec-10	-	-	1.48	4.16	3.81	-	3.45	3.52	8.84	10.34
6-Jan-11	-	-	1.31	4.62	3.83	3.56	3.39	3.57	9.14	11.02
9-Feb-11	-	-	1.54	4.64	3.97	3.60	3.54	3.71	9.25	11.17
25-Feb-11	-	-	-	5.03	3.88	-	-	-	-	-
23-Mar-11	-	-	1.36	4.56	3.74	3.41	3.21	3.51	9.10	10.98
4-May-11	-	-	1.27	3.97	3.78	2.38	3.35	3.59	8.99	9.35
24-May-11	-	-	1.35	4.17	3.87	2.61	3.40	3.65	8.04	7.92
27-Jun-11	-	-	1.56	4.13	3.89	2.96	3.73	3.86	9.13	11.61
26-Jul-11	-	-	1.70	4.33	4.06	3.48	4.50	4.26	9.23	13.38
30-Aug-11	-	-	1.84	4.36	4.08	3.72	4.37	4.76	9.31	13.50
22-Sep-11	-	-	1.66	4.31	4.03	3.48	4.22	4.53	9.07	11.87
26-Oct-11	-	-	1.41	4.01	3.79	2.35	3.27	3.57	8.65	11.54
29-Nov-11	-	-	1.43	3.82	3.70	2.53	3.32	3.65	7.48	7.62
11-Jan-12	-	-	++	4.11	3.86	2.54	3.56	3.66	8.86	11.30
27-Feb-12	-	-	1.53	4.18	3.92	2.75	3.68	3.79	9.05	12.28
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	-	-	1.38	4.19	3.95	2.63	3.61	3.69	8.87	12.36
25-Apr-12	-	-	1.60	4.18	3.93	2.98	3.81	3.85	9.12	12.96
28-May-12	-	-	1.71	4.34	4.08	3.13	4.08	3.99	9.16	13.24
13-Jun-12	-	-	1.80	4.38	4.11	3.38	4.12	4.29	9.23	13.27
11-Jul-12	-	-	2.25	4.50	4.22	3.92	4.51	4.94	9.32	13.31
30-Aug-12	-	-	1.96	4.49	4.23	3.90	4.45	4.92	9.30	13.50
25-Sep-12	-	-	1.90	4.33	4.18	3.87	4.39	4.77	9.22	13.07
24-Oct-12	-	-	1.55	4.19	3.97	3.79	3.77	3.83	8.98	12.17
27-Nov-12	-	-	1.56	4.17	3.92	3.72	3.66	3.73	8.87	12.11
19-Dec-12	-	-	1.52	4.11	3.88	2.46	3.47	3.62	8.18	10.04
28-Jan-13	-	-	1.40	4.12	3.88	2.54	3.59	3.63	8.81	11.87
27-Feb-13	-	-	++	4.09	3.85	2.58	3.55	3.65	8.51	11.00
26-Mar-13	-	-	1.49	4.09	3.86	2.58	3.50	3.67	8.81	11.36
23-Apr-13	-	-	1.40	3.85						

Location	OW16s	OW16d	OW24	OW25s	OW25d	OW26	OW27s	OW27d	OW28s	OW28d
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	-	-	2.00	4.47	4.20	4.19	4.68	5.20	9.59	13.60
25-Oct-13	-	-	1.68	-	-	-	3.83	3.98	-	-
30-Nov-13	-	-	1.52	4.11	3.88	2.50	3.50	3.65	8.20	11.08
18-Dec-13	-	-	++	4.26	3.97	2.78	3.72	3.79	8.58	11.23
15-Mar-14	-	-	1.45	3.72	3.88	2.51	3.36	3.67	6.72	8.00
28-Apr-14	-	-	1.43	3.80	4.03	2.56	3.41	3.57	7.83	10.22
24-May-14	-	-	1.55	3.87	4.12	-	-	-	-	-
27-Jun-14	-	-	1.78	4.03	4.31	2.62	4.10	4.24	9.17	13.38
15-Jul-14	-	-	1.88	4.09	4.36	2.80	4.34	4.73	9.23	13.39
12-Sep-14	-	-	1.88	4.10	4.37	3.01	4.38	4.75	9.48	13.60
23-Oct-14	-	-	1.61	4.15	3.90	-	3.68	3.83	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d	OW32s	OW32d	OW33s	OW33d
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d	OW32s	OW32d	OW33s	OW33d
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	5.04	5.22	-	-	-	-	-	-	-	-
31-Aug-07	4.48	4.73	5.59	11.83	-	-	-	-	-	-
26-Sep-07	4.85	4.69	5.98	12.28	-	-	-	-	-	-
19-Oct-07	4.46	4.62	6.04	12.45	6.19	10.94	6.19	11.34	6.21	10.73
17-Nov-07	3.78	3.96	5.59	12.39	5.88	10.69	5.89	11.11	5.86	10.54
20-Dec-07	3.65	3.79	4.44	12.18	5.43	9.87	5.49	10.46	5.60	9.92
7-Mar-08	3.53	3.65	4.08	11.83	4.59	8.62	4.57	9.28	4.78	8.60
3-Jun-08	3.72	3.91	4.23	12.06	5.45	9.80	5.55	10.34	5.58	9.74
29-Jul-08	4.10	4.26	4.90	11.87	5.89	10.35	5.81	10.80	6.03	10.19
18-Aug-08	4.00	4.20	4.88	12.02	5.77	10.18	5.80	10.67	5.86	10.05
23-Sep-08	4.10	4.35	4.69	11.95	5.63	9.98	5.68	10.46	5.70	9.87
29-Oct-08	3.62	3.79	4.66	11.99	5.26	9.58	5.28	10.28	5.54	9.45
26-Nov-08	3.61	3.75	4.27	11.66	4.81	8.84	4.84	9.47	4.94	9.80
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	3.58	3.69	4.20	11.33	4.71	8.40	4.72	8.93	4.73	8.40
20-Jan-09	3.84	3.95	4.44	11.42	5.55	9.59	5.63	10.04	5.68	9.54
24-Mar-09	3.56	3.69	4.28	11.63	4.66	8.57	4.71	9.16	4.60	8.57
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	3.52	3.65	4.28	11.55	4.64	8.61	4.67	9.15	4.65	8.61
6-Jun-09	3.85	4.00	4.50	11.78	5.71	10.00	5.79	10.43	5.83	9.96
12-Jun-09	-	-	-	-	-	-	-	-	-	-
8-Jul-09	3.80	3.95	4.38	11.72	5.57	9.92	5.67	10.32	5.67	10.87
20-Aug-09	4.44	4.59	5.07	12.06	6.03	10.53	6.04	10.90	6.07	10.40
16-Sep-09	4.79	4.91	5.73	12.28	6.21	10.82	6.19	11.16	6.20	10.69
20-Oct-09	3.93	4.13	4.75	11.92	5.94	10.62	5.95	11.00	5.90	10.46
27-Nov-09	3.97	4.08	4.39	11.77	5.58	10.19	5.63	10.64	5.78	10.09
29-Mar-10	3.62	3.77	4.25	11.61	5.33	9.24	5.42	9.71	5.43	9.19
30-Apr-10	4.05	4.18	4.38	11.72	5.51	10.26	5.61	10.58	5.17	10.14
25-May-10	3.91	4.02	4.35	11.74	5.50	10.35	5.61	10.67	5.63	10.21
25-Jun-10	3.70	3.87	4.33	11.81	5.46	10.01	5.54	10.44	5.59	9.88
26-Jul-10	3.71	3.89	4.36	11.79	5.51	10.02	5.58	10.43	5.57	9.82
26-Aug-10	3.98	3.89	4.47	12.00	5.72	10.29	5.73	10.62	5.83	10.60
4-Oct-10	3.57	3.67	4.20	11.63	5.05	9.92	5.14	9.40	5.80	9.85
1-Nov-10	3.73	3.88	4.42	11.90	4.88	9.72	5.76	10.70	5.94	10.12
6-Dec-10	3.31	3.02	4.31	11.72	4.22	9.68	5.42	10.28	5.78	9.20
6-Jan-11	3.52	3.61	4.26	11.48	4.50	9.41	4.38	8.83	4.25	8.31
9-Feb-11	3.55	3.68	4.38	11.91	4.26	9.88	5.56	10.20	5.60	9.68
25-Feb-11	-	-	-	-	4.32	8.70	5.08	9.20	5.11	8.76
23-Mar-11	3.39	3.15	3.99	10.98	3.29	8.24	4.16	8.62	3.83	8.16
4-May-11	3.54	3.65	4.19	11.32	4.53	8.50	4.50	8.90	4.47	8.44
24-May-11	3.34	3.45	4.02	11.33	4.28	8.76	3.95	9.47	3.81	8.81
27-Jun-11	3.63	3.79	4.22	11.62	5.18	9.39	5.30	9.80	5.38	9.26
26-Jul-11	4.51	4.60	4.69	11.93	5.89	10.39	5.92	10.64	5.99	10.20
30-Aug-11	4.70	4.80	4.68	11.62	5.94	10.50	5.94	10.71	6.01	10.29
22-Sep-11	4.32	4.44	4.27	11.38	5.30	9.61	5.29	9.99	5.56	9.44
26-Oct-11	3.60	3.72	4.19	10.94	5.26	8.96	5.33	9.27	5.30	8.90
29-Nov-11	3.35	3.47	3.95	11.96	3.98	8.58	3.84	9.01	3.57	8.93
11-Jan-12	3.61	3.73	4.19	11.79	5.14	9.08	5.22	9.43	5.22	8.95
27-Feb-12	3.69	3.83	4.13	11.78	5.38	9.70	5.48	9.99	5.60	9.49
8-Mar-12	3.20	3.38	-	-	-	-	-	-	-	-
15-Mar-12	3.52	3.64	-	-	-	-	-	-	-	-
21-Mar-12	3.61	3.74	-	-	-	-	-	-	-	-
29-Mar-12	3.61	3.74	4.20	11.87	5.40	9.58	5.51	9.82	5.54	9.44
25-Apr-12	3.89	4.02	4.30	12.01	5.50	10.27	5.62	10.51	5.80	10.03
28-May-12	4.15	4.43	4.55	12.57	5.71	10.35	5.77	10.65	5.89	10.19
13-Jun-12	4.13	4.25	4.59	12.24	5.81	10.41	5.85	10.68	5.96	10.23
11-Jul-12	4.38	4.58	4.64	12.66	6.01	10.62	6.00	10.87	6.09	10.42
30-Aug-12	4.05	4.20	4.64	12.25	5.78	10.49	5.77	10.75	5.87	10.25
25-Sep-12	3.86	4.02	4.52	12.20	5.54	10.18	5.52	10.48	5.56	9.88
24-Oct-12	3.72	3.82	4.27	11.98	5.26	9.43	5.31	9.75	5.25	9.24
27-Nov-12	3.81	3.93	4.28	11.97	5.22	9.38	5.44	9.84	5.59	9.58
19-Dec-12	3.55	3.69	4.12	11.94	4.60	9.12	4.56	9.51	4.90	8.92
28-Jan-13	3.64	3.76	4.16	11.65	4.59	9.09	5.34	9.56	5.39	9.10
27-Feb-13	3.58	3.70	4.15	11.76	4.88	8.92	4.94	9.24	5.04	8.82
26-Mar-13	3.59	3.70								

Location	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d	OW32s	OW32d	OW33s	OW33d
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	4.68	4.82	5.54	12.65	5.97	10.77	5.95	10.97	7.21	10.57
25-Oct-13	3.50	3.64	-	-	-	-	-	-	3.06	8.48
30-Nov-13	3.67	3.81	4.30	12.21	4.95	9.02	4.98	5.85	5.10	8.60
18-Dec-13	4.26	3.92	4.36	12.20	5.02	9.13	5.22	9.74	5.32	8.78
15-Mar-14	3.40	3.52	4.04	11.34	4.05	8.41	3.87	8.91	3.57	7.94
28-Apr-14	3.55	3.68	4.23	12.04	4.72	8.79	4.74	9.22	4.77	8.38
24-May-14	-	-	4.31	12.15	5.27	9.23	-	-	-	-
27-Jun-14	4.12	4.26	4.74	12.41	5.83	10.35	5.87	10.65	5.99	9.95
15-Jul-14	4.03	4.18	4.95	12.52	5.75	10.42	5.74	10.72	5.85	10.04
12-Sep-14	-	-	4.97	12.55	6.01	10.68	5.99	10.99	6.10	10.39
23-Oct-14	-	-	-	-	-	-	-	-	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s	OW41d	OW42s
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s	OW41d	OW42s
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-
26-Nov-08	14.89	15.06	15.67	16.65	11.90	9.25	7.99	4.50	5.63	3.36
18-Dec-08	15.01	15.07	15.65	16.13	11.44	9.19	7.82	4.41	5.54	1.49
6-Jan-09	14.38	14.63	15.27	16.14	11.23	9.14	7.73	4.40	5.63	-
20-Jan-09	14.21	14.49	15.15	16.40	11.95	9.38	7.87	4.61	5.86	3.65
24-Mar-09	15.10	15.13	15.65	16.33	11.54	9.01	7.70	4.46	5.71	3.30
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	15.04	15.12	15.64	16.24	11.52	8.92	7.64	4.49	5.75	3.35
6-Jun-09	15.10	15.15	15.67	16.76	12.45	9.09	7.85	4.65	6.05	3.92
12-Jun-09	-	-	-	-	-	-	-	-	-	-
8-Jul-09	15.00	15.11	15.65	16.79	12.39	8.99	7.77	4.63	5.99	-
20-Aug-09	15.03	15.13	15.69	17.00	12.74	9.34	8.17	4.75	6.32	4.36
16-Sep-09	15.02	15.15	15.77	17.02	12.88	9.70	8.57	4.99	6.54	4.55
20-Oct-09	14.87	15.09	15.70	16.94	12.74	9.12	7.99	5.03	6.48	4.31
27-Nov-09	14.88	15.08	15.67	16.89	12.56	8.90	7.73	4.61	6.05	3.73
29-Mar-10	14.86	15.08	15.62	16.32	11.86	8.73	7.58	4.55	5.90	3.48
30-Apr-10	14.90	15.09	15.63	16.54	12.44	8.81	7.71	4.60	6.06	3.80
25-May-10	14.98	15.13	15.66	16.60	12.50	8.78	7.68	4.63	6.08	3.88
25-Jun-10	15.14	15.19	15.69	16.72	12.44	8.68	7.62	4.63	6.11	3.86
26-Jul-10	14.72	14.97	15.57	16.68	12.37	8.73	7.67	4.76	6.21	4.04
26-Aug-10	15.20	15.24	15.76	16.87	12.61	8.75	7.72	4.78	6.24	4.00
4-Oct-10	14.71	14.96	15.59	16.30	11.62	8.50	7.45	5.68	6.92	3.91
1-Nov-10	15.12	15.23	15.77	16.76	12.65	8.75	7.71	5.76	7.08	3.62
6-Dec-10	14.54	14.79	15.12	16.32	11.32	8.28	7.62	-	-	-
6-Jan-11	-	14.92	15.28	16.64	11.01	8.42	7.75	6.12	7.40	3.65
9-Feb-11	-	15.05	15.35	16.20	11.12	8.54	7.81	6.16	7.46	3.73
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	14.09	14.17	14.85	15.34	10.72	8.15	7.61	5.76	7.10	3.15
4-May-11	14.64	14.88	15.51	15.76	11.10	8.38	7.33	4.44	5.81	3.30
24-May-11	14.70	14.94	15.55	15.53	11.65	8.27	7.35	4.32	5.82	3.13
27-Jun-11	14.94	15.08	15.67	16.32	12.00	8.73	7.62	4.52	6.06	3.57
26-Jul-11	14.83	15.04	15.67	16.63	12.48	9.13	7.98	4.70	6.29	4.27
30-Aug-11	14.16	14.44	15.20	16.18	12.34	9.09	7.97	4.72	6.36	4.31
22-Sep-11	13.96	14.23	15.10	16.34	11.82	8.67	7.58	4.60	6.12	4.12
26-Oct-11	13.58	13.88	14.70	15.56	11.09	8.38	7.29	4.55	5.95	3.44
29-Nov-11	14.55	14.80	15.58	15.53	11.45	8.54	7.44	4.29	5.83	3.19
11-Jan-12	14.87	15.08	15.78	16.12	11.62	8.75	7.72	4.51	5.98	3.52
27-Feb-12	14.99	15.15	15.78	16.35	12.08	9.08	7.78	4.52	6.02	3.63
8-Mar-12	-	-	-	-	-	8.91	7.52	-	-	-
15-Mar-12	-	-	-	-	-	8.90	7.43	-	-	-
21-Mar-12	-	-	-	-	-	9.12	7.65	-	-	-
29-Mar-12	15.03	15.16	15.79	16.26	11.87	9.12	7.65	4.54	6.04	3.61
25-Apr-12	15.09	15.21	15.82	16.52	12.36	9.37	7.92	4.59	6.14	3.76
28-May-12	15.19	15.23	15.79	16.69	12.64	9.21	8.11	4.54	6.16	4.05
13-Jun-12	15.16	15.21	15.76	16.80	12.63	9.30	8.16	4.58	6.18	4.12
11-Jul-12	15.23	15.25	15.80	16.84	12.69	9.57	8.40	4.61	6.24	4.22
30-Aug-12	14.96	15.13	15.78	16.86	12.57	9.30	8.13	4.75	6.38	4.98
25-Sep-12	14.84	15.04	15.73	16.81	12.41	9.22	8.06	4.74	6.36	4.23
24-Oct-12	14.87	15.08	15.74	16.62	11.94	8.94	7.72	4.54	6.03	3.50
27-Nov-12	14.82	15.01	15.75	16.33	12.08	8.98	7.71	4.58	6.12	3.63
19-Dec-12	15.08	15.14	15.74	16.15	11.73	8.85	7.66	4.47	5.98	3.44
28-Jan-13	14.52	14.75	15.44	14.80	11.60	8.82	7.57	4.50	6.02	3.48
27-Feb-13	13.52	14.17	14.91	15.75	11.24	8.67	7.49	4.51	5.97	3.43
26-Mar-13	14.98	15.12	15.76	16.15	11.65	8.88	7.69	4.52	6.04	3.50
23-Apr-13	14.63	14.82	15.50	15.52	10.75	8.59	7.42	4.35	5.79	3.07
27-May-13	15.03	15.12	15.73	16.39	12.08	8.88	7.73	4.53	6.14	3.66
17-Jun-13	15.03									

Location	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s	OW41d	OW42s
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	15.06	15.15	15.78	16.99	12.79	10.10	9.27	5.16	6.66	4.56
25-Oct-13	-	-	-	-	-	-	-	-	-	-
30-Nov-13	14.96	15.10	15.69	16.26	11.68	9.55	8.40	4.52	5.97	3.49
18-Dec-13	14.95	15.10	15.71	16.32	11.85	9.67	8.51	4.71	6.18	3.59
15-Mar-14	13.65	13.87	14.64	15.00	10.84	8.70	7.84	4.35	5.87	2.91
28-Apr-14	14.95	15.11	15.75	16.16	11.49	9.10	8.10	4.47	5.98	3.40
24-May-14	15.04	15.15	15.76	16.35	11.81	9.13	8.08	4.54	6.10	3.56
27-Jun-14	15.08	15.19	15.80	16.83	12.54	9.40	8.36	4.70	6.35	4.22
15-Jul-14	15.80	15.17	15.06	16.87	12.54	9.68	8.70	4.75	6.38	4.24
12-Sep-14	15.81	15.17	15.10	16.98	12.69	9.95	8.98	4.81	6.45	4.40
23-Oct-14	-	-	-	-	-	-	-	-	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-
26-Nov-08	6.06	4.92	5.82	4.65	4.49	3.22	-	5.04	5.35	5.23
18-Dec-08	4.82	4.66	5.61	3.93	3.73	2.07	-	4.50	4.88	4.85
6-Jan-09	4.67	4.89	5.77	4.61	4.20	2.92	-	4.90	5.21	5.13
20-Jan-09	5.00	5.12	6.16	4.72	4.58	3.48	-	5.16	5.44	5.25
24-Mar-09	4.78	4.89	5.74	4.50	4.19	2.70	-	4.75	5.12	5.06
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	4.81	4.88	5.72	4.23	4.06	2.48	-	4.64	5.03	5.00
6-Jun-09	5.22	5.19	6.16	4.77	4.71	3.68	-	5.22	5.51	5.27
12-Jun-09	-	5.19	6.16	4.78	4.71	-	-	5.26	5.51	5.27
8-Jul-09	5.35	5.12	6.80	4.76	4.66	3.56	-	5.20	5.47	5.31
20-Aug-09	5.61	5.48	6.55	4.92	4.99	4.11	-	5.57	5.74	5.41
16-Sep-09	6.00	5.91	7.09	5.05	5.21	4.40	-	6.05	6.17	5.72
20-Oct-09	5.53	5.24	6.23	4.80	4.79	3.78	-	5.30	5.59	5.31
27-Nov-09	5.11	5.13	6.12	4.77	4.67	3.68	-	5.27	5.52	5.28
29-Mar-10	4.94	4.98	5.87	4.69	4.50	3.33	-	5.07	5.38	5.23
30-Apr-10	5.17	5.17	6.16	4.76	4.65	3.62	-	5.23	5.50	5.27
25-May-10	5.16	5.12	6.11	4.75	4.62	3.57	-	5.22	5.49	5.27
25-Jun-10	5.18	5.22	6.19	4.73	4.67	3.55	-	5.17	5.47	5.27
26-Jul-10	5.30	5.27	6.26	4.81	4.82	3.88	-	5.39	5.62	5.34
26-Aug-10	5.30	5.28	6.28	4.85	4.80	3.86	-	5.34	5.60	5.30
4-Oct-10	4.90	4.98	5.79	4.62	4.28	2.87	-	4.93	5.25	4.31
1-Nov-10	5.21	5.11	6.04	4.77	4.70	3.68	-	5.27	5.53	5.30
6-Dec-10	-	-	-	4.68	4.39	3.16	-	4.84	5.13	4.86
6-Jan-11	5.10	5.21	6.17	4.36	3.81	3.31	-	4.69	5.02	5.01
9-Feb-11	5.03	5.01	5.89	4.71	4.52	3.51	-	5.19	5.47	5.26
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	4.59	4.67	5.61	3.94	3.49	1.85	-	4.47	4.77	4.72
4-May-11	4.76	4.86	5.73	4.41	3.86	2.38	4.79	4.68	5.01	5.00
24-May-11	4.79	4.55	5.55	4.06	3.74	2.19	4.61	4.46	4.92	4.90
27-Jun-11	5.05	4.97	5.88	4.63	4.40	3.10	-	5.16	5.73	5.18
26-Jul-11	5.50	5.50	6.56	4.86	4.82	3.93	5.55	5.62	6.35	5.33
30-Aug-11	5.59	5.74	6.84	4.87	4.90	4.02	5.69	5.40	5.87	5.40
22-Sep-11	5.05	5.21	6.33	4.79	4.83	3.90	5.52	5.49	6.03	5.32
26-Oct-11	4.83	4.93	5.73	4.24	4.52	2.86	4.86	4.78	5.17	5.10
29-Nov-11	4.75	4.53	5.45	3.50	3.51	1.69	4.44	4.33	4.73	4.59
11-Jan-12	4.97	4.94	5.81	4.58	++	3.14	4.98	4.83	5.26	5.17
27-Feb-12	4.95	4.98	5.88	4.67	++	3.39	5.11	5.05	5.40	5.22
8-Mar-12	-	-	-	4.12	-	-	-	-	-	-
15-Mar-12	-	-	-	4.19	-	-	-	-	-	-
21-Mar-12	-	-	-	4.43	-	-	-	-	-	-
29-Mar-12	4.89	5.01	5.93	4.62	-	3.12	4.98	4.89	5.26	5.12
25-Apr-12	5.17	5.10	6.07	4.70	-	3.53	5.16	5.08	5.41	5.24
28-May-12	5.33	5.29	6.29	4.82	4.74	3.84	5.40	5.35	5.56	5.30
13-Jun-12	5.36	5.32	6.30	4.84	4.84	3.91	5.44	5.38	5.63	5.31
11-Jul-12	5.42	5.38	6.39	4.91	4.92	4.01	5.56	5.46	5.70	5.34
30-Aug-12	5.30	5.35	6.36	4.79	4.81	3.81	5.41	5.33	5.64	5.32
25-Sep-12	5.64	5.35	6.28	4.75	4.85	3.96	5.47	5.43	5.67	5.62
24-Oct-12	5.04	4.98	5.87	4.66	4.44	3.22	5.11	5.02	5.34	5.21
27-Nov-12	5.11	5.06	5.94	4.56	4.41	3.38	5.21	5.14	5.38	5.16
19-Dec-12	4.93	4.91	5.78	4.63	4.42	3.26	5.25	5.21	5.40	5.22
28-Jan-13	4.89	4.85	5.76	4.61	4.39	3.21	5.13	5.03	5.35	5.22
27-Feb-13	4.81	4.92	5.78	4.59	4.41	3.16	5.21	5.22	5.38	5.18
26-Mar-13	4.91	4.94	5.78	4.55	4.18	2.87	4.90	4.77	5.20	5.06
23-Apr-13	4.53	4.49	5.38	3.07	2.83	1.21	4.16	4.10	4.50	4.20
27-May-13	5.10	5.00	5.91	4.66	4.45	3.16	5.11	5.00	5.36	5.20
17-Jun-13	5.34	5.30	6.28	4.74	4.66	3.61	5.25	5.20	5.57	5.27
29-Jul-13	5.83	5.74	6.87	4.90	4.90	4.03	5.64	5.60	5.89	5.37

Location	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	6.08	5.60	6.64	4.91	5.06	4.25	5.49	5.46	5.75	5.44
25-Oct-13	-	-	-	4.21	4.10	2.48	4.76	4.63	5.20	4.99
30-Nov-13	5.02	4.98	5.85	4.64	4.42	3.22	4.98	4.90	5.26	5.16
18-Dec-13	5.16	5.04	5.96	4.70	4.50	3.36	5.20	5.12	5.45	5.24
15-Mar-14	4.80	4.61	5.56	4.26	4.13	2.42	4.75	4.64	5.07	5.01
28-Apr-14	4.89	4.93	5.76	4.56	4.20	2.90	4.85	4.76	5.21	5.08
24-May-14	5.03	5.00	5.89	4.63	4.42	3.15	5.02	5.01	5.36	5.20
27-Jun-14	5.45	5.39	6.31	4.81	4.84	3.92	5.49	5.35	5.65	5.31
15-Jul-14	5.65	5.39	6.31	4.80	4.81	3.75	5.32	5.27	5.68	5.29
12-Sep-14	5.87	5.59	6.63	4.92	5.01	4.15	5.59	5.58	5.86	5.42
23-Oct-14	-	-	-	-	-	-	-	-	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-
26-Nov-08	5.41	5.34	-	-	-	-	-	-	-	-
18-Dec-08	4.96	4.52	-	-	-	-	-	-	-	-
6-Jan-09	5.26	5.12	13.88	10.26	10.01	10.94	-	-	-	-
20-Jan-09	5.49	5.40	15.22	13.17	11.72	12.80	6.93	-	-	-
24-Mar-09	5.18	5.03	13.85	8.32	9.99	11.01	6.18	-	-	-
8-Apr-09	-	-	-	-	-	-	-	1.27	1.32	0.36
15-Apr-09	5.11	4.85	13.94	8.93	10.07	11.15	-	0.51	0.51	0.47
6-Jun-09	5.55	5.46	15.72	13.95	12.05	13.10	9.66	0.96	0.96	0.68
12-Jun-09	5.55	-	-	-	-	-	-	0.96	0.96	0.68
8-Jul-09	-	5.47	15.92	14.67	12.15	13.07	6.86	0.97	0.97	0.70
20-Aug-09	5.77	5.52	16.40	15.72	12.64	13.49	8.46	1.10	**	0.85
16-Sep-09	6.20	5.62	16.52	16.04	12.80	13.60	8.92	1.28	**	1.03
20-Oct-09	5.64	5.47	16.43	16.21	12.83	13.62	7.86	1.13	**	0.86
27-Nov-09	5.57	5.45	16.19	15.35	12.50	13.43	7.06	1.01	0.98	0.73
29-Mar-10	5.43	5.36	14.64	10.10	11.16	12.21	6.46	0.94	0.92	0.58
30-Apr-10	5.55	5.44	15.55	13.34	11.91	12.87	7.28	0.98	0.99	0.68
25-May-10	5.53	5.43	15.78	14.42	11.98	12.90	7.35	0.98	0.98	0.70
25-Jun-10	5.52	5.43	16.00	14.87	12.22	13.16	7.49	0.97	0.97	0.69
26-Jul-10	5.65	5.53	16.02	15.11	12.42	13.36	7.96	0.98	0.99	0.71
26-Aug-10	5.63	5.50	16.17	15.07	12.43	13.35	7.11	1.02	**	0.75
4-Oct-10	4.68	5.11	14.56	10.66	10.93	12.02	5.43	0.89	0.93	0.55
1-Nov-10	5.58	5.46	15.99	14.88	12.31	13.22	6.50	0.94	0.97	0.65
6-Dec-10	5.21	5.27	13.77	8.74	9.82	10.76	-	0.91	++	0.56
6-Jan-11	5.07	4.68	13.04	7.58	9.52	10.65	-	++	++	++
9-Feb-11	5.51	5.41	15.32	14.14	11.82	12.78	-	++	++	++
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	4.83	4.37	12.52	6.81	9.00	10.46	4.92	++	++	++
4-May-11	5.06	4.68	12.94	7.20	9.45	10.78	5.13	0.76	0.83	0.40
24-May-11	5.00	5.15	13.35	7.10	8.92	10.03	5.54	0.75	0.85	0.51
27-Jun-11	8.10	5.28	14.94	11.78	11.27	12.10	6.74	0.89	0.86	0.61
26-Jul-11	8.14	5.48	15.98	15.35	12.42	13.33	8.10	1.04	**	0.82
30-Aug-11	8.35	5.50	16.02	16.02	12.48	12.35	8.28	1.07	**	0.85
22-Sep-11	7.81	5.48	15.63	15.77	12.19	13.26	6.97	1.04	**	0.80
26-Oct-11	5.26	5.09	14.02	11.31	10.78	11.84	6.33	0.83	0.83	0.42
29-Nov-11	4.78	4.22	13.18	9.34	8.86	10.17	6.37	0.73	0.73	0.46
11-Jan-12	5.31	5.27	14.71	12.77	10.81	11.51	6.52	++	++	++
27-Feb-12	5.42	5.38	15.25	13.74	11.48	12.18	7.05	++	++	++
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	5.29	5.27	14.83	12.27	11.34	12.30	6.34	++	++	++
25-Apr-12	5.45	5.41	15.69	15.09	11.85	12.48	7.51	0.92	0.92	0.66
28-May-12	5.60	5.50	16.07	15.71	12.28	13.14	8.11	1.06	1.06	0.83
13-Jun-12	5.65	5.54	16.21	16.17	12.47	13.32	8.39	1.03	1.03	0.85
11-Jul-12	5.69	5.61	16.29	16.23	12.62	13.46	8.49	1.22	1.22	1.01
30-Aug-12	5.64	5.53	16.27	16.37	12.70	13.55	8.10	1.22	1.22	1.00
25-Sep-12	5.34	5.50	16.19	16.44	12.23	13.53	7.95	1.12	1.12	0.93
24-Oct-12	5.39	5.36	15.50	13.66	11.95	13.02	6.69	0.99	0.99	0.70
27-Nov-12	5.31	5.33	15.22	13.54	11.88	12.98	6.94	0.92	0.92	0.68
19-Dec-12	5.35	5.38	14.43	11.19	10.50	11.32	6.54	0.90	0.90	0.62
28-Jan-13	5.40	5.42	13.57	7.73	8.70	6.62	6.58	++	++	++
27-Feb-13	5.36	5.35	14.24	11.82	10.57	11.22	6.60	++	++	++
26-Mar-13	5.21	5.08	14.42	11.66	10.72	11.45	6.54	++	++	++
23-Apr-13	4.46	3.90	12.59	8.45	8.67	10.22	5.84	0.76	0.76	0.38
27-May-13	5.42	5.30	15.22	13.32	11.18	11.05	6.89	0.88	0.88	0.65
17-Jun-13	5.54	5.45	15.55	14.14	11.97	12.90	7.11	0.97	0.97	0.75
29-Jul-13	5.84	5.53	16.21	15.99	12.57	13.42	8.69	1.10	1.10	0.92

Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	5.83	5.57	16.39	16.40	12.77	13.58	9.02	1.17	1.17	0.97
25-Oct-13	5.20	4.85	-	-	-	-	-	0.94	0.94	0.75
30-Nov-13	5.39	5.35	14.37	10.06	10.80	11.76	6.59	0.90	0.90	++
18-Dec-13	5.48	5.44	14.73	10.76	11.30	12.22	6.77	++	++	++
15-Mar-14	5.15	4.96	12.72	7.06	9.02	10.24	-	++	++	++
28-Apr-14	5.24	5.10	13.86	8.25	10.12	10.90	6.47	0.84	0.84	0.51
24-May-14	5.38	5.33	14.50	10.12	10.75	11.50	6.71	0.89	0.89	0.60
27-Jun-14	5.68	5.50	16.06	15.60	12.41	13.30	7.99	1.03	-	0.80
15-Jul-14	5.65	5.50	16.24	16.18	12.58	13.45	8.25	1.08	1.08	0.86
12-Sep-14	5.82	5.57	16.37	16.42	12.73	13.56	8.58	1.09	1.09	0.87
23-Oct-14	-	-	-	-	-	-	-	0.86	0.85	0.57

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	MP55(out)	MP56(in)	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	MP55(out)	MP56(in)	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-	-	-	-
8-Apr-09	0.58	0.83	0.85	0.90	0.91	-	-	-	-	-
15-Apr-09	0.62	0.84	0.90	0.93	0.96	-	-	-	-	-
6-Jun-09	0.70	0.96	0.97	1.00	1.03	-	-	-	-	-
12-Jun-09	0.70	0.96	0.97	1.00	1.03	-	-	-	-	-
8-Jul-09	0.72	0.98	0.99	1.04	1.06	-	-	-	-	-
20-Aug-09	**	1.09	**	1.14	1.17	-	-	-	-	-
16-Sep-09	**	1.23	**	1.27	**	1.22	0.97	1.28	1.16	1.23
20-Oct-09	**	1.13	1.14	1.19	1.20	1.06	0.86	1.10	1.01	1.08
27-Nov-09	**	1.03	1.03	1.10	1.11	0.94	0.71	0.97	0.89	0.95
29-Mar-10	0.67	0.94	0.94	0.97	1.01	0.84	0.62	0.80	0.78	0.80
30-Apr-10	0.74	0.97	1.01	1.03	1.08	0.91	0.69	0.92	0.85	0.92
25-May-10	0.73	0.97	1.00	1.04	1.07	0.92	0.71	0.93	0.85	0.93
25-Jun-10	0.71	1.00	0.99	1.06	1.07	0.91	0.75	0.95	0.84	0.93
26-Jul-10	0.72	0.99	1.00	1.06	1.07	0.91	0.71	0.96	0.86	0.95
26-Aug-10	**	0.98	0.99	1.10	**	0.95	0.72	1.00	0.90	0.98
4-Oct-10	0.56	0.89	0.91	0.98	1.00	0.82	0.65	0.79	0.76	0.79
1-Nov-10	0.69	0.95	0.98	1.01	1.01	0.86	0.64	0.87	0.80	0.87
6-Dec-10	++	0.87	++	0.97	++	0.80	0.62	0.82	0.78	0.81
6-Jan-11	++	++	++	++	++	++	++	++	++	++
9-Feb-11	++	++	++	++	++	++	++	++	++	++
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	++	++	++	++	++	++	++	++	++	0.48 (++)
4-May-11	0.58	0.77	0.84	0.90	0.91	0.72	0.44	0.60	0.64	0.66
24-May-11	0.53	0.89	0.78	1.04	0.91	0.67	0.49	0.62	0.44	0.60
27-Jun-11	0.61	0.85	0.88	0.94	0.94	0.78	0.55	0.77	0.72	0.76
26-Jul-11	**	1.00	1.01	1.09	1.09	0.94	0.74	1.00	0.89	0.98
30-Aug-11	**	1.01	1.03	1.10	1.10	0.97	0.73	1.02	0.91	0.99
22-Sep-11	0.80	0.97	0.99	1.07	1.06	0.92	0.67	0.98	0.87	0.96
26-Oct-11	0.42	0.76	0.76	0.88	0.88	0.72	0.43	0.53	0.67	0.60
29-Nov-11	0.46	0.69	0.69	0.81	0.81	0.65	0.44	0.50	0.58	0.60
11-Jan-12	++	++	++	++	++	++	++	++	++	0.76
27-Feb-12	++	++	++	++	++	++	++	++	++	0.82
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	++	++	++	++	++	++	++	++	++	0.82
25-Apr-12	0.66	0.91	0.91	0.97	0.97	0.82	0.59	0.83	0.76	0.81
28-May-12	0.83	1.01	1.01	1.14	1.14	0.98	0.71	1.01	0.91	1.01
13-Jun-12	0.85	1.02	1.02	1.12	1.12	0.97	0.70	1.01	0.91	1.01
11-Jul-12	1.01	1.11	1.11	1.24	1.24	1.11	0.85	1.17	1.05	1.15
30-Aug-12	1.00	1.13	1.13	1.25	1.25	1.11	0.86	1.17	1.06	1.14
25-Sep-12	0.93	1.11	1.20	1.24	1.24	1.05	0.83	1.10	1.00	1.08
24-Oct-12	0.70	0.98	0.98	1.04	1.04	0.88	0.60	0.85	0.82	0.87
27-Nov-12	0.68	++	++	0.99	0.99	0.82	0.56	0.82	0.76	0.80
19-Dec-12	0.62	0.85	0.85	0.97	0.97	0.80	0.53	0.74	0.74	0.75
28-Jan-13	++	++	++	++	++	++	++	++	++	++
27-Feb-13	++	++	++	++	++	++	++	++	++	++
26-Mar-13	++	0.80	0.80	0.94	0.94	0.78	0.54	0.72	0.71	0.73
23-Apr-13	0.38	0.79	0.79	0.89	0.89	0.69	0.46	0.50	0.61	0.62
27-May-13	0.65	0.83	0.83	0.97	0.97	0.81	0.60	0.80	0.76	0.80
17-Jun-13	0.75	0.90	0.90	1.02	1.02	0.86	0.62	0.89	0.82	0.87
29-Jul-13	0.92	1.02	1.02	1.14	1.14	1.00	0.78	1.07	0.94	1.05

Location	MP55(out)	MP56(in)	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	0.97	1.10	1.10	1.21	1.21	1.08	0.86	1.13	1.02	1.10
25-Oct-13	0.75	0.96	0.96	1.02	1.02	0.82	0.63	0.75	0.78	0.80
30-Nov-13	++	++	++	++	++	0.80	++	0.75	0.74	0.76
18-Dec-13	++	++	++	++	++	++	++	++	++	++
15-Mar-14	++	++	++	++	++	++	++	++	++	0.62
28-Apr-14	0.51	0.72	0.72	0.91	0.91	0.73	0.49	0.65	0.66	0.68
24-May-14	0.60	0.77	0.77	0.93	0.93	0.78	0.57	0.76	0.72	0.75
27-Jun-14	0.80	0.90	0.90	1.08	1.08	0.92	0.72	0.97	0.87	0.96
15-Jul-14	0.86	0.98	0.98	1.11	1.11	0.95	0.76	1.03	0.92	1.01
12-Sep-14	0.87	1.00	1.00	1.12	1.12	0.98	0.79	1.04	0.93	1.01
23-Oct-14	0.63	0.86	0.90	0.97	0.96	0.80	0.57	0.80	0.75	0.78

Notes:

**

++ = frozen

- = not measured

Table C-2.1

Location	OW60d	OW62k	OW62s	OW62d	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-

Location	OW60d	OW62k	OW62s	OW62d	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-	-	-	-
8-Apr-09	-	-	-	-	-	-	-	-	-	-
15-Apr-09	-	-	-	-	-	-	-	-	-	-
6-Jun-09	-	-	-	-	-	-	-	-	-	-
12-Jun-09	-	-	-	-	-	-	-	-	-	-
8-Jul-09	-	-	-	-	-	-	-	-	-	-
20-Aug-09	-	-	-	-	-	-	-	-	-	-
16-Sep-09	1.02	-	-	-	-	-	-	-	-	-
20-Oct-09	0.86	-	-	-	-	-	-	-	-	-
27-Nov-09	0.74	-	-	-	-	-	-	-	-	-
29-Mar-10	0.64	-	-	-	-	-	-	-	-	-
30-Apr-10	0.72	-	-	-	-	-	-	-	-	-
25-May-10	0.72	-	-	-	-	-	-	-	-	-
25-Jun-10	0.71	-	-	-	-	-	-	-	-	-
26-Jul-10	0.72	-	-	-	-	-	-	-	-	-
26-Aug-10	0.76	-	-	-	-	-	-	-	-	-
4-Oct-10	0.61	-	-	-	-	-	-	-	-	-
1-Nov-10	0.78	-	-	-	-	-	-	-	-	-
6-Dec-10	0.65	-	-	-	-	-	-	-	-	-
6-Jan-11	++	-	-	-	-	-	-	-	-	-
9-Feb-11	++	-	-	-	-	-	-	-	-	-
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	0.46 (++)	-	-	-	-	-	-	-	-	-
4-May-11	0.51	1.63	1.22	1.07	-	-	-	-	-	-
24-May-11	0.62	1.47	1.03	0.83	-	-	-	-	-	-
27-Jun-11	0.58	1.80	1.27	1.38	-	-	-	-	-	-
26-Jul-11	0.75	2.28	1.80	1.80	-	-	-	-	-	-
30-Aug-11	0.77	2.38	1.91	1.92	-	-	-	-	-	-
22-Sep-11	0.74	2.25	1.78	1.78	-	-	-	-	-	-
26-Oct-11	0.46	1.49	1.01	1.07	-	-	-	-	-	-
29-Nov-11	0.43	1.37	0.90	0.79	-	-	-	-	-	-
11-Jan-12	0.59	1.74	1.34	1.30	-	-	-	-	-	-
27-Feb-12	0.63	1.77	1.41	1.39	-	-	-	-	-	-
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	0.65	1.77	1.39	1.37	-	-	-	-	-	-
25-Apr-12	0.62	1.83	1.46	1.39	-	-	-	-	-	-
28-May-12	0.78	2.03	1.60	1.62	-	-	-	-	-	-
13-Jun-12	0.77	2.12	1.67	1.66	-	-	-	-	-	-
11-Jul-12	0.91	2.62	2.05	2.03	-	-	-	-	-	-
30-Aug-12	0.92	2.48	1.90	1.84	-	-	-	-	-	-
25-Sep-12	0.86	2.34	1.80	1.74	-	-	-	-	-	-
24-Oct-12	0.68	1.74	1.35	1.34	-	-	-	-	-	-
27-Nov-12	0.61	1.77	1.41	1.39	-	-	-	-	-	-
19-Dec-12	0.59	1.65	1.28	1.33	-	-	-	-	-	-
28-Jan-13	++	1.71	1.35	1.36	-	-	-	-	-	-
27-Feb-13	++	1.68	1.31	1.34	-	-	-	-	-	-
26-Mar-13	0.58	1.66	1.30	1.32	-	-	-	-	-	-
23-Apr-13	0.47	1.09	0.51	0.57	-	-	-	-	-	-
27-May-13	0.62	1.80	1.41	1.41	-	-	-	-	-	-
17-Jun-13	0.67	1.89	1.50	1.51	-	-	-	-	-	-
29-Jul-13	0.81	1.93	1.59	1.62	-	-	-	-	-	-

Location	OW60d	OW62k	OW62s	OW62d	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	0.89	2.83	2.20	2.18	-	-	-	-	-	-
25-Oct-13	0.63	1.65	1.21	1.18	-	-	-	-	-	-
30-Nov-13	0.59	1.69	1.32	1.32	-	-	-	-	-	-
18-Dec-13	++	1.73	1.38	1.36	-	-	-	-	-	-
15-Mar-14	++	1.46	1.06	0.92	-	-	-	-	-	-
28-Apr-14	0.52	1.68	1.27	1.22	-	-	-	-	-	-
24-May-14	0.59	1.74	1.35	1.26	-	-	-	-	-	-
27-Jun-14	0.74	2.09	1.67	1.61	-	-	-	-	-	-
15-Jul-14	0.78	2.28	1.81	1.71	-	-	-	-	-	-
12-Sep-14	0.80	2.43	1.92	1.80	-	-	-	-	-	-
23-Oct-14	0.61	1.72	1.34	1.25	-	-	-	-	-	-

Notes:

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++ = frozen

- = not measured

Table C-2.1

Location	OW71k	OW71s	OW71d	TP16	TP17	TP18	TP19	SG1 (plate)	S8	S13
15-Sep-03	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	1.99	2.05	5.07	1.58	-	-	-
20-Oct-06	-	-	-	2.01	1.98	4.98	1.57	-	-	-
27-Oct-06	-	-	-	1.85	1.84	4.81	1.44	-	-	-
3-Nov-06	-	-	-	1.73	1.69	4.75	1.43	-	-	-

Location	OW71k	OW71s	OW71d	TP16	TP17	TP18	TP19	SG1 (plate)	S8	S13
6-Nov-06	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	1.62	1.58	4.65	1.37	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	1.52	1.54	4.64	1.34	-	-	-
24-Nov-06	-	-	-	1.63	1.61	4.72	1.38	-	-	-
1-Dec-06	-	-	-	1.27	1.53	4.66	1.35	-	-	-
15-Dec-06	-	-	-	Submerged	1.30	4.29	1.15	-	-	-
26-Jan-07	-	-	-	1.51	1.62	4.76	1.39	-	-	-
9-Apr-07	-	-	-	Submerged	1.42	4.55	1.26	-	-	-
21-Jun-07	-	-	-	2.07	1.91	4.88	1.54	0.37	-	-
27-Jul-07	-	-	-	2.35	2.15	5.12	1.78	-	-	-
22-Aug-07	-	-	-	2.64	2.40	5.38	2.04	-	-	-
31-Aug-07	-	-	-	2.56	2.32	5.29	1.97	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	2.56	2.34	5.34	1.99	-	-	-
17-Nov-07	-	-	-	2.32	2.17	5.18	1.82	0.35	-	-
20-Dec-07	-	-	-	2.09	1.98	4.99	1.63	0.43	-	-
7-Mar-08	-	-	-	1.28	1.51	4.65	1.35	0.60	-	-
3-Jun-08	-	-	-	1.78	1.70	4.73	1.39	-	-	-
29-Jul-08	-	-	-	2.12	1.94	4.90	1.56	-	-	-
18-Aug-08	-	-	-	2.11	1.94	4.96	1.57	-	-	-
23-Sep-08	-	-	-	2.05	1.91	4.88	1.53	-	-	-
29-Oct-08	-	-	-	1.89	1.81	4.82	1.48	-	-	-
26-Nov-08	-	-	-	1.45	1.56	4.66	1.34	-	-	-
18-Dec-08	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-	-	-	-
20-Jan-09	-	-	-	1.50	1.70	4.72	1.37	0.45	-	-
24-Mar-09	-	-	-	1.24	1.60	4.53	1.27	0.54	-	-
8-Apr-09	-	-	-	1.20	-	-	-	-	-	-
15-Apr-09	-	-	-	1.24	1.47	4.55	1.26	-	-	-
6-Jun-09	-	-	-	1.88	1.80	4.77	1.42	0.41	-	-
12-Jun-09	-	-	-	-	-	-	-	0.41	0.90	0.67
8-Jul-09	-	-	-	1.88	1.82	4.75	1.44	0.45	-	-
20-Aug-09	-	-	-	2.15	2.00	4.92	1.61	0.27	-	-
16-Sep-09	-	-	-	2.34	2.20	5.11	1.78	-	-	-
20-Oct-09	-	-	-	2.10	2.02	4.95	1.59	0.39	-	-
27-Nov-09	-	-	-	1.91	1.89	4.79	1.44	0.41	-	-
29-Mar-10	-	-	-	1.60	1.61	4.67	1.33	0.48	-	0.62
30-Apr-10	-	-	-	1.89	1.85	4.76	1.44	0.42	0.87	0.67
25-May-10	-	-	-	1.91	1.86	4.77	1.45	0.43	-	-
25-Jun-10	-	-	-	1.93	1.89	4.78	1.44	0.45	-	-
26-Jul-10	-	-	-	1.97	1.90	4.80	1.46	0.39	-	-
26-Aug-10	-	-	-	2.04	1.94	4.84	1.48	0.40	-	-
4-Oct-10	-	-	-	1.42	1.63	4.65	1.43	0.50	0.76	-
1-Nov-10	-	-	-	1.81	1.78	4.72	1.56	0.44	-	-
6-Dec-10	-	-	-	1.64	1.67	4.62	1.45	-	-	-
6-Jan-11	-	-	-	2.06	++	4.46	++	++	++	++
9-Feb-11	-	-	-	1.73	-	4.68	++	++	++	++
25-Feb-11	-	-	-	-	-	-	-	-	-	-
23-Mar-11	-	-	-	1.22	1.31	4.34	++	0.41	-	-
4-May-11	2.65	2.60	2.56	1.22	1.42	4.45	1.19	0.57	0.61	0.18
24-May-11	3.06	3.26	2.97	1.39	1.31	4.35	1.27	0.59	0.80	0.21
27-Jun-11	3.07	2.97	2.97	1.49	1.62	4.60	1.30	-	-	-
26-Jul-11	3.48	3.31	3.37	2.06	1.97	4.81	1.50	0.28	-	0.50
30-Aug-11	3.51	3.40	3.43	2.09	1.98	4.86	1.51	0.29	-	0.68
22-Sep-11	3.41	3.29	3.29	2.02	1.93	4.79	1.47	0.30	0.93	0.57
26-Oct-11	2.58	2.60	2.54	1.20	1.35	4.48	1.21	0.52	0.69	0.33
29-Nov-11	2.46	2.60	2.40	1.22	1.31	4.26	1.13	0.55	0.69	0.33
11-Jan-12	3.00	2.96	2.92	++	1.56	4.60	1.29	0.55	0.79	0.33
27-Feb-12	3.10	3.01	3.01	1.66	1.53	4.67	1.34	0.53	0.84	0.36
8-Mar-12	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-
29-Mar-12	3.00	2.82	2.91	1.54	1.64	4.67	1.36	0.55	0.87	0.32
25-Apr-12	3.14	3.01	3.06	1.79	1.70	4.67	1.34	0.53	0.86	0.36
28-May-12	3.34	3.19	3.23	2.02	0.98	4.83	1.52	0.39	1.01	0.51
13-Jun-12	3.36	3.20	3.27	2.05	0.98	4.84	1.52	0.38	0.95	0.50
11-Jul-12	3.50	3.31	3.42	1.96	2.14	4.99	1.66	0.30	1.10	0.60
30-Aug-12	3.37	3.20	3.30	2.12	2.22	5.00	1.66	0.35	1.15	0.53
25-Sep-12	3.24	3.11	3.20	2.05	2.09	4.92	1.59	0.38	1.12	0.46
24-Oct-12	2.96	2.84	2.88	1.69	1.74	4.69	1.38	0.48	0.82	0.32
27-Nov-12	3.07	2.93	2.97	1.48	1.68	4.68	1.34	0.49	0.94	0.32
19-Dec-12	2.91	2.85	2.88	1.26	1.56	4.60	1.31	0.50	0.92	0.31
28-Jan-13	3.05	2.97	2.99	1.32	++	4.62	1.30	0.49	0.95	0.30
27-Feb-13	2.94	2.84	2.86	++	++	4.56	++	0.52	0.87	0.32
26-Mar-13	2.87	2.78	2.79	1.23	1.53	4.59	1.29	0.54	0.80	0.31
23-Apr-13	2.40	2.17	2.31	1.20	1.33	4.32	1.16	0.60	0.77	0.25
27-May-13	3.06	2.98	2.99	1.49	1.67	4.65	1.33	0.49	0.83	0.36
17-Jun-13	3.24	3.10	3.15	1.83	1.84	4.72	1.40	0.45	0.87	0.41
29-Jul-13	3.50	3.35	3.41	2.15	2.03	4.89	1.55	0.18	1.00	0.74

Location	OW71k	OW71s	OW71d	TP16	TP17	TP18	TP19	SG1 (plate)	S8	S13
31-Aug-13	-	-	-	-	-	-	-	-	-	-
19-Sep-13	3.41	3.24	3.38	2.18	2.09	4.97	1.63	0.33	1.08	0.54
25-Oct-13	2.73	2.65	2.69	1.43	1.58	4.57	1.35	0.53	0.84	0.30
30-Nov-13	2.90	2.85	2.86	1.28	1.58	4.61	1.29	0.51	0.85	0.33
18-Dec-13	3.06	3.00	3.01	1.37	1.62	4.76	1.39	0.50	0.87	0.39
15-Mar-14	2.59	2.51	2.56	1.13	1.34	++	++	++	0.68	-
28-Apr-14	2.77	2.71	2.71	1.21	1.47	4.50	1.23	0.57	0.80	0.29
24-May-14	3.01	2.90	2.93	1.38	1.61	4.60	1.29	0.50	0.83	0.35
27-Jun-14	3.34	3.22	3.27	2.01	1.94	4.80	1.47	0.39	0.94	0.48
15-Jul-14	3.31	3.16	3.26	2.09	2.00	4.86	1.53	0.51	1.01	0.45
12-Sep-14	3.46	3.32	3.41	2.06	1.96	4.86	1.53	0.39	0.99	0.48
23-Oct-14	3.02	2.92	2.94	-	1.64	4.63	1.32	0.50	0.80	0.24

Notes:

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++ = frozen

- = not measured

Table C-2.2 : Historical Groundwater Elevations (2003-2014)

Monitoring Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d	OW11s	OW11d
Ref. Elevation	252.13	251.4	251.68	251.51	247.72	247.60	247.08	246.83	248.58	248.54	249.63	249.56
15-Sep-03	237.19	244.03	246.83	243.29	243.52	242.85	242.45	242.54	245.53	245.50	243.44	243.45
17-Oct-03	236.48	247.93	247.83	244.08	243.94	243.53	243.19	243.32	246.38	246.24	243.69	244.01
28-Nov-03	236.45	247.77	247.87	244.17	244.47	243.86	243.34	243.65	246.36	246.38	243.75	244.21
26-Feb-04	236.50	-	247.80	243.95	243.89	243.46	243.06	243.26	246.40	246.24	243.57	244.06
26-Apr-04	236.43	247.59	247.86	244.05	243.95	243.58	243.14	243.33	246.33	246.22	243.54	244.10
14-May-04	236.47	247.45	247.86	244.15	244.35	243.73	243.28	243.48	246.33	246.29	243.68	244.21
21-May-04	236.47	247.45	247.83	243.96	244.06	243.60	243.13	243.32	246.28	246.14	243.51	244.11
28-May-04	-	-	247.99	244.41	245.25	244.38	243.83	243.57	247.29	247.03	245.94	245.37
4-Jun-04	-	-	247.83	244.06	244.38	243.86	243.31	243.54	246.31	246.26	243.70	244.20
11-Jun-04	236.40	247.45	247.73	243.97	243.98	243.58	243.01	243.27	246.21	246.12	243.47	244.00
17-Jun-04	-	-	247.72	243.93	243.88	243.50	242.94	243.19	246.18	246.09	243.45	243.95
25-Jun-04	-	-	247.84	243.85	243.85	243.44	242.99	243.17	246.32	246.04	243.59	243.94
9-Jul-04	-	-	247.56	243.72	243.82	243.34	242.87	243.06	246.02	245.94	243.44	243.87
16-Jul-04	-	-	247.91	243.77	243.83	243.37	243.06	243.18	246.42	246.02	243.75	243.96
22-Jul-04	-	-	247.75	243.84	243.89	243.44	242.97	243.18	246.23	246.09	243.46	243.99
29-Jul-04	236.44	244.65	247.60	243.65	243.84	243.33	242.86	243.06	245.97	245.92	243.45	243.88
5-Aug-04	-	-	247.60	243.65	243.84	243.33	242.86	243.06	245.97	245.92	243.45	243.88
13-Aug-04	-	-	247.35	243.40	243.77	243.19	242.74	242.92	245.79	245.75	243.46	243.75
19-Aug-04	236.41	243.44	247.24	243.35	243.73	243.15	242.70	242.88	245.79	245.73	243.46	244.28
26-Aug-04	-	-	247.09	243.21	243.72	243.04	242.63	242.78	245.67	245.61	243.45	243.64
2-Sep-04	-	-	247.01	243.15	243.68	243.01	242.64	242.76	245.63	245.58	243.46	243.63
9-Sep-04	-	-	246.91	243.03	243.66	242.98	242.61	242.72	245.60	245.56	243.46	243.61
16-Sep-04	236.42	242.63	246.74	242.95	243.64	242.95	242.56	242.67	245.52	245.52	243.46	243.57
23-Sep-04	-	-	246.58	242.80	243.55	242.80	242.48	242.52	245.41	245.38	243.45	243.45
7-Oct-04	-	-	246.37	242.58	243.49	242.65	242.28	242.32	245.24	245.19	243.45	243.32
14-Oct-04	236.38	242.25	246.32	242.58	243.49	242.71	242.25	242.32	245.21	245.21	243.45	243.34
21-Oct-04	-	-	246.85	242.84	243.50	242.71	242.55	242.54	245.96	245.51	243.45	243.49
28-Oct-04	-	-	246.85	242.84	243.51	242.80	242.61	242.68	245.96	245.62	243.45	243.61
3-Nov-04	-	-	247.12	242.88	243.54	242.88	242.75	242.80	246.18	245.74	243.47	243.70
11-Nov-04	-	-	247.30	243.02	243.62	242.99	242.84	242.92	246.20	245.86	243.45	243.81
18-Nov-04	-	-	247.25	243.03	243.66	243.07	242.85	242.96	246.15	245.88	243.45	243.83
25-Nov-04	236.47	243.02	247.26	243.05	243.66	243.13	242.87	242.98	246.26	245.92	243.45	243.83
2-Dec-04	-	-	247.90	243.47	243.88	243.32	243.32	243.33	246.51	246.19	244.15	244.17
9-Dec-04	-	-	248.03	243.75	244.74	243.62	243.61	243.65	246.67	246.40	244.85	244.55
16-Dec-04	-	-	247.87	243.68	244.57	243.82	243.39	243.63	246.44	246.37	244.03	244.43
23-Dec-04	236.45	244.15	247.77	243.58	244.33	243.66	243.21	243.39	246.28	246.24	243.48	244.12
13-Jan-05	-	242.57	248.18	243.71	244.76	243.91	243.79	243.72	246.71	246.43	244.55	244.49
31-Jan-05	-	241.98	247.70	243.56	244.07	243.58	243.07	243.31	246.22	246.22	243.45	244.14
21-Feb-05	236.42	241.52	247.83	243.65	244.08	243.60	243.19	243.39	246.37	246.30	243.69	244.24
24-Mar-05	236.51	241.66	247.79	243.49	243.90	243.47	243.06	243.26	246.34	246.17	243.55	244.15
26-Apr-05	236.64	242.75	247.98	243.75	244.22	243.64	243.47	243.51	246.48	246.25	244.36	244.36
10-May-05	-	242.03	247.79	243.67	244.15	243.63	243.16	243.38	246.28	246.16	243.50	244.22
24-May-05	-	241.33	247.48	243.41	243.86	243.41	242.96	243.16	246.11	246.02	243.45	244.05
1-Jun-05	-	240.48	247.58	243.37	243.82	243.32	242.89	243.09	246.03	245.95	243.45	244.00
10-Jun-05	-	-	247.47	243.24	243.79	243.24	242.83	243.01	245.88	245.81	243.45	243.92
17-Jun-05	-	240.31	247.59	243.27	243.77	243.19	242.83	243.01	246.00	245.82	243.45	243.90
24-Jun-05	-	240.30	247.52	243.26	243.75	243.15	242.81	242.96	245.93	245.81	243.45	243.90
30-Jun-05	-	-	247.40	243.18	243.69	243.12	242.74	242.91	245.82	245.73	243.45	

Monitoring Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d	OW11s	OW11d
Ref. Elevation	252.13	251.4	251.68	251.51	247.72	247.60	247.08	246.83	248.58	248.54	249.63	249.56
20-Oct-06	236.50	239.87	247.78	242.87	243.82	243.11	243.18	243.06	246.38	246.08	243.63	244.02
27-Oct-06	236.52	239.93	247.84	243.16	244.03	243.38	243.28	243.24	246.40	246.22	243.84	244.24
3-Nov-06	236.56	240.51	247.82	243.20	244.43	243.56	243.32	243.34	246.38	246.28	243.89	244.34
6-Nov-06	236.70	240.94	247.88	243.22	-	-	-	-	-	-	-	-
10-Nov-06	236.54	241.03	247.88	243.26	244.61	243.63	243.41	243.41	246.44	246.30	244.16	244.41
14-Nov-06	236.54	241.04	247.87	243.30	-	-	-	-	246.44	246.35	-	-
17-Nov-06	236.77	241.11	247.91	243.26	244.56	243.66	243.46	243.46	246.45	246.32	244.20	244.40
24-Nov-06	236.50	240.59	247.81	243.23	244.41	243.62	243.30	243.38	246.36	246.26	243.74	244.31
1-Dec-06	236.77	241.09	247.96	243.32	244.30	243.68	243.42	243.43	246.62	246.33	244.30	244.38
15-Dec-06	237.03	241.54	248.00	243.50	245.29	243.94	243.85	243.76	246.75	246.63	245.19	244.89
26-Jan-07	236.45	239.80	247.77	243.25	243.99	243.57	243.09	243.28	246.29	246.23	243.49	244.16
9-Apr-07	236.52	241.08	247.86	243.40	244.67	243.89	243.49	243.61	246.44	246.38	244.05	244.46
21-Jun-07	236.48	238.27	247.58	242.83	243.82	243.28	242.87	243.03	245.94	245.83	243.45	243.97
27-Jul-07	236.44	238.15	246.94	242.45	243.65	242.90	242.64	242.70	245.61	245.44	243.44	243.69
22-Aug-07	236.41	237.82	246.29	242.00	243.43	242.52	242.27	242.25	245.19	245.07	243.45	243.37
31-Aug-07	236.42	238.09	246.41	242.01	243.37	242.45	242.26	242.22	245.34	245.23	243.44	243.40
26-Sep-07	236.41	237.70	246.18	241.80	243.18	242.35	242.37	242.24	245.37	245.18	243.44	243.40
19-Oct-07	236.41	237.71	246.28	241.73	243.07	242.31	242.50	242.32	245.54	245.29	243.45	243.46
17-Nov-07	236.45	238.14	247.05	242.01	243.38	242.68	242.85	242.69	246.19	245.84	243.45	243.78
20-Dec-07	236.50	238.27	247.66	242.50	243.83	243.24	243.03	243.03	246.32	246.12	243.45	244.03
7-Mar-08	236.54	238.43	247.82	242.84	244.33	243.65	243.31	243.43	-	-	244.32	244.40
3-Jun-08	236.43	237.70	247.71	242.65	243.91	243.42	243.04	243.16	246.34	246.11	243.52	244.06
29-Jul-08	236.43	239.77	247.28	242.63	243.76	243.12	242.79	242.87	245.93	245.83	243.45	243.87
18-Aug-08	236.45	239.60	247.28	242.58	243.72	243.07	242.82	242.88	246.03	245.88	243.45	243.88
23-Sep-08	236.41	239.14	247.43	242.64	243.78	243.08	242.89	242.91	246.06	245.92	243.45	243.91
29-Oct-08	236.42	239.26	247.66	242.70	243.82	243.15	243.06	243.02	246.39	246.15	243.53	243.99
26-Nov-08	236.42	240.07	247.79	243.08	244.37	243.62	243.26	243.32	246.39	246.33	243.57	244.22
18-Dec-08	-	-	-	-	-	-	-	-	-	-	-	-
6-Jan-09	236.41	240.01	247.68	243.15	244.45	243.79	243.46	243.64	246.52	246.33	243.71	243.66
20-Jan-09	236.50	239.41	247.66	243.12	243.98	243.56	242.93	243.23	246.16	246.22	243.44	244.10
24-Mar-09	236.52	240.37	248.32	243.21	244.65	243.84	243.48	243.57	246.42	246.42	244.02	244.45
8-Apr-09	-	-	-	-	-	-	-	-	-	-	-	-
15-Apr-09	236.49	240.82	247.81	243.27	244.10	243.75	243.46	243.54	246.50	246.43	244.46	244.55
6-Jun-09	236.40	239.27	247.59	242.94	243.86	243.33	242.93	243.08	246.25	245.99	243.46	243.99
12-Jun-09	-	-	-	-	-	-	-	-	246.10	246.02	243.47	244.01
8-Jul-09	236.43	239.31	247.68	243.00	243.87	243.30	242.98	243.08	246.13	246.29	243.47	244.01
20-Aug-09	236.45	238.37	247.11	242.56	243.70	242.97	242.74	242.81	245.85	245.71	243.46	243.81
16-Sep-09	236.42	238.06	246.45	242.23	243.57	242.70	242.48	242.46	245.43	245.40	243.47	243.52
20-Oct-09	236.42	238.47	247.45	242.72	243.67	242.95	242.92	242.91	246.18	246.05	243.47	243.93
27-Nov-09	236.45	238.58	247.62	242.95	243.90	243.34	242.98	243.09	246.09	246.13	243.47	244.05
29-Mar-10	236.42	239.47	247.74	243.11	244.25	243.56	243.20	243.29	246.28	246.26	243.51	244.19
30-Apr-10	236.43	238.95	247.63	242.94	243.91	243.35	242.96	243.09	246.31	246.30	243.47	244.03
25-May-10	236.46	239.03	247.68	242.99	243.90	243.32	242.97	243.10	246.09	246.09	243.46	244.04
25-Jun-10	236.49	239.16	247.72	243.02	243.85	243.22	242.99	243.05	246.16	246.46	243.49	244.02
26-Jul-10	236.48	238.45	247.59	242.87	243.91	243.15	242.91	242.96	246.21	245.94	243.45	243.89
26-Aug-10	236.49	238.42	247.63	242.86	243.82	243.16	243.22	243.63	246.26	246.05	243.45	243.91
4-Oct-10	236.45	239.34	247.80	243.18	244.48	243.54	243.28	243.33	246.60	246.37	243.78	244.19
1-Nov-10	236.30	238.49	247.18	242.90	243.85	243.26	243.29	242.69	246.40	246.14	243.45	243.88
6-Dec-10	236.57	238.89	247.48	243.09	-	-	243.40	243.44	246.46	246.23	244.84	245.27
6-Jan-11	236.28	238.92	247.86	243.50	243.79	243.44	243.57	243.59	246.37	246.14	244.21	244.59
9-Feb-11	236.39	238.75	247.74	243.20	243.83							

Monitoring Location	OW3	OW4	OW7s	OW7d	OW8s	OW8d	OW9s	OW9d	OW10s	OW10d	OW11s	OW11d
Ref. Elevation	252.13	251.4	251.68	251.51	247.72	247.60	247.08	246.83	248.58	248.54	249.63	249.56
26-Mar-13	236.68	238.81	247.79	243.09	243.90	243.65	243.31	243.46	246.44	246.38	244.06	244.37
23-Apr-13	236.86	239.16	247.90	243.41	244.28	244.14	243.87	243.99	246.96	246.80	245.07	245.28
27-May-13	236.61	238.71	247.75	242.97	243.93	243.40	243.12	243.25	246.22	246.16	243.53	244.04
17-Jun-13	236.42	238.05	247.52	242.68	243.87	243.30	242.92	243.10	246.20	245.98	243.61	243.93
29-Jul-13	236.41	237.65	246.86	242.20	243.80	243.25	242.67	242.85	245.84	245.67	243.48	243.62
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	236.38	237.30	246.56	241.97	243.52	242.75	242.75	242.73	246.06	245.66	243.47	243.76
25-Oct-13	-	-	-	-	-	-	243.45	243.33	246.50	246.34	244.49	244.48
30-Nov-13	-	238.20	247.78	242.83	244.26	243.62	243.29	243.37	246.42	246.35	243.92	244.32
18-Dec-13	236.44	238.10	247.56	242.69	244.14	243.59	243.14	243.29	246.31	246.21	243.48	244.18
15-Mar-14	-	++	247.98	243.33	244.80	243.65	243.64	243.53	246.58	246.47	244.52	244.46
28-Apr-14	236.53	238.30	247.83	243.01	244.47	243.76	243.43	243.54	246.48	246.39	244.09	244.42
24-May-14	236.43	238.15	247.74	242.56	244.12	243.53	243.18	243.33	246.42	246.24	243.51	244.08
27-Jun-14	236.44	237.56	247.34	242.50	243.79	243.15	243.21	242.57	246.14	245.84	243.46	243.85
15-Jul-14	236.44	237.49	247.14	242.30	243.70	242.98	243.15	242.59	246.28	245.87	243.46	243.88
12-Sep-14	236.44	237.38	246.58	242.07	242.98	242.53	242.70	242.76	245.97	245.66	243.46	243.82
23-Oct-14	-	-	-	-	-	-	243.17	243.22	-	-	243.80	244.17

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d	OW16s	OW16d	OW24	OW25s
Ref. Elevation	249.13	248.98	250.05	249.87	250.81	250.73	249.12	249.00	250.58	250.46	240.68	244.13
											241.81	
15-Sep-03	243.47	243.12	244.10	241.75	245.16	241.99	243.30	239.90	245.68	245.60	-	-
17-Oct-03	243.78	243.73	244.92	242.90	246.79	242.44	243.96	244.05	247.03	246.89	-	-
28-Nov-03	243.82	243.90	244.95	243.05	246.93	242.58	244.47	244.32	247.14	247.05	-	-
26-Feb-04	243.72	243.68	244.83	242.58	246.47	242.20	243.88	243.96	246.41	246.23	-	-
26-Apr-04	243.77	243.75	244.93	242.55	246.76	242.30	243.93	244.02	247.79	246.08	-	-
14-May-04	243.88	243.88	245.02	242.97	246.86	242.58	244.34	244.23	246.83	246.33	-	-
21-May-04	243.80	243.78	244.90	242.72	246.71	242.43	244.02	244.04	246.63	246.49	-	-
28-May-04	245.03	244.60	245.22	243.46	247.27	242.96	245.30	245.09	247.03	246.93	-	-
4-Jun-04	243.76	243.92	244.93	242.92	246.80	242.57	244.38	244.25	246.83	246.65	-	-
11-Jun-04	243.73	243.75	244.83	242.60	246.56	242.42	243.90	243.95	246.63	246.38	-	-
17-Jun-04	243.69	243.68	244.78	242.44	246.29	242.33	243.82	243.88	246.58	246.25	-	-
25-Jun-04	243.72	243.64	244.82	242.43	246.29	242.33	243.82	243.86	246.66	246.52	-	-
9-Jul-04	243.67	243.57	244.67	242.23	245.89	242.17	243.77	243.77	246.28	246.01	-	-
16-Jul-04	243.78	243.58	244.96	242.37	246.50	242.29	243.83	243.87	246.80	246.65	-	-
22-Jul-04	243.74	243.68	244.83	242.47	246.45	242.36	243.85	243.89	246.59	246.43	-	-
29-Jul-04	243.67	243.58	244.72	242.37	246.11	242.19	243.79	243.79	246.29	246.12	-	-
5-Aug-04	243.67	243.58	244.72	242.37	246.11	242.19	243.79	243.79	246.29	246.12	-	-
13-Aug-04	243.62	243.47	244.47	242.05	245.68	242.04	243.75	243.65	246.00	245.88	-	-
19-Aug-04	243.60	243.43	244.41	241.99	245.57	241.98	243.72	243.61	245.75	245.51	-	-
26-Aug-04	243.60	243.36	244.37	241.91	245.43	241.89	243.69	243.52	245.54	245.40	-	-
2-Sep-04	243.57	243.32	244.32	241.87	245.30	241.82	243.67	243.47	245.59	245.37	-	-
9-Sep-04	243.57	243.31	244.28	241.88	245.23	241.81	243.64	243.43	245.59	245.45	-	-
16-Sep-04	243.56	243.29	244.21	241.85	245.15	241.77	243.60	243.36	245.34	245.17	-	-
23-Sep-04	243.51	243.20	244.11	241.74	245.01	241.64	243.54	243.24	245.13	245.03	-	-
7-Oct-04	243.44	243.10	243.87	241.55	244.74	241.51	243.42	243.05	244.91	244.84	-	-
14-Oct-04	243.47	243.12	243.86	241.61	244.73	241.57	243.41	243.03	244.94	244.87	-	-
21-Oct-04	243.50	243.12	243.99	241.73	244.98	241.54	243.43	243.16	245.84	245.70	-	-
28-Oct-04	243.51	243.15	243.94	241.74	244.93	241.58	243.44	243.23	245.75	245.58	-	-
3-Nov-04	243.53	243.18	243.40	241.79	244.98	241.58	243.51	243.33	245.93	245.59	-	-
11-Nov-04	243.57	243.27	244.15	241.99	245.31	241.67	243.59	243.47	246.07	245.60	-	-
18-Nov-04	243.59	243.35	244.21	242.02	245.27	241.77	243.62	243.53	245.86	245.67	-	-
25-Nov-04	243.57	243.38	244.26	241.98	245.25	241.76	243.65	243.57	245.77	245.51	-	-
2-Dec-04	243.97	243.64	245.09	242.68	246.57	242.21	243.88	243.97	246.62	246.10	-	-
9-Dec-04	244.93	244.16	245.37	243.08	247.06	242.54	244.75	244.52	246.95	246.09	-	-
16-Dec-04	244.00	243.97	244.99	242.95	246.92	242.57	244.58	244.38	246.82	246.29	-	-
23-Dec-04	243.78	243.84	244.87	242.74	246.76	242.44	244.31	244.17	246.70	245.82	-	-
13-Jan-05	244.49	244.01	245.36	242.97	247.16	242.59	244.87	244.56	247.29	-	-	-
31-Jan-05	243.74	243.72	244.80	242.52	246.68	242.31	243.99	243.96	246.65	245.15	-	-
21-Feb-05	243.83	243.80	244.96	242.84	246.90	242.39	244.00	244.10	246.87	245.29	-	-
24-Mar-05	243.74	243.69	244.82	242.44	246.62	242.17	243.84	243.92	246.63	244.70	-	-
26-Apr-05	244.27	243.91	245.22	242.80	247.00	242.47	244.19	244.20	247.02	243.99	-	-
10-May-05	243.81	243.82	244.88	242.68	246.75	242.40	244.10	244.06	246.79	243.21	-	-
24-May-05	243.73	243.64	244.76	242.25	246.34	242.13	243.82	243.85	246.72	241.43	-	-
1-Jun-05	243.71	243.56	244.71	242.10	245.99	242.00	243.79	243.80	246.65	240.39	-	-
10-Jun-05	243.67	243.50	244.62	241.99	245.82	241.90	243.77	243.73	246.53	240.16	-	-
17-Jun-05	243.65	243.47	244.58	242.00	245.75	241.84	243.75	243.71	246.83	240.46	-	-
24-Jun-05	243.66	243.43	244.51	241.91	245.64	241.78	243.74	243.68	246.61	240.46	-	-
30-Jun-05	243.65	243.39	244.47	241.85	245.57	241.76	243.72	243.61	246.40	240.34	-	-
8-Jul-05	243.60	243.31	244.37	241.75	245.36	241.61	243.69	243.47	246.15	240.19	-	-
15-Jul-05	243.56											

Monitoring Location	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d	OW16s	OW16d	OW24	OW25s
Ref. Elevation	249.13	248.98	250.05	249.87	250.81	250.73	249.12	249.00	250.58	250.46	240.68	244.13
20-Oct-06	243.71	243.43	244.80	242.43	246.38	241.70	243.99	243.68	245.83	242.67	239.88	239.98
27-Oct-06	244.09	243.74	245.02	242.81	246.87	242.11	244.00	244.09	245.76	243.23	240.02	239.82
3-Nov-06	244.06	243.86	244.95	242.90	246.89	242.24	244.45	244.29	245.72	243.10	240.12	239.88
6-Nov-06	-	-	-	-	246.94	242.26	-	-	245.83	243.31	-	-
10-Nov-06	244.45	244.01	245.09	243.02	247.02	242.31	244.63	244.40	245.82	243.06	-	-
14-Nov-06	-	-	-	-	247.02	242.35	-	-	245.84	242.93	-	-
17-Nov-06	244.23	243.94	245.11	242.99	247.06	242.29	244.59	244.50	245.91	242.90	240.26	239.99
24-Nov-06	243.86	243.83	244.93	242.87	246.90	242.23	244.38	244.23	245.79	242.52	240.25	239.92
1-Dec-06	244.09	243.87	245.18	242.85	247.09	242.30	244.22	244.28	245.89	242.95	240.41	239.98
15-Dec-06	245.23	244.48	245.39	243.40	247.29	242.52	245.28	244.93	246.02	242.76	Submerged	240.30
26-Jan-07	243.80	243.71	244.85	242.62	246.74	242.08	243.88	244.00	245.74	241.54	240.27	239.89
9-Apr-07	244.29	244.06	245.00	243.01	247.03	242.29	244.68	244.45	245.95	241.39	Submerged	240.08
21-Jun-07	243.71	243.53	244.69	242.18	246.12	241.85	243.79	243.80	246.03	239.29	240.04	239.75
27-Jul-07	243.62	243.24	244.25	241.79	245.17	241.57	243.68	243.41	243.56	241.85	239.78	239.52
22-Aug-07	243.43	242.97	243.89	241.42	244.73	241.25	243.46	242.95	244.23	235.57	239.52	239.26
31-Aug-07	243.40	242.92	243.79	241.45	244.62	241.21	243.39	242.89	242.46	235.10	239.56	239.34
26-Sep-07	243.30	242.80	243.59	241.36	244.34	241.09	243.25	242.76	-	-	239.49	239.26
19-Oct-07	243.30	242.76	243.53	241.32	244.26	240.94	243.18	242.76	-	-	239.56	239.30
17-Nov-07	243.46	242.99	243.87	241.57	244.89	241.17	243.52	243.32	-	-	239.73	239.45
20-Dec-07	243.68	243.51	244.69	242.27	246.23	241.81	243.84	243.87	-	-	239.97	239.65
7-Mar-08	244.01	243.84	244.97	242.81	247.04	242.17	244.28	244.22	-	-	240.35	239.99
3-Jun-08	243.83	243.63	244.78	242.32	246.63	241.99	243.84	243.93	-	-	240.22	239.90
29-Jul-08	243.73	243.48	244.42	241.97	245.72	241.72	243.75	243.64	-	-	240.00	239.73
18-Aug-08	243.73	243.36	244.47	242.04	245.69	241.67	243.72	243.60	-	-	240.00	239.73
23-Sep-08	243.76	243.38	244.63	242.20	246.03	241.70	243.73	243.68	-	-	240.01	239.76
29-Oct-08	243.76	243.43	244.73	242.23	246.37	241.71	243.78	243.81	-	-	240.09	239.81
26-Nov-08	243.96	243.85	244.96	242.79	246.99	242.16	244.35	244.19	-	-	240.34	239.97
18-Dec-08	-	-	-	-	-	-	-	-	-	-	-	-
6-Jan-09	243.92	243.88	245.01	242.92	246.94	242.31	244.45	244.27	-	-	240.39	239.97
20-Jan-09	243.83	243.69	244.80	242.48	246.66	242.15	243.85	243.95	-	-	240.31	239.92
24-Mar-09	244.29	244.03	245.03	242.92	246.99	242.22	244.66	244.43	-	-	240.42	240.08
8-Apr-09	-	-	-	-	-	-	-	-	-	-	240.49	240.08
15-Apr-09	244.20	243.95	245.01	242.87	247.01	242.19	244.54	244.36	-	-	240.40	240.08
6-Jun-09	243.84	243.57	244.74	242.19	246.30	241.84	243.80	243.85	-	-	240.18	239.86
12-Jun-09	-	-	-	-	-	-	-	-	-	-	239.06	-
8-Jul-09	243.84	243.58	244.78	242.36	246.51	241.83	243.80	243.89	-	-	240.18	239.87
20-Aug-09	243.77	243.30	244.35	241.84	246.47	241.51	243.72	243.54	-	-	240.02	239.72
16-Sep-09	243.60	243.09	244.09	241.59	245.09	241.27	243.57	243.17	-	-	239.75	239.53
20-Oct-09	243.65	243.25	244.05	241.65	245.28	241.39	243.69	243.62	-	-	239.93	239.70
27-Nov-09	243.75	243.62	244.73	242.20	246.51	241.85	243.82	243.89	-	-	240.11	239.83
29-Mar-10	243.83	243.75	244.86	242.64	246.85	241.98	244.21	244.10	-	-	240.30	239.96
30-Apr-10	243.83	243.75	244.86	242.64	246.85	241.98	244.21	244.10	-	-	240.18	239.96
25-May-10	243.80	243.60	244.81	242.20	246.49	241.82	243.83	243.88	-	-	240.14	239.86
25-Jun-10	243.76	243.52	244.78	242.28	246.55	241.80	243.80	243.84	-	-	240.12	239.85
26-Jul-10	243.72	243.50	244.69	242.26	246.16	241.75	243.58	243.77	-	-	240.10	239.83
26-Aug-10	243.70	243.47	244.65	242.18	246.06	241.65	243.76	243.75	-	-	240.06	239.80
4-Oct-10	244.72	244.06	244.95	242.37	246.91	242.05	244.48	244.28	-	-	240.29	239.98
1-Nov-10	243.71	243.53	243.64	242.09	246.12	241.69	243.80	243.86	-	-	240.22	239.88
6-Dec-10	-	-	244.41	242.68	246.76	242.01	-	-	-	-	240.33	239.97
6-Jan-11	243.64	243.56	243.94	243.14	246.55	241.82	243.68	243.79	-	-	240.50	239.51
9-Feb-11	243.59	243.53	243.89	242.44	246.48	241.68	243.84	243.92	-	-	240.27	239.49
25-Feb-11	-	-	243.82	242.83	-	-	-	-	-	-	-	239.10
23-Mar-11	243.65	243.59	244.13	243.25	246.69	242.49	245.86	245.99	-	-	240.45	239.57
4-May-11	244.39	244.10	245.06	243.06	247.11	242.23	244.69	244.				

Monitoring Location	OW12s	OW12d	OW13s	OW13d	OW14s	OW14d	OW15s	OW15d	OW16s	OW16d	OW24	OW25s
Ref. Elevation	249.13	248.98	250.05	249.87	250.81	250.73	249.12	249.00	250.58	250.46	240.68	244.13
26-Mar-13	243.88	243.84	244.96	242.89	246.90	242.04	244.26	244.06	-	-	240.32	240.04
23-Apr-13	244.63	244.78	245.18	243.36	247.23	242.43	245.33	245.06	-	-	240.41	240.28
27-May-13	243.86	243.69	244.93	242.64	246.81	241.91	244.09	243.79	-	-	240.21	239.97
17-Jun-13	243.77	243.61	244.80	242.47	246.34	240.87	243.97	243.70	-	-	240.14	239.90
29-Jul-13	243.70	243.50	244.69	242.31	246.28	241.71	243.72	243.47	-	-	239.89	239.74
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	243.58	243.11	244.05	241.89	245.11	241.43	243.55	243.27	-	-	239.81	239.66
25-Oct-13	-	-	-	-	-	-	-	-	-	-	240.13	-
30-Nov-13	243.98	243.73	244.98	242.95	246.86	242.21	244.25	244.08	-	-	240.29	240.02
18-Dec-13	243.78	243.51	244.86	242.75	246.70	242.05	244.21	243.99	-	-	++	239.87
15-Mar-14	244.73	244.14	245.35	243.24	247.21	242.52	244.82	244.56	-	-	240.36	240.41
28-Apr-14	244.10	243.93	245.06	243.05	246.98	242.22	244.45	244.32	-	-	240.38	240.33
24-May-14	243.99	243.80	-	-	246.82	242.07	244.19	243.90	-	-	240.26	240.26
27-Jun-14	243.71	243.47	244.63	242.24	245.81	241.68	243.83	243.65	-	-	240.03	240.10
15-Jul-14	243.60	243.38	244.39	242.20	245.65	241.66	243.72	243.59	-	-	239.93	240.04
12-Sep-14	243.40	243.10	244.33	242.06	245.41	241.58	243.66	243.33	-	-	239.93	240.03
23-Oct-14	-	-	-	-	-	-	-	-	-	-	240.20	239.98

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW25d	OW26	OW27s	OW27d	OW28s	OW28d	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d
Ref. Elevation	243.95	244.45	244.94	244.91	252.27	251.90	250.13	250.19	251.59	251.32	250.42	250.89
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	243.02	238.30	-	-	-	-	-	-
14-Sep-06	-	-	-	-	242.95	238.23	-	-	-	-	-	-
28-Sep-06	-	-	-	-	242.95	238.23	-	-	-	-	-	-
5-Oct-06	-	-	-	-	242.95	238.36	-	-	-	-	-	-
6-Oct-06	-	240.28	-	-	242.92	238.24	-	-	-	-	-	-
10-Oct-06	239.93	240.50	-	-	-	-	-	-	-	-	-	-
17-Oct-06	239.77	237.68	240.23	240.35	243.05	240.06	-	-	-	-	-	-

Monitoring Location	OW25d	OW26	OW27s	OW27d	OW28s	OW28d	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d
Ref. Elevation	243.95	244.45	244.94	244.91	252.27	251.90	250.13	250.19	251.59	251.32	250.42	250.89
20-Oct-06	239.49	-	240.64	240.48	243.04	239.73	-	-	-	-	-	-
27-Oct-06	239.90	241.41	240.99	240.87	243.09	241.35	-	-	-	-	-	-
3-Nov-06	239.98	241.74	241.26	241.06	243.08	241.00	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	243.14	242.36	-	-	-	-	-	-
17-Nov-06	240.08	242.00	241.50	241.21	243.29	243.15	-	-	-	-	-	-
24-Nov-06	240.05	241.96	241.42	241.20	243.07	241.05	-	-	-	-	-	-
1-Dec-06	240.10	-	241.53	241.26	243.31	243.19	-	-	-	-	-	-
15-Dec-06	240.25	242.31	241.78	241.36	244.54	244.46	-	-	-	-	-	-
26-Jan-07	240.04	241.62	241.29	241.18	243.07	239.70	-	-	-	-	-	-
9-Apr-07	240.17	242.12	241.57	241.33	243.20	242.82	-	-	-	-	-	-
21-Jun-07	239.92	241.23	240.68	240.78	243.04	238.75	-	-	-	-	-	-
27-Jul-07	239.69	240.47	239.82	240.27	243.01	238.29	-	-	-	-	-	-
22-Aug-07	239.44	239.92	239.19	239.81	242.91	238.22	245.09	244.97	-	-	-	-
31-Aug-07	239.50	239.85	239.23	239.77	242.89	238.23	245.65	245.46	246.00	239.49	-	-
26-Sep-07	239.42	239.70	239.09	239.66	242.90	238.21	245.28	245.50	245.61	239.04	-	-
19-Oct-07	239.45	239.75	239.19	239.72	243.00	238.24	245.67	245.57	245.55	238.87	244.23	239.95
17-Nov-07	239.59	240.29	239.85	240.16	243.02	238.34	246.35	246.23	246.00	238.93	244.54	240.20
20-Dec-07	239.77	241.21	240.60	240.80	243.04	238.93	246.48	246.40	247.15	239.14	244.99	241.02
7-Mar-08	240.11	242.00	241.41	241.19	243.32	242.35	246.60	246.54	247.51	239.49	245.83	242.27
3-Jun-08	240.05	241.60	241.14	241.03	243.12	239.24	246.41	246.28	247.36	239.26	244.97	241.09
29-Jul-08	239.89	240.82	240.32	240.59	-	238.43	246.03	245.93	246.69	239.45	244.53	240.54
18-Aug-08	239.88	240.74	240.19	240.57	243.05	238.51	246.13	245.99	246.71	239.30	244.65	240.71
23-Sep-08	239.89	240.82	240.34	240.61	243.02	238.72	246.03	245.84	246.90	239.37	244.79	240.91
29-Oct-08	239.93	240.99	240.64	240.77	243.04	239.78	246.51	246.40	246.93	239.33	245.16	241.31
26-Nov-08	240.08	241.99	241.34	241.21	243.16	241.62	246.52	246.44	247.32	239.66	245.61	242.05
18-Dec-08	-	-	-	-	-	-	-	-	-	-	-	-
6-Jan-09	240.09	242.34	241.57	241.49	243.12	242.37	246.55	246.50	247.39	239.99	245.71	242.49
20-Jan-09	240.04	241.85	241.26	241.18	243.07	239.36	246.30	246.25	247.15	239.90	244.87	241.30
24-Mar-09	240.16	242.22	241.54	241.31	243.17	242.04	246.58	246.50	247.31	239.69	245.76	242.32
8-Apr-09	240.18	242.16	241.53	241.28	243.33	243.15	-	-	-	-	-	-
15-Apr-09	240.18	242.16	241.53	241.28	243.13	242.43	246.61	246.54	247.31	239.77	245.78	242.28
6-Jun-09	239.98	241.47	241.03	240.96	243.02	238.93	246.28	246.19	247.09	239.54	244.71	240.89
12-Jun-09	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-09	239.98	241.45	241.05	240.98	243.06	240.14	246.33	246.24	247.21	239.60	244.85	240.97
20-Aug-09	239.85	240.67	240.56	240.11	243.02	238.35	245.69	245.60	246.52	239.26	244.39	240.36
16-Sep-09	239.66	240.27	239.69	239.24	242.85	238.25	245.34	245.28	245.86	239.04	244.21	240.07
20-Oct-09	239.81	240.78	240.31	240.64	243.04	238.35	246.20	246.06	246.84	239.40	244.48	240.27
27-Nov-09	239.92	241.56	241.09	241.03	243.04	238.78	246.16	246.11	247.20	239.55	244.84	240.70
29-Mar-10	240.02	241.86	241.35	241.19	243.11	239.67	246.51	246.42	247.34	239.71	245.09	241.65
30-Apr-10	240.02	241.86	241.08	240.99	243.10	238.88	246.08	246.01	247.21	239.60	244.91	240.63
25-May-10	239.94	241.44	241.02	240.93	243.09	238.70	246.22	246.17	247.24	239.58	244.92	240.54
25-Jun-10	239.95	241.22	241.04	240.98	243.07	239.06	246.43	246.32	247.26	239.51	244.96	240.88
26-Jul-10	239.93	241.06	241.02	240.97	243.06	238.79	246.42	246.30	247.23	239.53	244.91	240.87
26-Aug-10	239.90	241.12	240.54	240.70	243.03	238.62	246.15	246.30	247.12	239.32	244.70	240.60
4-Oct-10	240.07	241.83	241.13	241.32	243.11	241.38	246.56	246.52	247.39	239.69	245.37	240.97
1-Nov-10	239.99	240.98	241.08	240.98	243.01	238.65	246.40	246.31	247.17	239.42	245.54	241.17
6-Dec-10	240.14	-	241.49	241.39	243.43	241.56	246.82	247.17	247.28	239.60	246.20	241.21
6-Jan-11	240.12	240.89	241.55	241.34	243.13	240.88	246.61	246.58	247.33	239.84	245.92	241.48
9-Feb-11	239.98	240.85	241.40	241.20	243.02	240.73	246.58	246.51	247.21	239.41	246.16	241.01
25-Feb-11	240.07	-	-	-	-	-	-	-	-	-	246.10	242.19
23-Mar-11	240.21	241.04	241.73	241.40	243.17	240.92	246.74	247.04	247.60	240.34	247.13	242.65
4-May-11	240.17	242.07	241.59	241.32	243.28	242.55	246.59	246.54	247.40	240.00	245.89	242.39
24-May-11	240.08	241.84	241.54	241.26	244.23							

Monitoring Location	OW25d	OW26	OW27s	OW27d	OW28s	OW28d	OW29s	OW29d	OW30s	OW30d	OW31s	OW31d
Ref. Elevation	243.95	244.45	244.94	244.91	252.27	251.90	250.13	250.19	251.59	251.32	250.42	250.89
26-Mar-13	240.09	241.87	241.44	241.24	243.46	240.54	246.54	246.49	247.39	239.43	245.30	241.79
23-Apr-13	240.24	242.30	241.77	241.43	243.52	240.62	246.64	246.59	247.52	239.79	246.07	242.58
27-May-13	240.04	241.51	241.18	241.07	243.17	239.49	246.41	246.35	247.43	239.40	245.06	241.26
17-Jun-13	239.99	241.36	241.03	240.97	243.04	239.25	245.89	245.70	247.22	239.18	244.81	240.82
29-Jul-13	239.83	240.75	240.59	240.17	242.98	239.12	245.58	245.49	246.50	238.92	244.61	240.70
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	239.75	240.26	240.26	239.71	242.68	238.30	245.45	245.37	246.05	238.67	244.45	240.12
25-Oct-13	-	-	241.11	240.93	-	-	246.63	246.55	-	-	-	-
30-Nov-13	240.07	241.95	241.44	241.26	244.07	240.82	246.46	246.38	247.29	239.11	245.47	241.87
18-Dec-13	239.98	241.67	241.22	241.12	243.69	240.67	245.87	246.27	247.23	239.12	245.40	241.76
15-Mar-14	240.07	241.94	241.58	241.24	245.55	243.90	246.73	246.67	247.55	239.98	246.37	242.48
28-Apr-14	239.92	241.89	241.53	241.34	244.44	241.68	246.58	246.51	247.36	239.28	245.70	242.10
24-May-14	239.83	-	-	-	-	-	-	-	247.28	239.17	245.15	241.66
27-Jun-14	239.64	241.83	240.84	240.67	243.10	238.52	246.01	245.93	246.85	238.91	244.59	240.54
15-Jul-14	239.59	241.65	240.60	240.18	243.04	238.51	246.10	246.01	246.64	238.80	244.67	240.47
12-Sep-14	239.58	241.44	240.56	240.16	242.79	238.30	-	-	246.62	238.77	244.41	240.21
23-Oct-14	240.05	-	241.26	241.08	-	-	-	-	-	-	-	-

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW32s	OW32d	OW33s	OW33d	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s
Ref. Elevation	250.25	250.46	249.30	249.46	249.80	250.09	251.20	252.75	250.23	251.35	250.85	250.60
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-

Monitoring Location	OW32s	OW32d	OW33s	OW33d	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s
Ref. Elevation	250.25	250.46	249.30	249.46	249.80	250.09	251.20	252.75	250.23	251.35	250.85	250.60
20-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-	-	-
19-Oct-07	244.06	239.12	243.09	238.73	-	-	-	-	-	-	-	-
17-Nov-07	244.36	239.35	243.44	238.92	-	-	-	-	-	-	-	-
20-Dec-07	244.76	240.00	243.70	239.54	-	-	-	-	-	-	-	-
7-Mar-08	245.68	241.18	244.52	240.86	-	-	-	-	-	-	-	-
3-Jun-08	244.70	240.12	243.72	239.72	-	-	-	-	-	-	-	-
29-Jul-08	244.44	239.66	243.27	239.27	-	-	-	-	-	-	-	-
18-Aug-08	244.45	239.79	243.44	239.41	-	-	-	-	-	-	-	-
23-Sep-08	244.57	240.00	243.60	239.59	-	-	-	-	-	-	-	-
29-Oct-08	244.97	240.18	243.76	240.01	-	-	-	-	-	-	-	-
26-Nov-08	245.41	240.99	244.36	239.66	234.91	235.03	235.53	236.10	238.33	242.10	242.86	246.10
18-Dec-08	-	-	-	-	234.79	235.02	235.55	236.62	238.79	242.16	243.03	246.19
6-Jan-09	245.53	241.53	244.57	241.06	235.42	235.46	235.93	236.61	239.00	242.21	243.12	246.20
20-Jan-09	244.62	240.42	243.62	239.92	235.59	235.60	236.05	236.35	238.28	241.97	242.98	245.99
24-Mar-09	245.54	241.30	244.70	240.89	234.70	234.96	235.56	236.42	238.69	242.34	243.15	246.14
8-Apr-09	-	-	-	-	-	-	-	-	-	-	-	-
15-Apr-09	245.58	241.31	244.65	240.85	234.76	234.97	235.56	236.51	238.71	242.43	243.21	246.11
6-Jun-09	244.46	240.03	243.47	239.50	234.70	234.94	235.53	235.99	237.78	242.26	243.00	245.95
12-Jun-09	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-09	244.58	240.14	243.63	238.59	234.80	234.98	235.55	235.96	237.84	242.36	243.08	245.97
20-Aug-09	244.21	239.56	243.24	239.06	234.77	234.96	235.51	235.75	237.49	242.02	242.69	245.85
16-Sep-09	244.06	239.30	243.10	238.77	234.78	234.94	235.43	235.73	237.35	241.65	242.28	245.61
20-Oct-09	244.30	239.46	243.40	239.00	234.93	235.00	235.50	235.81	237.49	242.23	242.86	245.57
27-Nov-09	244.62	239.82	243.52	239.37	234.92	235.01	235.53	235.86	237.67	242.45	243.12	245.99
29-Mar-10	244.83	240.75	243.87	240.27	234.94	235.01	235.58	236.43	238.37	242.62	243.27	246.05
30-Apr-10	244.64	239.88	244.13	239.32	234.90	235.00	235.57	236.21	237.79	242.54	243.14	246.00
25-May-10	244.64	239.79	243.67	239.25	234.82	234.96	235.54	236.15	237.73	242.57	243.17	245.97
25-Jun-10	244.71	240.02	243.71	239.58	234.66	234.90	235.51	236.03	237.79	242.67	243.23	245.97
26-Jul-10	244.67	240.03	243.73	239.64	235.08	235.12	235.63	236.07	237.86	242.62	243.18	245.84
26-Aug-10	244.52	239.84	243.47	238.86	234.60	234.85	235.44	235.88	237.62	242.60	243.13	245.82
4-Oct-10	245.11	241.06	243.50	239.61	235.09	235.13	235.61	236.45	238.61	242.85	243.40	244.92
1-Nov-10	244.49	239.76	243.36	239.34	234.68	234.86	235.43	235.99	237.58	242.60	243.14	244.84
6-Dec-10	244.83	240.18	243.52	240.26	235.26	235.30	236.08	236.43	238.91	243.07	243.23	-
6-Jan-11	245.87	241.63	245.05	241.15	-	235.17	235.92	236.11	239.22	242.93	243.10	244.48
9-Feb-11	244.69	240.26	243.70	239.78	-	235.04	235.85	236.55	239.11	242.81	243.04	244.44
25-Feb-11	245.17	241.26	244.19	240.70	-	-	-	-	-	-	-	-
23-Mar-11	246.09	241.84	245.47	241.30	235.71	235.92	236.35	237.41	239.51	243.20	243.24	244.84
4-May-11	245.75	241.56	244.83	241.02	235.16	235.21	235.69	236.99	239.13	242.97	243.52	246.16
24-May-11	246.30	240.99	245.49	240.65	235.10	235.15	235.65	237.22	238.58	243.08	243.50	246.28
27-Jun-11	244.95	240.66	243.92	240.20	234.86	235.01	235.53	236.43	238.23	242.62	243.23	246.08
26-Jul-11	244.33	239.82	243.31	239.26	234.97	235.05	235.53	236.12	237.75	242.22	242.87	245.90
30-Aug-11	244.31	239.75	243.29	239.17	235.64	235.65	236.00	236.57	237.89	242.26	242.88	245.88
22-Sep-11	244.96	240.47	243.74	240.02	235.84	235.86	236.10	236.41	238.41	242.68	243.27	246.00
26-Oct-11	244.92	241.19	244.00	240.56	236.22	236.21	236.50	237.19	239.14	242.97	243.56	246.05
29-Nov-11	246.41	241.45										

Monitoring Location	OW32s	OW32d	OW33s	OW33d	OW34	OW35	OW36	OW37	OW38	OW39	OW40	OW41s
Ref. Elevation	250.25	250.46	249.30	249.46	249.80	250.09	251.20	252.75	250.23	251.35	250.85	250.60
26-Mar-13	245.03	241.04	244.20	240.47	234.82	234.97	235.44	236.60	238.58	242.47	243.16	246.08
23-Apr-13	246.06	241.87	245.46	241.31	235.17	235.27	235.70	237.23	239.48	242.76	243.43	246.25
27-May-13	244.78	240.48	243.75	239.94	234.77	234.97	235.47	236.36	238.15	242.47	243.12	246.07
17-Jun-13	244.57	240.10	243.53	239.54	234.77	234.97	235.49	236.19	237.92	242.27	242.73	245.96
29-Jul-13	244.31	239.69	243.22	239.11	234.92	235.04	235.50	235.94	237.64	241.72	242.04	245.78
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	244.30	239.49	242.09	238.89	234.74	234.94	235.42	235.76	237.44	241.25	241.58	245.44
25-Oct-13	-	-	246.24	240.98	-	-	-	-	-	-	-	-
30-Nov-13	245.27	244.61	244.20	240.86	234.84	234.99	235.51	236.49	238.55	241.80	242.45	246.08
18-Dec-13	245.03	240.72	243.98	240.68	234.85	234.99	235.49	236.43	238.38	241.68	242.34	245.89
15-Mar-14	246.38	241.55	245.73	241.52	236.15	236.22	236.56	237.75	239.39	242.65	243.01	246.25
28-Apr-14	245.51	241.24	244.53	241.08	234.85	234.98	235.45	236.59	238.74	242.25	242.75	246.13
24-May-14	-	-	-	-	234.76	234.94	235.44	236.40	238.42	242.22	242.77	246.06
27-Jun-14	244.38	239.81	243.31	239.51	234.72	234.90	235.40	235.92	237.69	241.95	242.49	245.90
15-Jul-14	244.51	239.74	243.45	239.42	234.00	234.92	236.14	235.88	237.69	241.67	242.15	245.85
12-Sep-14	244.26	239.47	243.20	239.07	233.99	234.92	236.10	235.77	237.54	241.40	241.87	245.79
23-Oct-14	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW41d	OW42s	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
Ref. Elevation	251.12	249.76	249.81	251.58	251.90	249.30	249.22	247.61	248.68	248.68	248.88	248.72
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-

Monitoring Location	OW41d	OW42s	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
Ref. Elevation	251.12	249.76	249.81	251.58	251.90	249.30	249.22	247.61	248.68	248.68	248.88	248.72
20-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-	-	-
26-Nov-08	245.49	246.40	243.75	246.66	246.08	244.65	244.73	244.39	-	243.64	243.53	243.49
18-Dec-08	245.58	248.27	244.99	246.92	246.30	245.37	245.49	245.54	-	244.18	244.01	243.87
6-Jan-09	245.49	-	245.14	246.69	246.13	244.69	245.02	244.69	-	243.78	243.68	243.59
20-Jan-09	245.27	246.12	244.81	246.46	245.74	244.58	244.64	244.13	-	243.52	243.44	243.47
24-Mar-09	245.41	246.46	245.03	246.69	246.16	244.80	245.03	244.91	-	243.93	243.76	243.66
8-Apr-09	-	-	-	-	-	-	-	-	-	-	-	-
15-Apr-09	245.37	246.41	245.00	246.70	246.18	245.07	245.16	245.13	-	244.04	243.85	243.72
6-Jun-09	245.07	245.84	244.59	246.39	245.74	244.53	244.51	243.93	-	243.46	243.37	243.45
12-Jun-09	-	-	-	246.39	245.74	244.52	244.51	-	-	243.42	243.37	243.45
8-Jul-09	245.13	-	244.46	246.46	245.10	244.54	244.56	244.05	-	243.48	243.41	243.41
20-Aug-09	244.80	245.41	244.20	246.10	245.35	244.38	244.23	243.50	-	243.11	243.14	243.31
16-Sep-09	244.58	245.21	243.81	245.67	244.81	244.25	244.01	243.22	-	242.63	242.71	243.00
20-Oct-09	244.64	245.45	244.28	246.34	245.67	244.50	244.43	243.83	-	243.38	243.29	243.41
27-Nov-09	245.07	246.03	244.70	246.45	245.78	244.53	244.55	243.93	-	243.41	243.36	243.44
29-Mar-10	245.22	246.28	244.87	246.60	246.03	244.61	244.72	244.28	-	243.61	243.50	243.49
30-Apr-10	245.06	245.96	244.64	246.41	245.74	244.54	244.57	243.99	-	243.45	243.38	243.45
25-May-10	245.04	245.88	244.65	246.46	245.79	244.55	244.60	244.04	-	243.46	243.39	243.45
25-Jun-10	245.01	245.90	244.63	246.36	245.71	244.57	244.55	244.06	-	243.51	243.41	243.45
26-Jul-10	244.91	245.72	244.51	246.31	245.64	244.49	244.40	243.73	-	243.29	243.26	243.38
26-Aug-10	244.88	245.76	244.51	246.30	245.62	244.45	244.42	243.75	-	243.34	243.28	243.42
4-Oct-10	244.20	245.85	244.91	246.60	246.11	244.68	244.94	244.74	-	243.75	243.63	244.41
1-Nov-10	244.04	246.14	244.60	246.47	245.86	244.53	244.52	243.93	-	243.41	243.35	243.42
6-Dec-10	-	-	-	-	-	244.62	244.83	244.45	-	243.84	243.75	243.86
6-Jan-11	243.72	246.11	244.71	246.37	245.73	244.94	245.41	244.30	-	243.99	243.86	243.71
9-Feb-11	243.66	246.03	244.78	246.57	246.01	244.59	244.70	244.10	-	243.49	243.41	243.46
25-Feb-11	-	-	-	-	-	-	-	-	-	-	-	-
23-Mar-11	244.02	246.61	245.22	246.91	246.29	245.36	245.73	245.76	-	244.21	244.11	244.00
4-May-11	245.31	246.46	245.05	246.72	246.17	244.89	245.36	245.23	243.89	244.00	243.87	243.72
24-May-11	245.30	246.63	245.02	247.03	246.35	245.24	245.48	245.42	244.08	244.22	243.96	243.82
27-Jun-11	245.06	246.19	244.76	246.61	246.02	244.67	244.82	244.51	-	243.52	243.15	243.54
26-Jul-11	244.83	245.49	244.31	246.08	245.34	244.44	244.40	243.68	243.13	243.06	242.53	243.39
30-Aug-11	244.76	245.45	244.22	245.84	245.06	244.43	244.32	243.59	242.99	243.28	243.01	243.32
22-Sep-11	245.00	245.64	244.76	246.37	245.57	244.51	244.39	243.71	243.16	243.19	242.85	243.40
26-Oct-11	245.17	246.32	244.98	246.65	246.17	245.06	244.70	244.75	243.82	243.90	243.71	243.62
29-Nov-11	245.29	246.57	245.06	247.05	246.45	245.80	245.71	245.92	244.24	244.35	244.15	244.13
11-Jan-12	245.14	246.24	244.84	246.64	246.09	244.72	++	244.47	243.70	243.85	243.62	243.55
27-Feb-12	245.10	246.13	244.86	246.60	246.02	244.63	++					

Monitoring Location	OW41d	OW42s	OW42d	OW43s	OW43d	OW44s	OW44d	OW45	OW46k	OW46s	OW46d	OW47s
Ref. Elevation	251.12	249.76	249.81	251.58	251.90	249.30	249.22	247.61	248.68	248.68	248.88	248.72
26-Mar-13	245.08	246.26	244.90	246.64	246.12	244.75	245.04	244.74	243.78	243.91	243.68	243.66
23-Apr-13	245.33	246.69	245.28	247.09	246.52	246.23	246.39	246.40	244.52	244.58	244.38	244.52
27-May-13	244.98	246.10	244.71	246.58	245.99	244.64	244.77	244.45	243.57	243.68	243.52	243.52
17-Jun-13	244.89	245.69	244.47	246.28	245.62	244.56	244.56	244.00	243.43	243.48	243.31	243.45
29-Jul-13	244.66	245.37	243.98	245.84	245.03	244.40	244.32	243.58	243.04	243.08	242.99	243.35
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	244.46	245.20	243.73	245.98	245.26	244.39	244.16	243.36	243.19	243.22	243.13	243.28
25-Oct-13	-	-	-	-	-	245.09	245.12	245.13	243.92	244.05	243.68	243.73
30-Nov-13	245.15	246.27	244.79	246.60	246.05	244.66	244.80	244.39	243.70	243.78	243.62	243.56
18-Dec-13	244.94	246.17	244.65	246.54	245.94	244.60	244.72	244.25	243.48	243.56	243.43	243.48
15-Mar-14	245.25	246.85	245.01	246.97	246.34	245.04	245.09	245.19	243.93	244.04	243.81	243.71
28-Apr-14	245.14	246.36	244.92	246.65	246.14	244.74	245.02	244.71	243.83	243.92	243.67	243.64
24-May-14	245.02	246.20	244.78	246.58	246.01	244.67	244.80	244.46	243.66	243.67	243.52	243.52
27-Jun-14	244.77	245.54	244.36	246.19	245.59	244.49	244.38	243.69	243.19	243.33	243.23	243.41
15-Jul-14	244.74	245.52	244.16	246.19	245.59	244.50	244.41	243.86	243.36	243.41	243.20	243.43
12-Sep-14	244.67	245.36	243.94	245.99	245.27	244.38	244.21	243.46	243.09	243.10	243.02	243.30
23-Oct-14	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)	MP55(out)	MP56(in)
Ref. Elevation	248.91	248.29	253.38	253.50	251.80	252.73	251.31	240.80	240.80	240.55	240.55	240.82
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-

Monitoring Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)	MP55(out)	MP56(in)
Ref. Elevation	248.91	248.29	253.38	253.50	251.80	252.73	251.31	240.80	240.80	240.55	240.55	240.82
20-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-	-	-
26-Nov-08	243.50	242.95	-	-	-	-	-	-	-	-	-	-
18-Dec-08	243.95	243.77	-	-	-	-	-	-	-	-	-	-
6-Jan-09	243.65	243.17	239.50	243.24	241.79	241.79	-	-	-	-	-	-
20-Jan-09	243.42	242.89	238.16	240.33	240.08	239.93	244.38	-	-	-	-	-
24-Mar-09	243.73	243.26	239.53	245.18	241.81	241.72	245.13	-	-	-	-	-
8-Apr-09	-	-	-	-	-	-	-	239.53	239.49	240.19	239.98	240.00
15-Apr-09	243.80	243.44	239.44	244.57	241.73	241.58	-	240.29	240.29	240.08	239.93	239.98
6-Jun-09	243.36	242.83	237.66	239.55	239.75	239.63	241.65	239.84	239.84	239.88	239.85	239.86
12-Jun-09	243.36	-	-	-	-	-	-	239.84	239.84	239.88	239.85	239.86
8-Jul-09	-	242.82	237.46	238.83	239.65	239.66	244.45	239.83	239.84	239.85	239.83	239.85
20-Aug-09	243.14	242.77	236.98	237.78	239.16	239.24	242.85	239.70	**	239.71	**	239.74
16-Sep-09	242.71	242.67	236.86	237.46	239.00	239.13	242.39	239.52	**	239.52	**	239.60
20-Oct-09	243.27	242.82	236.95	237.29	238.97	239.11	243.45	239.67	**	239.69	**	239.69
27-Nov-09	243.34	242.84	237.19	238.15	239.30	239.30	244.25	239.79	239.82	239.82	**	239.79
29-Mar-10	243.48	242.93	238.74	243.40	240.64	240.52	244.85	239.86	239.88	239.97	239.88	239.89
30-Apr-10	243.36	242.85	237.83	240.16	239.89	239.86	244.03	239.82	239.81	239.87	239.81	239.85
25-May-10	243.38	242.86	237.60	239.08	239.82	239.83	243.96	239.82	239.82	239.85	239.82	239.85
25-Jun-10	243.39	242.86	237.38	238.63	239.58	239.57	243.82	239.83	239.83	239.86	239.84	239.82
26-Jul-10	243.26	242.76	237.36	238.39	239.38	239.37	243.35	239.82	239.81	239.84	239.83	239.83
26-Aug-10	243.28	242.79	237.21	238.43	239.37	239.38	244.20	239.78	**	239.80	**	239.84
4-Oct-10	244.23	243.18	238.82	242.84	240.87	240.71	245.88	239.91	239.87	240.00	239.99	239.93
1-Nov-10	243.33	242.83	237.39	238.62	239.49	239.51	244.81	239.86	239.83	239.90	239.86	239.87
6-Dec-10	243.70	243.02	239.61	244.76	241.98	241.97	-	239.89	++	239.99	++	239.95
6-Jan-11	243.84	243.61	240.34	245.92	242.28	242.08	-	++	++	++	++	++
9-Feb-11	243.40	242.88	238.06	239.36	239.98	239.95	-	++	++	++	++	++
25-Feb-11	-	-	-	-	-	-	-	-	-	-	-	-
23-Mar-11	244.08	243.92	240.86	246.69	242.80	242.27	246.39	++	++	++	++	++
4-May-11	243.85	243.61	240.44	246.30	242.35	241.95	246.18	240.04	239.97	240.15	239.97	240.05
24-May-11	243.91	243.14	240.03	246.40	242.88	242.70	245.77	240.05	239.95	240.04	240.02	239.93
27-Jun-11	240.81	243.01	238.44	241.72	240.53	240.63	244.57	239.91	239.94	239.94	239.94	239.97
26-Jul-11	240.77	242.81	237.40	238.15	239.38	239.40	243.21	239.76	**	239.73	**	239.82
30-Aug-11	240.56	242.79	237.36	237.48	239.32	240.38	243.03	239.73	**	239.70	**	239.81
22-Sep-11	241.10	242.81	237.75	237.73	239.61	239.47	244.34	239.76	**	239.75	239.75	239.85
26-Oct-11	243.65	243.20	239.36	242.19	241.02	240.89	244.98	239.97	239.97	240.13	240.13	240.06
29-Nov-11	244.13	244.07	240.20	244.16	242.94	242.56	244.94	240.07	240.07	240.09	240.09	240.13
11-Jan-12	243.60	243.02	238.67	240.73	240.99	241.22	244.79	++	++	++	++	++
27-Feb-12	243.49	242.91	238.13	239.76	240.32	240.55	244.26	++	++	++	++	++
8-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
29-Mar-12	243.62	243.02	238.55	241.23	240.46	240.43	244.97	++	++</			

Monitoring Location	OW47d	OW48	OW49	OW50	OW51	OW52	OW53	MP54(in)	MP54(out)	MP55(in)	MP55(out)	MP56(in)
Ref. Elevation	248.91	248.29	253.38	253.50	251.80	252.73	251.31	240.80	240.80	240.55	240.55	240.82
26-Mar-13	243.70	243.21	238.96	241.84	241.08	241.28	244.77	++	++	++	++	240.02
23-Apr-13	244.45	244.39	240.79	245.05	243.13	242.51	245.47	240.04	240.04	240.17	240.17	240.03
27-May-13	243.49	242.99	238.16	240.18	240.62	241.68	244.42	239.92	239.92	239.90	239.90	239.99
17-Jun-13	243.37	242.84	237.83	239.36	239.83	239.83	244.20	239.83	239.83	239.80	239.80	239.92
29-Jul-13	243.07	242.76	237.17	237.51	239.23	239.31	242.62	239.70	239.70	239.63	239.63	239.80
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	243.08	242.72	236.99	237.10	239.03	239.15	242.29	239.63	239.63	239.58	239.58	239.72
25-Oct-13	243.71	243.44	-	-	-	-	-	239.86	239.86	239.80	239.80	239.86
30-Nov-13	243.52	242.94	239.01	243.44	241.00	240.97	244.72	239.90	239.90	++	++	++
18-Dec-13	243.43	242.85	238.65	242.74	240.50	240.51	244.54	++	++	++	++	++
15-Mar-14	243.76	243.33	240.66	246.44	242.78	242.49	-	++	++	++	++	++
28-Apr-14	243.67	243.19	239.52	245.25	241.68	241.83	244.84	239.96	239.96	240.04	240.04	240.10
24-May-14	243.53	242.96	238.88	243.38	241.05	241.23	244.60	239.91	239.91	239.95	239.95	240.05
27-Jun-14	243.23	242.79	237.32	237.90	239.39	239.43	243.32	239.77	-	239.75	239.75	239.92
15-Jul-14	243.26	242.79	237.14	237.32	239.22	239.28	243.06	239.72	239.72	239.69	239.69	239.84
12-Sep-14	243.09	242.72	237.01	237.08	239.07	239.17	242.73	239.71	239.71	239.68	239.68	239.82
23-Oct-14	-	-	-	-	-	-	-	239.94	239.95	239.98	239.92	239.96

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s	OW60d	OW62k	OW62s	OW62d
Ref. Elevation	240.82	240.89	240.89	240.73	240.78	240.68	240.79	240.77	240.56	246.38	245.87	245.83
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-

Monitoring Location	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s	OW60d	OW62k	OW62s	OW62d
Ref. Elevation	240.82	240.89	240.89	240.73	240.78	240.68	240.79	240.77	240.56	246.38	245.87	245.83
20-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-07	-	-	-	-	-	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-	-	-	-	-	-
8-Apr-09	239.98	240.00	239.98	-	-	-	-	-	-	-	-	-
15-Apr-09	239.92	239.96	239.93	-	-	-	-	-	-	-	-	-
6-Jun-09	239.85	239.89	239.86	-	-	-	-	-	-	-	-	-
12-Jun-09	239.85	239.89	239.86	-	-	-	-	-	-	-	-	-
8-Jul-09	239.84	239.85	239.83	-	-	-	-	-	-	-	-	-
20-Aug-09	**	239.75	239.72	-	-	-	-	-	-	-	-	-
16-Sep-09	**	239.62	**	239.51	239.81	239.40	239.63	239.54	239.54	-	-	-
20-Oct-09	239.68	239.70	239.69	239.67	239.92	239.58	239.78	239.70	239.70	-	-	-
27-Nov-09	239.79	239.79	239.78	239.79	240.07	239.71	239.90	239.82	239.82	-	-	-
29-Mar-10	239.89	239.92	239.88	239.89	240.16	239.88	240.01	239.97	239.92	-	-	-
30-Apr-10	239.81	239.86	239.81	239.82	240.09	239.76	239.94	239.85	239.84	-	-	-
25-May-10	239.82	239.85	239.82	239.82	240.07	239.75	239.94	239.84	239.84	-	-	-
25-Jun-10	239.83	239.83	239.82	239.82	240.03	239.73	239.95	239.84	239.85	-	-	-
26-Jul-10	239.82	239.83	239.82	239.82	240.07	239.72	239.93	239.82	239.84	-	-	-
26-Aug-10	239.83	239.79	**	239.78	240.06	239.68	239.89	239.79	239.80	-	-	-
4-Oct-10	239.91	239.91	239.89	239.91	240.13	239.89	240.03	239.98	239.95	-	-	-
1-Nov-10	239.84	239.88	239.88	239.87	240.14	239.81	239.99	239.90	239.78	-	-	-
6-Dec-10	++	239.92	++	239.93	240.16	239.86	240.01	239.96	239.91	-	-	-
6-Jan-11	++	++	++	++	++	++	++	++	++	-	-	-
9-Feb-11	++	++	++	++	++	++	++	++	++	-	-	-
25-Feb-11	-	-	-	-	-	-	-	-	-	-	-	-
23-Mar-11	++	++	++	++	++	++	++	0.48 (++)	0.46 (++)	-	-	-
4-May-11	239.98	239.99	239.98	240.01	240.34	240.08	240.15	240.11	240.05	244.75	244.65	244.76
24-May-11	240.04	239.85	239.98	240.06	240.29	240.06	240.35	240.17	239.94	244.91	244.84	245.00
27-Jun-11	239.94	239.95	239.95	239.95	240.23	239.91	240.07	240.01	239.98	244.58	244.60	244.45
26-Jul-11	239.81	239.80	239.80	239.79	240.04	239.68	239.90	239.79	239.81	244.10	244.07	244.03
30-Aug-11	239.79	239.79	239.79	239.76	240.05	239.66	239.88	239.78	239.79	244.00	243.96	243.91
22-Sep-11	239.83	239.82	239.83	239.81	240.11	239.70	239.92	239.81	239.82	244.13	244.09	244.05
26-Oct-11	240.06	240.01	240.01	240.01	240.35	240.15	240.12	240.17	240.10	244.89	244.86	244.76
29-Nov-11	240.13	240.08	240.08	240.08	240.34	240.18	240.21	240.17	240.13	245.01	244.97	245.04
11-Jan-12	++	++	++	++	++	++	++	240.01	239.97	244.64	244.53	244.53
27-Feb-12	++	++	++	++	++	++	++	239.95	239.93	244.61	244.46	244.44
8-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
29-Mar-12	++	++	++	++	++	++	++	239.95	239.91	244.61	244.48	244.46
25-Apr-12	239.91	239.92	239.92	239.91	240.19	239.85	240.03	239.96	239.94	244.55	244.41	244.44
28-May-12	239.81	239.75	239.75	239.75	240.07	239.67	239.88	239.76	239.78	244.35	244.27	244.21
13-Jun-12	239.80	239.77	239.77	239.76	240.08	239.67	239.88	239.76	239.79	244.26	244.20	244.17
11-Jul-12	239.71	239.65	239.65	239.62	239.93	239.51	239.74	239.62	239.65	243.76	243.82	243.80
30-Aug-12	239.69	239.64										

Monitoring Location	MP56(out)	MP57(in)	MP57(out)	OW58s	OW58d	OW59s	OW59d	OW60s	OW60d	OW62k	OW62s	OW62d
Ref. Elevation	240.82	240.89	240.89	240.73	240.78	240.68	240.79	240.77	240.56	246.38	245.87	245.83
26-Mar-13	240.02	239.95	239.95	239.95	240.24	239.96	240.08	240.04	239.98	244.72	244.57	244.51
23-Apr-13	240.03	240.00	240.00	240.04	240.32	240.18	240.18	240.15	240.09	245.29	245.36	245.26
27-May-13	239.99	239.92	239.92	239.92	240.18	239.88	240.03	239.97	239.94	244.58	244.46	244.42
17-Jun-13	239.92	239.87	239.87	239.87	240.16	239.79	239.97	239.90	239.89	244.49	244.37	244.32
29-Jul-13	239.80	239.75	239.75	239.73	240.00	239.61	239.85	239.72	239.75	244.45	244.28	244.21
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	239.72	239.68	239.68	239.65	239.92	239.55	239.77	239.67	239.67	243.55	243.67	243.65
25-Oct-13	239.86	239.87	239.87	239.91	240.15	239.93	240.01	239.97	239.93	244.73	244.66	244.65
30-Nov-13	++	++	++	239.93	++	239.93	240.05	240.01	239.97	244.69	244.55	244.51
18-Dec-13	++	++	++	++	++	++	++	++	++	244.65	244.49	244.47
15-Mar-14	++	++	++	++	++	++	++	240.15	++	244.92	244.81	244.91
28-Apr-14	240.10	239.98	239.98	240.00	240.29	240.03	240.13	240.09	240.04	244.70	244.60	244.61
24-May-14	240.05	239.96	239.96	239.95	240.21	239.92	240.07	240.02	239.97	244.64	244.52	244.57
27-Jun-14	239.92	239.81	239.81	239.81	240.06	239.71	239.92	239.81	239.82	244.29	244.20	244.22
15-Jul-14	239.84	239.78	239.78	239.78	240.02	239.65	239.87	239.76	239.78	244.10	244.06	244.12
12-Sep-14	239.82	239.77	239.77	239.75	239.99	239.64	239.86	239.76	239.76	243.95	243.95	244.03
23-Oct-14	239.92	239.92	239.93	239.93	240.21	239.88	240.04	239.99	239.95	244.66	244.53	244.58

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d	OW71k	OW71s	OW71d	TP16	TP17	TP18
Ref. Elevation	248.09	247.52	250.03	250.19	250.73	250.42	245.96	246.02	246.08	241.85	241.64	244.56
15-Sep-03	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
24-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-	-	-	239.86	239.59	239.49

Monitoring Location	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d	OW71k	OW71s	OW71d	TP16	TP17	TP18
Ref. Elevation	248.09	247.52	250.03	250.19	250.73	250.42	245.96	246.02	246.08	241.85	241.64	244.56
20-Oct-06	-	-	-	-	-	-	-	-	-	239.84	239.66	239.58
27-Oct-06	-	-	-	-	-	-	-	-	-	240.00	239.80	239.75
3-Nov-06	-	-	-	-	-	-	-	-	-	240.12	239.95	239.81
6-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-	-	-	240.23	240.06	239.91
14-Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-	-	-	240.33	240.10	239.92
24-Nov-06	-	-	-	-	-	-	-	-	-	240.22	240.03	239.84
1-Dec-06	-	-	-	-	-	-	-	-	-	240.58	240.11	239.90
15-Dec-06	-	-	-	-	-	-	-	-	-	Submerged	240.34	240.27
26-Jan-07	-	-	-	-	-	-	-	-	-	240.34	240.02	239.80
9-Apr-07	-	-	-	-	-	-	-	-	-	Submerged	240.22	240.01
21-Jun-07	-	-	-	-	-	-	-	-	-	239.78	239.73	239.68
27-Jul-07	-	-	-	-	-	-	-	-	-	239.50	239.49	239.44
22-Aug-07	-	-	-	-	-	-	-	-	-	239.21	239.24	239.18
31-Aug-07	-	-	-	-	-	-	-	-	-	239.29	239.32	239.27
26-Sep-07	-	-	-	-	-	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-	-	-	239.29	239.30	239.22
17-Nov-07	-	-	-	-	-	-	-	-	-	239.53	239.47	239.38
20-Dec-07	-	-	-	-	-	-	-	-	-	239.76	239.66	239.57
7-Mar-08	-	-	-	-	-	-	-	-	-	240.57	240.13	239.91
3-Jun-08	-	-	-	-	-	-	-	-	-	240.07	239.94	239.83
29-Jul-08	-	-	-	-	-	-	-	-	-	239.73	239.70	239.66
18-Aug-08	-	-	-	-	-	-	-	-	-	239.74	239.70	239.60
23-Sep-08	-	-	-	-	-	-	-	-	-	239.80	239.73	239.68
29-Oct-08	-	-	-	-	-	-	-	-	-	239.96	239.83	239.74
26-Nov-08	-	-	-	-	-	-	-	-	-	240.40	240.08	239.90
18-Dec-08	-	-	-	-	-	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-	-	-	240.35	239.94	239.84
24-Mar-09	-	-	-	-	-	-	-	-	-	240.62	240.04	240.03
8-Apr-09	-	-	-	-	-	-	-	-	-	240.65	-	-
15-Apr-09	-	-	-	-	-	-	-	-	-	240.61	240.17	240.01
6-Jun-09	-	-	-	-	-	-	-	-	-	239.97	239.84	239.79
12-Jun-09	-	-	-	-	-	-	-	-	-	-	-	-
8-Jul-09	-	-	-	-	-	-	-	-	-	239.97	239.82	239.81
20-Aug-09	-	-	-	-	-	-	-	-	-	239.70	239.65	239.64
16-Sep-09	-	-	-	-	-	-	-	-	-	239.51	239.44	239.46
20-Oct-09	-	-	-	-	-	-	-	-	-	239.75	239.62	239.61
27-Nov-09	-	-	-	-	-	-	-	-	-	239.94	239.75	239.77
29-Mar-10	-	-	-	-	-	-	-	-	-	240.25	240.03	239.89
30-Apr-10	-	-	-	-	-	-	-	-	-	239.96	239.79	239.80
25-May-10	-	-	-	-	-	-	-	-	-	239.94	239.78	239.79
25-Jun-10	-	-	-	-	-	-	-	-	-	239.92	239.75	239.78
26-Jul-10	-	-	-	-	-	-	-	-	-	239.88	239.74	239.76
26-Aug-10	-	-	-	-	-	-	-	-	-	239.81	239.70	239.72
4-Oct-10	-	-	-	-	-	-	-	-	-	240.43	240.01	239.91
1-Nov-10	-	-	-	-	-	-	-	-	-	240.04	239.86	239.84
6-Dec-10	-	-	-	-	-	-	-	-	-	240.21	239.97	239.94
6-Jan-11	-	-	-	-	-	-	-	-	-	239.79	++	240.10
9-Feb-11	-	-	-	-	-	-	-	-	-	240.12	-	239.88
25-Feb-11	-	-	-	-	-	-	-	-	-	-	-	-
23-Mar-11	-	-	-	-	-	-	-	-	-	240.63	240.33	240.22
4-May-11	-	-	-	-	-	-	243.31	243.42	243.52	240.63	240.22	240.11
24-May-11	-	-	-	-	-	-	242.90	242.76	243.11	240.46	240.33	240.21
27-Jun-11	-	-	-	-	-	-	242.89	243.05	243.11	240.36	240.02	239.96
26-Jul-11	-	-	-	-	-	-	242.48	242.71	242.71	239.79	239.67	239.75
30-Aug-11	-	-	-	-	-	-	242.45	242.62	242.65	239.76	239.66	239.70
22-Sep-11	-	-	-	-	-	-	242.55	242.73	242.79	239.83	239.71	239.77
26-Oct-11	-	-	-	-	-	-	243.38	243.42	243.54	240.65	240.29	240.08
29-Nov-11	-	-	-	-	-	-	243.50	243.42	243.68	240.63	240.33	240.30
11-Jan-12	-	-	-	-	-	-	242.96	243.06	243.16	++	240.08	239.96
27-Feb-12	-	-	-	-	-	-	242.86	243.01	243.07	240.19	240.11	239.89
8-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-	-	-	-	-	-
29-Mar-12	-	-	-	-	-	-	242.96	243.20	243.17	240.31	240.00	239.89
25-Apr-12	-	-	-	-	-	-	242.82	243.01	243.02	240.06	239.94	239.89
28-May-12	-	-	-	-	-	-	242.62	242.83	242.85	239.83	240.66	239.73
13-Jun-12	-	-	-	-	-	-	242.60	242.82	242.81	239.80	240.66	239.72
11-Jul-12	-	-	-	-	-	-	242.46	242.71	242.66	239.89	239.50	239.57
30-Aug-12	-	-	-	-	-	-	242.59	242.82	242.78	239.73	239.42	239.56
25-Sep-12	-	-	-	-	-	-	242.72	242.91	242.88	239.80	239.55	239.64
24-Oct-12	-	-	-	-	-	-	243.00	243.18	243.20	240.16	239.90	239.87
27-Nov-12	-	-	-	-	-	-	242.89	243.09	243.11	240.37	239.96	239.88

Monitoring Location	OW63s	OW63d	OW64s	OW64d	OW65s	OW65d	OW71k	OW71s	OW71d	TP16	TP17	TP18
Ref. Elevation	248.09	247.52	250.03	250.19	250.73	250.42	245.96	246.02	246.08	241.85	241.64	244.56
26-Mar-13	-	-	-	-	-	-	243.09	243.24	243.29	240.62	240.11	239.97
23-Apr-13	-	-	-	-	-	-	243.56	243.85	243.77	240.65	240.31	240.24
27-May-13	-	-	-	-	-	-	242.90	243.04	243.09	240.36	239.97	239.91
17-Jun-13	-	-	-	-	-	-	242.72	242.92	242.93	240.02	239.80	239.84
29-Jul-13	-	-	-	-	-	-	242.46	242.67	242.67	239.70	239.61	239.67
31-Aug-13	-	-	-	-	-	-	-	-	-	-	-	-
19-Sep-13	-	-	-	-	-	-	242.55	242.78	242.70	239.67	239.55	239.59
25-Oct-13	-	-	-	-	-	-	243.23	243.37	243.39	240.42	240.06	239.99
30-Nov-13	-	-	-	-	-	-	243.06	243.17	243.22	240.57	240.06	239.95
18-Dec-13	-	-	-	-	-	-	242.90	243.02	243.07	240.48	240.02	239.80
15-Mar-14	-	-	-	-	-	-	243.37	243.51	243.52	240.72	240.30	++
28-Apr-14	-	-	-	-	-	-	243.19	243.31	243.37	240.64	240.17	240.06
24-May-14	-	-	-	-	-	-	242.95	243.12	243.15	240.47	240.03	239.96
27-Jun-14	-	-	-	-	-	-	242.62	242.80	242.81	239.84	239.70	239.76
15-Jul-14	-	-	-	-	-	-	242.65	242.86	242.82	239.76	239.64	239.70
12-Sep-14	-	-	-	-	-	-	242.50	242.70	242.67	239.79	239.68	239.70
23-Oct-14	-	-	-	-	-	-	242.94	243.10	243.14	-	240.00	239.93

Notes:

*** = dry

++ = frozen

- = not measured

Table C-2.2

Monitoring Location	TP19	SG1	S8	S13
Ref. Elevation	241.28	242.69	240.74	243.53
15-Sep-03	-	-	-	-
17-Oct-03	-	-	-	-
28-Nov-03	-	-	-	-
26-Feb-04	-	-	-	-
26-Apr-04	-	-	-	-
14-May-04	-	-	-	-
21-May-04	-	-	-	-
28-May-04	-	-	-	-
4-Jun-04	-	-	-	-
11-Jun-04	-	-	-	-
17-Jun-04	-	-	-	-
25-Jun-04	-	-	-	-
9-Jul-04	-	-	-	-
16-Jul-04	-	-	-	-
22-Jul-04	-	-	-	-
29-Jul-04	-	-	-	-
5-Aug-04	-	-	-	-
13-Aug-04	-	-	-	-
19-Aug-04	-	-	-	-
26-Aug-04	-	-	-	-
2-Sep-04	-	-	-	-
9-Sep-04	-	-	-	-
16-Sep-04	-	-	-	-
23-Sep-04	-	-	-	-
7-Oct-04	-	-	-	-
14-Oct-04	-	-	-	-
21-Oct-04	-	-	-	-
28-Oct-04	-	-	-	-
3-Nov-04	-	-	-	-
11-Nov-04	-	-	-	-
18-Nov-04	-	-	-	-
25-Nov-04	-	-	-	-
2-Dec-04	-	-	-	-
9-Dec-04	-	-	-	-
16-Dec-04	-	-	-	-
23-Dec-04	-	-	-	-
13-Jan-05	-	-	-	-
31-Jan-05	-	-	-	-
21-Feb-05	-	-	-	-
24-Mar-05	-	-	-	-
26-Apr-05	-	-	-	-
10-May-05	-	-	-	-
24-May-05	-	-	-	-
1-Jun-05	-	-	-	-
10-Jun-05	-	-	-	-
17-Jun-05	-	-	-	-
24-Jun-05	-	-	-	-
30-Jun-05	-	-	-	-
8-Jul-05	-	-	-	-
15-Jul-05	-	-	-	-
22-Jul-05	-	-	-	-
28-Jul-05	-	-	-	-
4-Aug-05	-	-	-	-
12-Aug-05	-	-	-	-
18-Aug-05	-	-	-	-
26-Aug-05	-	-	-	-
2-Sep-05	-	-	-	-
9-Sep-05	-	-	-	-
15-Sep-05	-	-	-	-
23-Sep-05	-	-	-	-
30-Sep-05	-	-	-	-
7-Oct-05	-	-	-	-
14-Oct-05	-	-	-	-
21-Oct-05	-	-	-	-
28-Oct-05	-	-	-	-
4-Nov-05	-	-	-	-
11-Nov-05	-	-	-	-
2-Dec-05	-	-	-	-
21-Apr-06	-	-	-	-
15-Aug-06	-	-	-	-
14-Sep-06	-	-	-	-
28-Sep-06	-	-	-	-
5-Oct-06	-	-	-	-
6-Oct-06	-	-	-	-
10-Oct-06	-	-	-	-
17-Oct-06	239.70	-	-	-

Monitoring Location	TP19	SG1	S8	S13
Ref. Elevation	241.28	242.69	240.74	243.53
20-Oct-06	239.71	-	-	-
27-Oct-06	239.84	-	-	-
3-Nov-06	239.85	-	-	-
6-Nov-06	-	-	-	-
10-Nov-06	239.91	-	-	-
14-Nov-06	-	-	-	-
17-Nov-06	239.94	-	-	-
24-Nov-06	239.90	-	-	-
1-Dec-06	239.93	-	-	-
15-Dec-06	240.13	-	-	-
26-Jan-07	239.89	-	-	-
9-Apr-07	240.02	-	-	-
21-Jun-07	239.74	243.06	-	-
27-Jul-07	239.50	-	-	-
22-Aug-07	239.24	-	-	-
31-Aug-07	239.31	-	-	-
26-Sep-07	-	-	-	-
19-Oct-07	239.29	-	-	-
17-Nov-07	239.46	243.04	-	-
20-Dec-07	239.65	243.12	-	-
7-Mar-08	239.93	243.29	-	-
3-Jun-08	239.89	-	-	-
29-Jul-08	239.72	-	-	-
18-Aug-08	239.71	-	-	-
23-Sep-08	239.75	-	-	-
29-Oct-08	239.80	-	-	-
26-Nov-08	239.94	-	-	-
18-Dec-08	-	-	-	-
6-Jan-09	-	-	-	-
20-Jan-09	239.91	243.14	-	-
24-Mar-09	240.01	243.23	-	-
8-Apr-09	-	-	-	-
15-Apr-09	240.02	-	-	-
6-Jun-09	239.86	243.10	-	-
12-Jun-09	-	243.10	239.84	242.86
8-Jul-09	239.84	243.14	-	-
20-Aug-09	239.68	242.96	-	-
16-Sep-09	239.51	-	-	-
20-Oct-09	239.69	243.08	-	-
27-Nov-09	239.84	243.10	-	-
29-Mar-10	239.95	243.17	-	242.91
30-Apr-10	239.84	243.11	239.87	242.86
25-May-10	239.83	243.12	-	-
25-Jun-10	239.84	243.14	-	-
26-Jul-10	239.82	243.08	-	-
26-Aug-10	239.80	243.09	-	-
4-Oct-10	239.85	243.19	239.98	-
1-Nov-10	239.72	243.13	-	-
6-Dec-10	239.83	-	-	-
6-Jan-11	++	++	++	++
9-Feb-11	++	++	++	++
25-Feb-11	-	-	-	-
23-Mar-11	++	243.10	-	-
4-May-11	240.09	243.26	240.13	243.35
24-May-11	240.01	243.28	239.94	243.32
27-Jun-11	239.98	-	-	-
26-Jul-11	239.78	242.97	-	243.04
30-Aug-11	239.77	242.98	-	242.85
22-Sep-11	239.81	242.99	239.81	242.96
26-Oct-11	240.07	243.21	240.05	243.20
29-Nov-11	240.15	243.24	240.05	243.20
11-Jan-12	239.99	243.24	239.95	243.20
27-Feb-12	239.94	243.22	239.90	243.17
8-Mar-12	-	-	-	-
15-Mar-12	-	-	-	-
21-Mar-12	-	-	-	-
29-Mar-12	239.92	243.24	239.87	243.21
25-Apr-12	239.94	243.22	239.88	243.17
28-May-12	239.76	243.08	239.73	243.02
13-Jun-12	239.76	243.07	239.79	243.03
11-Jul-12	239.62	242.99	239.64	242.93
30-Aug-12	239.62	243.04	239.59	243.00
25-Sep-12	239.69	243.07	239.62	243.07
24-Oct-12	239.90	243.17	239.92	243.21
27-Nov-12	239.94	243.18	239.80	243.21
19-Dec-12	239.97	243.19	239.82	243.22
28-Jan-13	239.98	243.18	239.79	243.23
27-Feb-13	++	243.21	239.87	243.21

Monitoring Location	TP19	SG1	S8	S13
Ref. Elevation	241.28	242.69	240.74	243.53
26-Mar-13	239.99	243.23	239.94	243.22
23-Apr-13	240.12	243.29	239.97	243.28
27-May-13	239.95	243.18	239.91	243.17
17-Jun-13	239.88	243.14	239.87	243.12
29-Jul-13	239.73	242.87	239.74	242.79
31-Aug-13	-	-	-	-
19-Sep-13	239.65	243.02	239.66	242.99
25-Oct-13	239.93	243.22	239.90	243.23
30-Nov-13	239.99	243.20	239.89	243.20
18-Dec-13	239.89	243.19	239.87	243.14
15-Mar-14	++	++	240.06	-
28-Apr-14	240.05	243.26	239.94	243.24
24-May-14	239.99	243.19	239.91	243.18
27-Jun-14	239.81	243.08	239.80	243.05
15-Jul-14	239.75	243.20	239.73	243.08
12-Sep-14	239.75	243.08	239.75	243.05
23-Oct-14	239.96	243.19	239.94	243.29

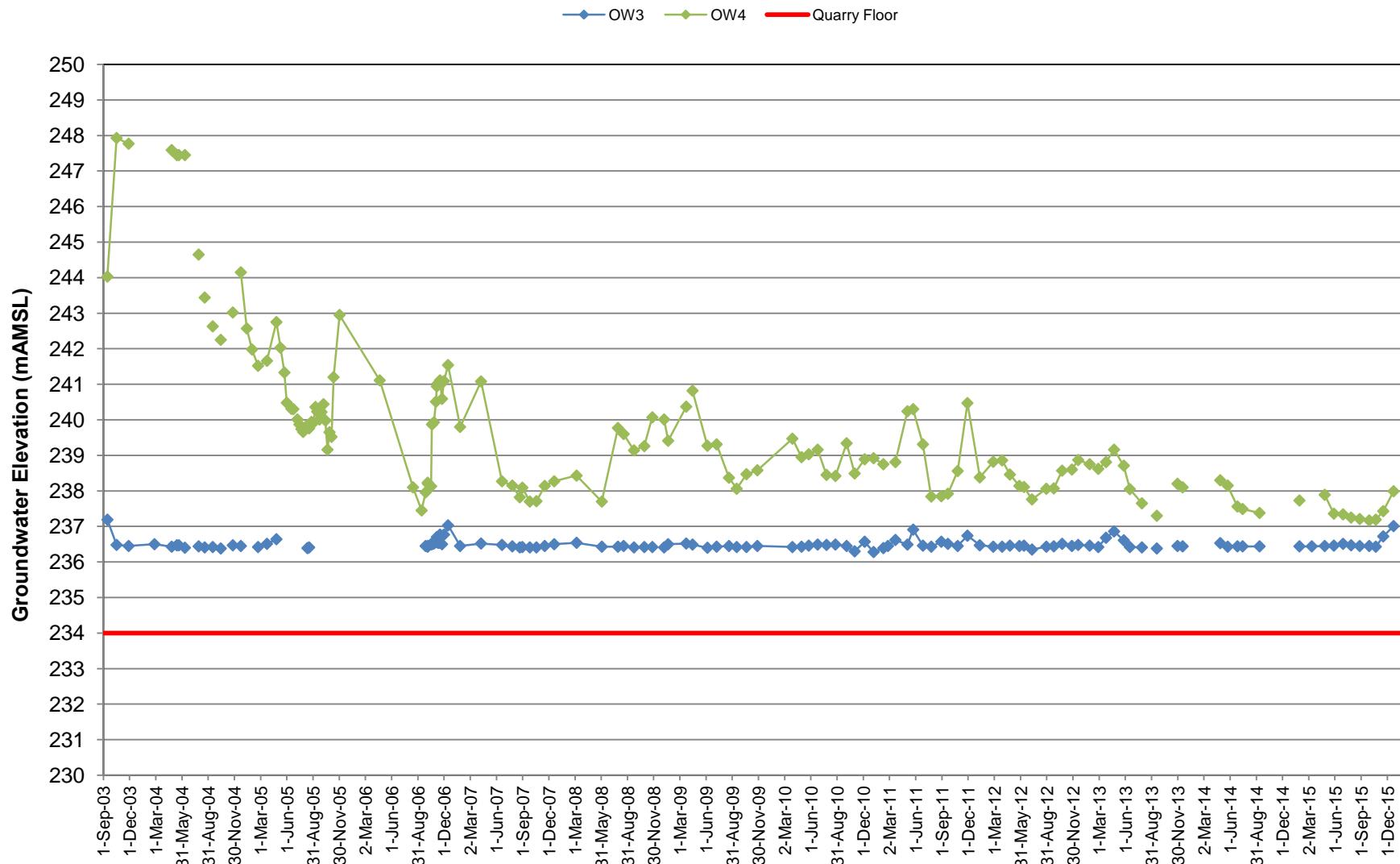
Notes:

*** = dry

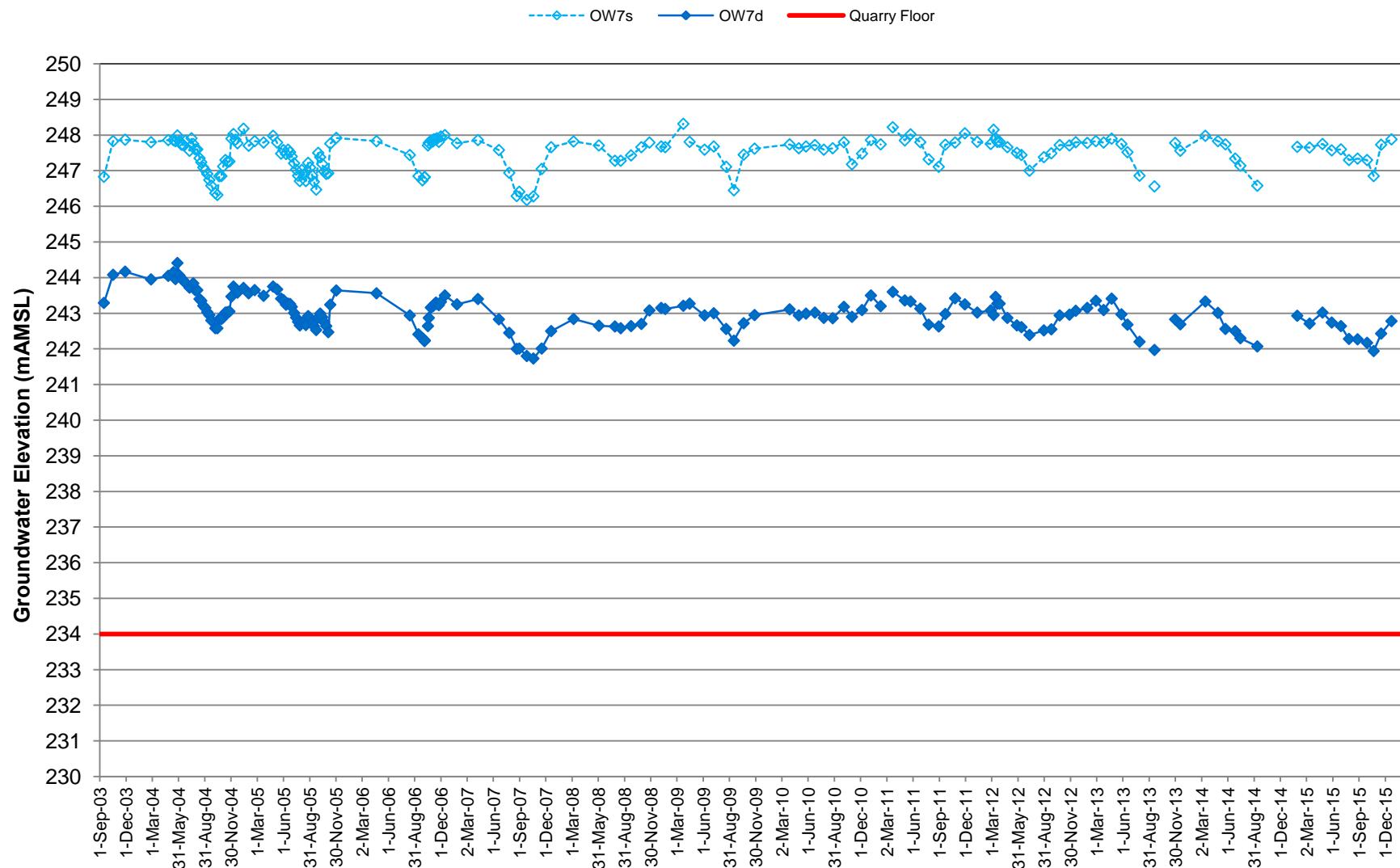
++ = frozen

- = not measured

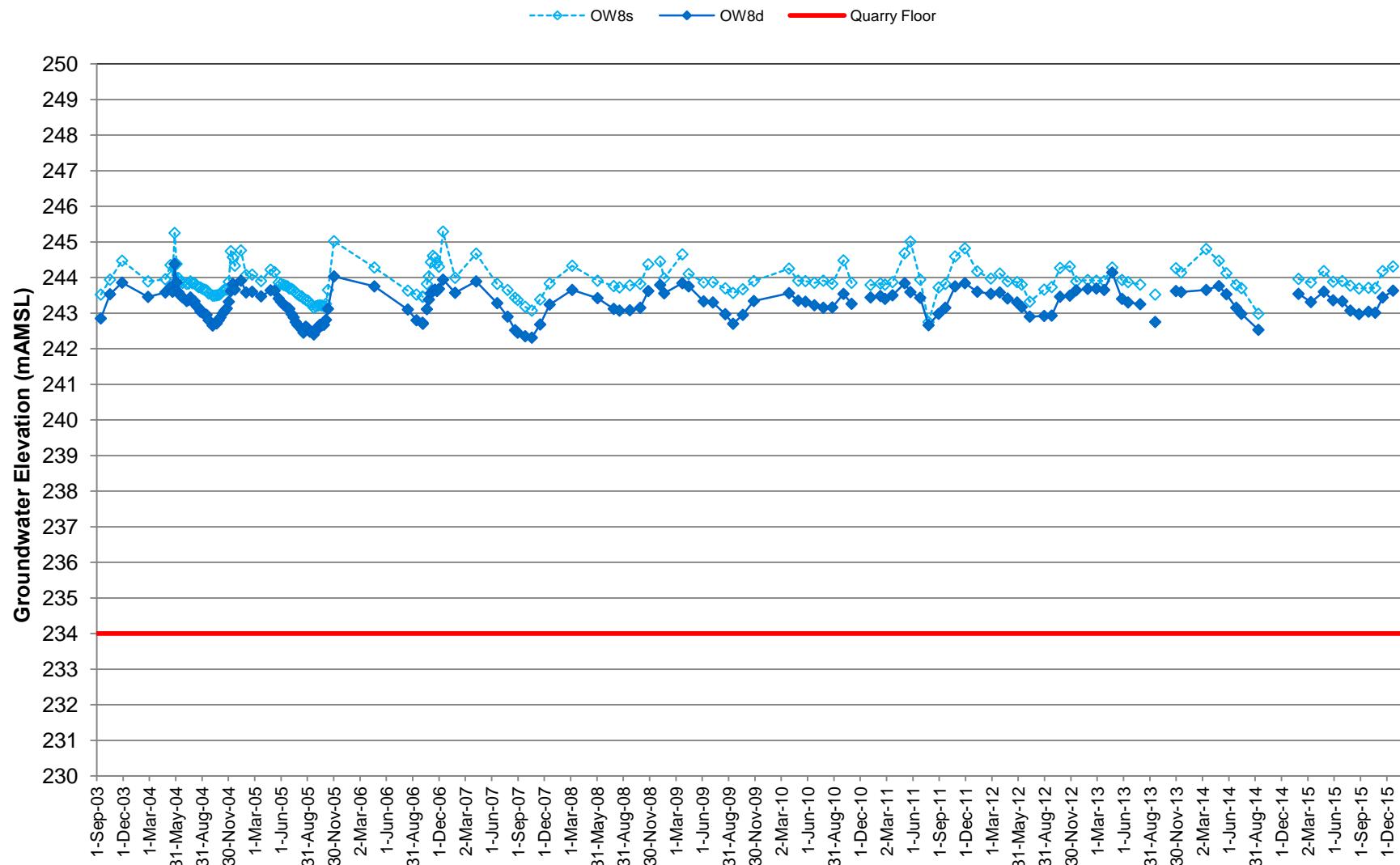
Hydrograph C-2.1: Groundwater Elevations - OW3 & OW4



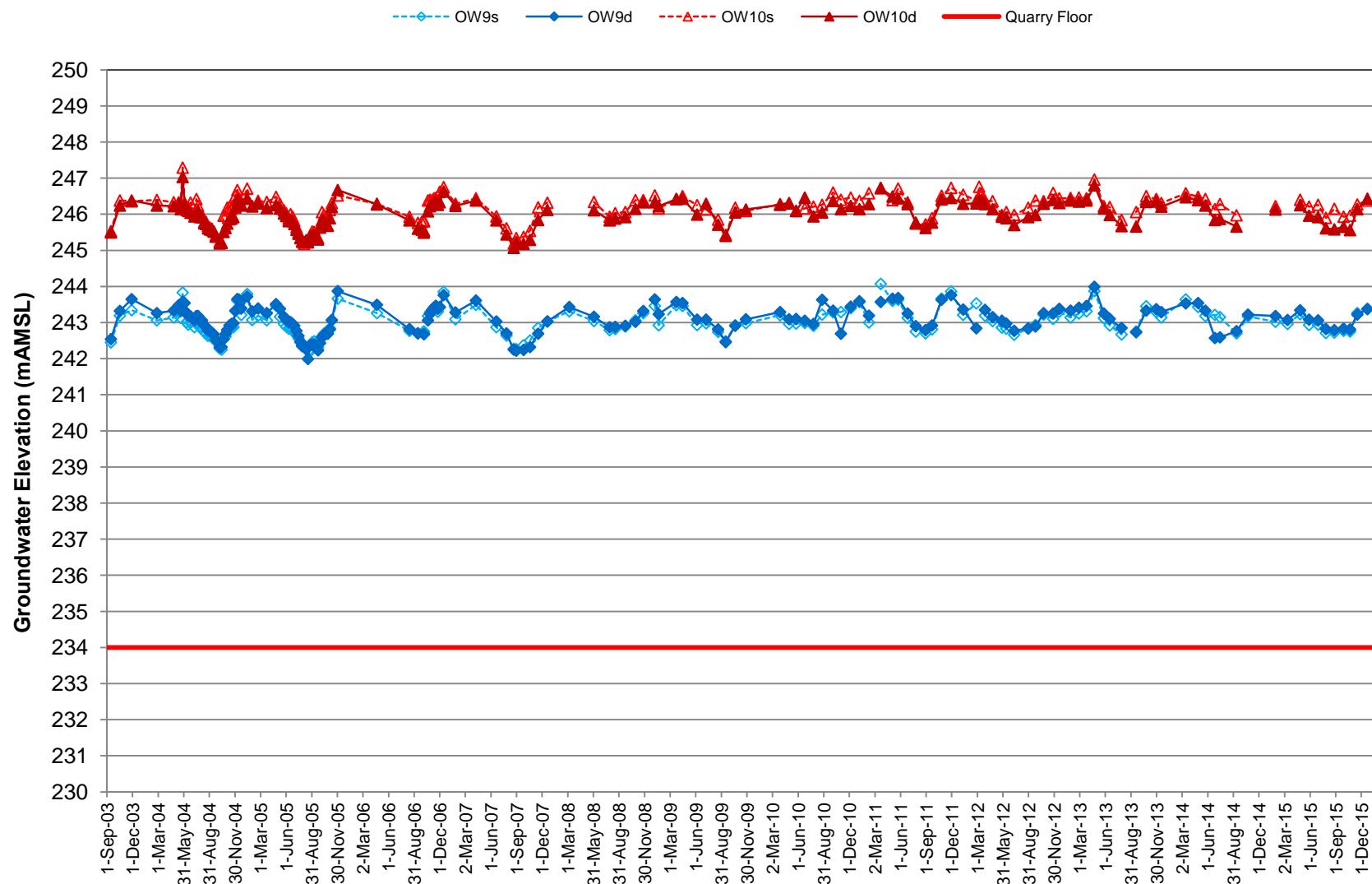
Hydrograph C-2.2: Groundwater Elevations - OW7



Hydrograph C-2.3: Groundwater Elevations - OW8

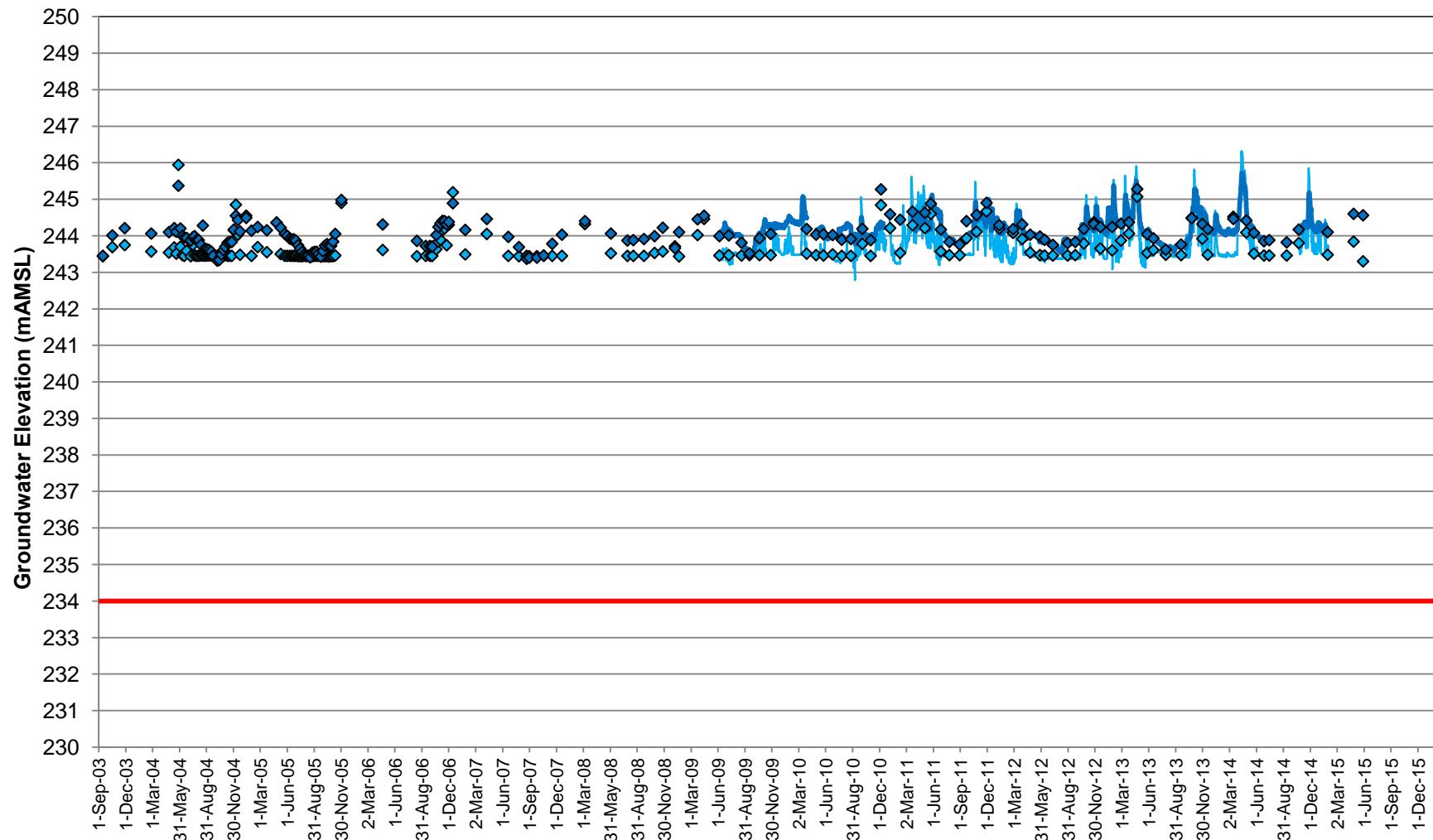


Hydrograph C-2.4: Groundwater Elevations - OW9 & OW10

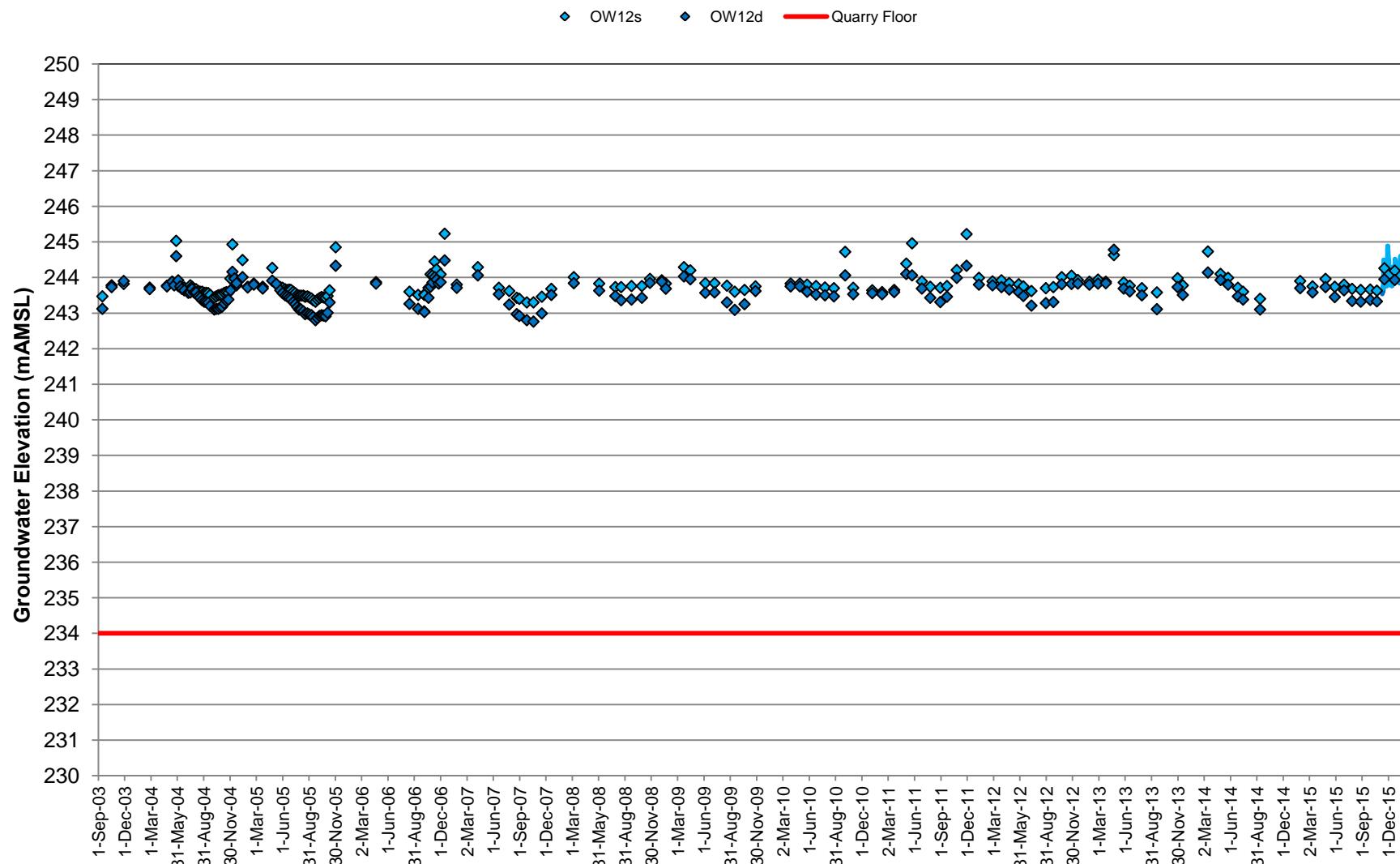


Hydrograph C-2.5: Groundwater Elevations - OW11

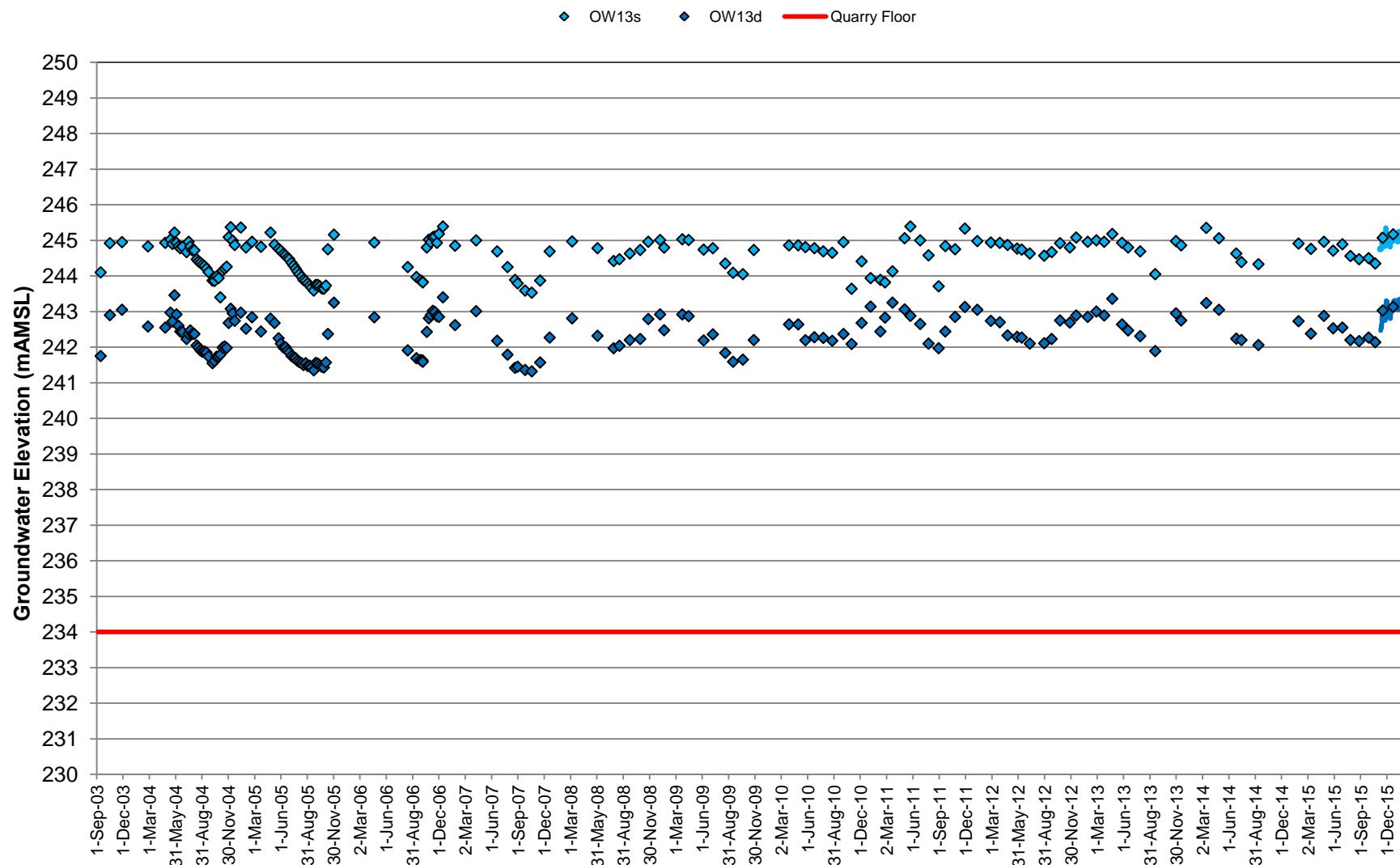
◆ OW11s ◆ OW11d — Quarry Floor



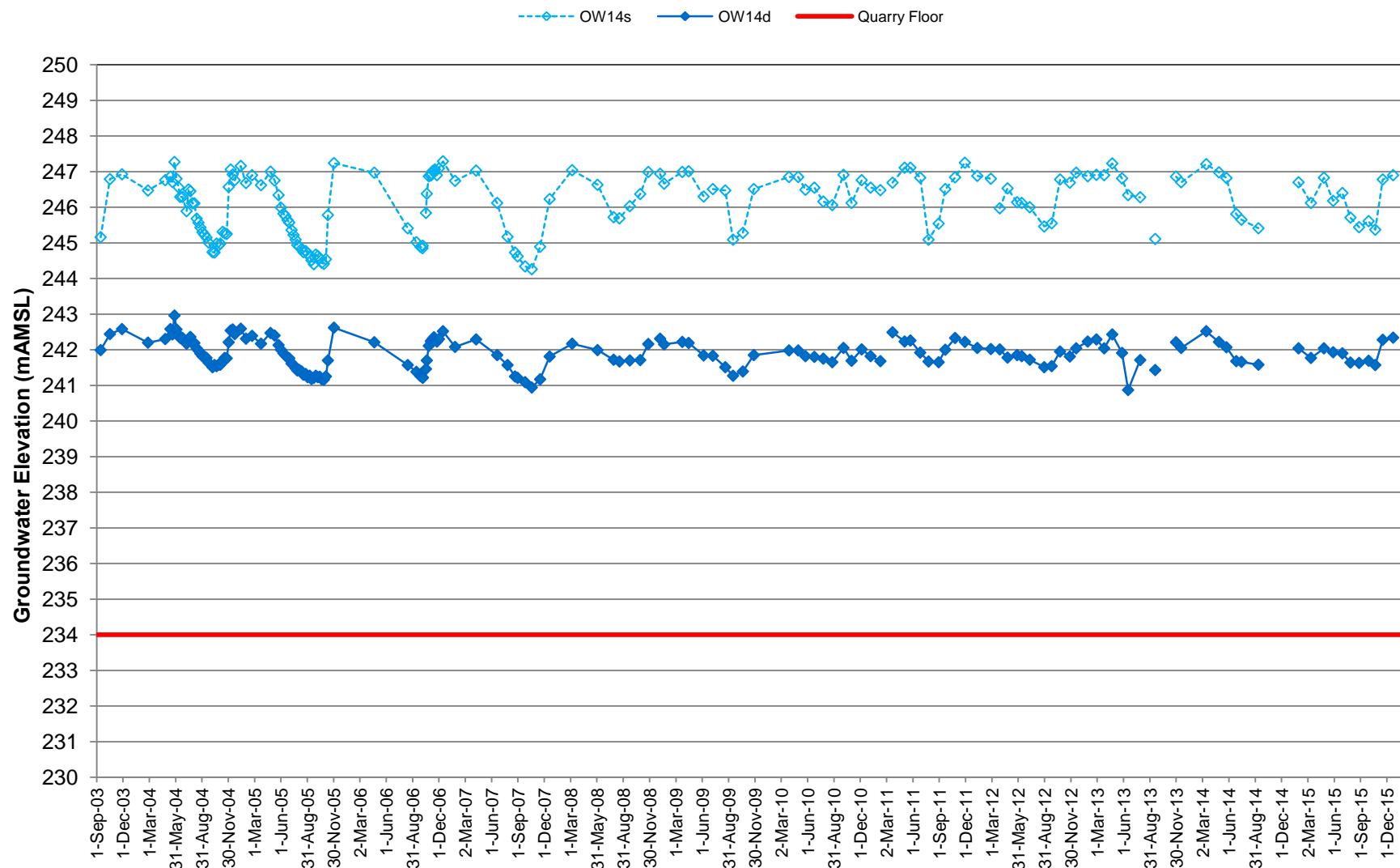
Hydrograph C-2.6: Groundwater Elevations - OW12



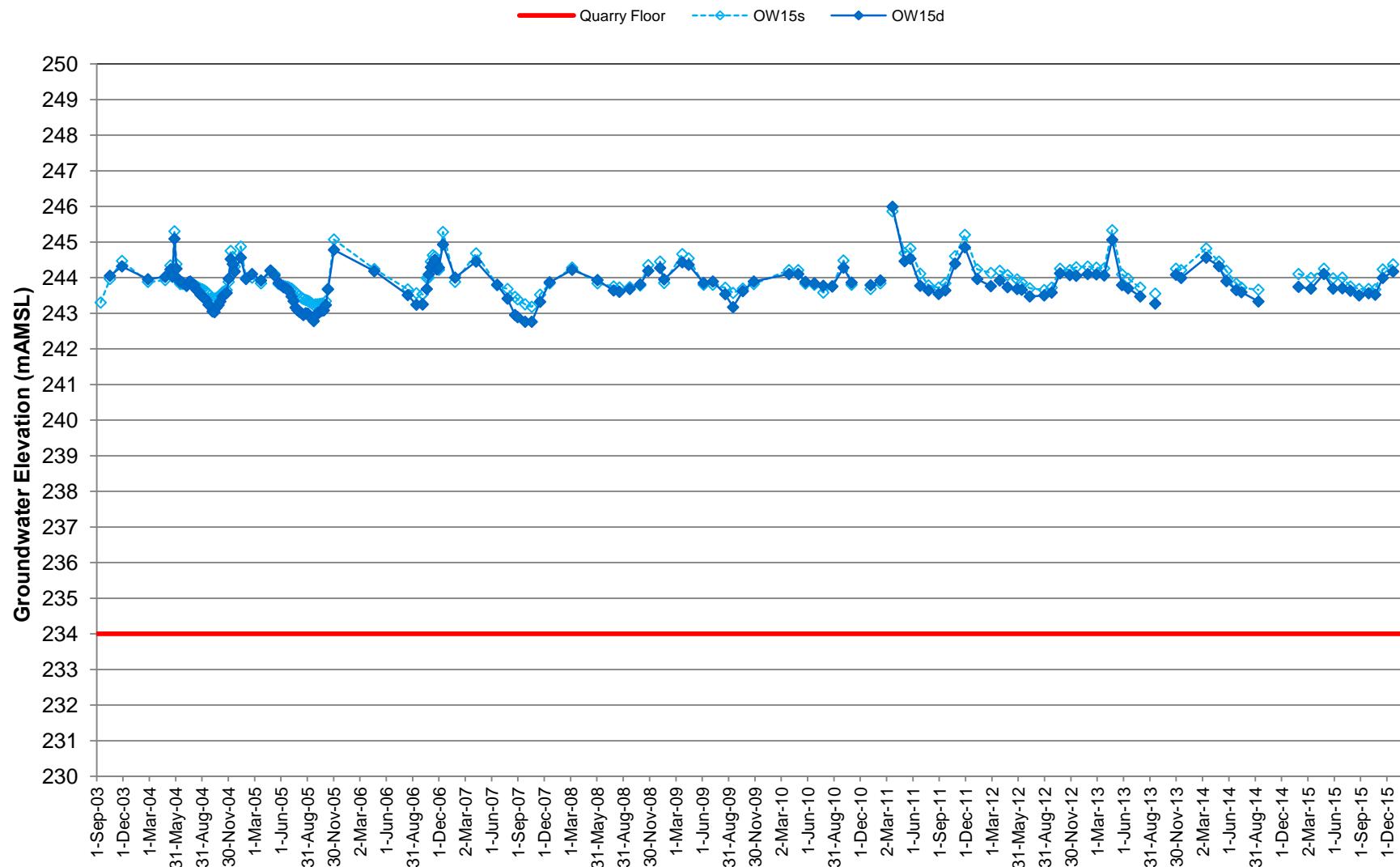
Hydrograph C-2.7: Groundwater Elevations - OW13



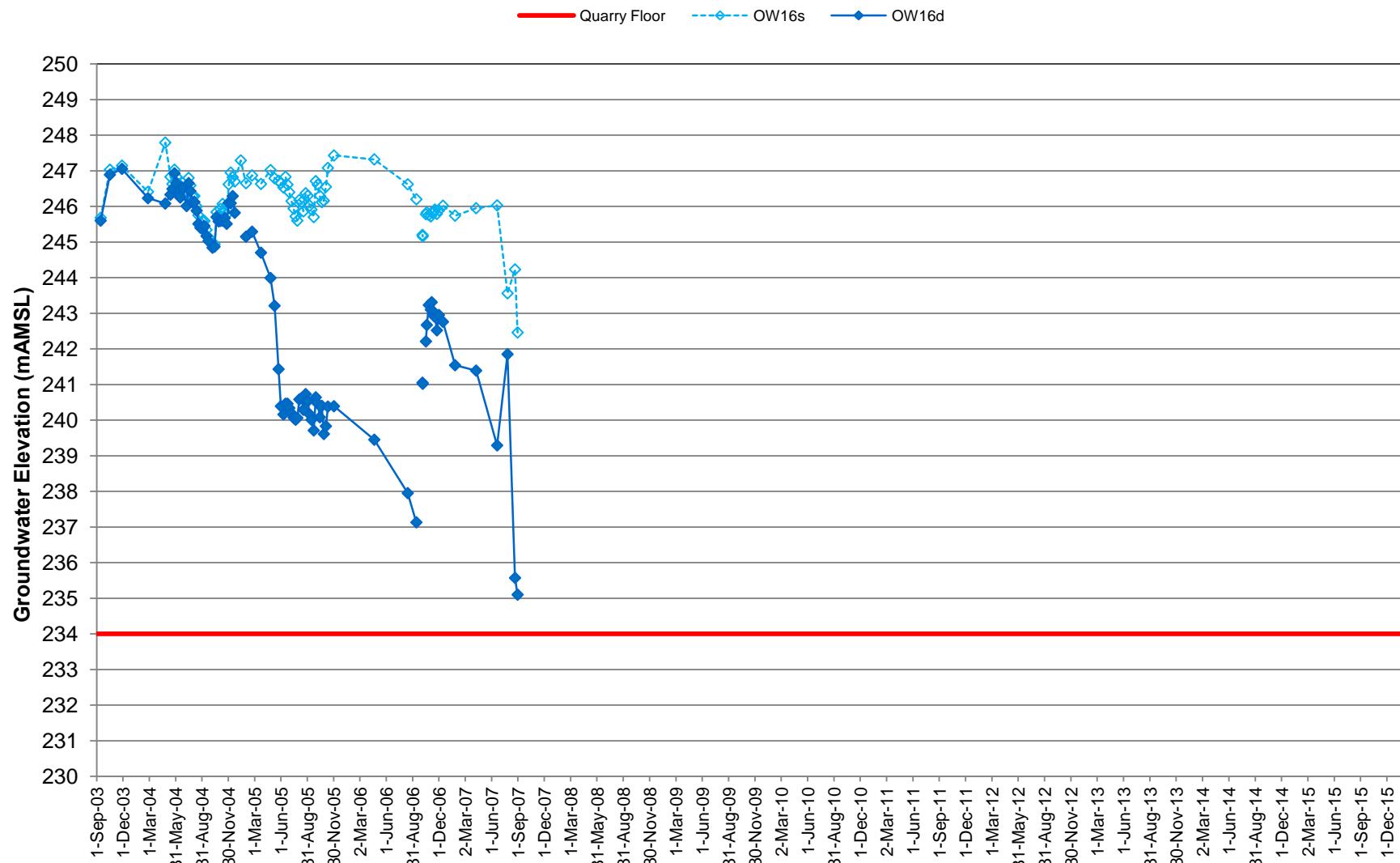
Hydrograph C-2.8: Groundwater Elevations - OW14



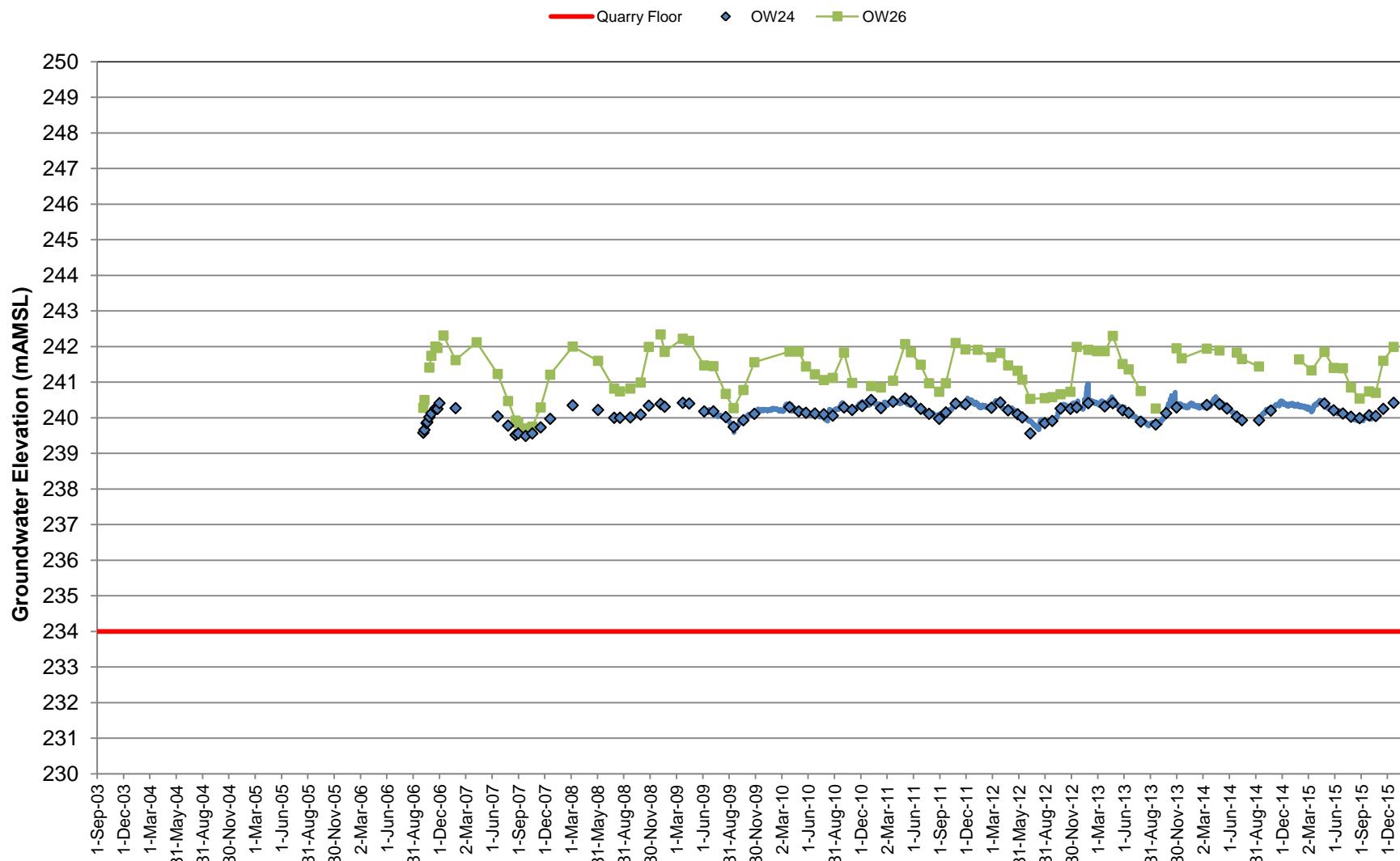
Hydrograph C-2.9: Groundwater Elevations - OW15



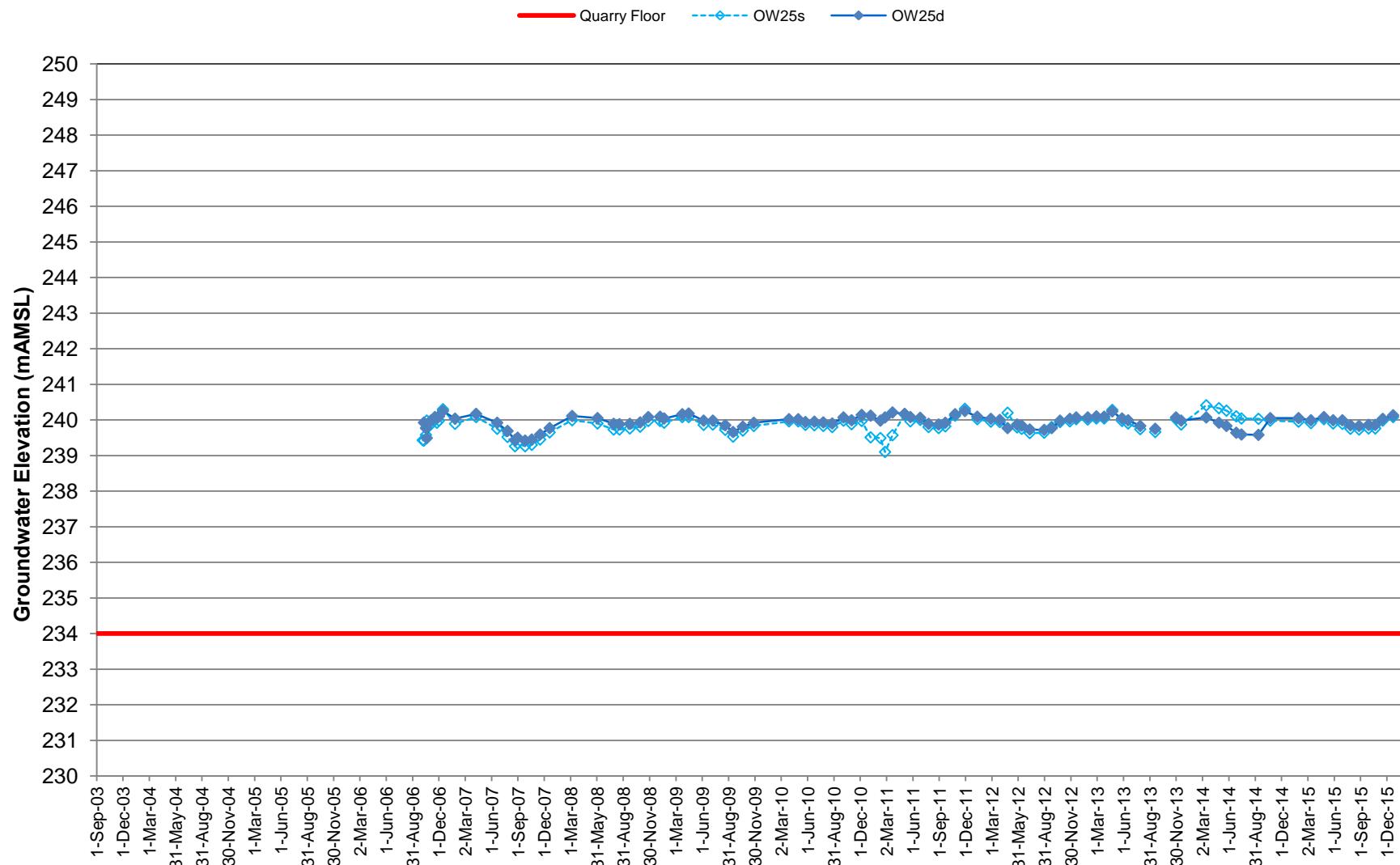
Hydrograph C-2.10: Groundwater Elevations - OW16



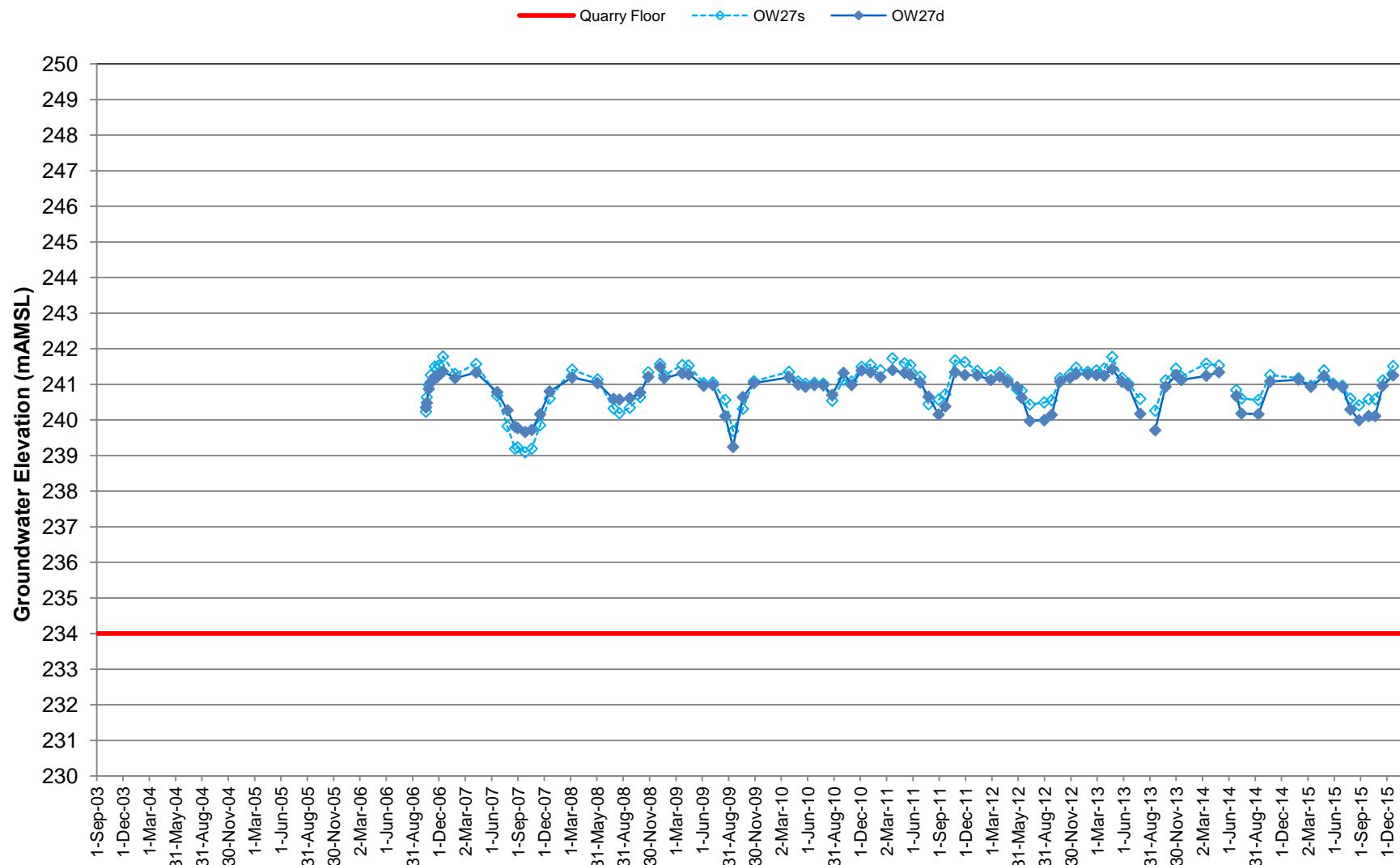
Hydrograph C-2.11: Groundwater Elevations - OW24 & OW26



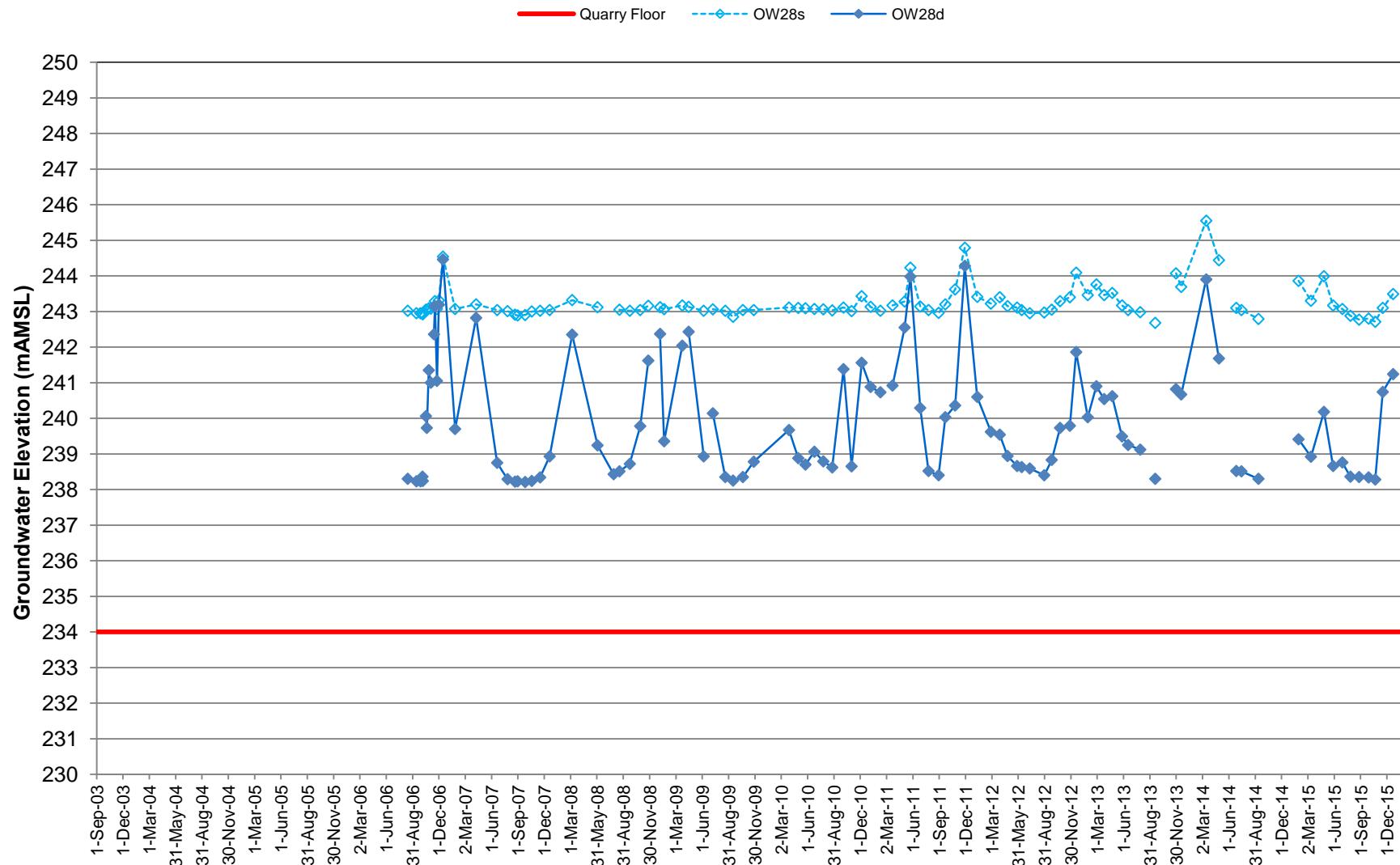
Hydrograph C-2.12: Groundwater Elevations - OW25



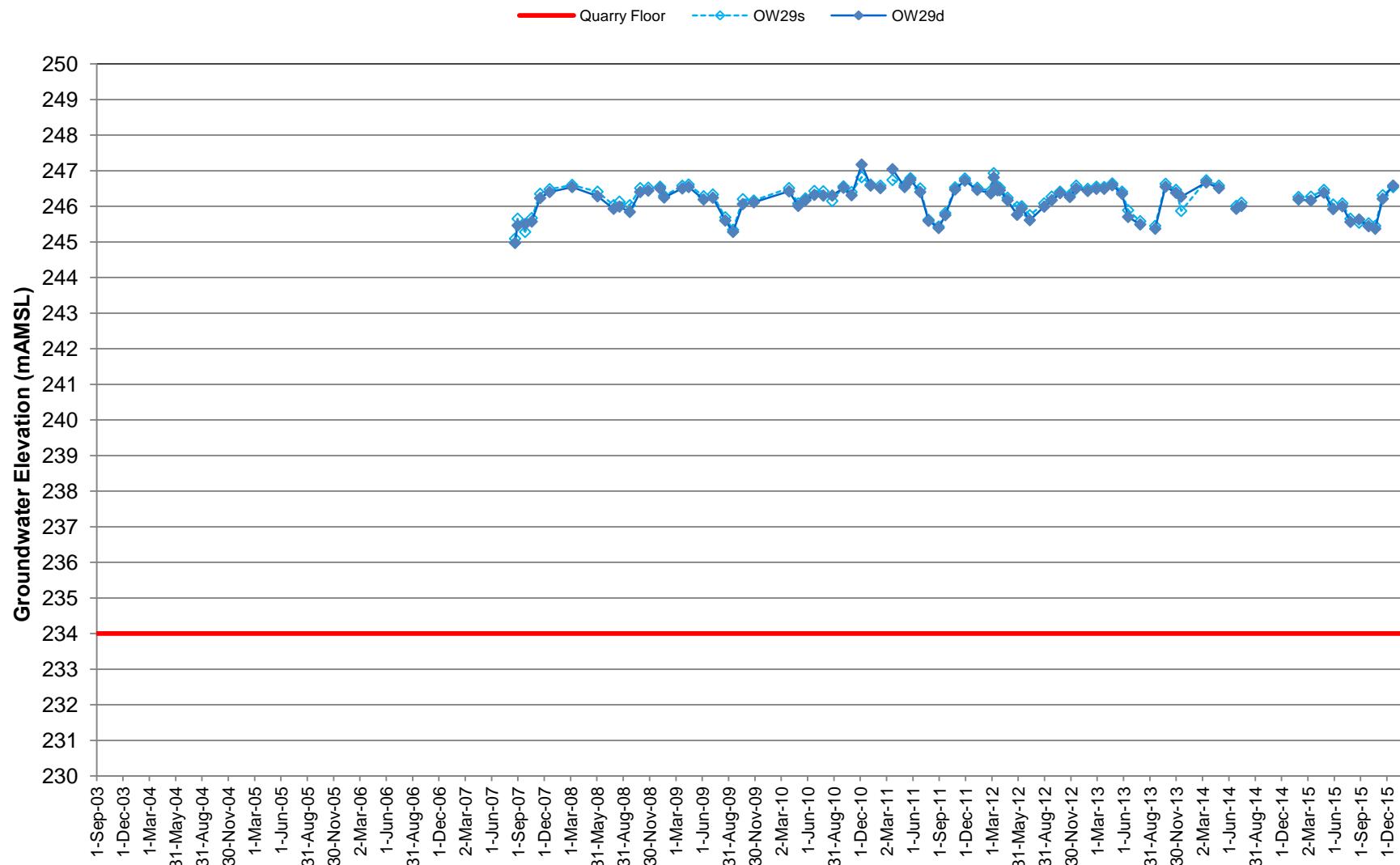
Hydrograph C-2.13: Groundwater Elevations - OW27



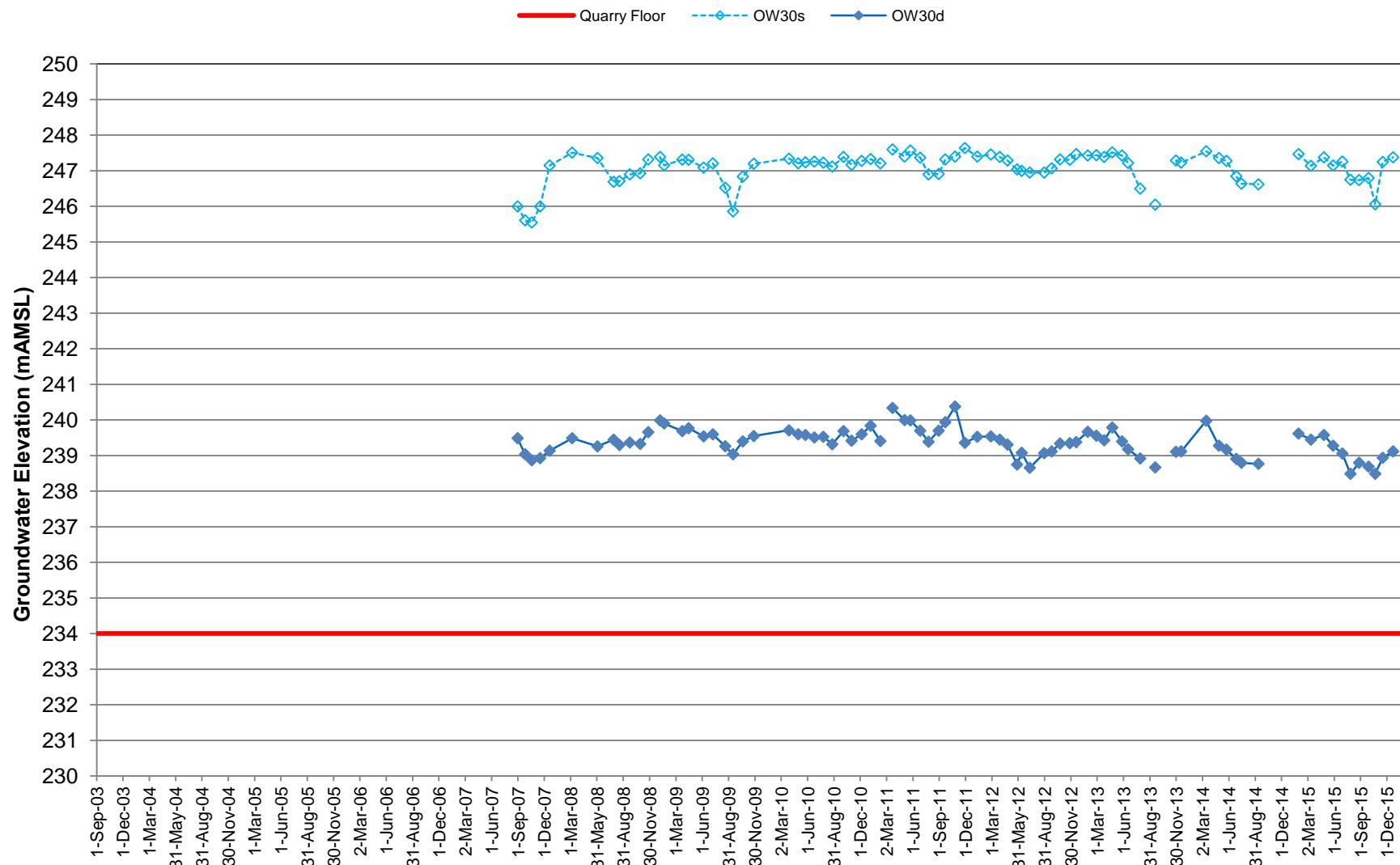
Hydrograph C-2.14: Groundwater Elevations - OW28



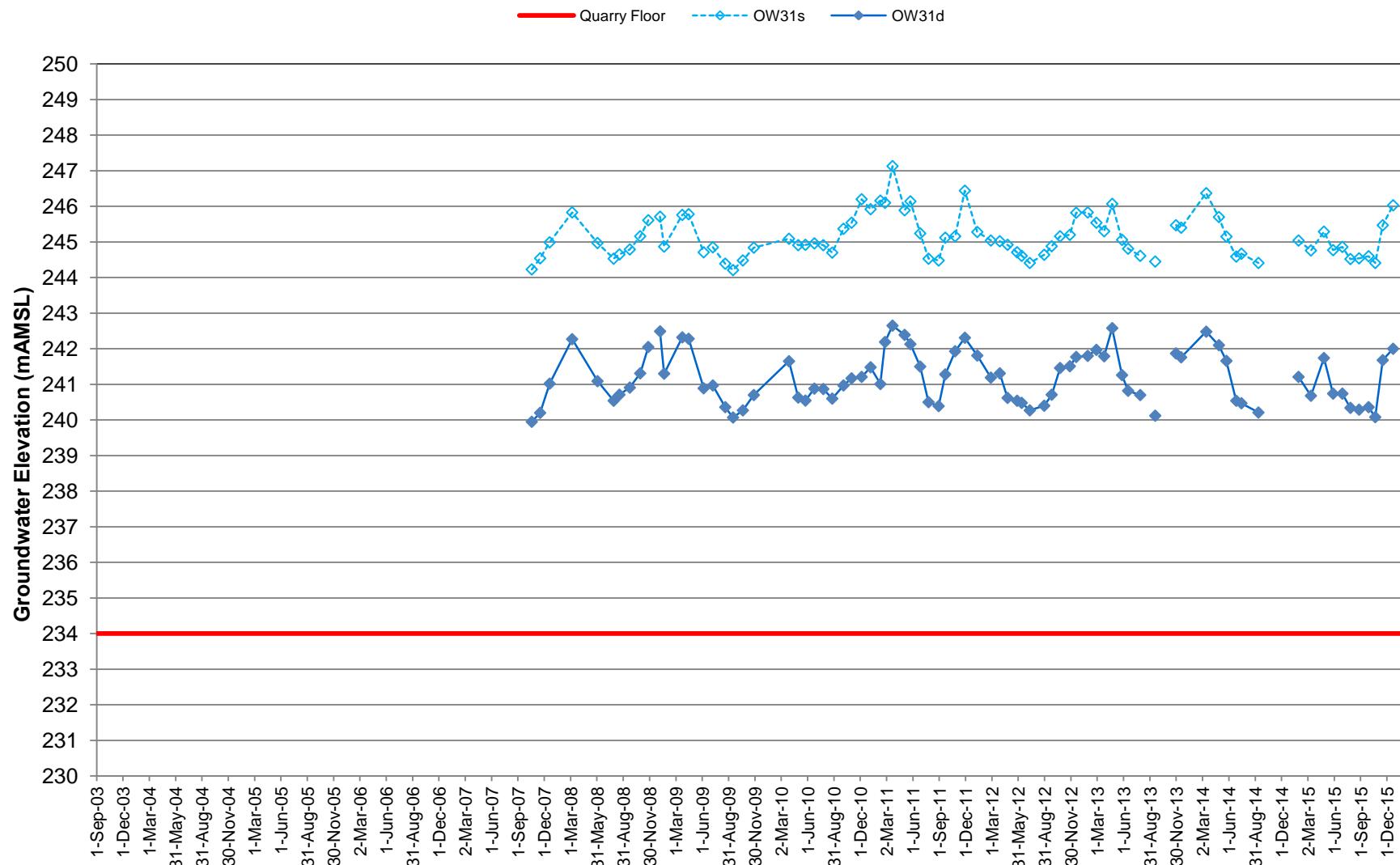
Hydrograph C-2.15: Groundwater Elevations - OW29



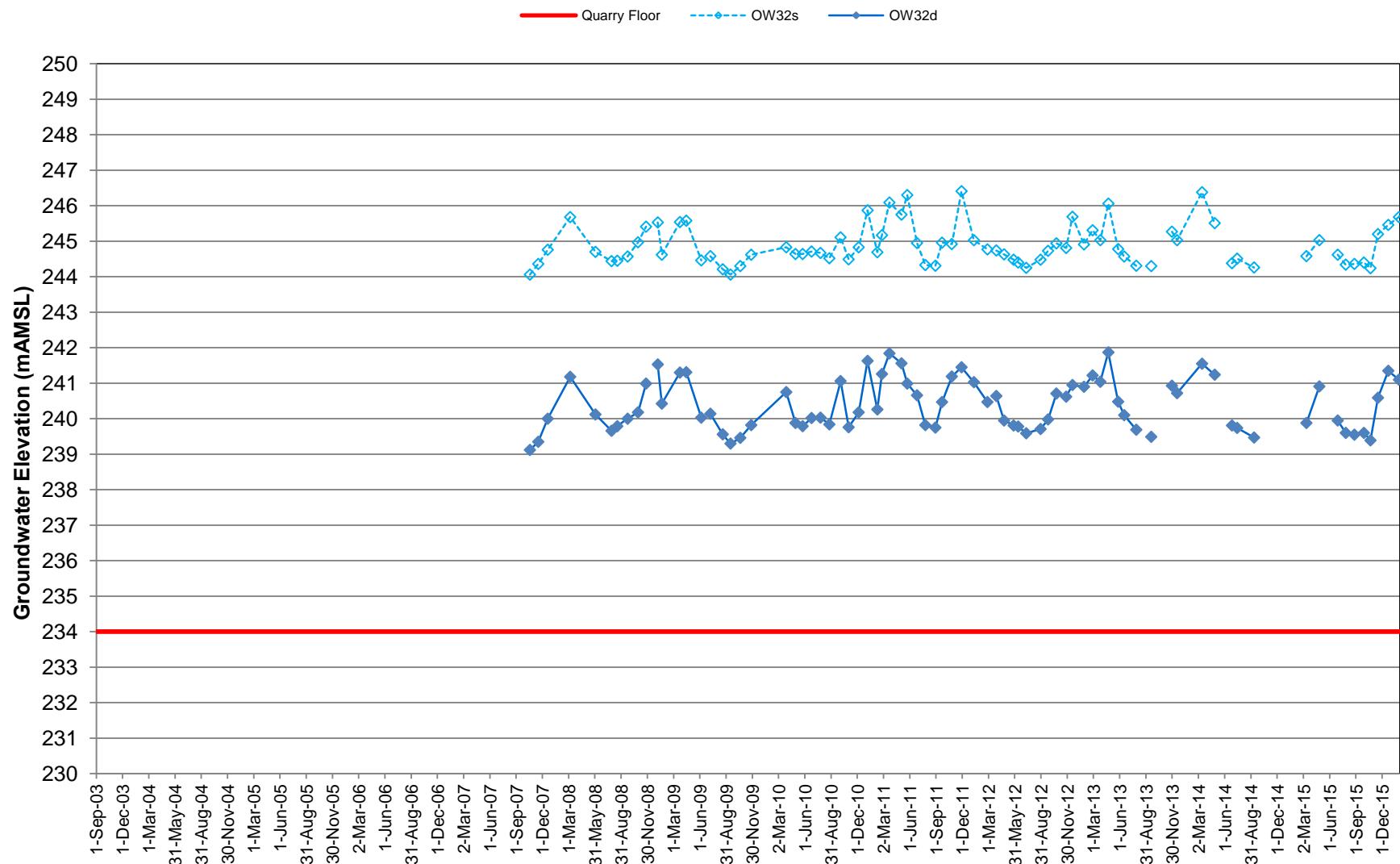
Hydrograph C-2.16: Groundwater Elevations - OW30



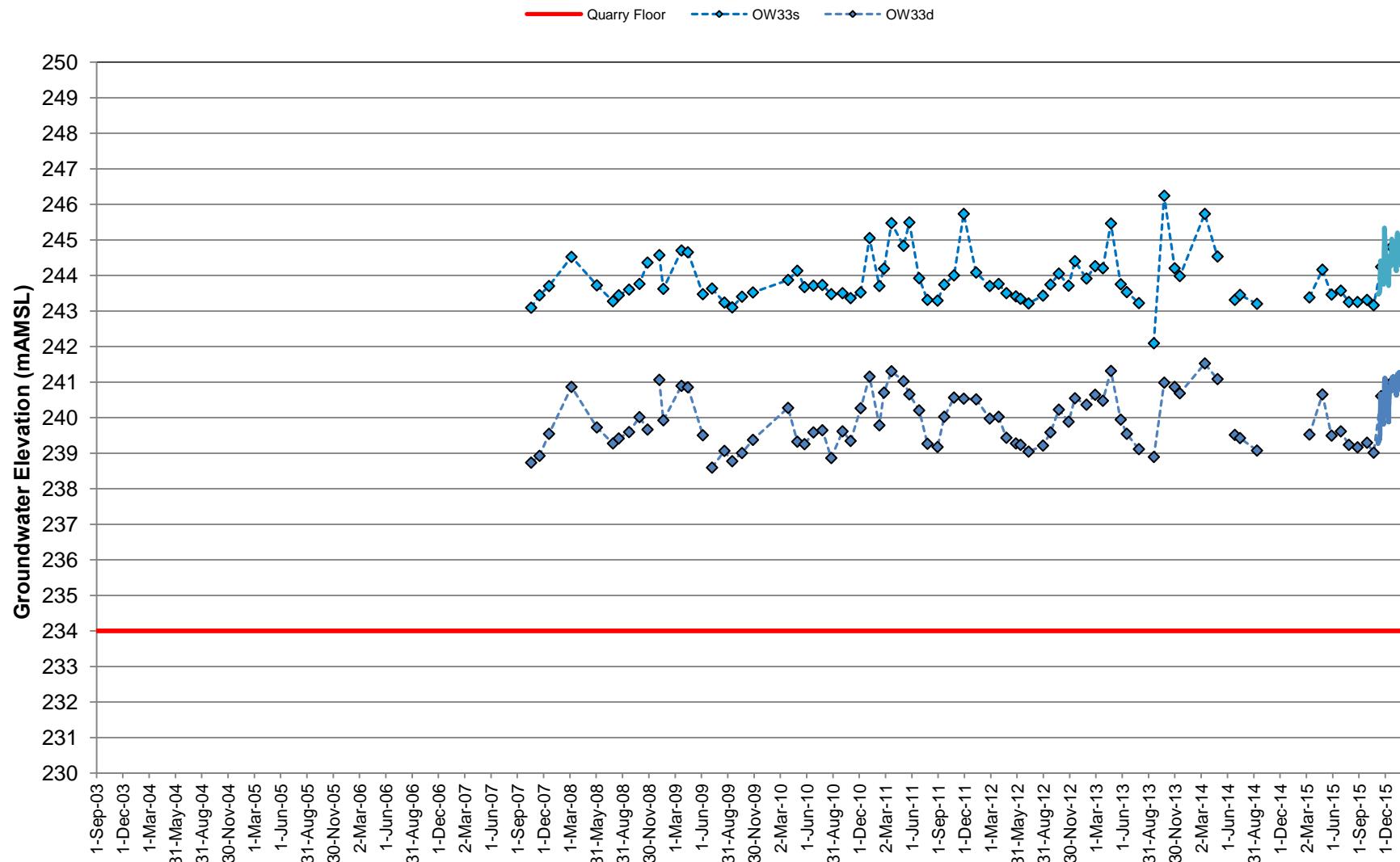
Hydrograph C-2.17: Groundwater Elevations - OW31



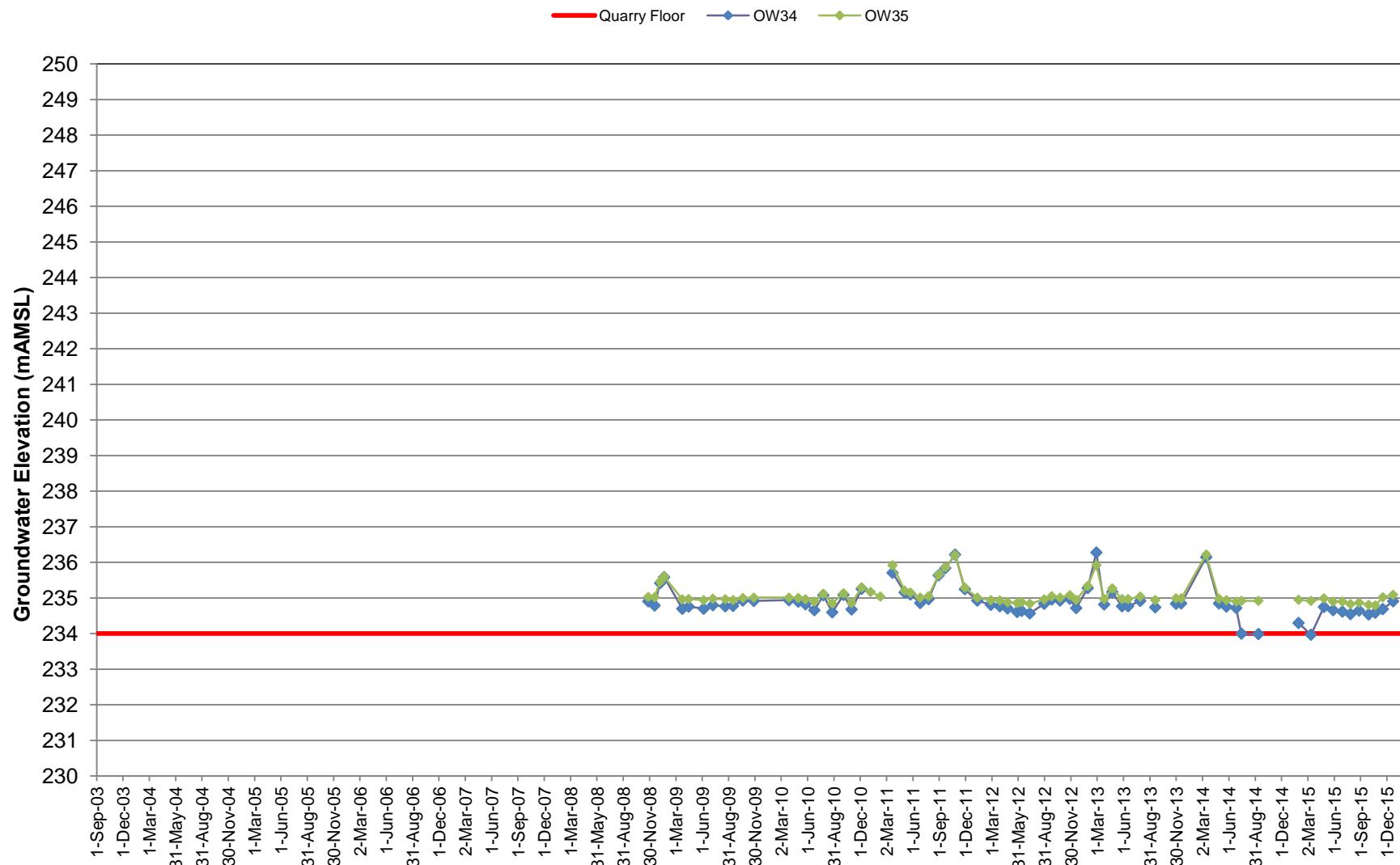
Hydrograph C-2.18: Groundwater Elevations - OW32



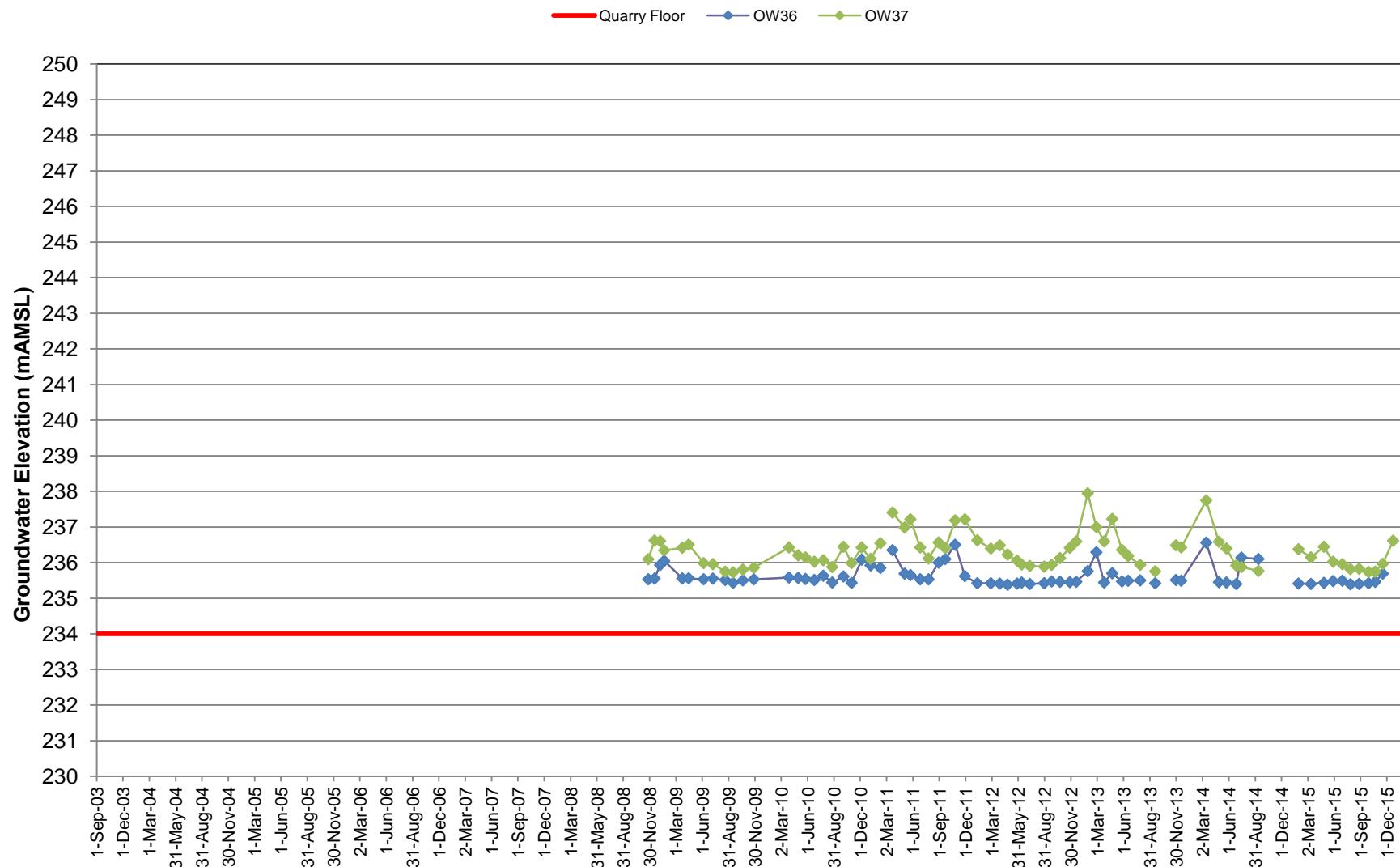
Hydrograph C-2.19: Groundwater Elevations - OW33



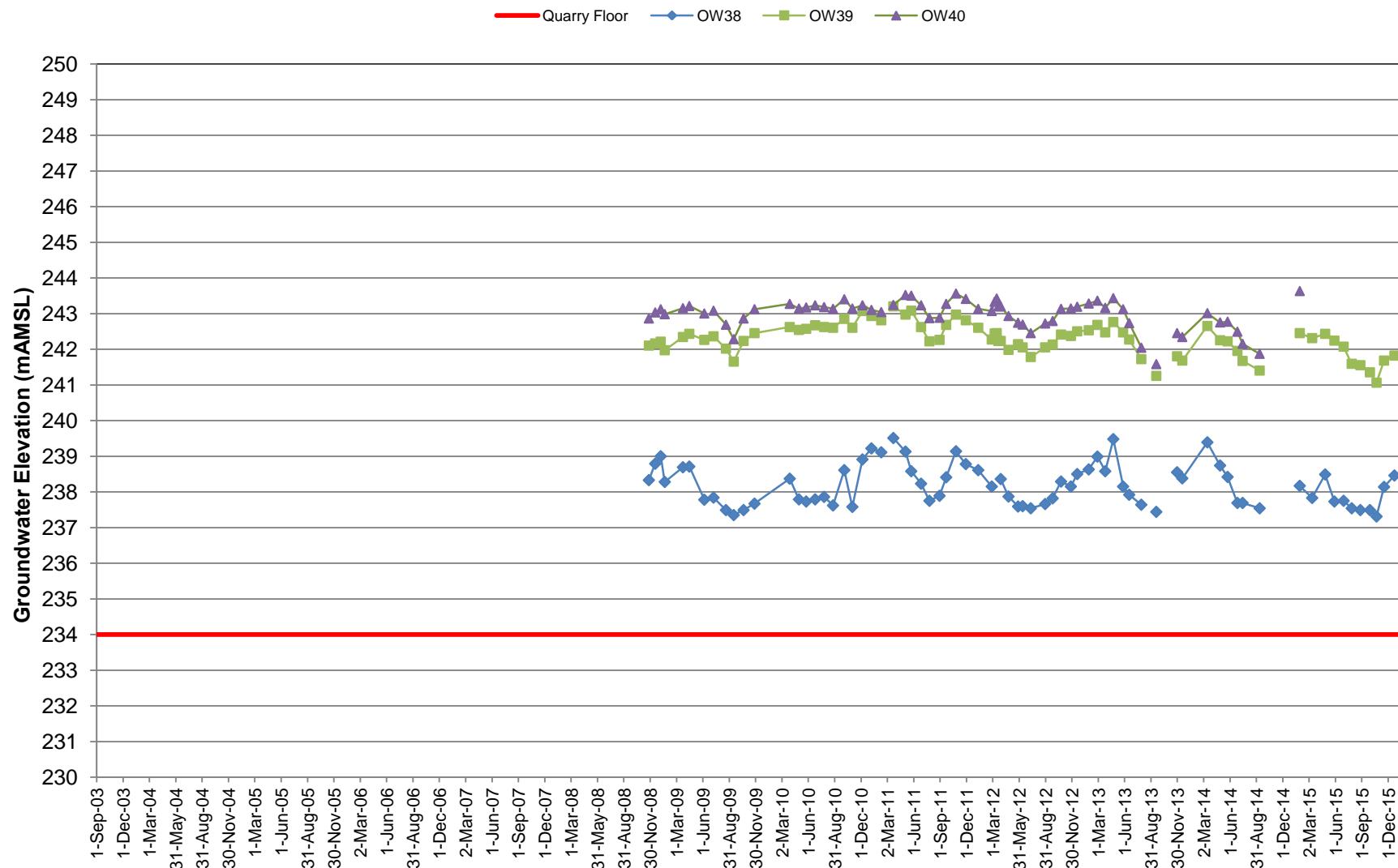
Hydrograph C-2.20: Groundwater Elevations - OW34 & OW35



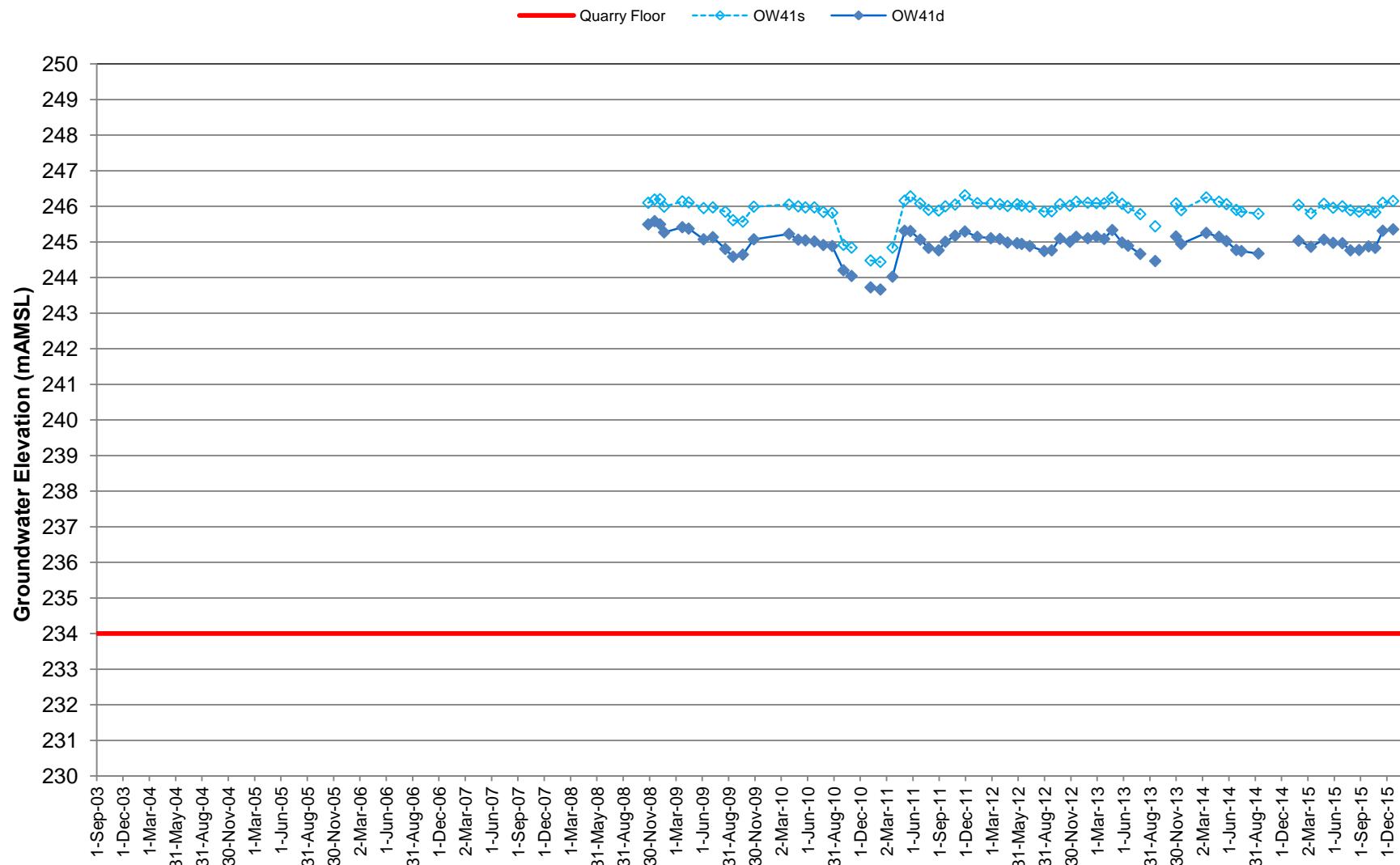
Hydrograph C-2.21: Groundwater Elevations - OW36 & OW37



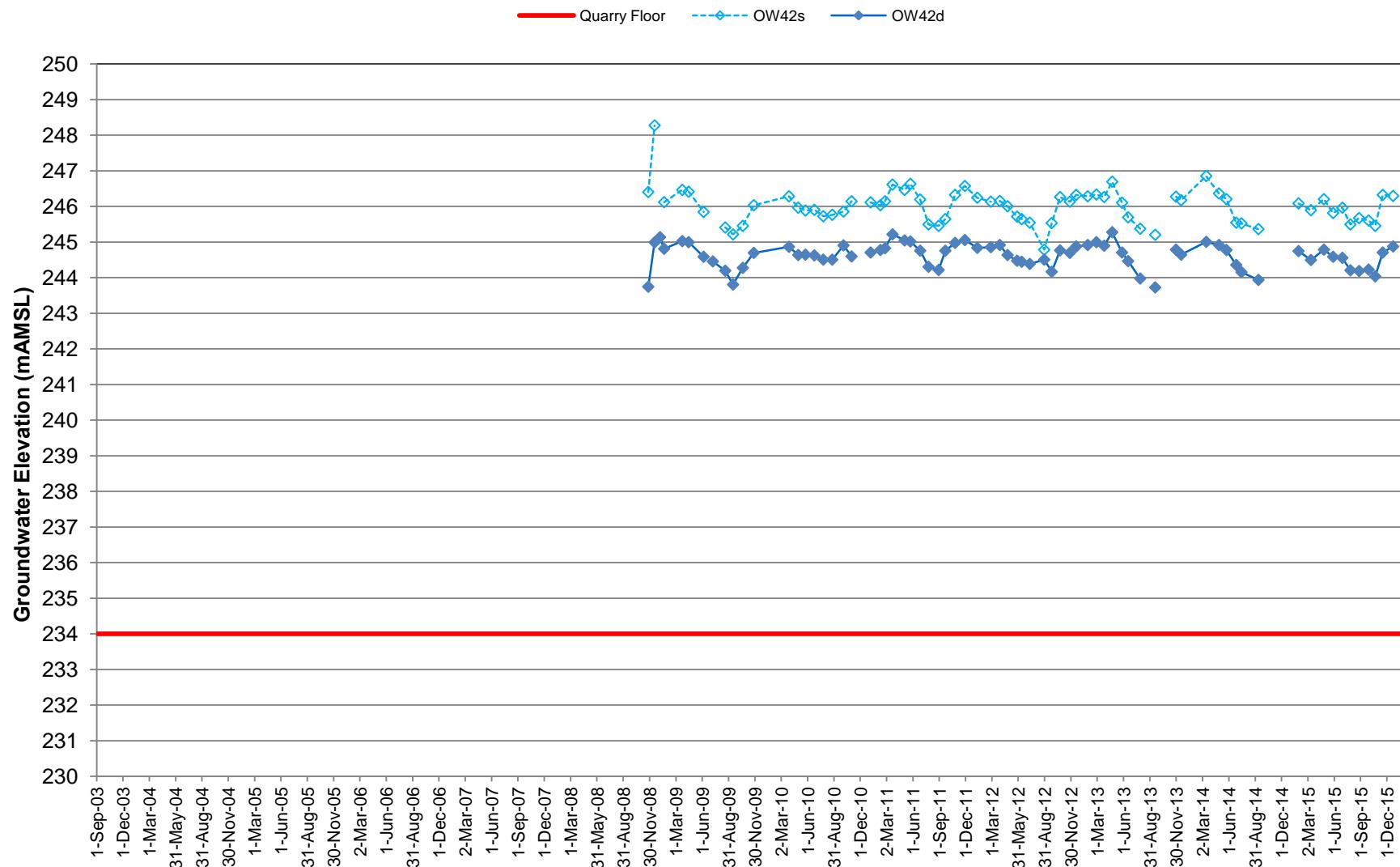
Hydrograph C-2.22: Groundwater Elevations - OW38, OW39 & OW40



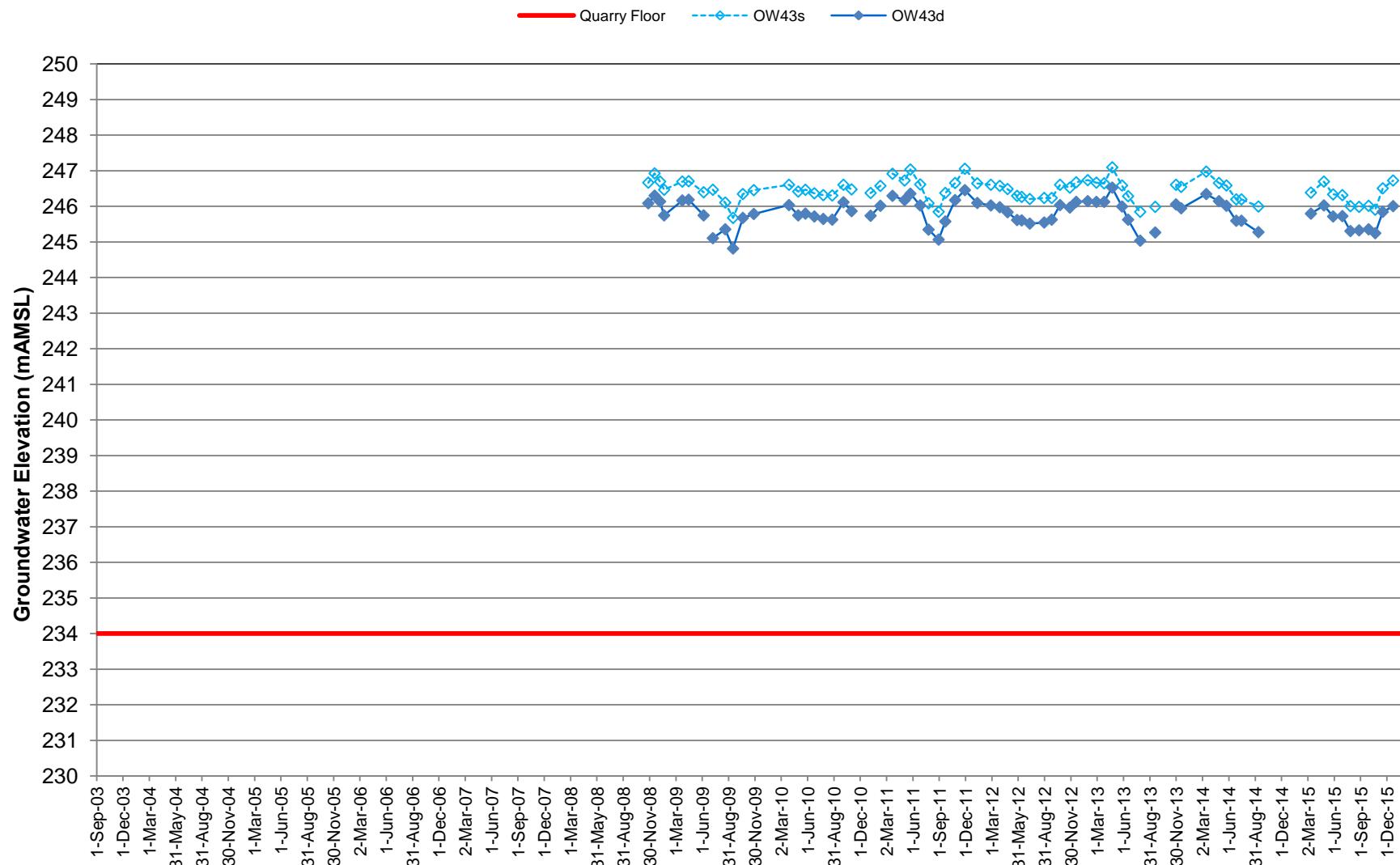
Hydrograph C-2.23: Groundwater Elevations - OW41



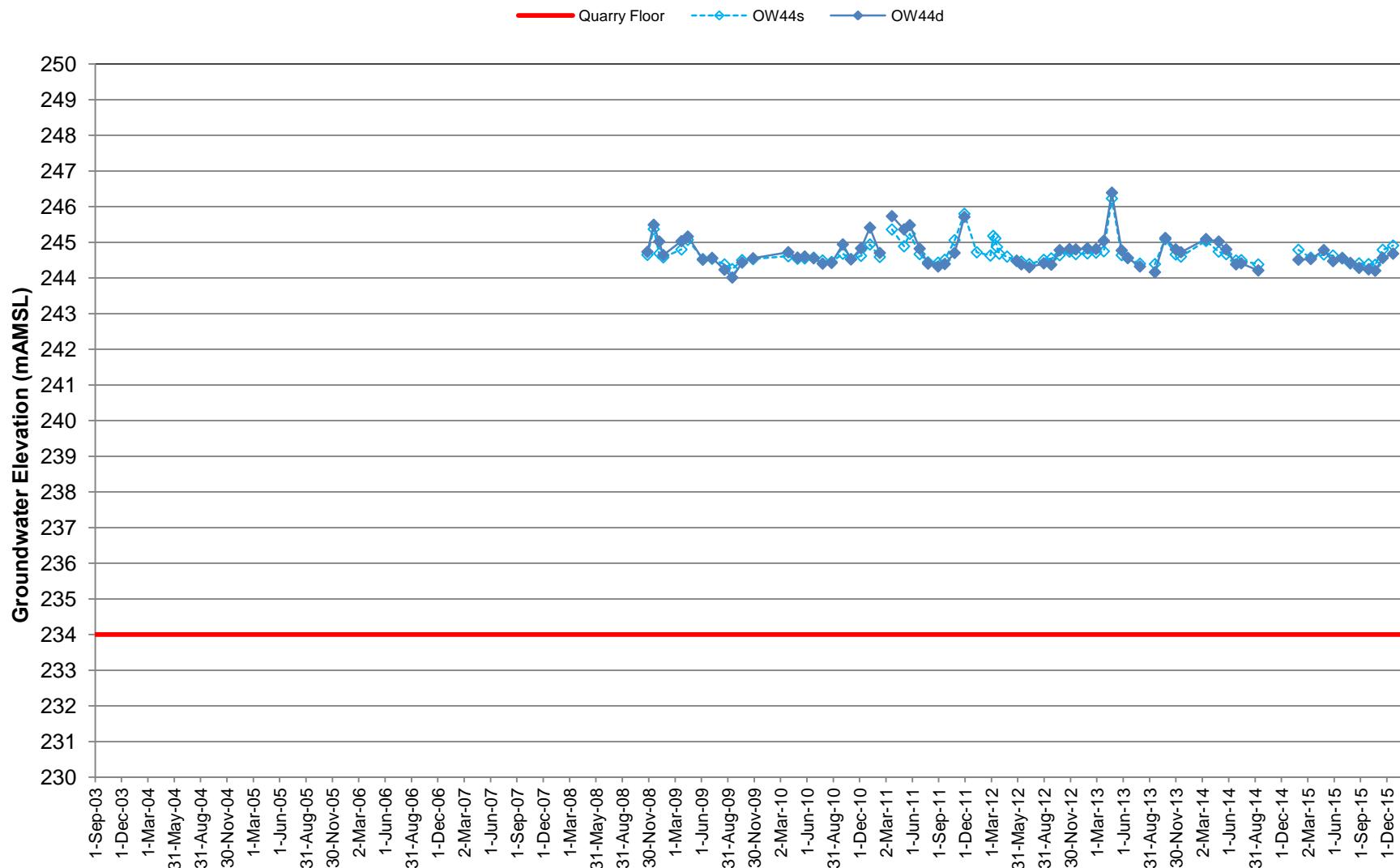
Hydrograph C-2.24: Groundwater Elevations - OW42



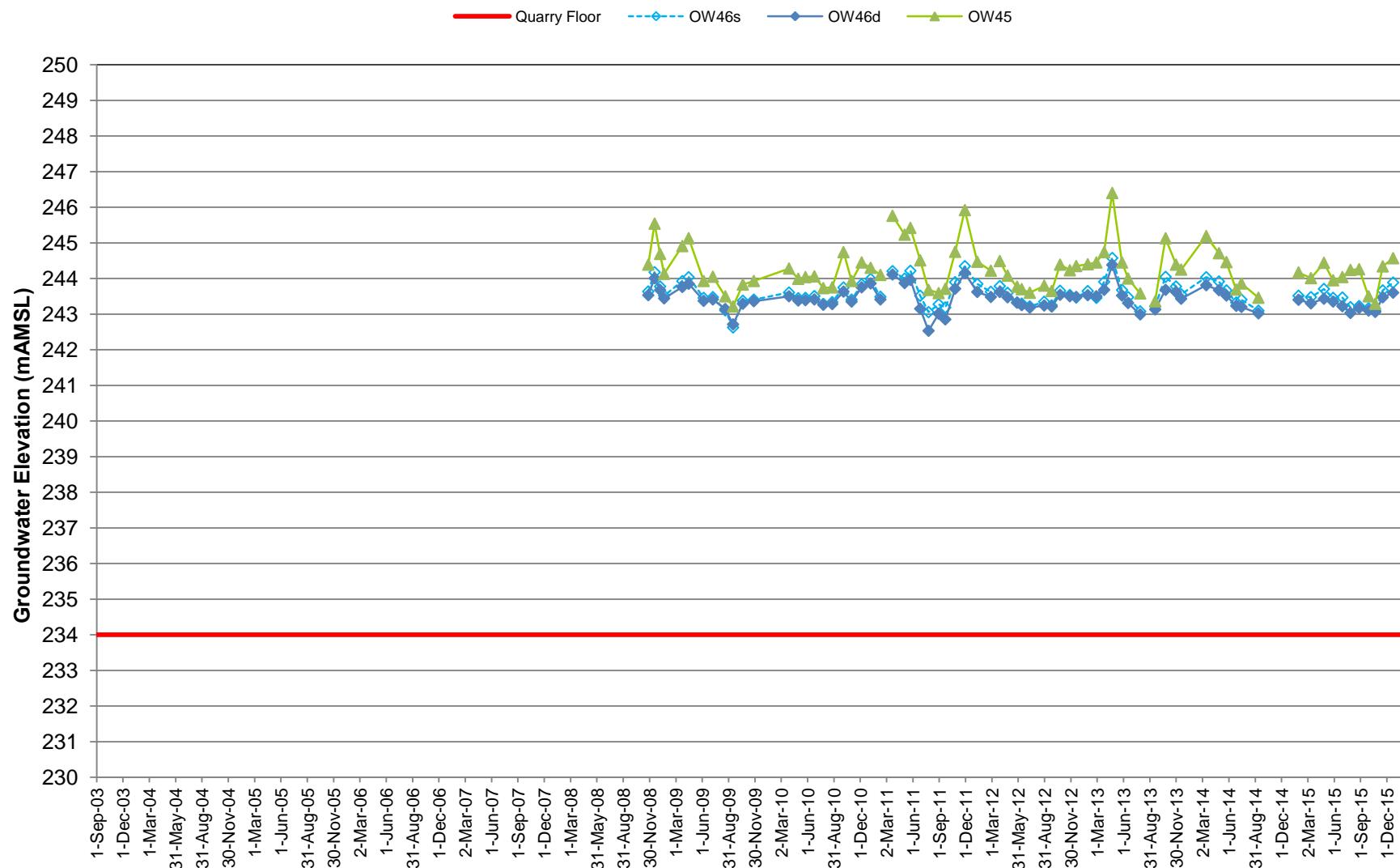
Hydrograph C-2.25: Groundwater Elevations - OW43



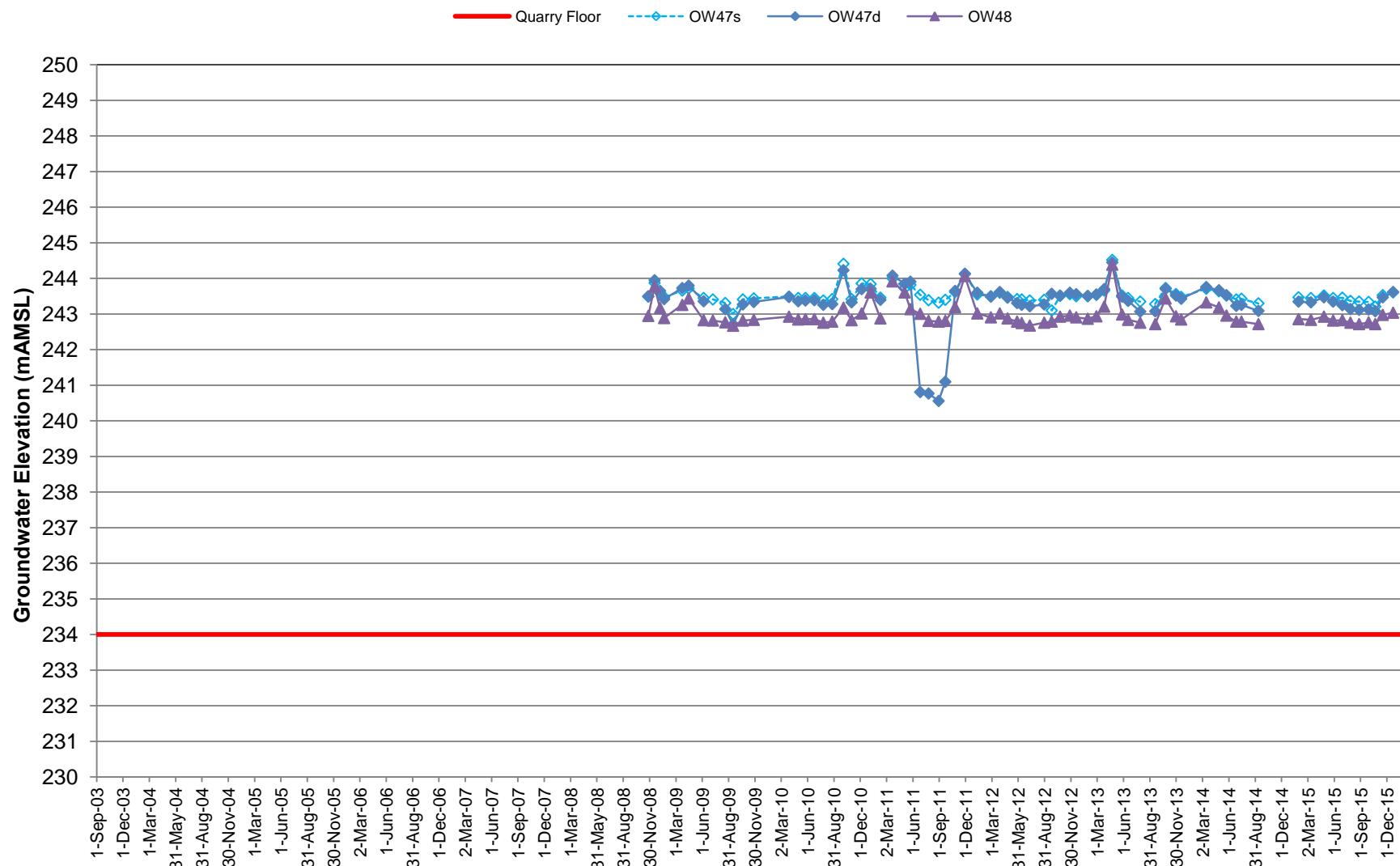
Hydrograph C-2.26: Groundwater Elevations - OW44



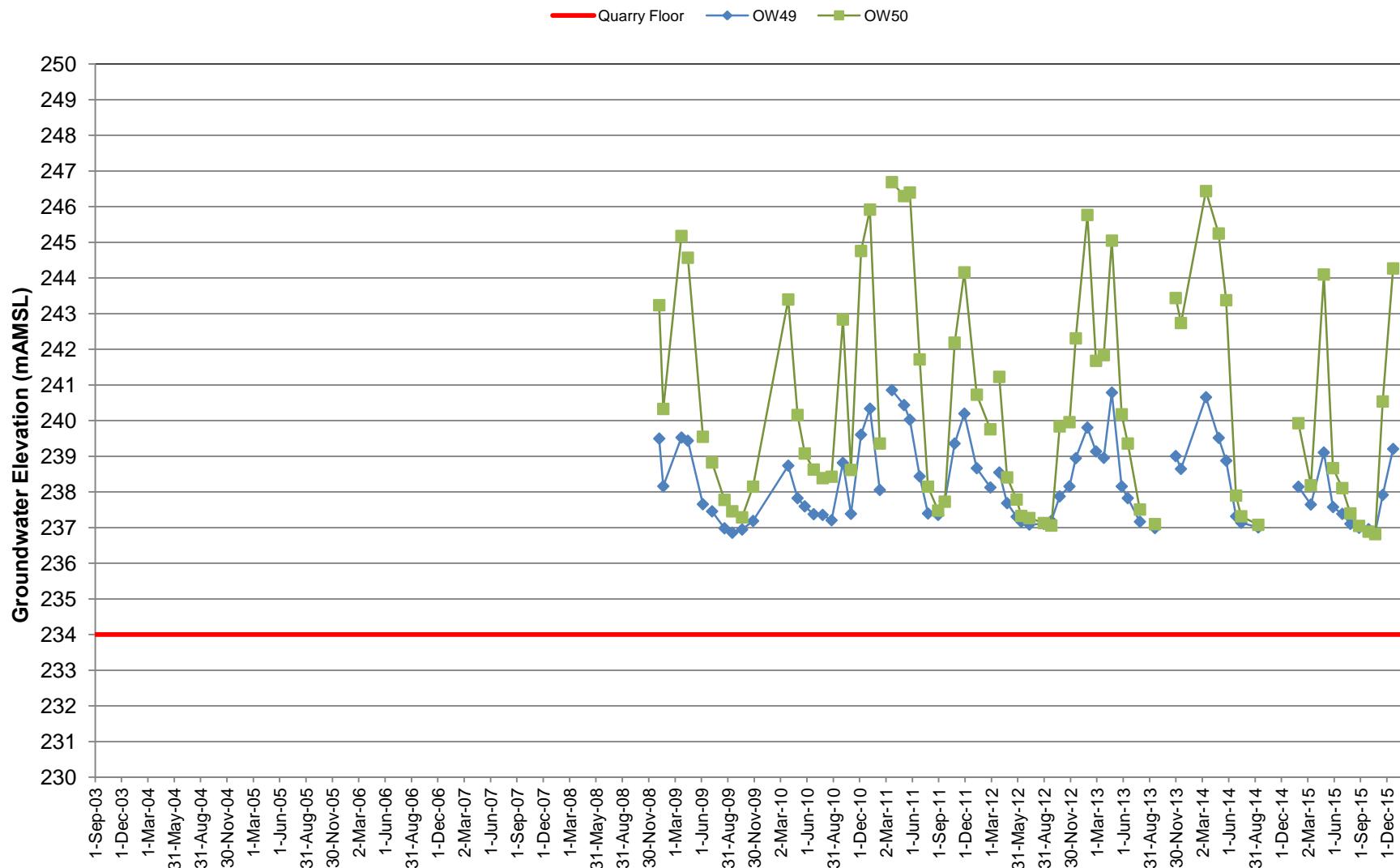
Hydrograph C-2.27: Groundwater Elevations - OW45 & OW46



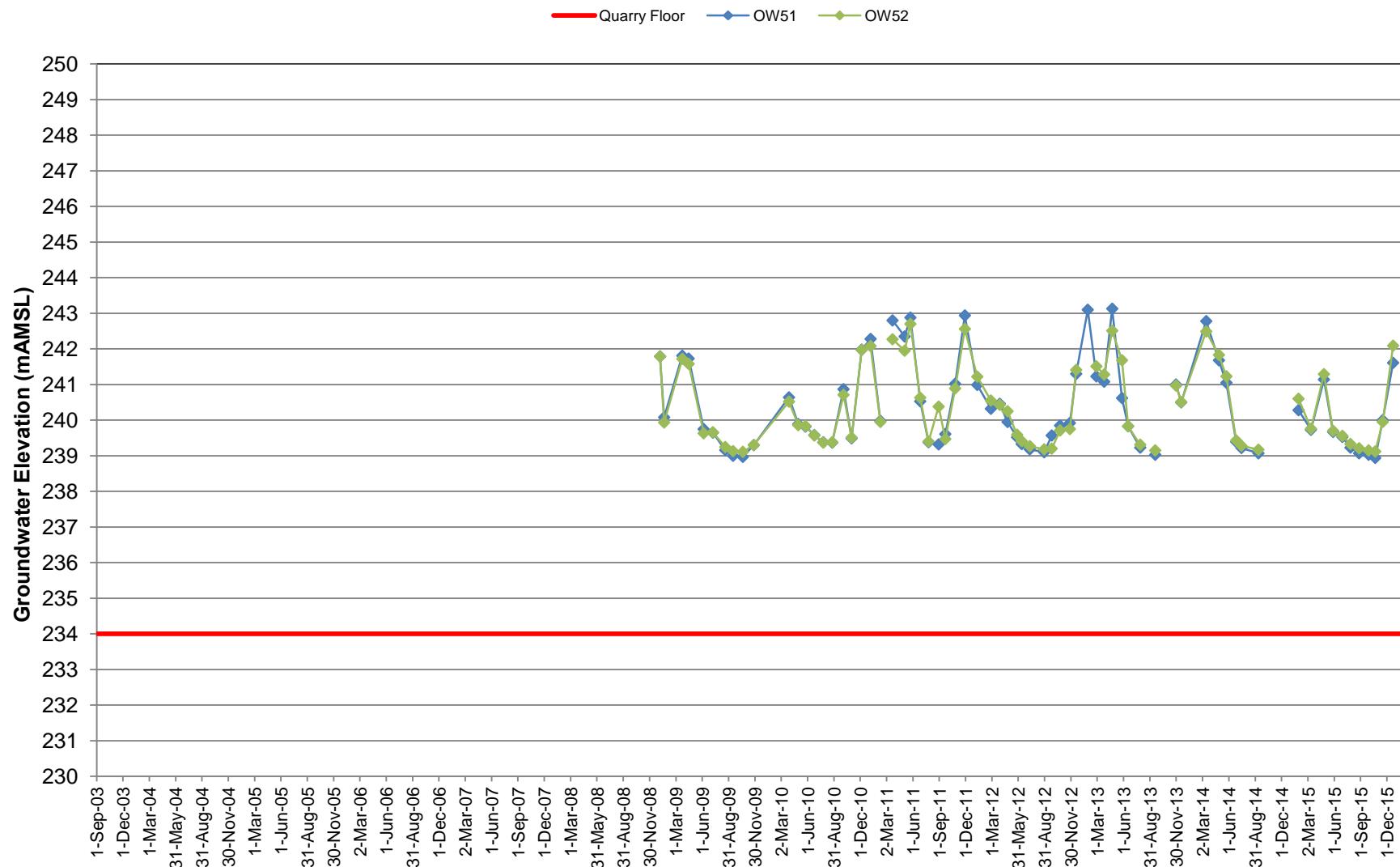
Hydrograph C-2.28: Groundwater Elevations - OW47 & OW48



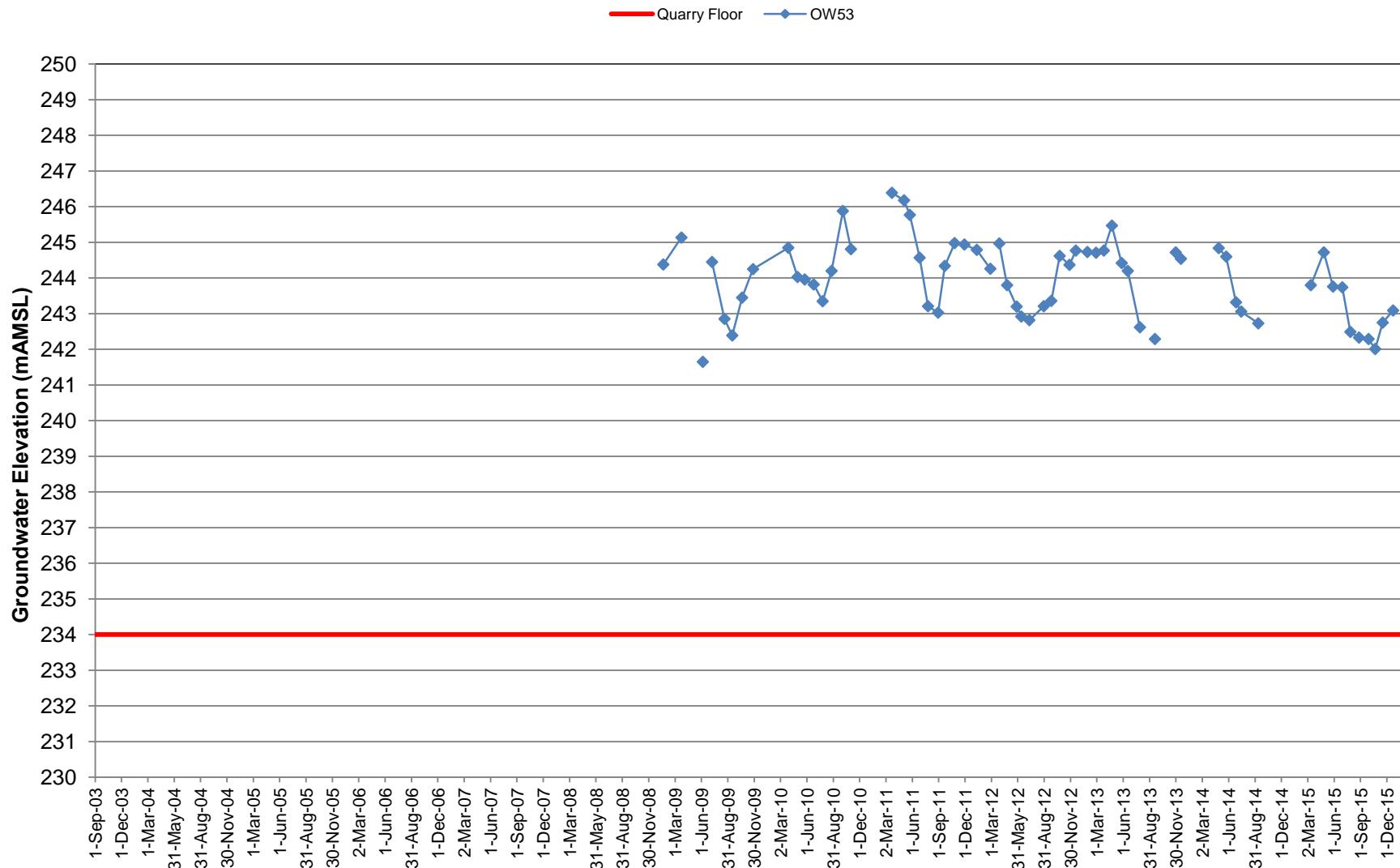
Hydrograph C-2.29: Groundwater Elevations - OW49 & OW50



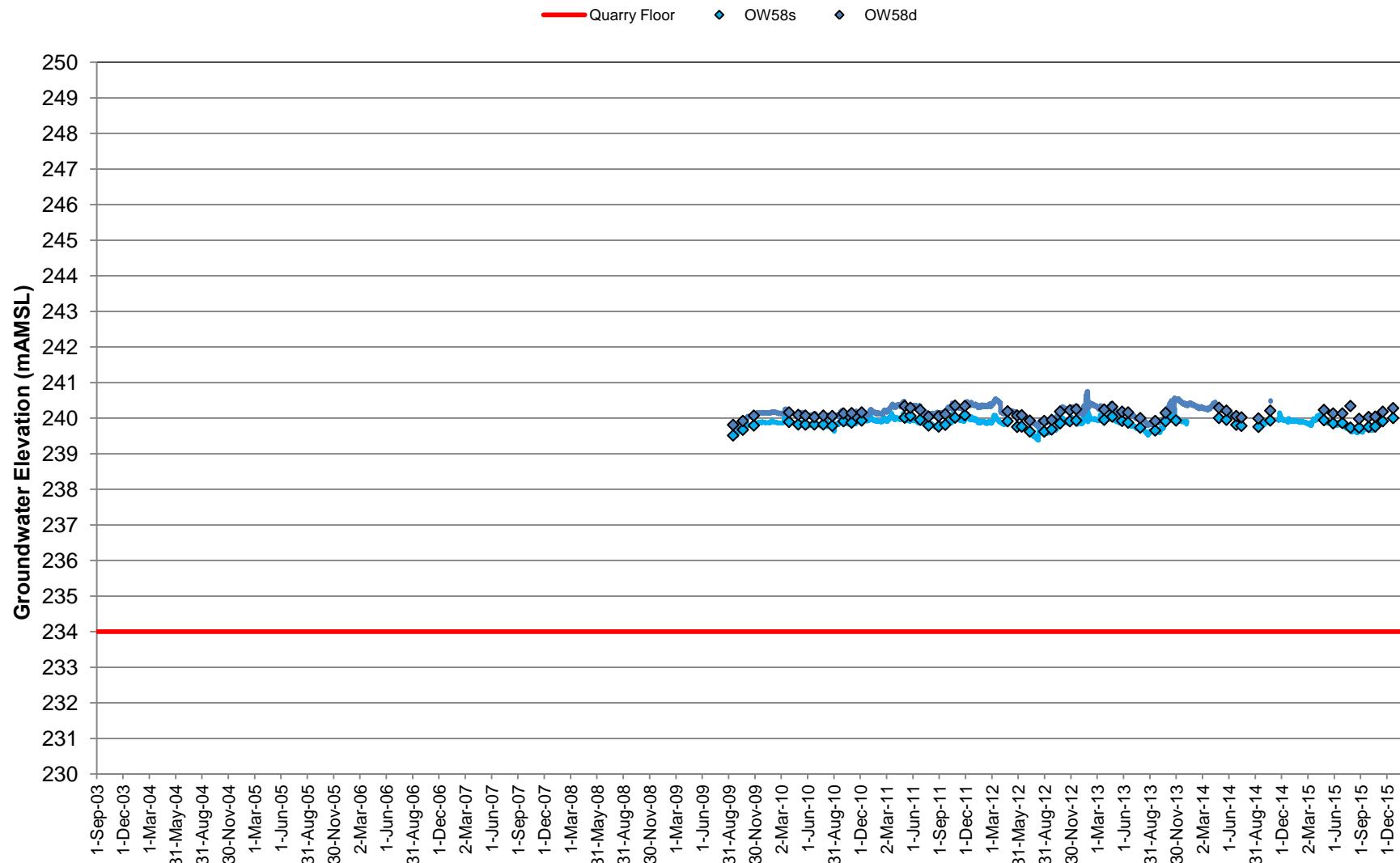
Hydrograph C-2.30: Groundwater Elevations - OW51 & OW52



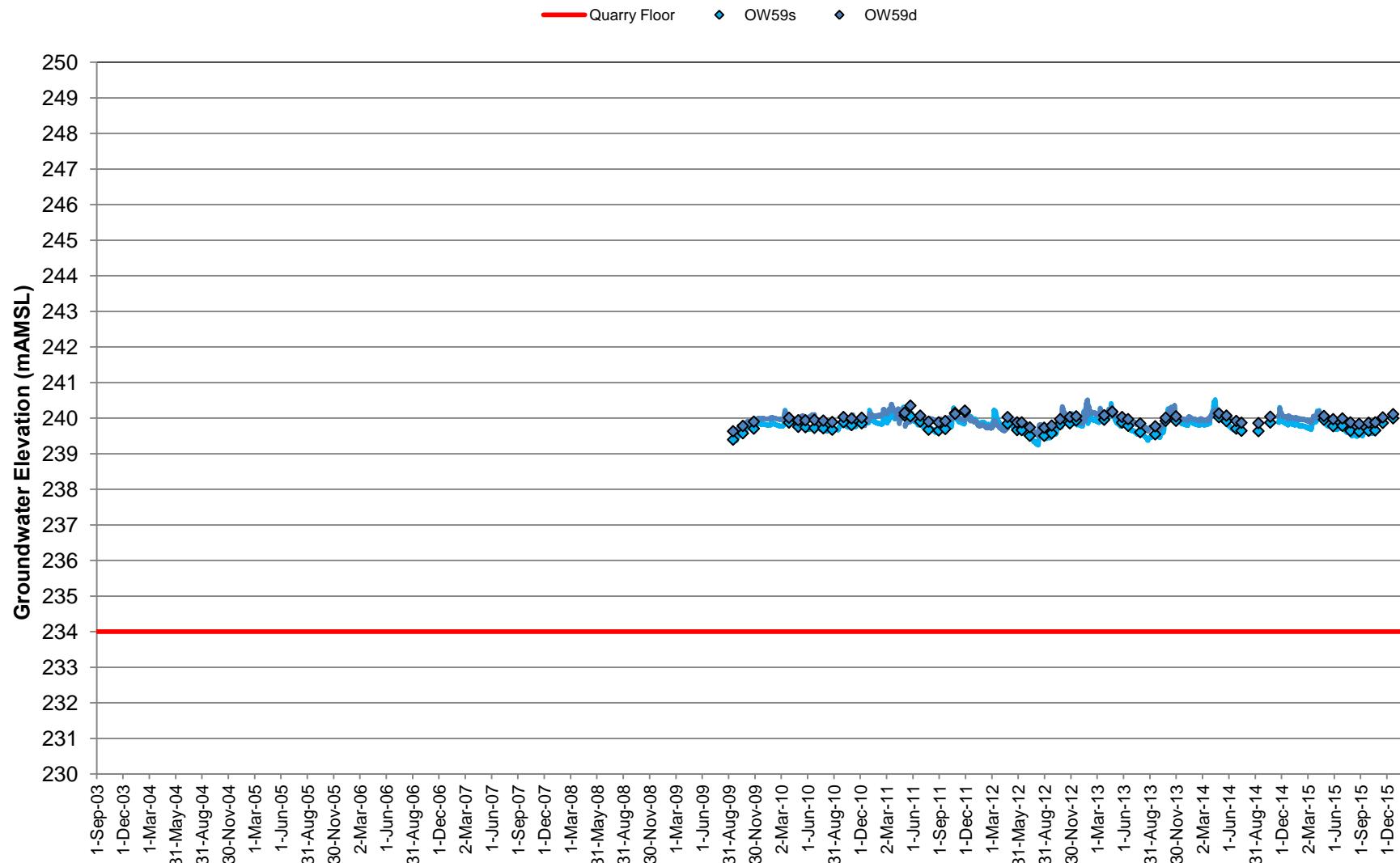
Hydrograph C-2.31: Groundwater Elevations - OW53



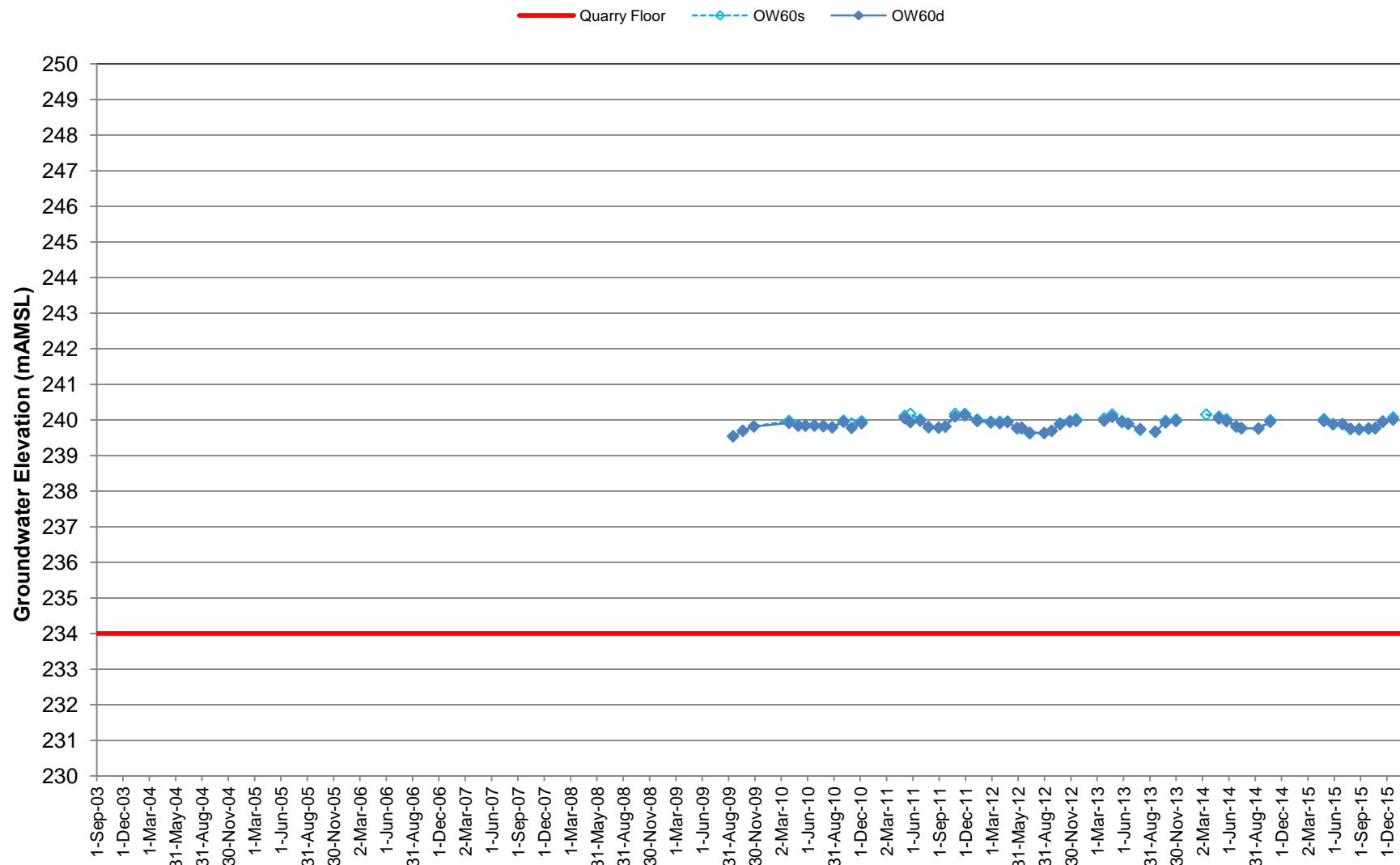
Hydrograph C-2.32: Groundwater Elevations - OW58



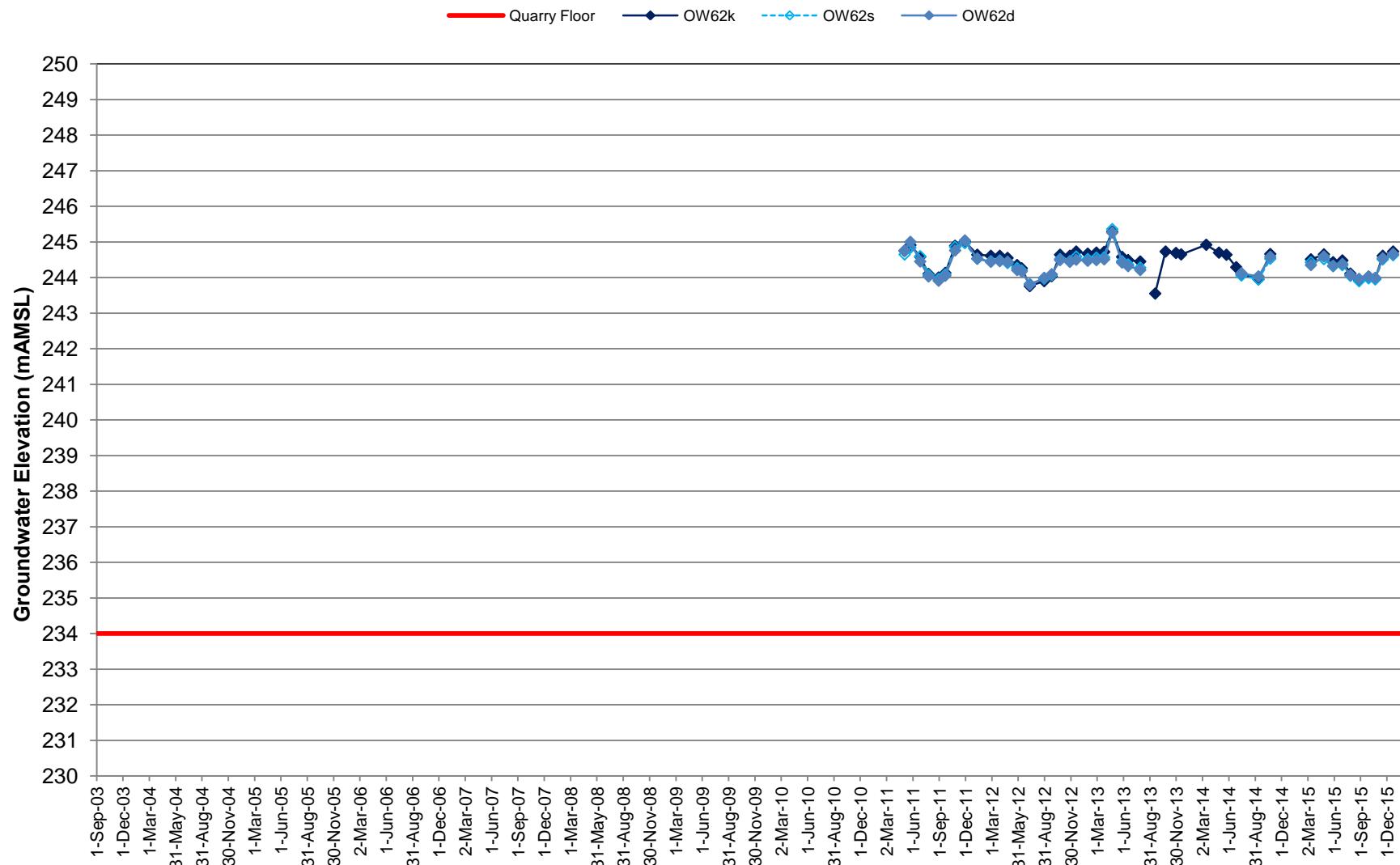
Hydrograph C-2.33: Groundwater Elevations - OW59



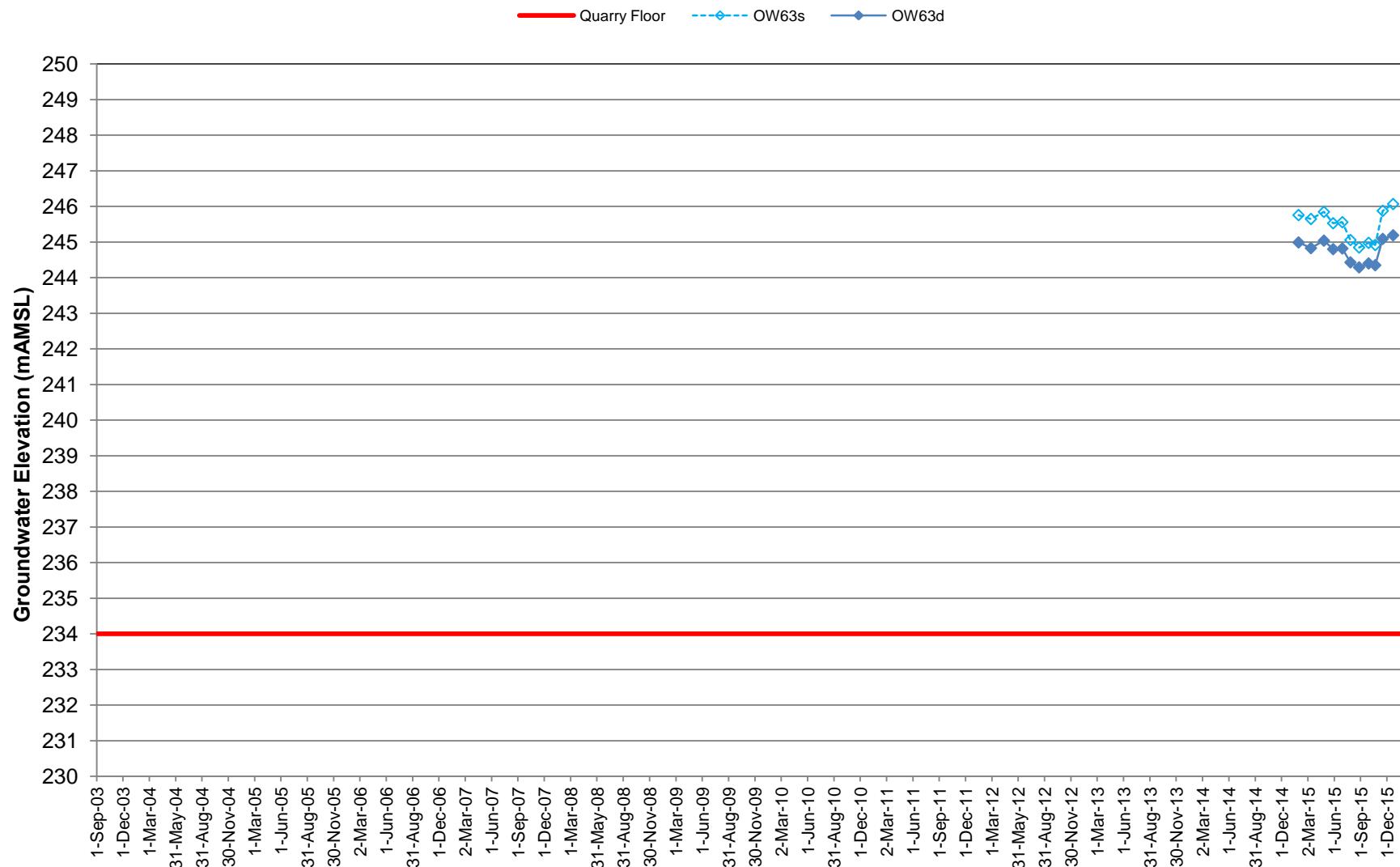
Hydrograph C-2.34: Groundwater Elevations - OW60



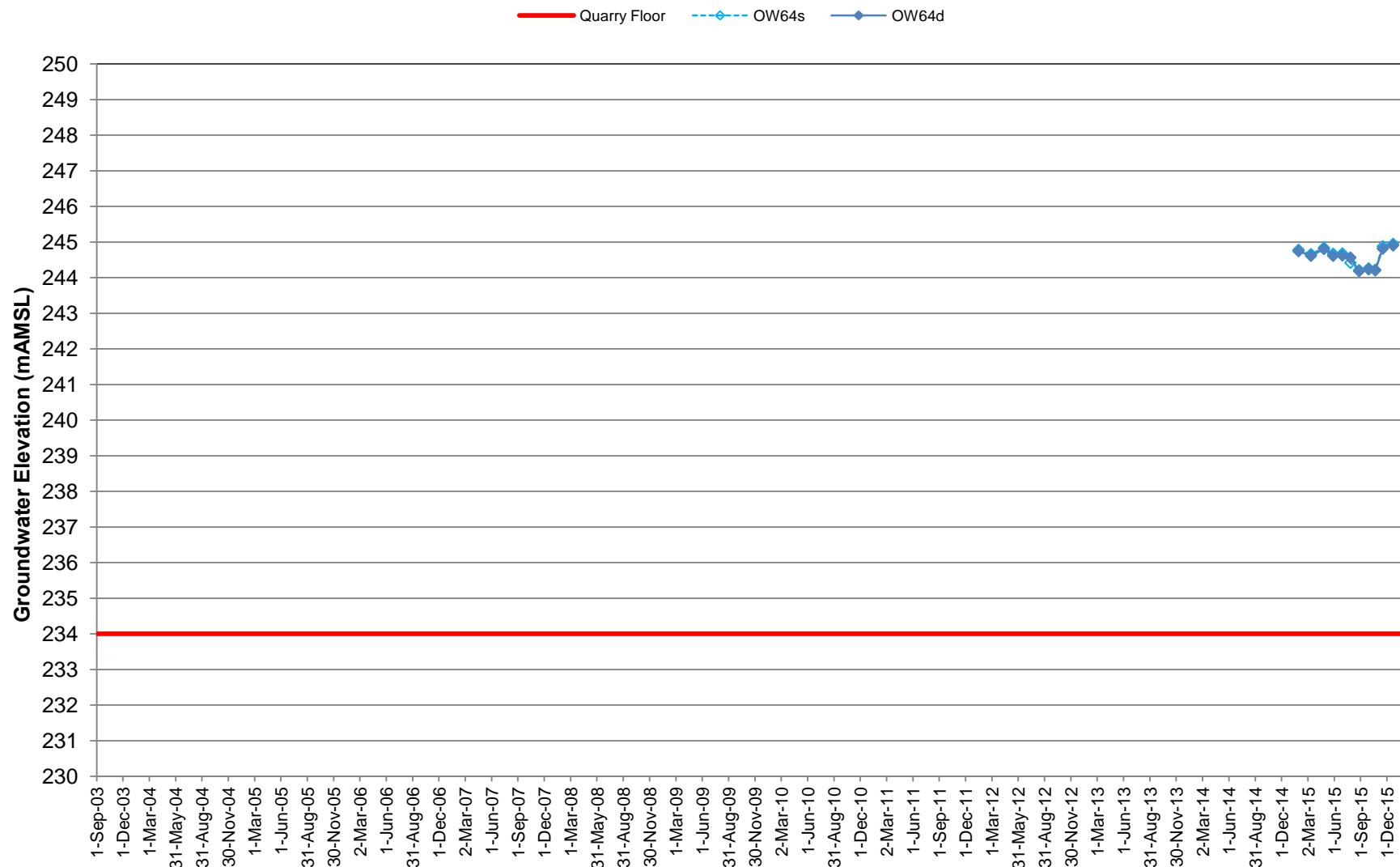
Hydrograph C-2.35: Groundwater Elevations - OW62



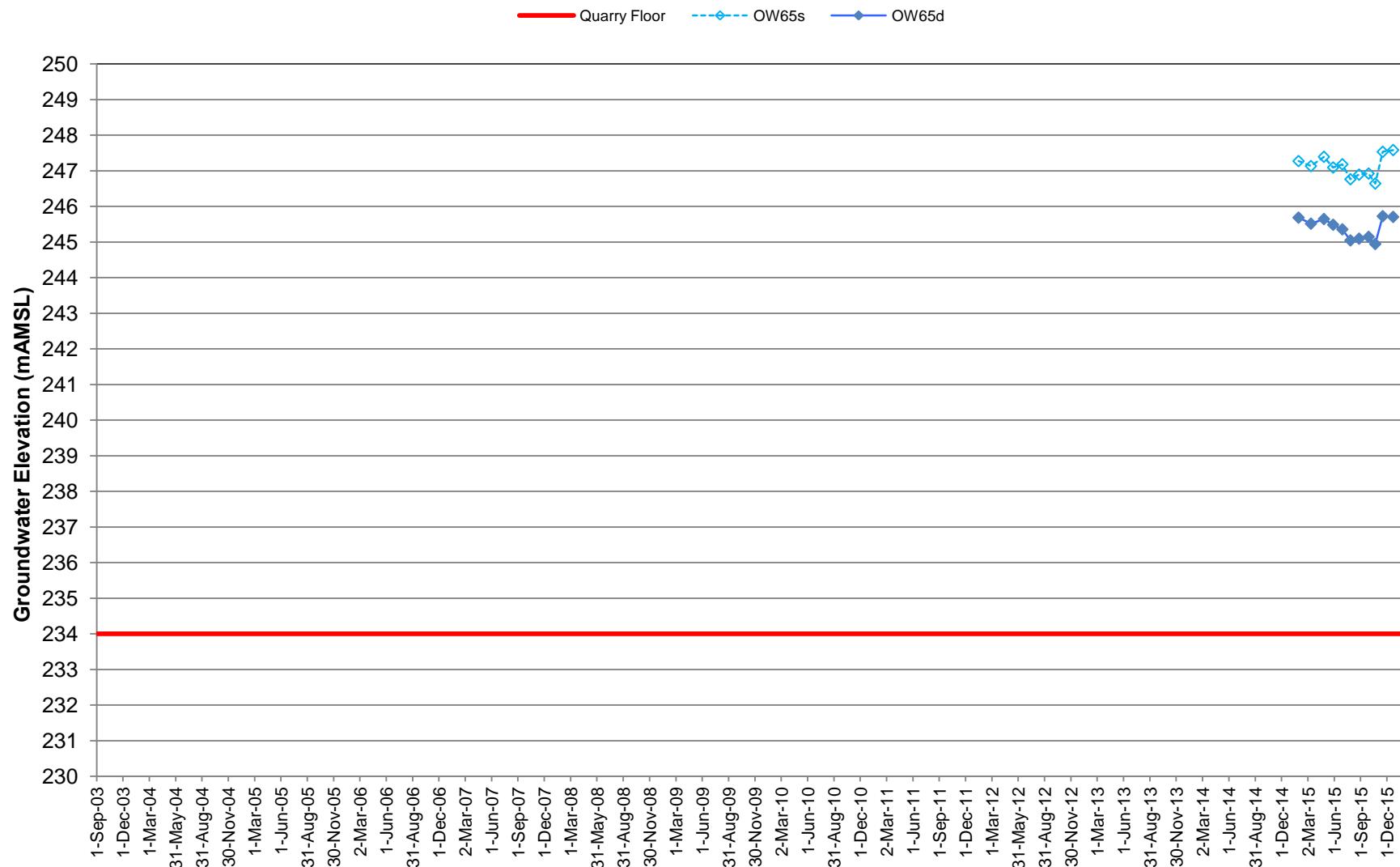
Hydrograph C-2.36: Groundwater Elevations - OW63



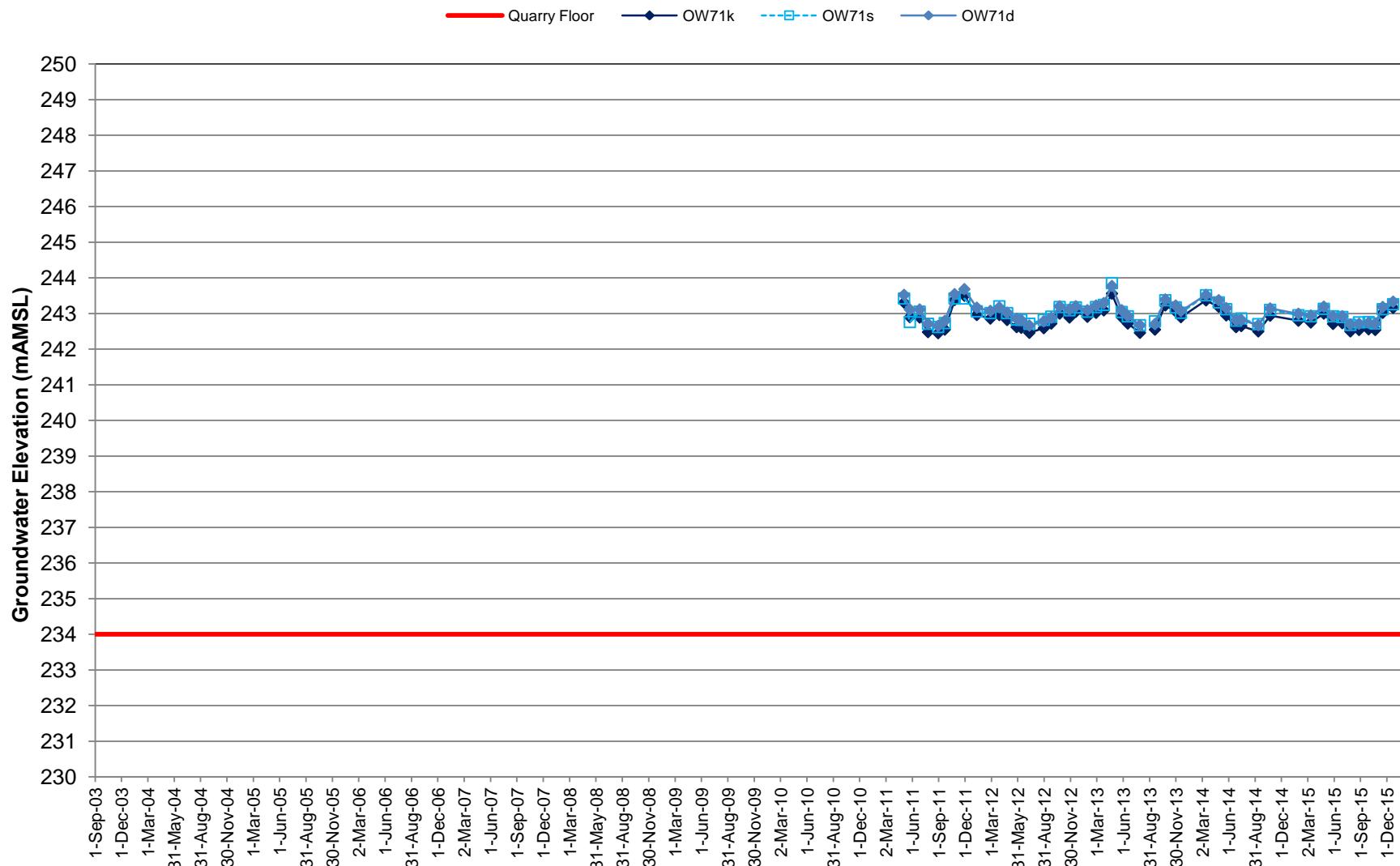
Hydrograph C-2.37: Groundwater Elevations - OW64



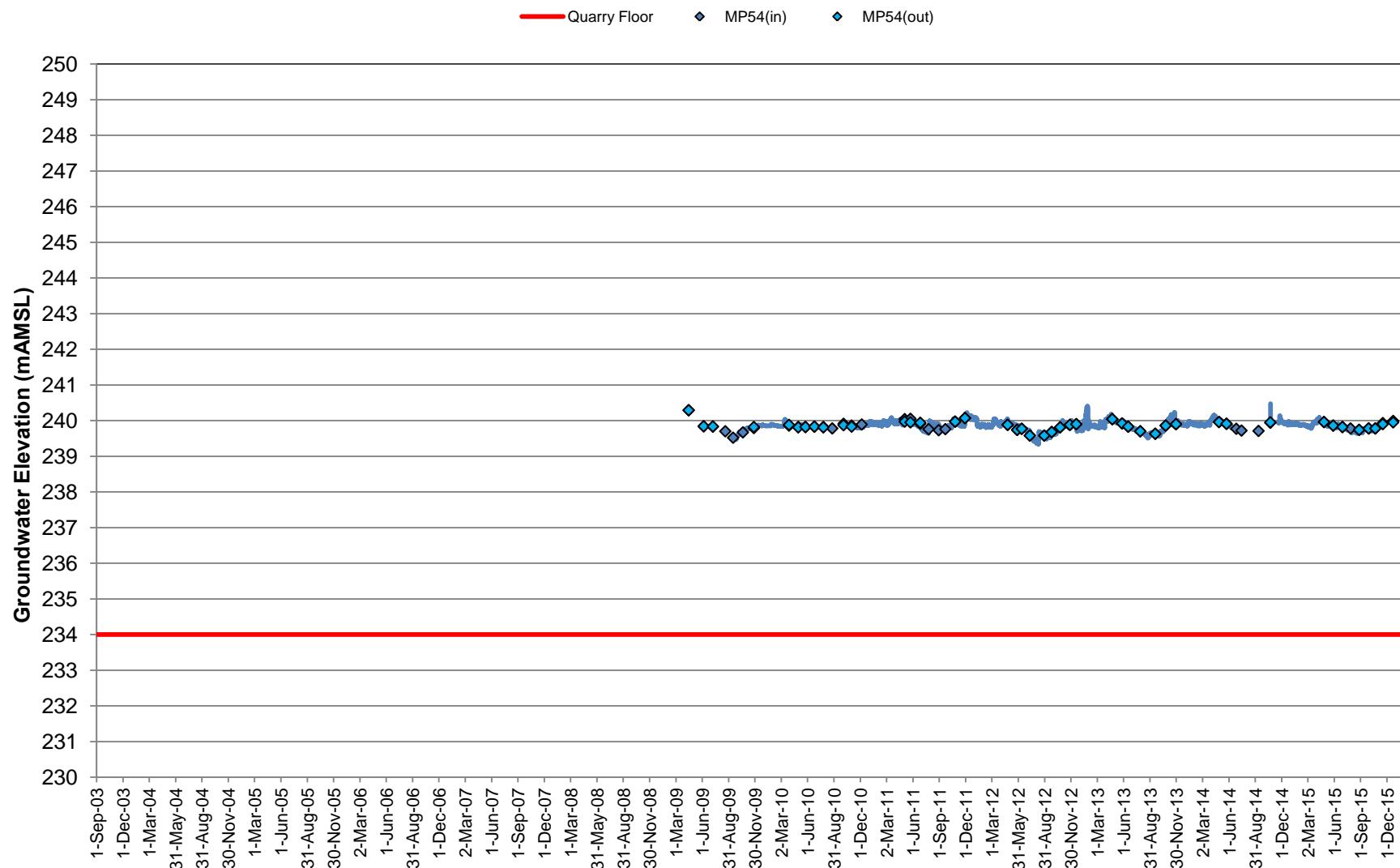
Hydrograph C-2.38: Groundwater Elevations - OW65



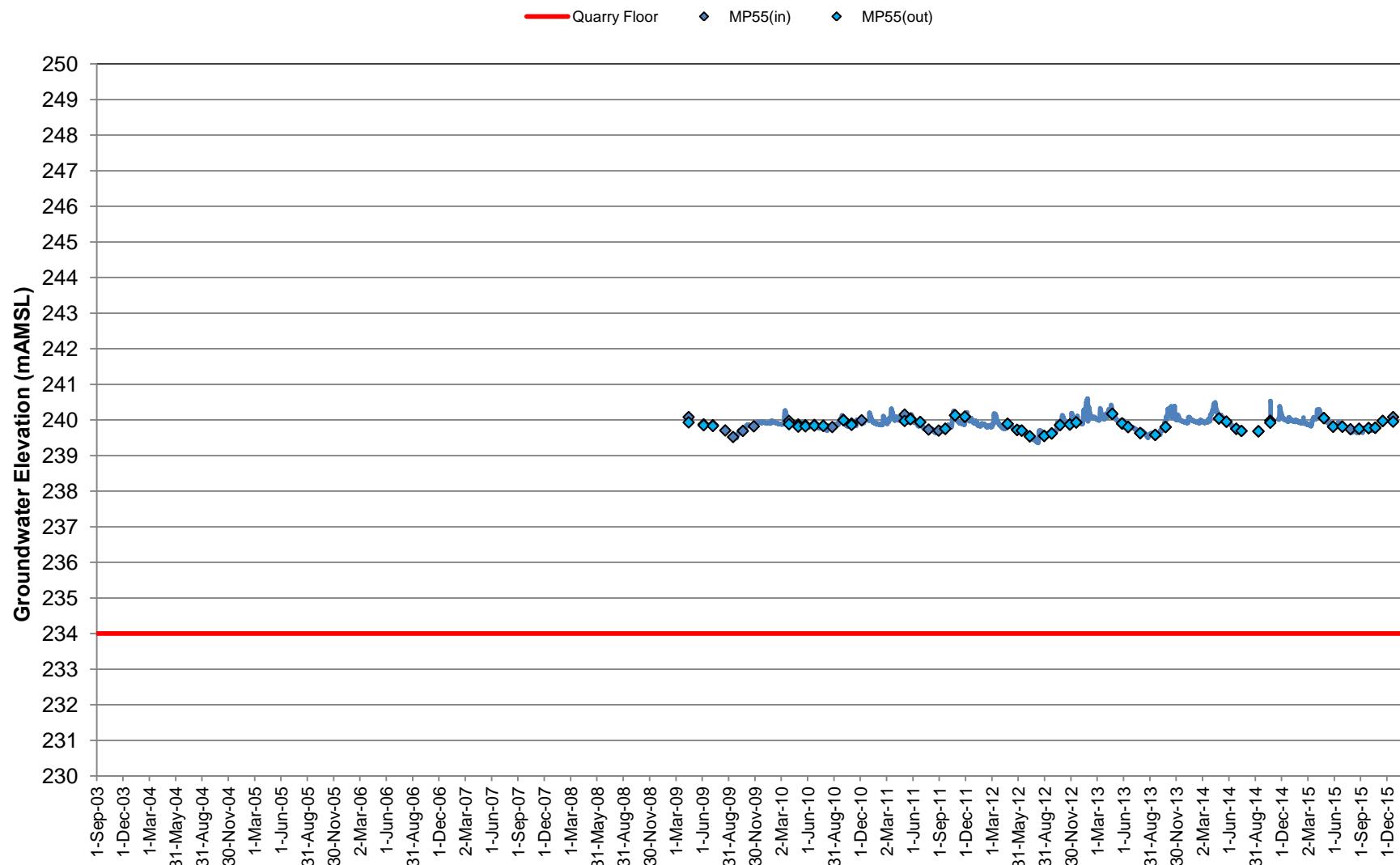
Hydrograph C-2.39: Groundwater Elevations - OW71



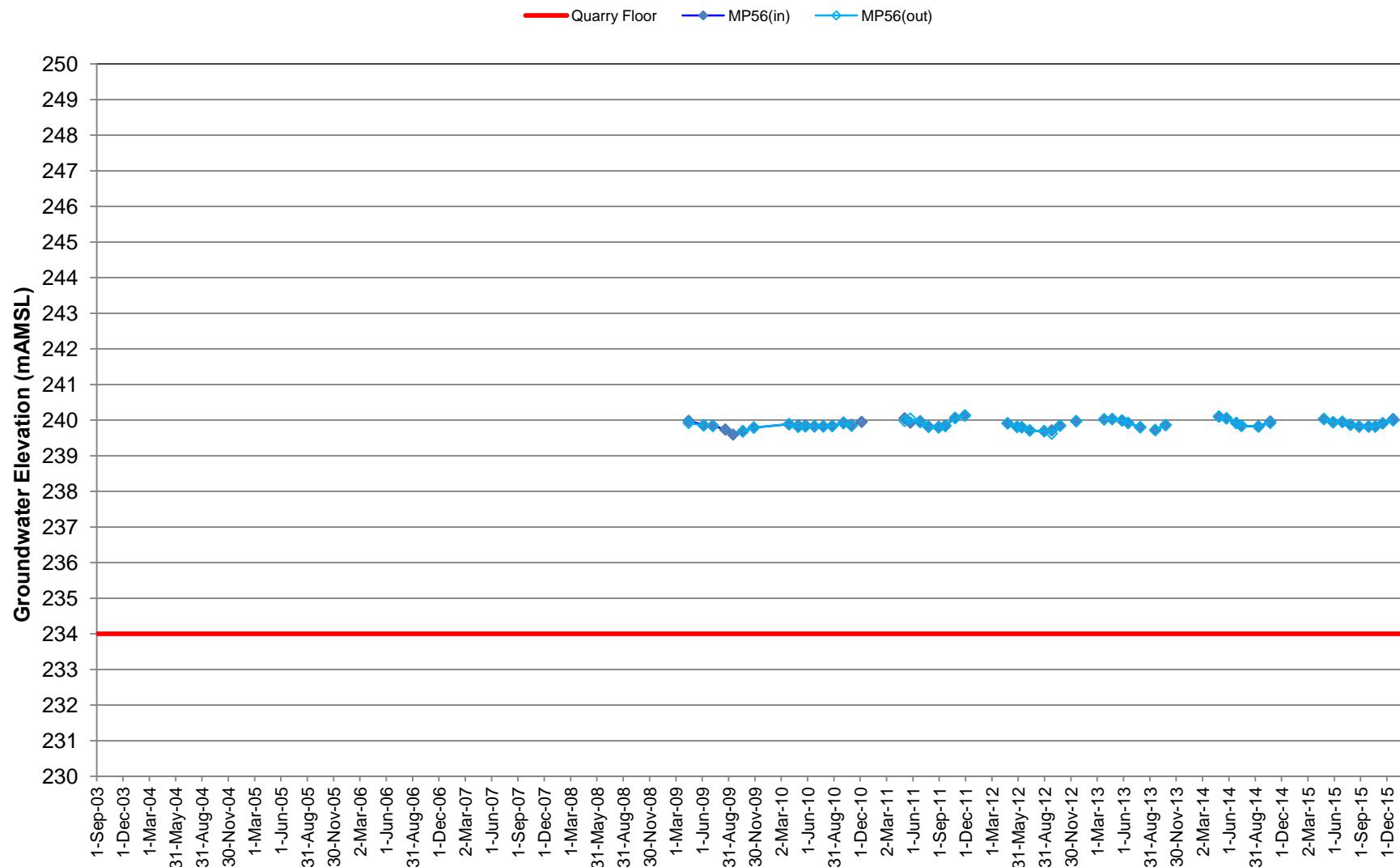
Hydrograph C-2.40: Groundwater Elevations - MP54



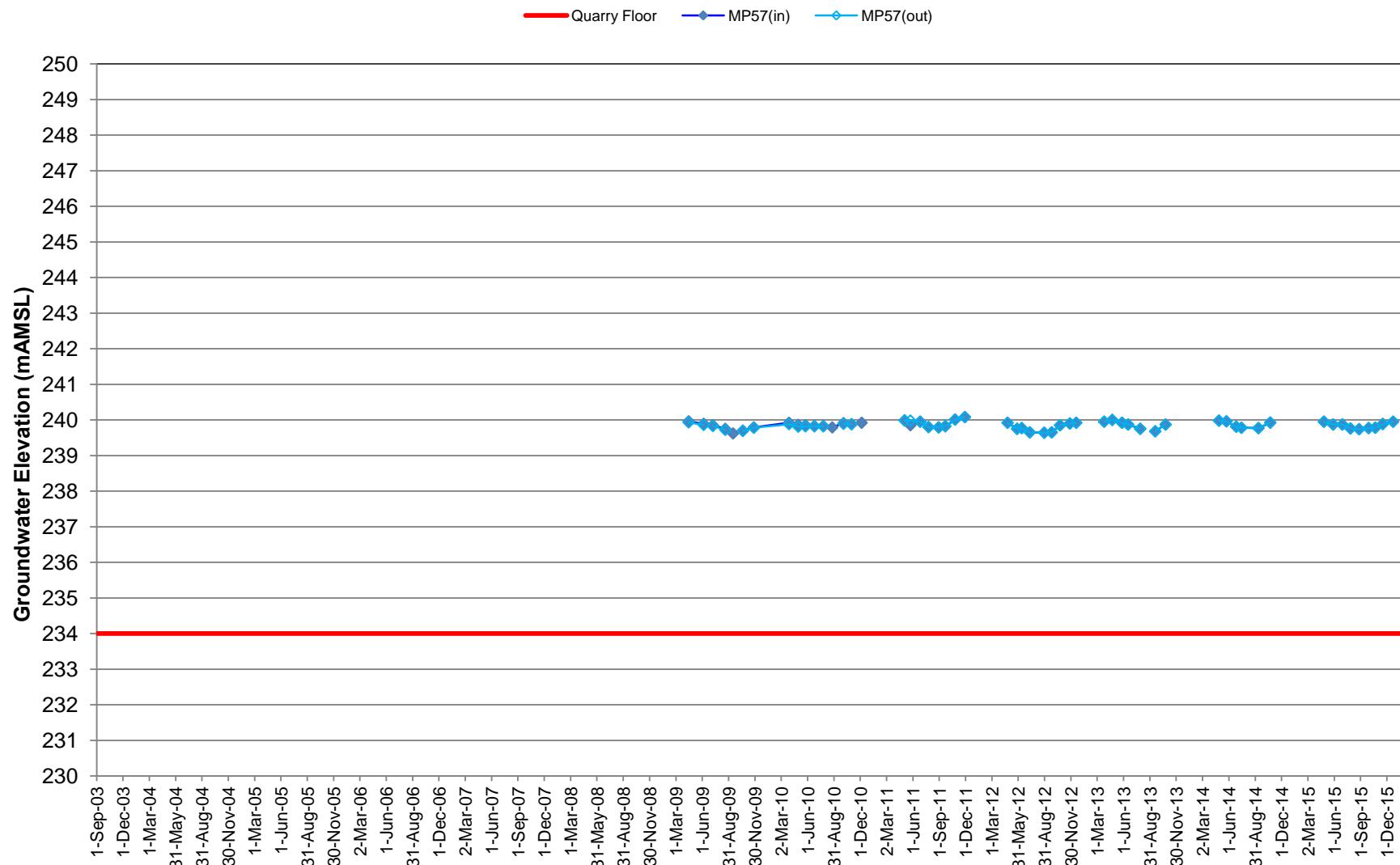
Hydrograph C-2.41: Groundwater Elevations - MP55



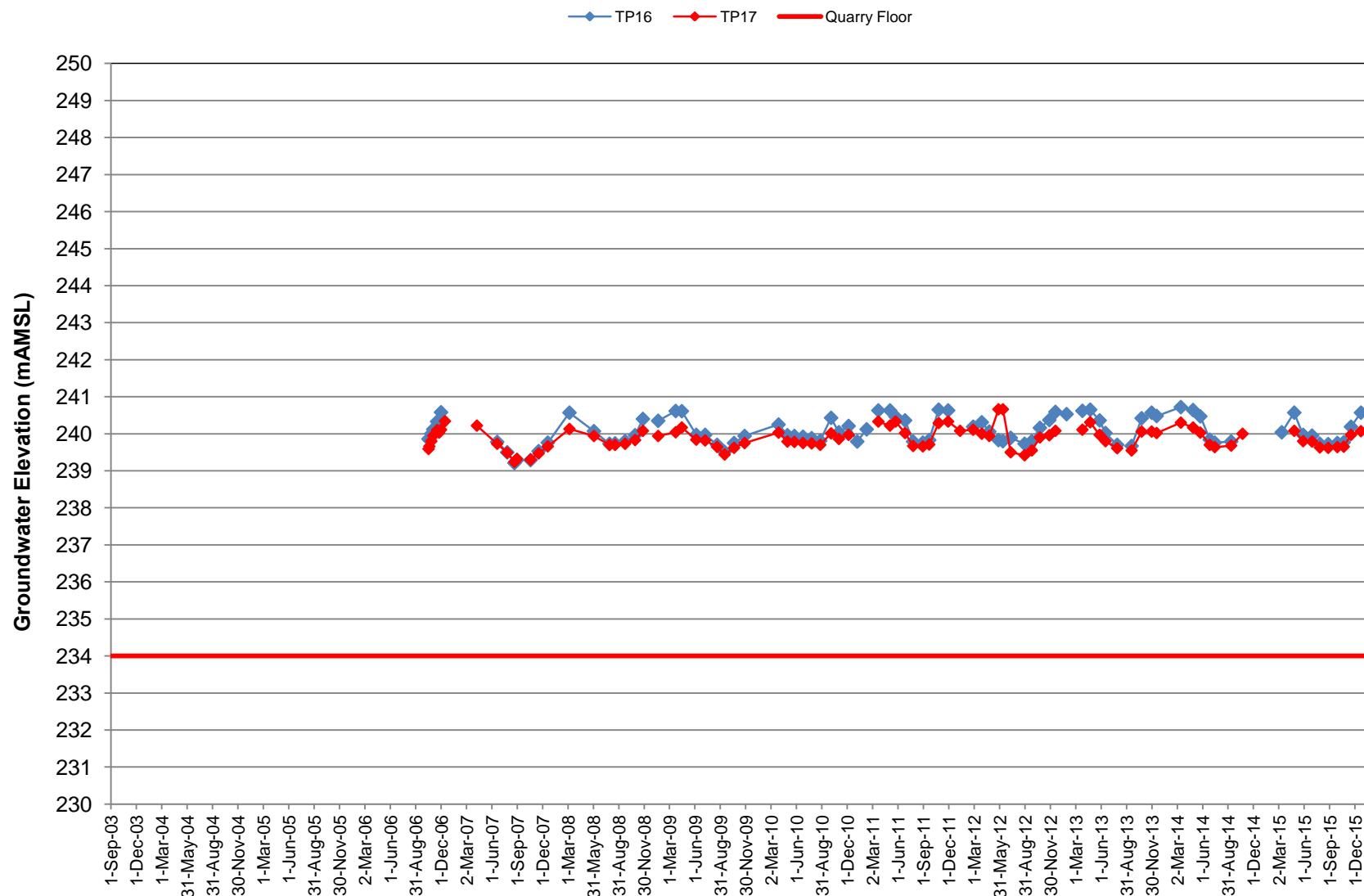
Hydrograph C-2.42: Groundwater Elevations - MP56



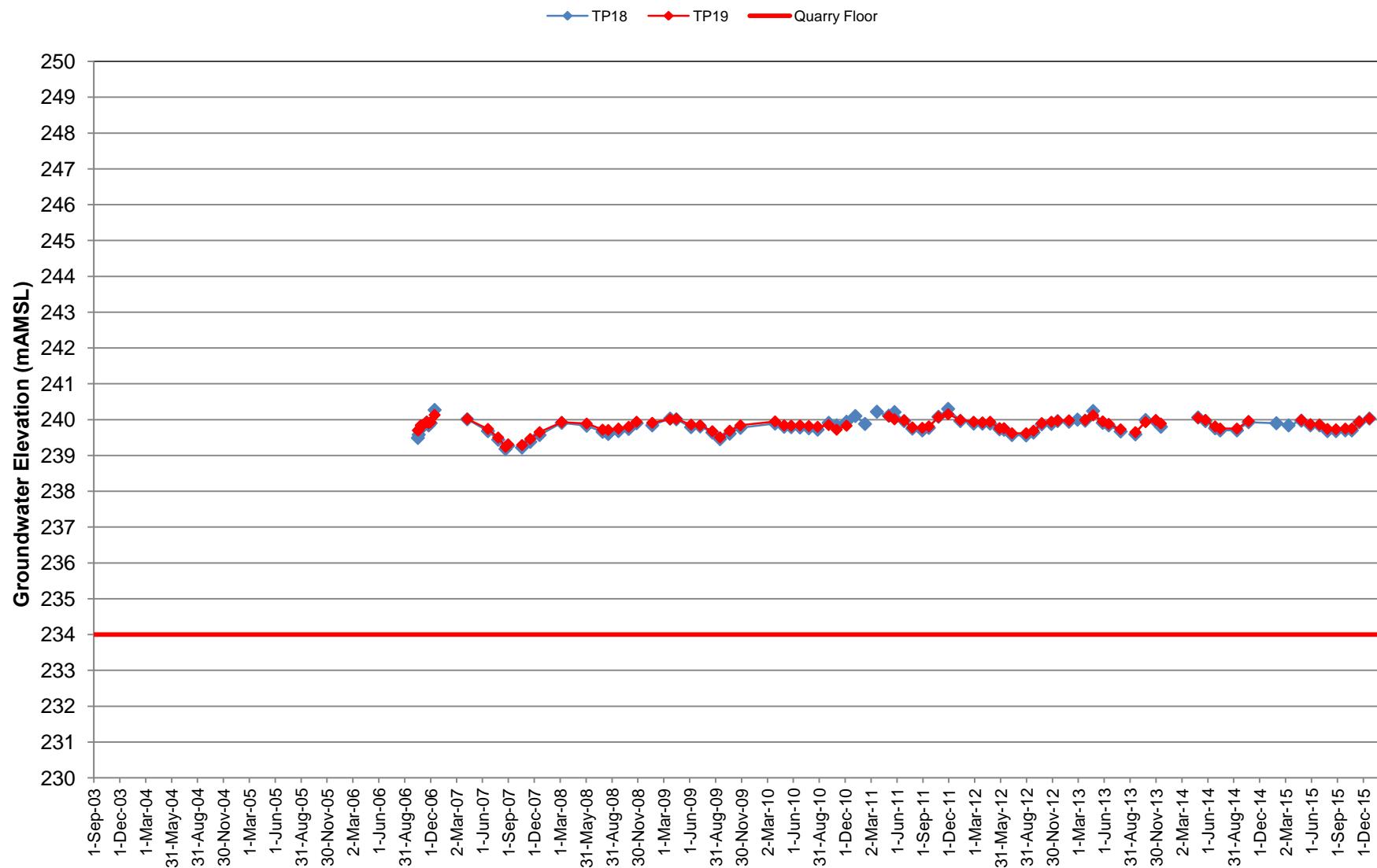
Hydrograph C-2.43: Groundwater Elevations - MP57



Hydrograph C-2.44: Groundwater Elevations - TP16 and TP17

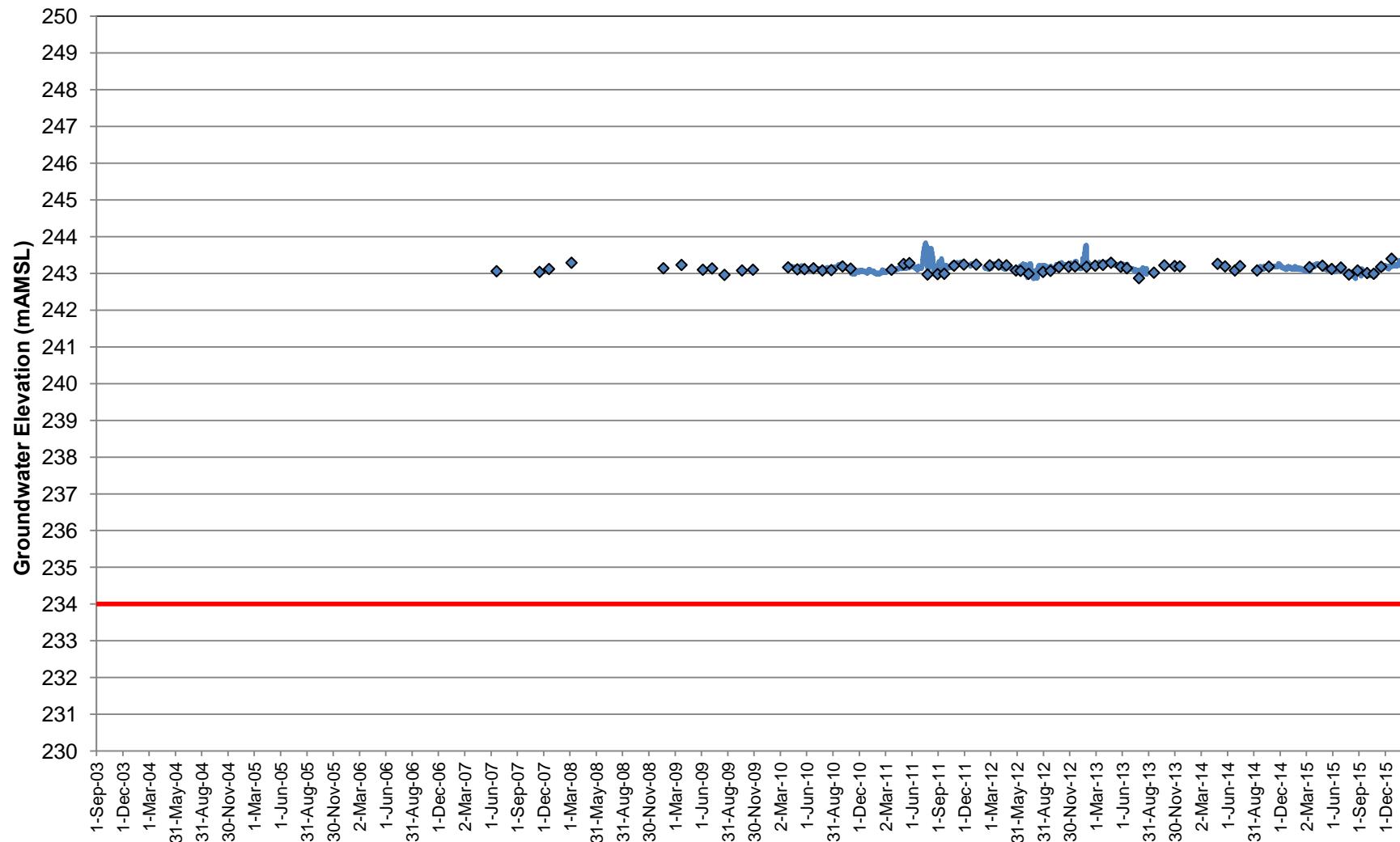


Hydrograph C-2.45: Groundwater Elevations - TP18 and TP19



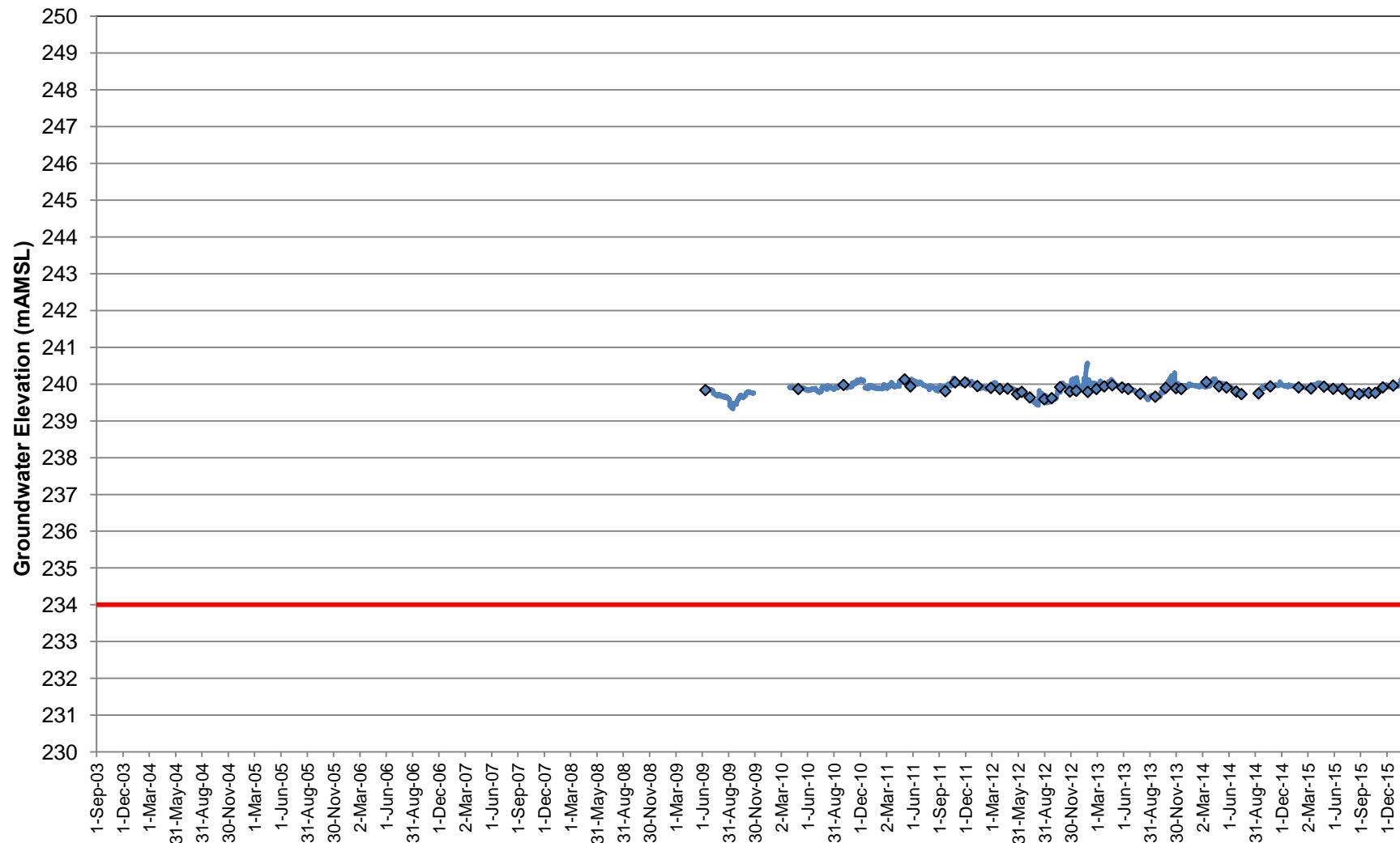
Hydrograph C-2.46: Groundwater Elevations - SG1

◆ Manual — Quarry Floor

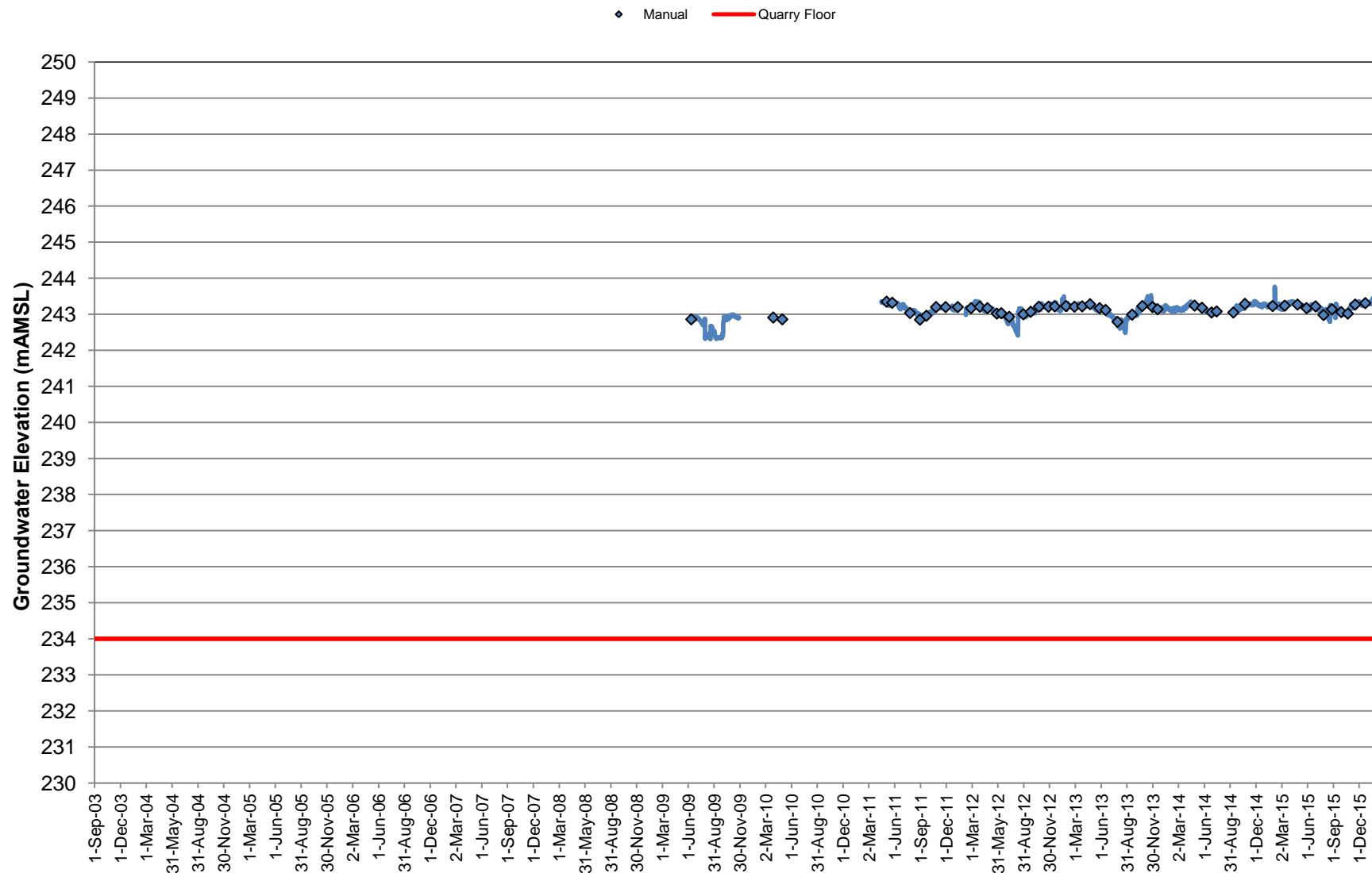


Hydrograph C-2.47: Groundwater Elevations - S8

◆ Manual — Quarry Floor



Hydrograph C-2.48: Groundwater Elevations - S13





APPENDIX C3

GROUNDWATER VERTICAL HYDRAULIC GRADIENTS

Table C-3.1 : Historical Groundwater Gradients (2003-2015)

Location	OW7	OW8	OW9	OW10	OW11	OW12	OW13
15-Sep-03	-0.24	-0.05	0.01	0.00	0.00	-0.03	-0.20
17-Oct-03	-0.25	-0.03	0.01	-0.01	0.02	0.00	-0.17
28-Nov-03	-0.25	-0.04	0.02	0.00	0.03	0.01	-0.16
26-Feb-04	-0.26	-0.03	0.02	-0.01	0.04	0.00	-0.19
26-Apr-04	-0.26	-0.03	0.01	-0.01	0.04	0.00	-0.20
14-May-04	-0.25	-0.04	0.02	0.00	0.04	0.00	-0.17
21-May-04	-0.26	-0.03	0.01	-0.01	0.04	0.00	-0.18
28-May-04	-0.24	-0.06	-0.02	-0.02	-0.04	-0.04	-0.15
4-Jun-04	-0.25	-0.04	0.02	0.00	0.04	0.01	-0.17
11-Jun-04	-0.25	-0.03	0.02	-0.01	0.04	0.00	-0.19
17-Jun-04	-0.25	-0.03	0.02	-0.01	0.04	0.00	-0.20
25-Jun-04	-0.27	-0.03	0.01	-0.02	0.03	-0.01	-0.20
9-Jul-04	-0.26	-0.03	0.01	-0.01	0.03	-0.01	-0.20
16-Jul-04	-0.28	-0.03	0.01	-0.03	0.02	-0.02	-0.22
22-Jul-04	-0.26	-0.03	0.02	-0.01	0.04	-0.01	-0.20
29-Jul-04	-0.26	-0.04	0.02	0.00	0.03	-0.01	-0.20
5-Aug-04	-0.26	-0.04	0.02	0.00	0.03	-0.01	-0.20
13-Aug-04	-0.26	-0.04	0.01	0.00	0.02	-0.01	-0.20
19-Aug-04	-0.26	-0.04	0.01	0.00	0.06	-0.01	-0.20
26-Aug-04	-0.26	-0.05	0.01	0.00	0.01	-0.02	-0.21
2-Sep-04	-0.26	-0.05	0.01	0.00	0.01	-0.02	-0.20
9-Sep-04	-0.26	-0.05	0.01	0.00	0.01	-0.02	-0.20
16-Sep-04	-0.25	-0.05	0.01	0.00	0.01	-0.02	-0.20
23-Sep-04	-0.25	-0.05	0.00	0.00	0.00	-0.03	-0.20
7-Oct-04	-0.25	-0.06	0.00	0.00	-0.01	-0.03	-0.19
14-Oct-04	-0.25	-0.06	0.01	0.00	-0.01	-0.03	-0.19
21-Oct-04	-0.27	-0.06	0.00	-0.04	0.00	-0.03	-0.19
28-Oct-04	-0.27	-0.05	0.01	-0.03	0.01	-0.03	-0.18
3-Nov-04	-0.28	-0.05	0.00	-0.03	0.02	-0.03	-0.13
11-Nov-04	-0.29	-0.05	0.01	-0.03	0.03	-0.03	-0.18
18-Nov-04	-0.28	-0.04	0.01	-0.02	0.03	-0.02	-0.18
25-Nov-04	-0.28	-0.04	0.01	-0.03	0.03	-0.02	-0.19
2-Dec-04	-0.30	-0.04	0.00	-0.03	0.00	-0.03	-0.20
9-Dec-04	-0.29	-0.08	0.00	-0.02	-0.02	-0.07	-0.19
16-Dec-04	-0.28	-0.05	0.02	-0.01	0.03	0.00	-0.17
23-Dec-04	-0.28	-0.05	0.01	0.00	0.05	0.01	-0.18
13-Jan-05	-0.30	-0.06	-0.01	-0.02	0.00	-0.04	-0.20
31-Jan-05	-0.28	-0.04	0.02	0.00	0.05	0.00	-0.19
21-Feb-05	-0.28	-0.03	0.02	-0.01	0.04	0.00	-0.18
24-Mar-05	-0.29	-0.03	0.02	-0.01	0.04	0.00	-0.20
26-Apr-05	-0.28	-0.04	0.00	-0.02	0.00	-0.03	-0.20
10-May-05	-0.28	-0.04	0.02	-0.01	0.05	0.00	-0.18
24-May-05	-0.27	-0.03	0.02	-0.01	0.04	-0.01	-0.21
1-Jun-05	-0.28	-0.04	0.02	-0.01	0.04	-0.01	-0.22
10-Jun-05	-0.28	-0.04	0.01	-0.01	0.03	-0.01	-0.22
17-Jun-05	-0.29	-0.04	0.01	-0.01	0.03	-0.02	-0.22

Location	OW7	OW8	OW9	OW10	OW11	OW12	OW13
24-Jun-05	-0.29	-0.04	0.01	-0.01	0.03	-0.02	-0.22
30-Jun-05	-0.28	-0.04	0.01	-0.01	0.03	-0.02	-0.22
8-Jul-05	-0.28	-0.05	0.01	-0.01	0.02	-0.03	-0.22
15-Jul-05	-0.28	-0.05	0.01	0.00	0.02	-0.03	-0.22
22-Jul-05	-0.27	-0.06	0.00	0.00	0.01	-0.03	-0.21
28-Jul-05	-0.27	-0.06	0.00	0.00	0.00	-0.03	-0.21
4-Aug-05	-0.29	-0.06	0.00	0.00	0.00	-0.03	-0.21
12-Aug-05	-0.28	-0.07	0.00	0.00	0.00	-0.04	-0.20
18-Aug-05	-0.27	-0.07	-0.02	0.00	0.00	-0.04	-0.20
26-Aug-05	-0.29	-0.05	0.01	0.00	0.01	-0.04	-0.19
2-Sep-05	-0.28	-0.06	0.00	-0.01	0.01	-0.04	-0.19
9-Sep-05	-0.28	-0.06	-0.01	-0.01	0.01	-0.04	-0.19
15-Sep-05	-0.27	-0.05	-0.01	-0.01	0.00	-0.04	-0.19
23-Sep-05	-0.26	-0.05	-0.01	0.00	0.00	-0.05	-0.19
30-Sep-05	-0.31	-0.05	-0.01	-0.01	0.01	-0.05	-0.18
7-Oct-05	-0.29	-0.04	0.00	-0.02	0.02	-0.04	-0.18
14-Oct-05	-0.29	-0.04	0.00	-0.01	0.02	-0.04	-0.19
21-Oct-05	-0.28	-0.04	0.00	-0.02	0.02	-0.04	-0.18
28-Oct-05	-0.29	-0.04	0.00	-0.02	0.02	-0.05	-0.18
4-Nov-05	-0.30	-0.03	0.00	-0.02	0.03	-0.04	-0.18
11-Nov-05	-0.30	-0.04	0.00	-0.01	0.04	-0.03	-0.20
2-Dec-05	-0.29	-0.07	0.02	0.01	0.01	-0.05	-0.16
21-Apr-06	-0.29	-0.04	0.02	0.00	0.05	0.00	-0.18
15-Aug-06	-0.30	-0.04	0.00	-0.01	0.03	-0.03	-0.20
14-Sep-06	-0.30	-0.05	0.00	-0.01	0.02	-0.03	-0.19
28-Sep-06	-0.30	-	-	-0.02	0.02	-	-0.19
5-Oct-06	-0.31	-0.05	-0.01	-0.02	0.02	-0.04	-0.18
6-Oct-06	-0.31	-0.05	-0.01	-0.02	0.02	-0.04	-0.19
10-Oct-06	-	-	-	-	-	-	-
17-Oct-06	-0.34	-	-	-	-	-	-
20-Oct-06	-0.33	-0.05	-0.01	-0.02	0.03	-0.02	-0.20
27-Oct-06	-0.31	-0.05	0.00	-0.01	0.03	-0.03	-0.18
3-Nov-06	-0.31	-0.06	0.00	-0.01	0.03	-0.02	-0.17
6-Nov-06	-0.31	-	-	-	-	-	-
10-Nov-06	-0.31	-0.07	0.00	-0.01	0.02	-0.04	-0.17
14-Nov-06	-0.31	-	-	-0.01	-	-	-
17-Nov-06	-0.31	-0.06	0.00	-0.01	0.01	-0.03	-0.18
24-Nov-06	-0.31	-0.06	0.01	-0.01	0.04	0.00	-0.17
1-Dec-06	-0.31	-0.04	0.00	-0.02	0.01	-0.02	-0.19
15-Dec-06	-0.30	-0.10	-0.01	-0.01	-0.02	-0.07	-0.17
26-Jan-07	-0.30	-0.03	0.01	0.00	0.05	-0.01	-0.19
9-Apr-07	-0.30	-0.06	0.01	0.00	0.03	-0.02	-0.17
21-Jun-07	-0.32	-0.04	0.01	-0.01	0.04	-0.02	-0.21
27-Jul-07	-0.30	-0.05	0.00	-0.01	0.02	-0.03	-0.21
22-Aug-07	-0.29	-0.07	0.00	-0.01	-0.01	-0.04	-0.21
31-Aug-07	-0.29	-0.07	0.00	-0.01	0.00	-0.04	-0.20
26-Sep-07	-0.29	-0.06	-0.01	-0.02	0.00	-0.04	-0.19
19-Oct-07	-0.30	-0.05	-0.01	-0.02	0.00	-0.05	-0.18

Location	OW7	OW8	OW9	OW10	OW11	OW12	OW13
17-Nov-07	-0.34	-0.05	-0.01	-0.03	0.02	-0.04	-0.19
20-Dec-07	-0.35	-0.04	0.00	-0.02	0.04	-0.01	-0.20
7-Mar-08	-0.33	-0.05	0.01	-	0.01	-0.01	-0.18
3-Jun-08	-0.34	-0.04	0.01	-0.02	0.04	-0.02	-0.21
29-Jul-08	-0.31	-0.05	0.01	-0.01	0.03	-0.02	-0.20
18-Aug-08	-0.32	-0.05	0.00	-0.01	0.03	-0.03	-0.20
23-Sep-08	-0.32	-0.05	0.00	-0.01	0.03	-0.03	-0.20
29-Oct-08	-0.33	-0.05	0.00	-0.02	0.03	-0.03	-0.21
26-Nov-08	-0.32	-0.05	0.00	0.00	0.05	-0.01	-0.18
18-Dec-08	-	-	-	-	-	-	-
6-Jan-09	-0.30	-0.05	0.01	-0.02	0.00	0.00	-0.17
20-Jan-09	-0.30	-0.03	0.02	0.00	0.05	-0.01	-0.19
24-Mar-09	-0.34	-0.06	0.01	0.00	0.03	-0.02	-0.18
8-Apr-09	-	-	-	-	-	-	-
15-Apr-09	-0.30	-0.03	0.01	-0.01	0.01	-0.02	-0.18
29-May-09	-0.31	-0.04	0.01	-0.02	0.04	-0.02	-0.21
12-Jun-09	-	-	-	-0.01	0.04	-	-
8-Jul-09	-0.31	-0.04	0.01	0.01	0.04	-0.02	-0.20
20-Aug-09	-0.30	-0.05	0.01	-0.01	0.03	-0.04	-0.21
16-Sep-09	-0.28	-0.06	0.00	0.00	0.00	-0.04	-0.21
20-Oct-09	-0.32	-0.05	0.00	-0.01	0.03	-0.03	-0.20
27-Nov-09	-0.31	-0.04	0.01	0.00	0.04	-0.01	-0.21
29-Mar-10	-0.31	-0.05	0.01	0.00	0.05	-0.01	-0.19
30-Apr-10	-0.31	-0.04	0.01	0.00	0.04	-0.01	-0.19
25-May-10	-0.31	-0.04	0.01	0.00	0.04	-0.02	-0.22
25-Jun-10	-0.32	-0.05	0.00	0.02	0.04	-0.02	-0.21
26-Jul-10	-0.32	-0.05	0.00	-0.02	0.03	-0.02	-0.20
26-Aug-10	-0.32	-0.05	0.03	-0.02	0.03	-0.02	-0.21
4-Oct-10	-0.31	-0.07	0.00	-0.02	0.03	-0.06	-0.22
1-Nov-10	-0.29	-0.04	-0.05	-0.02	0.03	-0.02	-0.13
6-Dec-10	-0.29	-	0.00	-0.02	0.03	-	-0.14
6-Jan-11	-0.29	-0.03	0.00	-0.02	0.03	-0.01	-0.07
9-Feb-11	-0.30	-0.03	0.01	-0.02	0.07	-0.01	-0.12
25-Feb-11	-	-0.03	-	-	-	-	-0.08
23-Mar-11	-0.31	-0.03	-0.04	0.00	0.03	-0.01	-0.07
4-May-11	-0.30	-0.06	0.00	0.01	0.03	-0.03	-0.17
24-May-11	-0.31	-0.10	0.00	-0.02	0.02	-0.08	-0.21
27-Jun-11	-0.31	-0.04	0.01	0.00	0.04	-0.02	-0.20
26-Jul-11	-0.31	-0.01	0.01	0.00	0.03	-0.03	-0.21
30-Aug-11	-0.30	-0.05	0.01	-0.01	0.02	-0.03	-0.15
22-Sep-11	-0.32	-0.05	0.01	-0.01	0.03	-0.03	-0.20
26-Oct-11	-0.29	-0.06	0.00	-0.01	0.03	-0.02	-0.16
29-Nov-11	-0.32	-0.07	-0.01	-0.02	0.02	-0.08	-0.18
11-Jan-12	-0.32	-0.04	0.01	-0.02	0.01	-0.02	-0.16
27-Feb-12	-0.31	-0.03	-0.05	-0.01	0.01	-0.01	-0.18
8-Mar-12	-0.35	-	-	-0.03	-	-	-
15-Mar-12	-0.30	-	-	-0.01	-	-	-
21-Mar-12	-0.30	-	-	-0.01	-	-	-

Location	OW7	OW8	OW9	OW10	OW11	OW12	OW13
29-Mar-12	-0.30	-0.04	0.01	-0.01	0.03	-0.02	-0.19
25-Apr-12	-0.32	-0.03	0.01	-0.02	0.04	-0.02	-0.21
28-May-12	-0.32	-0.04	0.01	0.00	0.04	-0.02	-0.21
13-Jun-12	-0.32	-0.05	0.01	-0.01	0.03	-0.02	-0.21
11-Jul-12	-0.31	-0.03	0.01	-0.02	0.02	-0.04	-0.21
30-Aug-12	-0.33	-0.05	0.00	-0.02	0.02	-0.04	-0.21
25-Sep-12	-0.33	-0.06	0.00	-0.03	0.03	-0.04	-0.20
24-Oct-12	-0.32	-0.06	0.00	-0.01	0.03	-0.02	-0.18
27-Nov-12	-0.32	-0.06	0.01	-0.02	0.00	-0.02	-0.18
19-Dec-12	-0.32	-0.02	0.01	-0.01	0.04	-0.01	-0.18
28-Jan-13	-0.31	-0.02	0.01	-0.01	0.05	-0.01	-0.18
27-Feb-13	-0.30	-0.02	0.01	-0.01	0.03	-0.01	-0.17
26-Mar-13	-0.32	-0.02	0.01	0.00	0.02	0.00	-0.17
23-Apr-13	-0.30	-0.01	0.01	-0.01	0.02	0.01	-0.15
27-May-13	-0.32	-0.04	0.01	0.00	0.04	-0.01	-0.19
17-Jun-13	-0.32	-0.04	0.01	-0.02	0.02	-0.01	-0.19
29-Jul-13	-0.31	-0.04	0.01	-0.01	0.01	-0.02	-0.20
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-0.31	-0.06	0.00	-0.03	0.02	-0.04	-0.18
25-Oct-13	-	-	-0.01	-0.01	0.00	-	-
30-Nov-13	-0.33	-0.05	0.01	-0.01	0.03	-0.02	-0.17
18-Dec-13	-0.33	-0.04	0.01	-0.01	0.05	-0.02	-0.18
15-Mar-14	-0.31	-0.08	-0.01	-0.01	0.00	-0.05	-0.18
28-Apr-14	-0.32	-0.05	0.01	-0.01	0.02	-0.01	-0.17
24-May-14	-0.35	-0.04	0.01	-0.01	0.04	-0.02	-
27-Jun-14	-0.32	-0.05	-0.05	-0.02	0.03	-0.02	-0.20
15-Jul-14	-0.32	-0.05	-0.04	-0.03	0.03	-0.02	-0.18
12-Sep-14	-0.30	-0.03	0.00	-0.02	0.03	-0.03	-0.19
23-Oct-14	-	-	0.00	-	0.03	-	-

Notes:

++ = frozen

- = not measured

Table C-3.1

Location	OW14	OW15	OW16	OW25	OW27	OW28	OW29
15-Sep-03	-0.26	-0.26	-0.01	-	-	-	-
17-Oct-03	-0.35	0.01	-0.01	-	-	-	-
28-Nov-03	-0.35	-0.01	-0.01	-	-	-	-
26-Feb-04	-0.35	0.01	-0.01	-	-	-	-
26-Apr-04	-0.36	0.01	-0.13	-	-	-	-
14-May-04	-0.35	-0.01	-0.04	-	-	-	-
21-May-04	-0.35	0.00	-0.01	-	-	-	-
28-May-04	-0.35	-0.02	-0.01	-	-	-	-
4-Jun-04	-0.34	-0.01	-0.01	-	-	-	-
11-Jun-04	-0.34	0.00	-0.02	-	-	-	-
17-Jun-04	-0.32	0.00	-0.02	-	-	-	-
25-Jun-04	-0.32	0.00	-0.01	-	-	-	-
9-Jul-04	-0.30	0.00	-0.02	-	-	-	-
16-Jul-04	-0.34	0.00	-0.01	-	-	-	-
22-Jul-04	-0.33	0.00	-0.01	-	-	-	-
29-Jul-04	-0.32	0.00	-0.01	-	-	-	-
5-Aug-04	-0.32	0.00	-0.01	-	-	-	-
13-Aug-04	-0.30	-0.01	-0.01	-	-	-	-
19-Aug-04	-0.29	-0.01	-0.02	-	-	-	-
26-Aug-04	-0.29	-0.01	-0.01	-	-	-	-
2-Sep-04	-0.28	-0.02	-0.02	-	-	-	-
9-Sep-04	-0.28	-0.02	-0.01	-	-	-	-
16-Sep-04	-0.28	-0.02	-0.01	-	-	-	-
23-Sep-04	-0.27	-0.02	-0.01	-	-	-	-
7-Oct-04	-0.26	-0.03	-0.01	-	-	-	-
14-Oct-04	-0.26	-0.03	-0.01	-	-	-	-
21-Oct-04	-0.28	-0.02	-0.01	-	-	-	-
28-Oct-04	-0.27	-0.02	-0.01	-	-	-	-
3-Nov-04	-0.28	-0.01	-0.03	-	-	-	-
11-Nov-04	-0.30	-0.01	-0.03	-	-	-	-
18-Nov-04	-0.29	-0.01	-0.01	-	-	-	-
25-Nov-04	-0.28	-0.01	-0.02	-	-	-	-
2-Dec-04	-0.36	0.01	-0.04	-	-	-	-
9-Dec-04	-0.37	-0.02	-0.06	-	-	-	-
16-Dec-04	-0.35	-0.02	-0.04	-	-	-	-
23-Dec-04	-0.35	-0.01	-0.07	-	-	-	-
13-Jan-05	-0.37	-0.02	-	-	-	-	-
31-Jan-05	-0.36	0.00	-0.11	-	-	-	-
21-Feb-05	-0.37	0.01	-0.12	-	-	-	-
24-Mar-05	-0.36	0.01	-0.14	-	-	-	-
26-Apr-05	-0.37	0.00	-0.23	-	-	-	-
10-May-05	-0.35	0.00	-0.27	-	-	-	-
24-May-05	-0.34	0.00	-0.39	-	-	-	-
1-Jun-05	-0.33	0.00	-0.47	-	-	-	-
10-Jun-05	-0.32	0.00	-0.47	-	-	-	-
17-Jun-05	-0.32	0.00	-0.47	-	-	-	-

Location	OW14	OW15	OW16	OW25	OW27	OW28	OW29
24-Jun-05	-0.31	0.00	-0.46	-	-	-	-
30-Jun-05	-0.31	-0.01	-0.45	-	-	-	-
8-Jul-05	-0.31	-0.02	-0.44	-	-	-	-
15-Jul-05	-0.30	-0.02	-0.44	-	-	-	-
22-Jul-05	-0.29	-0.03	-0.42	-	-	-	-
28-Jul-05	-0.29	-0.03	-0.41	-	-	-	-
4-Aug-05	-0.28	-0.03	-0.42	-	-	-	-
12-Aug-05	-0.28	-0.03	-0.41	-	-	-	-
18-Aug-05	-0.28	-0.03	-0.41	-	-	-	-
26-Aug-05	-0.28	-0.03	-0.42	-	-	-	-
2-Sep-05	-0.28	-0.03	-0.43	-	-	-	-
9-Sep-05	-0.27	-0.03	-0.44	-	-	-	-
15-Sep-05	-0.27	-0.03	-0.44	-	-	-	-
23-Sep-05	-0.26	-0.03	-0.45	-	-	-	-
30-Sep-05	-0.28	-0.02	-0.45	-	-	-	-
7-Oct-05	-0.28	-0.02	-0.46	-	-	-	-
14-Oct-05	-0.27	-0.02	-0.46	-	-	-	-
21-Oct-05	-0.27	-0.02	-0.42	-	-	-	-
28-Oct-05	-0.26	-0.01	-0.49	-	-	-	-
4-Nov-05	-0.27	-0.01	-0.50	-	-	-	-
11-Nov-05	-0.33	0.00	-0.50	-	-	-	-
2-Dec-05	-0.38	-0.02	-0.52	-	-	-	-
21-Apr-06	-0.39	0.00	-0.58	-	-	-	-
15-Aug-06	-0.31	-0.01	-0.64	-	-	-0.70	-
14-Sep-06	-0.30	-0.02	-0.67	-	-	-0.70	-
28-Sep-06	-0.30	-	-	-	-	-0.70	-
5-Oct-06	-0.30	-0.02	-0.31	-	-	-0.68	-
6-Oct-06	-0.30	-0.02	-0.31	-	-	-0.69	-
10-Oct-06	-	-	-	0.05	-	-	-
17-Oct-06	-0.36	-	-0.27	0.02	0.01	-0.44	-
20-Oct-06	-0.38	-0.02	-0.23	-0.05	-0.01	-0.49	-
27-Oct-06	-0.39	0.01	-0.19	0.01	-0.01	-0.26	-
3-Nov-06	-0.38	-0.01	-0.19	0.01	-0.02	-0.31	-
6-Nov-06	-0.38	-	-0.19	-	-	-	-
10-Nov-06	-0.38	-0.02	-0.21	-	-	-	-
14-Nov-06	-0.38	-	-0.22	-	-	-0.12	-
17-Nov-06	-0.39	-0.01	-0.22	0.01	-0.03	-0.02	-
24-Nov-06	-0.38	-0.01	-0.24	0.01	-0.02	-0.30	-
1-Dec-06	-0.39	0.00	-0.22	0.01	-0.02	-0.02	-
15-Dec-06	-0.39	-0.03	-0.24	0.00	-0.04	-0.01	-
26-Jan-07	-0.38	0.01	-0.31	0.01	-0.01	-0.50	-
9-Apr-07	-0.39	-0.02	-0.34	0.01	-0.02	-0.06	-
21-Jun-07	-0.35	0.00	-0.50	0.02	0.01	-0.64	-
27-Jul-07	-0.29	-0.02	-0.13	0.02	0.04	-0.70	-
22-Aug-07	-0.28	-0.04	-0.64	0.02	0.05	-0.69	-0.01
31-Aug-07	-0.28	-0.04	-0.55	0.02	0.05	-0.69	-0.02
26-Sep-07	-0.26	-0.04	-	0.02	0.05	-0.69	0.02
19-Oct-07	-0.27	-0.03	-	0.01	0.05	-0.71	-0.01

Location	OW14	OW15	OW16	OW25	OW27	OW28	OW29
17-Nov-07	-0.30	-0.02	-	0.01	0.03	-0.69	-0.01
20-Dec-07	-0.36	0.00	-	0.01	0.02	-0.61	-0.01
7-Mar-08	-0.40	0.00	-	0.01	-0.02	-0.14	-0.01
3-Jun-08	-0.38	0.01	-	0.01	-0.01	-0.57	-0.01
29-Jul-08	-0.33	-0.01	-	0.02	0.02	-	-0.01
18-Aug-08	-0.33	-0.01	-	0.01	0.03	-0.67	-0.01
23-Sep-08	-0.35	0.00	-	0.01	0.02	-0.64	-0.02
29-Oct-08	-0.38	0.00	-	0.01	0.01	-0.48	-0.01
26-Nov-08	-0.39	-0.01	-	0.01	-0.01	-0.23	-0.01
18-Dec-08	-	-	-	-	-	-	-
6-Jan-09	-0.38	-0.01	-	0.01	-0.01	-0.11	0.00
20-Jan-09	-0.37	0.01	-	0.01	-0.01	-0.55	0.00
24-Mar-09	-0.39	-0.02	-	0.01	-0.02	-0.17	-0.01
8-Apr-09	-	-	-	0.01	-0.02	-0.03	-
15-Apr-09	-0.39	-0.01	-	0.01	-0.02	-0.10	-0.01
29-May-09	-0.36	0.00	-	0.01	-0.01	-0.61	-0.01
12-Jun-09	-	*	-	-	-	-	-
8-Jul-09	-0.38	0.01	-	0.01	-0.01	-0.43	-0.01
20-Aug-09	-0.40	-0.01	-	0.01	-0.04	-0.69	-0.01
16-Sep-09	-0.31	-0.03	-	0.01	-0.04	-0.68	-0.01
20-Oct-09	-0.32	-0.01	-	0.01	0.03	-0.69	-0.01
27-Nov-09	-0.38	0.01	-	0.01	0.00	-0.63	0.00
29-Mar-10	-0.40	-0.01	-	0.01	-0.01	-0.51	-0.01
30-Apr-10	-0.40	-0.01	-	0.01	-0.01	-0.63	-0.01
25-May-10	-0.38	0.00	-	0.01	-0.01	-0.65	0.00
25-Jun-10	-0.39	0.00	-	0.01	-0.01	-0.59	-0.01
26-Jul-10	-0.36	0.01	-	0.01	0.00	-0.63	-0.01
26-Aug-10	-0.36	0.00	-	0.01	0.01	-0.65	0.01
4-Oct-10	-0.40	-0.02	-	0.01	0.02	-0.26	0.00
1-Nov-10	-0.36	0.00	-	0.01	-0.01	-0.65	-0.01
6-Dec-10	-0.39	-	-	0.02	-0.01	-0.28	0.03
6-Jan-11	-0.39	0.01	-	0.06	-0.02	-0.33	0.00
9-Feb-11	-0.39	0.01	-	0.05	-0.02	-0.34	-0.01
25-Feb-11	-	-	-	0.09	-	-	-
23-Mar-11	-0.34	0.01	-	0.06	-0.03	-0.33	0.03
4-May-11	-0.40	-0.02	-	0.00	-0.02	-0.11	0.00
24-May-11	-0.40	-0.02	-	0.01	-0.02	-0.04	0.00
27-Jun-11	-0.40	-0.03	-	0.01	-0.01	-0.42	-0.01
26-Jul-11	-0.28	-0.01	-	0.01	0.02	-0.67	0.00
30-Aug-11	-0.32	-0.01	-	0.01	-0.04	-0.68	0.00
22-Sep-11	-0.37	-0.02	-	0.01	-0.03	-0.47	-0.01
26-Oct-11	-0.37	-0.02	-	0.00	-0.03	-0.48	-0.01
29-Nov-11	-0.41	-0.03	-	-0.01	-0.03	-0.08	-0.01
11-Jan-12	-0.39	-0.02	-	0.01	-0.01	-0.42	-0.01
27-Feb-12	-0.39	-0.03	-	0.01	-0.01	-0.53	-0.01
8-Mar-12	-	-	-	-	-	-	-0.01
15-Mar-12	-	-	-	-	-	-	-0.01
21-Mar-12	-	-	-	-	-	-	-0.01

Location	OW14	OW15	OW16	OW25	OW27	OW28	OW29
29-Mar-12	-0.32	-0.02	-	0.01	-0.01	-0.57	-0.01
25-Apr-12	-0.39	-0.03	-	0.01	-0.01	-0.62	-0.01
28-May-12	-0.35	-0.02	-	0.01	0.01	-0.66	-0.02
13-Jun-12	-0.35	-0.02	-	0.01	-0.02	-0.65	-0.01
11-Jul-12	-0.35	-0.02	-	0.01	-0.04	-0.65	-0.01
30-Aug-12	-0.32	-0.01	-	0.01	-0.04	-0.68	-0.01
25-Sep-12	-0.33	-0.01	-	0.00	-0.04	-0.63	-0.01
24-Oct-12	-0.39	-0.01	-	0.00	-0.01	-0.53	0.00
27-Nov-12	-0.40	-0.01	-	0.01	-0.01	-0.53	-0.01
19-Dec-12	-0.40	-0.02	-	0.00	-0.02	-0.33	-0.01
28-Jan-13	-0.38	-0.02	-	0.01	-0.01	-0.51	-0.01
27-Feb-13	-0.38	-0.01	-	0.01	-0.01	-0.42	-0.01
26-Mar-13	-0.40	-0.02	-	0.00	-0.02	-0.43	0.00
23-Apr-13	-0.39	-0.02	-	0.00	-0.03	-0.43	0.00
27-May-13	-0.40	-0.02	-	0.01	-0.01	-0.55	-0.01
17-Jun-13	-0.45	-0.02	-	0.01	-0.01	-0.56	-0.02
29-Jul-13	-0.37	-0.02	-	0.01	-0.04	-0.57	-0.01
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-0.30	-0.02	-	0.01	-0.05	-0.65	-0.01
25-Oct-13	-	-	-	-	-0.02	-	-0.01
30-Nov-13	-0.38	-0.01	-	0.00	-0.02	-0.48	-0.01
18-Dec-13	-0.38	-0.02	-	0.01	-0.01	-0.45	0.03
15-Mar-14	-0.38	-0.02	-	-0.03	-0.03	-0.24	-0.01
28-Apr-14	-0.39	-0.01	-	-0.04	-0.02	-0.41	-0.01
24-May-14	-0.39	-0.02	-	-0.04	-	-	-
27-Jun-14	-0.34	-0.01	-	-0.04	-0.01	-0.68	-0.01
15-Jul-14	-0.33	-0.01	-	-0.04	-0.04	-0.67	-0.01
12-Sep-14	-0.31	-0.03	-	-0.04	-0.03	-0.67	-
23-Oct-14	-	-	-	0.01	-0.02	-	-

Notes:

++ = frozen

- = not measured

Table C-3.1

Location	OW30	OW31	OW32	OW33	OW41	OW42	OW43
15-Sep-03	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-

Location	OW30	OW31	OW32	OW33	OW41	OW42	OW43
24-Jun-05	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-
31-Aug-07	-0.52	-	-	-	-	-	-
26-Sep-07	-0.53	-	-	-	-	-	-
19-Oct-07	-0.53	-0.34	-0.43	-0.49	-	-	-

Location	OW30	OW31	OW32	OW33	OW41	OW42	OW43
17-Nov-07	-0.57	-0.34	-0.43	-0.51	-	-	-
20-Dec-07	-0.64	-0.31	-0.41	-0.47	-	-	-
7-Mar-08	-0.64	-0.28	-0.39	-0.41	-	-	-
3-Jun-08	-0.65	-0.31	-0.40	-0.45	-	-	-
29-Jul-08	-0.58	-0.32	-0.41	-0.45	-	-	-
18-Aug-08	-0.59	-0.31	-0.40	-0.46	-	-	-
23-Sep-08	-0.60	-0.31	-0.39	-0.45	-	-	-
29-Oct-08	-0.61	-0.30	-0.41	-0.42	-	-	-
26-Nov-08	-0.61	-0.28	-0.38	-0.53	-0.06	-0.29	-0.06
18-Dec-08	-	-	-	-	-0.06	-0.36	-0.06
6-Jan-09	-0.59	-0.25	-0.35	-0.40	-0.07	-	-0.05
20-Jan-09	-0.58	-0.28	-0.36	-0.42	-0.08	-0.15	-0.07
24-Mar-09	-0.61	-0.27	-0.37	-0.43	-0.08	-0.16	-0.05
8-Apr-09	-	-	-	-	-	-	-
15-Apr-09	-0.60	-0.28	-0.37	-0.43	-0.08	-0.16	-0.05
29-May-09	-0.60	-0.30	-0.38	-0.45	-0.09	-0.14	-0.06
12-Jun-09	-	-	-	-	-	-	-0.06
8-Jul-09	-0.61	-0.31	-0.38	-0.57	-0.09	-	-0.13
20-Aug-09	-0.58	-0.32	-0.40	-0.47	-0.11	-0.13	-0.07
16-Sep-09	-0.55	-0.33	-0.41	-0.49	-0.11	-0.16	-0.08
20-Oct-09	-0.60	-0.33	-0.42	-0.50	-0.10	-0.13	-0.07
27-Nov-09	-0.61	-0.33	-0.41	-0.47	-0.10	-0.15	-0.07
29-Mar-10	-0.61	-0.27	-0.35	-0.41	-0.09	-0.16	-0.06
30-Apr-10	-0.61	-0.34	-0.41	-0.54	-0.10	-0.15	-0.07
25-May-10	-0.61	-0.35	-0.42	-0.50	-0.10	-0.14	-0.07
25-Jun-10	-0.62	-0.32	-0.40	-0.47	-0.10	-0.14	-0.06
26-Jul-10	-0.62	-0.32	-0.40	-0.46	-0.10	-0.14	-0.07
26-Aug-10	-0.62	-0.32	-0.40	-0.52	-0.10	-0.14	-0.07
4-Oct-10	-0.62	-0.35	-0.35	-0.44	-0.08	-0.11	-0.05
1-Nov-10	-0.62	-0.35	-0.41	-0.45	-0.08	-0.17	-0.06
6-Dec-10	-0.61	-0.40	-0.40	-0.37	-	-	-
6-Jan-11	-0.60	-0.35	-0.37	-0.44	-0.08	-0.16	-0.06
9-Feb-11	-0.62	-0.41	-0.38	-0.44	-0.08	-0.14	-0.05
25-Feb-11	-	-0.31	-0.34	-0.39	-	-	-
23-Mar-11	-0.58	-0.35	-0.37	-0.47	-0.09	-0.16	-0.06
4-May-11	-0.59	-0.28	-0.36	-0.43	-0.09	-0.16	-0.05
24-May-11	-0.61	-0.32	-0.46	-0.55	-0.10	-0.18	-0.07
27-Jun-11	-0.61	-0.30	-0.37	-0.42	-0.11	-0.16	-0.06
26-Jul-11	-0.60	-0.32	-0.39	-0.46	-0.11	-0.13	-0.07
30-Aug-11	-0.58	-0.32	-0.39	-0.47	-0.12	-0.14	-0.08
22-Sep-11	-0.59	-0.30	-0.39	-0.42	-0.11	-0.10	-0.08
26-Oct-11	-0.56	-0.26	-0.32	-0.39	-0.09	-0.15	-0.05
29-Nov-11	-0.66	-0.33	-0.43	-0.59	-0.11	-0.17	-0.06
11-Jan-12	-0.63	-0.27	-0.35	-0.40	-0.10	-0.16	-0.05
27-Feb-12	-0.63	-0.30	-0.37	-0.42	-0.10	-0.14	-0.06
8-Mar-12	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-

Location	OW30	OW31	OW32	OW33	OW41	OW42	OW43
29-Mar-12	-0.64	-0.29	-0.35	-0.42	-0.10	-0.14	-0.06
25-Apr-12	-0.64	-0.34	-0.40	-0.46	-0.11	-0.15	-0.06
28-May-12	-0.66	-0.33	-0.40	-0.47	-0.12	-0.14	-0.07
13-Jun-12	-0.63	-0.33	-0.40	-0.46	-0.11	-0.13	-0.06
11-Jul-12	-0.66	-0.33	-0.40	-0.47	-0.12	-0.13	-0.07
30-Aug-12	-0.63	-0.34	-0.41	-0.48	-0.12	-0.03	-0.07
25-Sep-12	-0.64	-0.33	-0.41	-0.47	-0.12	-0.15	-0.06
24-Oct-12	-0.64	-0.29	-0.36	-0.43	-0.10	-0.17	-0.06
27-Nov-12	-0.64	-0.29	-0.36	-0.43	-0.11	-0.16	-0.05
19-Dec-12	-0.65	-0.32	-0.41	-0.44	-0.10	-0.16	-0.05
28-Jan-13	-0.62	-0.32	-0.35	-0.40	-0.11	-0.15	-0.06
27-Feb-13	-0.63	-0.28	-0.35	-0.41	-0.10	-0.15	-0.05
26-Mar-13	-0.64	-0.28	-0.34	-0.42	-0.11	-0.15	-0.05
23-Apr-13	-0.62	-0.28	-0.36	-0.47	-0.10	-0.16	-0.06
27-May-13	-0.64	-0.30	-0.37	-0.43	-0.11	-0.16	-0.06
17-Jun-13	-0.64	-0.32	-0.39	-0.45	-0.11	-0.14	-0.06
29-Jul-13	-0.61	-0.31	-0.40	-0.46	-0.12	-0.16	-0.08
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-0.59	-0.34	-0.42	-0.36	-0.10	-0.16	-0.07
25-Oct-13	-	-	-	-0.59	-	-	-
30-Nov-13	-0.65	-0.29	-0.06	-0.38	-0.10	-0.17	-0.05
18-Dec-13	-0.65	-0.29	-0.37	-0.37	-0.10	-0.17	-0.06
15-Mar-14	-0.61	-0.31	-0.42	-0.48	-0.11	-0.21	-0.06
28-Apr-14	-0.65	-0.29	-0.37	-0.39	-0.10	-0.16	-0.05
24-May-14	-0.65	-0.28	-	-	-0.11	-0.16	-0.06
27-Jun-14	-0.64	-0.32	-0.39	-0.43	-0.12	-0.13	-0.06
15-Jul-14	-0.63	-0.33	-0.41	-0.46	-0.12	-0.15	-0.06
12-Sep-14	-0.63	-0.33	-0.41	-0.47	-0.12	-0.16	-0.07
23-Oct-14	-	-	-	-	-	-	-

Notes:

++ = frozen

- = not measured

Table C-3.1

Location	OW44	OW46	OW47	MP54	MP55	MP56	MP57
15-Sep-03	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-

Location	OW44	OW46	OW47	MP54	MP55	MP56	MP57
24-Jun-05	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-

Location	OW44	OW46	OW47	MP54	MP55	MP56	MP57
17-Nov-07	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-
26-Nov-08	0.01	-0.01	0.00	-	-	-	-
18-Dec-08	0.01	-0.02	0.01	-	-	-	-
6-Jan-09	0.03	-0.01	0.01	-	-	-	-
20-Jan-09	0.01	-0.01	-0.01	-	-	-	-
24-Mar-09	0.02	-0.02	0.01	-	-	-	-
8-Apr-09	-	-	-	0.02	0.10	0.01	0.01
15-Apr-09	0.01	-0.02	0.01	0.00	0.07	0.03	0.01
29-May-09	0.00	-0.01	-0.01	0.00	0.01	0.01	0.01
12-Jun-09	0.00	0.00	-0.01	0.00	0.01	0.01	0.01
8-Jul-09	0.00	-0.01	-	0.00	0.01	0.01	0.01
20-Aug-09	-0.01	0.00	-0.02	-	-	-	0.02
16-Sep-09	-0.02	0.01	-0.03	-	-	-	-
20-Oct-09	-0.01	-0.01	-0.01	-	-	0.01	0.01
27-Nov-09	0.00	0.00	-0.01	-0.01	-	0.00	0.01
29-Mar-10	0.01	-0.01	0.00	-0.01	0.04	0.00	0.02
30-Apr-10	0.00	-0.01	-0.01	0.00	0.03	0.02	0.03
25-May-10	0.00	-0.01	-0.01	0.00	0.01	0.02	0.02
25-Jun-10	0.00	-0.01	-0.01	0.00	0.01	-0.01	0.01
26-Jul-10	-0.01	0.00	-0.01	0.00	0.00	0.01	0.01
26-Aug-10	0.00	-0.01	-0.01	-	-	0.01	-
4-Oct-10	0.02	-0.01	-0.02	0.02	0.00	0.01	0.01
1-Nov-10	0.00	-0.01	-0.01	0.01	0.02	0.02	0.00
6-Dec-10	0.02	-0.01	-0.01	-	-	-	-
6-Jan-11	0.04	-0.01	0.01	++	++	++	++
9-Feb-11	0.01	-0.01	-0.01	++	++	++	++
25-Feb-11	-	-	-	-	-	-	-
23-Mar-11	0.03	-0.01	0.01	-	-	-	-
4-May-11	0.04	-0.01	0.01	0.03	0.08	0.03	0.00
24-May-11	0.02	-0.02	0.01	0.04	0.01	-0.05	-0.06
27-Jun-11	0.01	-0.03	-0.24	-0.01	0.00	0.01	0.00
26-Jul-11	0.00	-0.05	-0.24	-	-	0.01	0.00
30-Aug-11	-0.01	-0.03	-0.25	-	-	0.01	0.00
22-Sep-11	-0.01	-0.03	-0.21	-	0.00	0.01	-0.01
26-Oct-11	-0.03	-0.02	0.00	0.00	0.00	0.00	0.00
29-Nov-11	-0.01	-0.02	0.00	0.00	0.00	0.00	0.00
11-Jan-12	-	-0.02	0.00	++	++	++	++
27-Feb-12	-	-0.01	0.00	++	++	++	++
8-Mar-12	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-

Location	OW44	OW46	OW47	MP54	MP55	MP56	MP57
29-Mar-12	-	-0.02	0.00	++	++	++	++
25-Apr-12	-	-0.01	0.00	0.00	0.00	0.00	0.00
28-May-12	0.00	0.00	-0.01	0.00	0.00	0.00	0.00
13-Jun-12	-0.01	0.00	-0.01	0.00	0.00	0.00	0.00
11-Jul-12	-0.01	0.00	-0.01	0.00	0.00	0.00	0.00
30-Aug-12	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00
25-Sep-12	-0.02	0.00	0.04	0.00	0.00	0.05	0.00
24-Oct-12	0.01	-0.01	0.00	0.00	0.00	0.00	0.00
27-Nov-12	0.01	0.00	0.00	0.00	0.00	++	0.00
19-Dec-12	0.01	0.00	0.01	0.00	0.00	0.00	0.00
28-Jan-13	0.01	-0.01	0.00	-	-	-	-
27-Feb-13	0.01	0.00	0.00	-	-	-	-
26-Mar-13	0.03	-0.02	0.00	-	-	0.00	0.00
23-Apr-13	0.02	-0.02	-0.01	0.00	0.00	0.00	0.00
27-May-13	0.01	-0.01	0.00	0.00	0.00	0.00	0.00
17-Jun-13	0.00	-0.02	-0.01	0.00	0.00	0.00	0.00
29-Jul-13	-0.01	-0.01	-0.03	0.00	0.00	0.00	0.00
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-0.02	-0.01	-0.02	0.00	0.00	0.00	0.00
25-Oct-13	0.00	-0.03	0.00	0.00	0.00	0.00	0.00
30-Nov-13	0.01	-0.01	0.00	0.00	-	-	-
18-Dec-13	0.01	-0.01	0.00	-	-	-	-
15-Mar-14	0.00	-0.02	0.00	-	-	-	-
28-Apr-14	0.03	-0.02	0.00	0.00	0.00	0.00	0.00
24-May-14	0.01	-0.01	0.00	0.00	0.00	0.00	0.00
27-Jun-14	-0.01	-0.01	-0.02	-	0.00	0.00	0.00
15-Jul-14	-0.01	-0.02	-0.02	0.00	0.00	0.00	0.00
12-Sep-14	-0.02	-0.01	-0.02	0.00	0.00	0.00	0.00
23-Oct-14	-	-	-	0.00	0.03	0.02	0.00

Notes:

++ = frozen

- = not measured

Table C-3.1

Location	OW58	OW59	OW60	OW62 S&K	OW62 S&D	OW63	OW64
15-Sep-03	-	-	-	-	-	-	-
17-Oct-03	-	-	-	-	-	-	-
28-Nov-03	-	-	-	-	-	-	-
26-Feb-04	-	-	-	-	-	-	-
26-Apr-04	-	-	-	-	-	-	-
14-May-04	-	-	-	-	-	-	-
21-May-04	-	-	-	-	-	-	-
28-May-04	-	-	-	-	-	-	-
4-Jun-04	-	-	-	-	-	-	-
11-Jun-04	-	-	-	-	-	-	-
17-Jun-04	-	-	-	-	-	-	-
25-Jun-04	-	-	-	-	-	-	-
9-Jul-04	-	-	-	-	-	-	-
16-Jul-04	-	-	-	-	-	-	-
22-Jul-04	-	-	-	-	-	-	-
29-Jul-04	-	-	-	-	-	-	-
5-Aug-04	-	-	-	-	-	-	-
13-Aug-04	-	-	-	-	-	-	-
19-Aug-04	-	-	-	-	-	-	-
26-Aug-04	-	-	-	-	-	-	-
2-Sep-04	-	-	-	-	-	-	-
9-Sep-04	-	-	-	-	-	-	-
16-Sep-04	-	-	-	-	-	-	-
23-Sep-04	-	-	-	-	-	-	-
7-Oct-04	-	-	-	-	-	-	-
14-Oct-04	-	-	-	-	-	-	-
21-Oct-04	-	-	-	-	-	-	-
28-Oct-04	-	-	-	-	-	-	-
3-Nov-04	-	-	-	-	-	-	-
11-Nov-04	-	-	-	-	-	-	-
18-Nov-04	-	-	-	-	-	-	-
25-Nov-04	-	-	-	-	-	-	-
2-Dec-04	-	-	-	-	-	-	-
9-Dec-04	-	-	-	-	-	-	-
16-Dec-04	-	-	-	-	-	-	-
23-Dec-04	-	-	-	-	-	-	-
13-Jan-05	-	-	-	-	-	-	-
31-Jan-05	-	-	-	-	-	-	-
21-Feb-05	-	-	-	-	-	-	-
24-Mar-05	-	-	-	-	-	-	-
26-Apr-05	-	-	-	-	-	-	-
10-May-05	-	-	-	-	-	-	-
24-May-05	-	-	-	-	-	-	-
1-Jun-05	-	-	-	-	-	-	-
10-Jun-05	-	-	-	-	-	-	-
17-Jun-05	-	-	-	-	-	-	-

Location	OW58	OW59	OW60	OW62 S&K	OW62 S&D	OW63	OW64
24-Jun-05	-	-	-	-	-	-	-
30-Jun-05	-	-	-	-	-	-	-
8-Jul-05	-	-	-	-	-	-	-
15-Jul-05	-	-	-	-	-	-	-
22-Jul-05	-	-	-	-	-	-	-
28-Jul-05	-	-	-	-	-	-	-
4-Aug-05	-	-	-	-	-	-	-
12-Aug-05	-	-	-	-	-	-	-
18-Aug-05	-	-	-	-	-	-	-
26-Aug-05	-	-	-	-	-	-	-
2-Sep-05	-	-	-	-	-	-	-
9-Sep-05	-	-	-	-	-	-	-
15-Sep-05	-	-	-	-	-	-	-
23-Sep-05	-	-	-	-	-	-	-
30-Sep-05	-	-	-	-	-	-	-
7-Oct-05	-	-	-	-	-	-	-
14-Oct-05	-	-	-	-	-	-	-
21-Oct-05	-	-	-	-	-	-	-
28-Oct-05	-	-	-	-	-	-	-
4-Nov-05	-	-	-	-	-	-	-
11-Nov-05	-	-	-	-	-	-	-
2-Dec-05	-	-	-	-	-	-	-
21-Apr-06	-	-	-	-	-	-	-
15-Aug-06	-	-	-	-	-	-	-
14-Sep-06	-	-	-	-	-	-	-
28-Sep-06	-	-	-	-	-	-	-
5-Oct-06	-	-	-	-	-	-	-
6-Oct-06	-	-	-	-	-	-	-
10-Oct-06	-	-	-	-	-	-	-
17-Oct-06	-	-	-	-	-	-	-
20-Oct-06	-	-	-	-	-	-	-
27-Oct-06	-	-	-	-	-	-	-
3-Nov-06	-	-	-	-	-	-	-
6-Nov-06	-	-	-	-	-	-	-
10-Nov-06	-	-	-	-	-	-	-
14-Nov-06	-	-	-	-	-	-	-
17-Nov-06	-	-	-	-	-	-	-
24-Nov-06	-	-	-	-	-	-	-
1-Dec-06	-	-	-	-	-	-	-
15-Dec-06	-	-	-	-	-	-	-
26-Jan-07	-	-	-	-	-	-	-
9-Apr-07	-	-	-	-	-	-	-
21-Jun-07	-	-	-	-	-	-	-
27-Jul-07	-	-	-	-	-	-	-
22-Aug-07	-	-	-	-	-	-	-
31-Aug-07	-	-	-	-	-	-	-
26-Sep-07	-	-	-	-	-	-	-
19-Oct-07	-	-	-	-	-	-	-

Location	OW58	OW59	OW60	OW62 S&K	OW62 S&D	OW63	OW64
17-Nov-07	-	-	-	-	-	-	-
20-Dec-07	-	-	-	-	-	-	-
7-Mar-08	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-
18-Aug-08	-	-	-	-	-	-	-
23-Sep-08	-	-	-	-	-	-	-
29-Oct-08	-	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-
8-Apr-09	-	-	-	-	-	-	-
15-Apr-09	-	-	-	-	-	-	-
29-May-09	-	-	-	-	-	-	-
12-Jun-09	-	-	-	-	-	-	-
8-Jul-09	-	-	-	-	-	-	-
20-Aug-09	-	-	-	-	-	-	-
16-Sep-09	0.03	0.04	0.00	-	-	-	-
20-Oct-09	0.03	0.03	0.00	-	-	-	-
27-Nov-09	0.03	0.03	0.00	-	-	-	-
29-Mar-10	0.03	0.02	-0.01	-	-	-	-
30-Apr-10	0.03	0.03	0.00	-	-	-	-
25-May-10	0.03	0.03	0.00	-	-	-	-
25-Jun-10	0.02	0.04	0.00	-	-	-	-
26-Jul-10	0.03	0.04	0.00	-	-	-	-
26-Aug-10	0.03	0.04	0.00	-	-	-	-
4-Oct-10	0.02	0.02	0.00	-	-	-	-
1-Nov-10	0.03	0.03	-0.02	-	-	-	-
6-Dec-10	0.02	0.03	-0.01	-	-	-	-
6-Jan-11	-	-	-	-	-	-	-
9-Feb-11	-	-	-	-	-	-	-
25-Feb-11	-	-	-	-	-	-	-
23-Mar-11	-	-	-	-	-	-	-
4-May-11	0.04	0.01	-0.01	0.02	0.02	-	-
24-May-11	0.02	0.05	-0.03	0.01	0.02	-	-
27-Jun-11	0.03	0.03	0.00	0.00	-0.02	-	-
26-Jul-11	0.03	0.04	0.00	0.01	-0.01	-	-
30-Aug-11	0.03	0.04	0.00	0.01	-0.01	-	-
22-Sep-11	0.03	0.04	0.00	0.01	-0.01	-	-
26-Oct-11	0.04	0.00	-0.01	0.01	-0.01	-	-
29-Nov-11	0.03	0.01	-0.01	0.01	0.01	-	-
11-Jan-12	-	-	-0.01	0.02	0.00	-	-
27-Feb-12	-	-	0.00	0.03	0.00	-	-
8-Mar-12	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-

Location	OW58	OW59	OW60	OW62 S&K	OW62 S&D	OW63	OW64
29-Mar-12	-	-	-0.01	0.03	0.00	-	-
25-Apr-12	0.03	0.03	0.00	0.03	0.00	-	-
28-May-12	0.03	0.04	0.00	0.02	-0.01	-	-
13-Jun-12	0.03	0.04	0.00	0.01	0.00	-	-
11-Jul-12	0.03	0.04	0.00	-0.01	0.00	-	-
30-Aug-12	0.03	0.04	0.00	-0.01	0.00	-	-
25-Sep-12	0.03	0.04	0.00	-0.01	0.00	-	-
24-Oct-12	0.04	0.02	0.00	0.03	0.00	-	-
27-Nov-12	0.03	0.03	0.00	0.03	0.00	-	-
19-Dec-12	0.03	0.02	-0.01	0.03	-0.01	-	-
28-Jan-13	-	-	-	0.03	-0.01	-	-
27-Feb-13	-	-	-	0.03	-0.01	-	-
26-Mar-13	0.03	0.02	-0.01	0.03	-0.01	-	-
23-Apr-13	0.03	0.00	-0.01	-0.01	-0.01	-	-
27-May-13	0.03	0.03	0.00	0.03	-0.01	-	-
17-Jun-13	0.03	0.03	0.00	0.03	-0.01	-	-
29-Jul-13	0.03	0.04	0.00	0.04	-0.01	-	-
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	0.03	0.04	0.00	-0.02	0.00	-	-
25-Oct-13	0.03	0.01	-0.01	0.01	0.00	-	-
30-Nov-13	-	0.02	-0.01	0.03	-0.01	-	-
18-Dec-13	-	-	-	0.03	0.00	-	-
15-Mar-14	-	-	-	0.02	0.02	-	-
28-Apr-14	0.03	0.02	-0.01	0.02	0.00	-	-
24-May-14	0.03	0.03	-0.01	0.03	0.01	-	-
27-Jun-14	0.03	0.04	0.00	0.02	0.00	-	-
15-Jul-14	0.03	0.04	0.00	0.01	0.01	-	-
12-Sep-14	0.03	0.04	0.00	0.00	0.01	-	-
23-Oct-14	0.03	0.03	-0.01	0.03	0.01	-	-

Notes:

++ = frozen

- = not measured

Table C-3.1

Location	OW65	OW71 S&K	OW71 S&D
15-Sep-03	-	-	-
17-Oct-03	-	-	-
28-Nov-03	-	-	-
26-Feb-04	-	-	-
26-Apr-04	-	-	-
14-May-04	-	-	-
21-May-04	-	-	-
28-May-04	-	-	-
4-Jun-04	-	-	-
11-Jun-04	-	-	-
17-Jun-04	-	-	-
25-Jun-04	-	-	-
9-Jul-04	-	-	-
16-Jul-04	-	-	-
22-Jul-04	-	-	-
29-Jul-04	-	-	-
5-Aug-04	-	-	-
13-Aug-04	-	-	-
19-Aug-04	-	-	-
26-Aug-04	-	-	-
2-Sep-04	-	-	-
9-Sep-04	-	-	-
16-Sep-04	-	-	-
23-Sep-04	-	-	-
7-Oct-04	-	-	-
14-Oct-04	-	-	-
21-Oct-04	-	-	-
28-Oct-04	-	-	-
3-Nov-04	-	-	-
11-Nov-04	-	-	-
18-Nov-04	-	-	-
25-Nov-04	-	-	-
2-Dec-04	-	-	-
9-Dec-04	-	-	-
16-Dec-04	-	-	-
23-Dec-04	-	-	-
13-Jan-05	-	-	-
31-Jan-05	-	-	-
21-Feb-05	-	-	-
24-Mar-05	-	-	-
26-Apr-05	-	-	-
10-May-05	-	-	-
24-May-05	-	-	-
1-Jun-05	-	-	-
10-Jun-05	-	-	-
17-Jun-05	-	-	-

Location	OW65	OW71 S&K	OW71 S&D
24-Jun-05	-	-	-
30-Jun-05	-	-	-
8-Jul-05	-	-	-
15-Jul-05	-	-	-
22-Jul-05	-	-	-
28-Jul-05	-	-	-
4-Aug-05	-	-	-
12-Aug-05	-	-	-
18-Aug-05	-	-	-
26-Aug-05	-	-	-
2-Sep-05	-	-	-
9-Sep-05	-	-	-
15-Sep-05	-	-	-
23-Sep-05	-	-	-
30-Sep-05	-	-	-
7-Oct-05	-	-	-
14-Oct-05	-	-	-
21-Oct-05	-	-	-
28-Oct-05	-	-	-
4-Nov-05	-	-	-
11-Nov-05	-	-	-
2-Dec-05	-	-	-
21-Apr-06	-	-	-
15-Aug-06	-	-	-
14-Sep-06	-	-	-
28-Sep-06	-	-	-
5-Oct-06	-	-	-
6-Oct-06	-	-	-
10-Oct-06	-	-	-
17-Oct-06	-	-	-
20-Oct-06	-	-	-
27-Oct-06	-	-	-
3-Nov-06	-	-	-
6-Nov-06	-	-	-
10-Nov-06	-	-	-
14-Nov-06	-	-	-
17-Nov-06	-	-	-
24-Nov-06	-	-	-
1-Dec-06	-	-	-
15-Dec-06	-	-	-
26-Jan-07	-	-	-
9-Apr-07	-	-	-
21-Jun-07	-	-	-
27-Jul-07	-	-	-
22-Aug-07	-	-	-
31-Aug-07	-	-	-
26-Sep-07	-	-	-
19-Oct-07	-	-	-

Location	OW65	OW71 S&K	OW71 S&D
17-Nov-07	-	-	-
20-Dec-07	-	-	-
7-Mar-08	-	-	-
3-Jun-08	-	-	-
29-Jul-08	-	-	-
18-Aug-08	-	-	-
23-Sep-08	-	-	-
29-Oct-08	-	-	-
26-Nov-08	-	-	-
18-Dec-08	-	-	-
6-Jan-09	-	-	-
20-Jan-09	-	-	-
24-Mar-09	-	-	-
8-Apr-09	-	-	-
15-Apr-09	-	-	-
29-May-09	-	-	-
12-Jun-09	-	-	-
8-Jul-09	-	-	-
20-Aug-09	-	-	-
16-Sep-09	-	-	-
20-Oct-09	-	-	-
27-Nov-09	-	-	-
29-Mar-10	-	-	-
30-Apr-10	-	-	-
25-May-10	-	-	-
25-Jun-10	-	-	-
26-Jul-10	-	-	-
26-Aug-10	-	-	-
4-Oct-10	-	-	-
1-Nov-10	-	-	-
6-Dec-10	-	-	-
6-Jan-11	-	-	-
9-Feb-11	-	-	-
25-Feb-11	-	-	-
23-Mar-11	-	-	-
4-May-11	-	-0.04	0.01
24-May-11	-	0.04	0.05
27-Jun-11	-	-0.05	0.01
26-Jul-11	-	-0.07	0.00
30-Aug-11	-	-0.05	0.00
22-Sep-11	-	-0.06	0.01
26-Oct-11	-	-0.01	0.02
29-Nov-11	-	0.02	0.03
11-Jan-12	-	-0.03	0.01
27-Feb-12	-	-0.05	0.01
8-Mar-12	-	-	-
15-Mar-12	-	-	-
21-Mar-12	-	-	-

Location	OW65	OW71 S&K	OW71 S&D
29-Mar-12	-	-0.08	0.00
25-Apr-12	-	-0.06	0.00
28-May-12	-	-0.07	0.00
13-Jun-12	-	-0.07	0.00
11-Jul-12	-	-0.08	-0.01
30-Aug-12	-	-0.07	-0.01
25-Sep-12	-	-0.06	0.00
24-Oct-12	-	-0.06	0.00
27-Nov-12	-	-0.06	0.00
19-Dec-12	-	-0.04	0.00
28-Jan-13	-	-0.04	0.01
27-Feb-13	-	-0.05	0.01
26-Mar-13	-	-0.05	0.01
23-Apr-13	-	-0.09	-0.01
27-May-13	-	-0.04	0.01
17-Jun-13	-	-0.06	0.00
29-Jul-13	-	-0.07	0.00
31-Aug-13	-	-	-
19-Sep-13	-	-0.07	-0.01
25-Oct-13	-	-0.04	0.00
30-Nov-13	-	-0.04	0.01
18-Dec-13	-	-0.04	0.01
15-Mar-14	-	-0.04	0.00
28-Apr-14	-	-0.04	0.01
24-May-14	-	-0.05	0.00
27-Jun-14	-	-0.06	0.00
15-Jul-14	-	-0.07	-0.01
12-Sep-14	-	-0.06	0.00
23-Oct-14	-	-0.05	0.01

Notes:

++ = frozen

- = not measured



APPENDIX C4

FLOW OBSERVATIONS: SPRINGS, SINKHOLES AND SURFACE WATER CULVERTS

Appendix C-4: Historical Flow Data – Shouldice Wetland

Date	s8	s9	s13	Dugout Pond outflow	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
28-Sep-06	**	**	-	*	*	**	-	*	-	-	*	*
26-Jan-07	flowing	flowing	-	-	-	-	-	-	-	-	flowing	flowing
4-May-07	flowing	flowing	-	-	-	-	-	-	-	-	flowing	flowing
22-Jun-07	-	-	-	flowing	-	-	-	-	-	-	-	-
24-Aug-07	**	**	-	**	*	**	-	**	-	**	*	*
12-Sep-07	**	**	-	*	*	**	**	*	-	**	*	*
17-Nov-07	**	**	-	flowing	*	*	-	flowing	-	-	*	*
3-Dec-07	**	**	-	flowing	flowing	*	*	flowing	-	-	flowing	flowing
14-Dec-07	-	-	-	flowing	-	-	-	-	-	-	-	-
20-Dec-07	**	**	-	-	flowing	*	-	flowing	-	flowing	flowing	flowing
10-Jan-08	flowing	flowing	-	flowing	flowing	flowing	flowing	flowing	-	flowing	flowing	*
6-Apr-08	flowing	flowing	-	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing	*
9-Jul-08	flowing	flowing	-	flowing	-	-	-	-	-	-	-	-
22-Aug-08	-	-	-	flowing	flowing ²	*	*	*	flowing	flowing	flowing	flowing
30-Sep-08	-	-	-	flowing	-	-	-	-	-	-	flowing	flowing
16-Mar-09	flowing	flowing	flowing	flowing	-	-	-	-	-	-	flowing	flowing
24-Mar-09	flowing	-	-	flowing	-	-	-	-	-	-	flowing	flowing
19-Jun-09	flowing	*	*	flowing	flowing ¹	*	flowing	flowing	*	*	flowing	flowing
8-Jul-09	*	*	*	flowing	flowing ¹	flowing	*	flowing	*	flowing	flowing	*
20-Aug-09	*	*	*	*	flowing	flowing	*	flowing	-	*	flowing	**
16-Sep-09	*	**	**	**	*	*	*	*	**	**	flowing	**
20-Oct-09	*	*	*	flowing	flowing	flowing	*	flowing	-	flowing	*	**
27-Nov-09	*	-	*	flowing	*	flowing	-	flowing	flowing	flowing	flowing	*
29-Mar-10	flowing	flowing	*	flowing	*	flowing	*	flowing	*	flowing	flowing	flowing
30-Apr-10	flowing	*	*	flowing	*	flowing	*	flowing	*	flowing	flowing	flowing
25-May-10	flowing	*	*	flowing	*	flowing	*	flowing	*	flowing	flowing	flowing
25-Jun-10	*	*	*	*	flowing	flowing	*	flowing	*	flowing	flowing	flowing
26-Jul-10	*	*	*	*	flowing	flowing	*	flowing	*	flowing	flowing	flowing
26-Aug-10	*	*	*	*	flowing	flowing	*	flowing	*	flowing	flowing	*
4-Oct-10	*	*	*	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
1-Nov-10	*	*	*	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
6-Dec-10	++	++	++	++	++	++	++	++	++	++	++	++
6-Jan-11	++	++	++	++	++	++	++	++	++	++	++	++
9-Feb-11	++	++	++	++	++	++	++	++	++	++	++	++
4-May-11	flowing	*	*	*	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing
27-Jun-11	flowing	**	flowing	flowing	flowing	flowing	flowing	*	flowing	flowing	flowing	flowing
26-Jul-11	*	**	-	flowing	**	flowing	*	flowing	flowing	flowing	flowing	**
30-Aug-11	*	*	*	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	**
22-Sep-11	*	*	*	flowing	*	flowing	flowing	*	flowing	*	flowing	**
26-Oct-11	flowing	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
29-Nov-11	flowing	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
11-Jan-12	flowing	flowing	flowing	flowing	++	++	++	++	++	++	flowing	flowing
27-Feb-12	flowing	flowing	flowing	flowing	++	++	++	++	++	++	flowing	flowing
29-Mar-12	flowing	flowing	flowing	flowing	*	flowing	*	flowing	*	flowing	flowing	flowing
25-Apr-12	flowing	flowing	flowing	flowing	*	flowing	flowing	flowing	*	flowing	flowing	flowing
29-May-12	*	*	*	flowing	*	flowing	flowing	flowing	*	flowing	flowing	**
13-Jun-12	*	**	*	flowing	*	flowing	flowing	flowing	*	flowing	flowing	**

Appendix C-4: Historical Flow Data – Shouldice Wetland

Date	s8	s9	s13	Dugout Pond outflow	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
24-Oct-12	flowing	flowing	*	-	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
27-Nov-12	flowing	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing	flowing
19-Dec-12	flowing	flowing	*	flowing	++	++	++	++	++	++	flowing	flowing
28-Jan-13	flowing	flowing	*	flowing	++	++	++	++	++	++	flowing	flowing
26-Feb-13	flowing	flowing	*	flowing	++	++	++	++	++	++	flowing	flowing
26-Mar-13	flowing	flowing	flowing	flowing	++	*	flowing	++	flowing	++	flowing	flowing
23-Apr-13	flowing	flowing	flowing	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing
27-May-13	flowing	*	*	flowing	*	*	flowing	*	flowing	flowing	flowing	flowing
17-Jun-13	flowing	*	*	*	*	*	flowing	flowing	flowing	flowing	flowing	flowing
30-Jul-13	*	*	*	**	**	*	*	*	*	*	*	**
13-Aug-13	-	-	-	-	-	-	-	-	-	-	flowing	**
19-Sep-13	**	**	*	**	**	*	*	*	**	*	flowing	flowing
25-Oct-13	flowing	flowing	*	flowing	flowing	flowing	flowing	flowing	flowing	flowing	-	-
30-Nov-13	flowing	flowing	flowing	**	++	++	++	++	++	++	flowing	flowing
15-Mar-14	flowing	-	-	-	++	++	++	++	++	++	flowing	flowing
28-Apr-14	-	-	*	flowing	*	flowing	flowing	flowing	flowing	flowing	*	*
24-May-14	flowing	flowing	*	flowing	*	flowing	flowing	flowing	flowing	*	flowing	flowing
27-Jun-14	flowing	flowing	*	flowing	flowing	**	flowing	*	flowing	*	flowing	flowing
15-Jul-14	*	*	flowing	*	-	-	-	-	-	-	flowing	*
12-Sep-14	-	-	-	-	-	-	-	-	-	-	-	-
23-Oct-14	-	-	-	flowing	-	flowing	flowing	flowing	flowing	flowing	flowing	flowing

Notes:

* = no flow observed,

** = dry

++ = frozen

- = not measured



APPENDIX C5

ELECTRICAL CONDUCTIVITY MEASUREMENTS

Appendix C-5: Historical Electrical Conductivity Data – Shouldice Wetland

Date	s8	s9	s13	Dugout pond (SG1)	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
16-Mar-09	379	389	342	353	-	-	-	-	-	-	344	341
24-Mar-09	417	426	368	380	-	-	-	-	-	-	-	353
19-Jun-09	438	*	465	440	-	-	-	-	-	-	-	346
8-Jul-09	470	*	579	592	520	521	*	386	*	370	-	440
20-Aug-09	494	*	690	-	-	-	-	-	-	-	446	**
16-Sep-09	385	**	**	**	514	580	473	450	**	413	490	**
20-Oct-09	359	348	745	590	494	743	397	386	*	347	**	**
27-Nov-09	522	-	718	457	565	510	-	359	356	356	453	453
29-Mar-10	391	439	395	405	*	399	*	314	*	328	387	385
30-Apr-10	449	*	469	472	506	495	*	386	*	390	430	434
25-May-10	461	467	505	519	483	565	*	427	*	424	383	399
25-Jun-10	534	561	598	590	382	381	*	331	*	404	418	394
26-Jul-10	591	597	681	690	425	422	*	431	*	460	434	405
26-Aug-10	595	630	595	675	550	465	*	369	*	484	595	*
4-Oct-10	584	627	597	628	492	408	386	363	426	510	534	538
1-Nov-10	562	615	654	732	573	537	433	418	413	429	528	526
4-May-11	428	453	-	-	463	410	370	359	360	368	371	372
24-May-11	426	460	467	450	477	421	399	368	371	392	440	435
27-Jun-11	580	**	594	608	484	421	408	414	441	440	444	441
26-Jul-11	636	**	622	725	**	471	458	445	456	486	469	**
30-Aug-11	454	491	597	633	290	369	368	369	335	312	475	**
22-Sep-11	455	588	696	712	545	420	412	410	388	356	519	**
26-Oct-11	627	576	559	560	548	477	442	493	404	410	440	444
29-Nov-11	584	545	595	605	550	491	436	444	396	398	442	445
22-Dec-11	-	-	532	532	-	-	-	-	-	-	-	-
11-Jan-12	570	562	542	545	++	++	++	++	++	++	538	532
27-Feb-12	560	555	560	599	++	++	++	++	++	++	583	532
29-Mar-12	522	534	495	525	470	431	419	430	404	400	577	568
25-Apr-12	540	544	550	585	472	421	412	410	394	398	436	433
29-May-12	564	552	620	653	531	552	500	477	478	469	416	**
13-Jun-12	574	**	738	803	540	562	505	486	481	473	402	**
11-Jul-12	**	**	769	921	**	468	**	443	**	**	394	**
30-Aug-12	**	**	1016	1028	**	620	446	428	440	427	556	550
25-Sep-12	**	**	1046	1046	580	564	400	389	411	353	550	**
23-Oct-12	658	657	688	742	788	681	490	430	430	341	579	566
27-Nov-12	645	662	637	677	692	597	488	452	422	386	521	516
19-Dec-13	610	603	571	590	++	++	++	++	++	++	485	485
28-Jan-13	589	576	534	545	++	++	++	++	++	++	501	505
26-Feb-13	540	656	490	503	++	++	++	++	++	++	520	518
26-Mar-13	513	520	465	473	++	392	397	++	396	418	458	456
23-Apr-13	423	450	465	389	422	392	350	324	324	354	346	337
27-May-13	512	518	528	488	492	466	387	383	378	396	432	427
17-Jun-13	543	557	606	652	507	481	401	394	393	410	476	469
30-Jul-13	440	441	687	672	**	466	467	426	485	504	418	**
13-Aug-13	-	-	-	-	-	-	-	-	-	-	426	**
19-Sep-13	**	**	1098	1238	**	632	441	402	**	451	455	460

Appendix C-5: Historical Electrical Conductivity Data – Shouldice Wetland

Date	s8	s9	s13	Dugout pond (SG1)	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
25-Oct-13	644	630	716	777	654	388	358	358	357	355	-	-
30-Nov-13	604	605	569	600	++	++	++	++	++	++	483	491
15-Mar-14	468	-	-	-	++	++	++	++	++	++	492	493
28-Apr-14	-	-	425	434	479	448	346	338	330	378	356	355
24-May-14	495	492	506	505	498	472	378	378	377	375	423	424
27-Jun-14	542	610	664	675	503	517	391	390	391	395	430	431
15-Jul-14	-	-	-	-	-	-	-	-	-	-	-	-
12-Sep-14	401	576	1005	1056	-	-	-	-	-	-	489	**
23-Oct-14	309	634	367	-	650	495	387	365	364	358	491	491
Max	658	662	1098	1238			788				595	568
Min	309	348	342	353			290				344	337
Avg	512	544	608	626			439				464	452

Notes:

units = $\mu\text{S}/\text{cm}$

values are compensated to 20 degrees Celsius

* = no flow observed

** = dry

++ = frozen

- = not measured



APPENDIX C6

TEMPERATURE MEASUREMENTS

Appendix C-6: Historical Temperature Data – Shouldice Wetland

Date	s8	s9	s13	Dugout pond (SG1)	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
16-Mar-09	6.6	6.4	4.7	6.5	-	-	-	-	-	-	1	1.3
24-Mar-09	6.2	5.8	4.2	6	-	-	-	-	-	-	-	3.5
19-Jun-09	7.7	*	9	18	-	-	-	-	-	-	-	19.4
8-Jul-09	8.6	*	8.5	11.8	17.5	17.7		16.5	*	17.2	-	17.2
20-Aug-09	15.6	*	16.6	-	-	-	-	-	-	-	21.9	**
16-Sep-09	13.8	**	**	**	21.8	19.2	20.3	19.9	**	14.9	8.2	**
20-Oct-09	8.9	8.2	9.3	-	11.2	9	9.4	8.4	*	9.3	**	**
27-Nov-09	9.1	-	8	-	6.4	5.8	-	5.6	6.1	5.5	6	6.6
29-Mar-10	6.7	6.6	5.3	5.3	*	5.7	*	6.4	*	8	6.9	6.9
30-Apr-10	8	-	7.1	9.7	21	15.5	*	18.8	*	17.2	22.2	17.2
25-May-10	8	9.2	9.6	18.7	22.5	17.8	*	21.6	*	21.1	22.5	21.1
25-Jun-10	9.3	10	10.4	10.8	17.4	17.8	*	18.1	*	18.2	22.8	23.4
26-Jul-10	10.5	18.3	22.5	23.2	20.5	21.1	*	22.2	*	21.2	19.4	21.4
26-Aug-10	20.3	21.2	24.6	23.1	26.9	24.7	*	24.4	*	24.2	23.4	*
4-Oct-10	10.8	11.3	12.6	15.1	15.3	13.5	15.3	13.6	15.6	16.2	16.3	14.7
1-Nov-10	10.1	9.7	7.6	8.8	7.2	8	5.8	4.5	4.8	5.1	4.4	4.6
6-Dec-10	1.2	1.7	-	-	-	-	-	-	-	-	-	-
4-May-11	6.3	6.3	-	-	11.3	12.1	12.5	12.8	12.7	12.7	12.8	12.3
24-May-11	7.0	8.2	7.5	9.2	11.8	12.9	13.0	13.1	13.1	12.9	16.9	16.6
27-Jun-11	9.1	**	15.2	23.2	28.5	25.5	25.5	23.3	25.4	25.2	18.1	18.0
26-Jul-11	16.2	**	19.0	27.9	**	21.7	25.8	26.2	23.2	22.8	22.3	**
30-Aug-11	22.2	25.5	16.5	21.7	20.6	21.5	21.0	21.5	20.8	19.5	21.6	**
22-Sep-11	13.0	20.7	13.8	23.7	19.8	13.9	18.4	20.5	19.1	18.4	17.0	**
26-Oct-11	10.8	8.1	10.9	9.8	9.1	9.7	8.0	8.3	8.2	9.0	8.0	8.0
29-Nov-11	10.8	9.8	8.8	8.0	4.9	5.0	4.9	4.9	5.0	5.0	3.7	3.6
22-Dec-11	-	-	-	-	-	-	-	-	-	-	-	-
11-Jan-12	8.6	8.4	6.9	6.8	++	++	++	++	++	++	1.8	1.1
27-Feb-12	6.9	6.7	4.8	3	++	++	++	++	++	++	0.6	1
29-Mar-12	7.5	7.1	5.5	6.6	4.9	5.1	5	5.3	4.9	5.9	5.5	5.6
25-Apr-12	8	8.1	7.2	16.5	12.1	12.1	12.7	10.4	13.7	10.1	8	8.5
29-May-12	13.5	12.8	19	23.9	16.7	16.7	16.5	18.6	15	17.7	20.5	**
13-Jun-12	13.4	**	14.8	26.2	22.1	21.4	21.8	22.1	23	20.1	19.8	**
11-Jul-12	**	**	18.8	32.5	**	28	**	27.2	**	**	22.5	**
30-Aug-12	**	**	15.3	19.4	**	23.7	23.8	23	23.1	22.6	21.5	23
25-Sep-12	**	**	11.2	12.2	11.8	13.2	13.4	14.6	12.2	12.4	13.2	**
23-Oct-12	10.8	11.4	11.3	11.2	10.8	11.5	11.2	11.6	11.4	11.6	12.9	12.9
27-Nov-12	9.6	9.3	8.7	8.8	1.8	2.1	3	2.4	3.6	2.9	10	9.8
28-Jan-13	7.9	7.5	6.5	6.2	++	++	++	++	++	++	2.1	2
26-Feb-13	7.1	6.9	5.3	5.3	++	++	++	++	++	++	1.1	1.3
26-Mar-13	6.8	6.9	5.1	4.1	++	1	0.9	+	0.9	1.2	1.1	1.2
23-Apr-13	6.5	7	5.1	10.7	8.4	6.8	7.1	7.3	7.1	7.6	10.6	10.4
27-May-13	7.4	7.8	7.8	16.2	11.7	13.4	14.2	16.9	15.2	14.5	20.4	19.7
17-Jun-13	8.9	9.6	9.6	10.4	33.1	25.8	23.3	23.9	23.8	20.6	23.4	22.9
30-Jul-13	15.8	19.8	15.2	27	**	24.8	25.14	26.6	26.8	22.6	25.6	**
13-Aug-13	-	-	-	-	-	-	-	-	-	-	19.2	**
19-Sep-13	**	**	12.3	17.4	**	27.4	26	22.3	**	23.1	17	17.1

Appendix C-6: Historical Temperature Data – Shouldice Wetland

Date	s8	s9	s13	Dugout pond (SG1)	Culvert 4	Culvert 5	Culvert 5a	Culvert 6	Culvert 6a	Culvert 7	Beaver Dam	Sinkhole
25-Oct-13	10.3	10.3	10.6	10.4	5.8	5.5	5.3	5.2	5	5.1	-	-
30-Nov-13	9.3	8.4	8.2	8.2	++	++	++	++	++	++	1.1	1.1
15-Mar-14	6.4	-	-	-	-	-	-	-	-	-	2.1	2.1
28-Apr-14	-	-	6	5.7	19.7	16	14	13.7	13.7	14.7	10.3	10.1
24-May-14	7	8	8.1	13.8	18.5	15.9	18	17.1	17.1	17.4	17.7	17.1
27-Jun-14	11.4	18.3	14	19	20.8	21.3	20.9	20.9	21	19.2	19.2	19.1
15-Jul-14	-	-	-	-	-	-	-	-	-	-	-	-
12-Sep-14	13.7	12.7	13.7	13.8	-	-	-	-	-	-	19.4	**
23-Oct-14	10.4	10.9	10.5	11.6	11	8.1	8.3	10	8.3	10	11.7	11.3
Max	22	26	25	33			33				26	23
Min	1	2	4	3			1				1	1
Avg	10	10	11	14			15				13	11

Notes:

values are compensated to 20 degrees Celsius

* = no flow observed

** = dry

++ = frozen

- = not measured



APPENDIX C7

PRIVATE WELL DATA

Table C-7.1 : Private Groundwater Levels (2003-2014)

Location	Ritchie	Cramp	S.Ruthven	Sutherland	Jenks	Thompson	Porter
7-Mar-08	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-
18-Aug-08	9.48	-	-	-	-	-	-
23-Sep-08	10.32	-	-	-	-	-	-
29-Oct-08	10.58	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-
8-Apr-09	-	-	-	-	-	-	-
15-Apr-09	-	-	-	-	-	-	-
6-Jun-09	-	-	-	-	-	-	-
12-Jun-09	-	-	-	-	-	-	-
8-Jul-09	-	-	-	-	-	-	-
20-Aug-09	9.48	-	-	-	-	-	-
16-Sep-09	10.32	-	-	-	-	-	-
20-Oct-09	9.98	-	-	-	-	-	-
27-Nov-09	-	-	-	-	-	-	-
29-Mar-10	6.67	-	-	-	-	-	-
30-Apr-10	9.98	-	-	-	-	-	-
25-May-10	10.15	-	-	-	-	-	-
25-Jun-10	-	-	-	-	-	-	-
26-Jul-10	-	-	-	-	-	-	-
26-Aug-10	8.77	-	-	-	-	-	-
4-Oct-10	-	-	-	-	-	-	-
1-Nov-10	-	-	-	-	-	-	-
6-Dec-10	4.45	-	-	-	-	-	-
6-Jan-11	-	-	-	-	-	-	-
9-Feb-11	-	-	-	-	-	-	-
25-Feb-11	-	-	-	-	-	-	-
23-Mar-11	0.53	-	-	-	-	-	-
4-May-11	4.32	-	-	-	-	-	-
24-May-11	3.62	2.73	3.70	-	-	-	-
27-Jun-11	-	-	-	-	-	-	-
26-Jul-11	-	-	-	-	-	-	-
30-Aug-11	4.58	-	-	-	-	-	-
22-Sep-11	-	-	-	-	-	-	-
26-Oct-11	8.50	-	-	-	-	-	-
29-Nov-11	-	3.48	-	-	-	-	-
11-Jan-12	-	-	-	-	-	-	-
27-Feb-12	-	-	-	-	-	-	-
8-Mar-12	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-
29-Mar-12	-	-	-	-	-	-	-
25-Apr-12	8.62	3.00	-	-	-	-	-
28-May-12	-	-	-	-	-	-	-
13-Jun-12	-	-	-	-	-	-	-
11-Jul-12	-	-	-	-	-	-	-
30-Aug-12	-	-	-	-	-	-	-

Location	Ritchie	Cramp	S.Ruthven	Sutherland	Jenks	Thompson	Porter
25-Sep-12	-	-	-	-	-	-	-
24-Oct-12	-	2.95	-	-	-	-	-
27-Nov-12	-	-	-	-	-	-	-
19-Dec-12	-	-	-	-	-	-	-
28-Jan-13	-	-	-	-	-	-	-
27-Feb-13	-	-	-	-	-	-	-
26-Mar-13	-	-	-	-	-	-	-
23-Apr-13	2.80	-	-	-	-	-	-
27-May-13	-	-	-	-	-	-	-
17-Jun-13	-	-	-	-	-	-	-
29-Jul-13	-	-	-	-	-	-	-
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-	-	-	-	-	-	-
25-Oct-13	-	-	-	-	-	-	-
30-Nov-13	-	-	-	-	-	-	-
18-Dec-13	-	-	-	-	-	-	-
15-Mar-14	-	-	-	-	-	-	-
28-Apr-14	-	-	-	-	-	-	-
24-May-14	-	-	-	-	-	-	-
27-Jun-14	8.71	-	-	-	-	-	-
15-Jul-14	-	-	-	-	-	-	-
12-Sep-14	-	-	-	-	-	-	-
23-Oct-14	5.98	-	-	-	-	-	-

Notes:

- = not measured

Table C-7.2 : Private Groundwater Elevations (2003-2014)

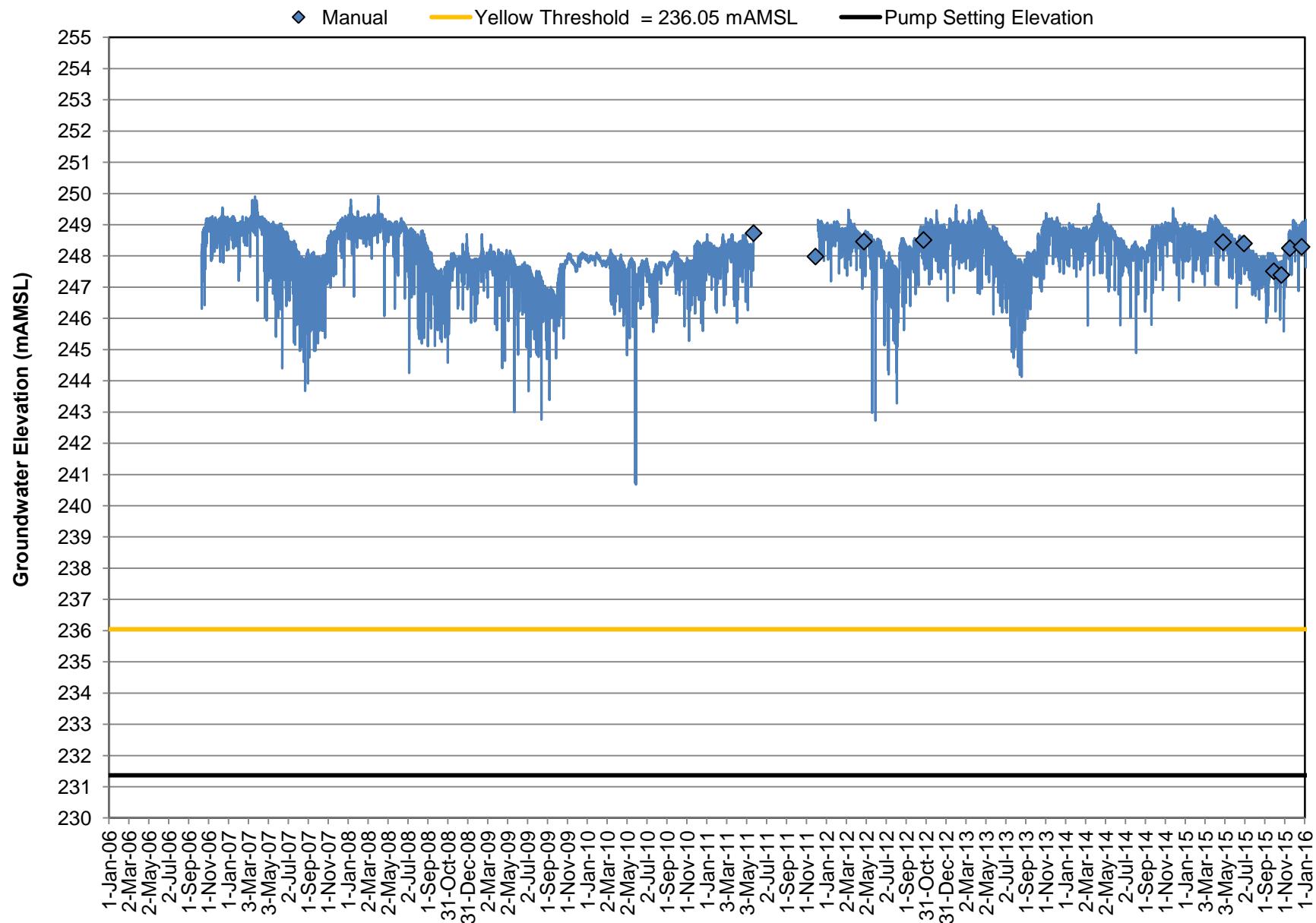
Location	Ritchie	Cramp	S.Ruthven	Sutherland	Jenks	Thompson	Porter
Ref Elevation	250	251.46	255	251.00	255	255	253
7-Mar-08	-	-	-	-	-	-	-
3-Jun-08	-	-	-	-	-	-	-
29-Jul-08	-	-	-	-	-	-	-
18-Aug-08	240.52	-	-	-	-	-	-
23-Sep-08	239.68	-	-	-	-	-	-
29-Oct-08	239.42	-	-	-	-	-	-
26-Nov-08	-	-	-	-	-	-	-
18-Dec-08	-	-	-	-	-	-	-
6-Jan-09	-	-	-	-	-	-	-
20-Jan-09	-	-	-	-	-	-	-
24-Mar-09	-	-	-	-	-	-	-
8-Apr-09	-	-	-	-	-	-	-
15-Apr-09	-	-	-	-	-	-	-
6-Jun-09	-	-	-	-	-	-	-
12-Jun-09	-	-	-	-	-	-	-
8-Jul-09	-	-	-	-	-	-	-
20-Aug-09	240.52	-	-	-	-	-	-
16-Sep-09	239.68	-	-	-	-	-	-
20-Oct-09	240.02	-	-	-	-	-	-
27-Nov-09	-	-	-	-	-	-	-
29-Mar-10	243.33	-	-	-	-	-	-
30-Apr-10	240.02	-	-	-	-	-	-
25-May-10	239.85	-	-	-	-	-	-
25-Jun-10	-	-	-	-	-	-	-
26-Jul-10	-	-	-	-	-	-	-
26-Aug-10	241.23	-	-	-	-	-	-
4-Oct-10	-	-	-	-	-	-	-
1-Nov-10	-	-	-	-	-	-	-
6-Dec-10	245.55	-	-	-	-	-	-
6-Jan-11	-	-	-	-	-	-	-
9-Feb-11	-	-	-	-	-	-	-
25-Feb-11	-	-	-	-	-	-	-
23-Mar-11	249.47	-	-	-	-	-	-
4-May-11	245.68	-	-	-	-	-	-
24-May-11	246.38	248.73	251.30	-	-	-	-
27-Jun-11	-	-	-	-	-	-	-
26-Jul-11	-	-	-	-	-	-	-
30-Aug-11	245.42	-	-	-	-	-	-
22-Sep-11	-	-	-	-	-	-	-
26-Oct-11	241.50	-	-	-	-	-	-
29-Nov-11	-	247.98	-	-	-	-	-
11-Jan-12	-	-	-	-	-	-	-
27-Feb-12	-	-	-	-	-	-	-
8-Mar-12	-	-	-	-	-	-	-
15-Mar-12	-	-	-	-	-	-	-
21-Mar-12	-	-	-	-	-	-	-
29-Mar-12	-	-	-	-	-	-	-
25-Apr-12	241.38	248.46	-	-	-	-	-
28-May-12	-	-	-	-	-	-	-
13-Jun-12	-	-	-	-	-	-	-
11-Jul-12	-	-	-	-	-	-	-

Location	Ritchie	Cramp	S.Ruthven	Sutherland	Jenks	Thompson	Porter
Ref Elevation	250	251.46	255	251.00	255	255	253
30-Aug-12	-	-	-	-	-	-	-
25-Sep-12	-	-	-	-	-	-	-
24-Oct-12	-	248.51	-	-	-	-	-
27-Nov-12	-	-	-	-	-	-	-
19-Dec-12	-	-	-	-	-	-	-
28-Jan-13	-	-	-	-	-	-	-
27-Feb-13	-	-	-	-	-	-	-
26-Mar-13	-	-	-	-	-	-	-
23-Apr-13	247.20	-	-	-	-	-	-
27-May-13	-	-	-	-	-	-	-
17-Jun-13	-	-	-	-	-	-	-
29-Jul-13	-	-	-	-	-	-	-
31-Aug-13	-	-	-	-	-	-	-
19-Sep-13	-	-	-	-	-	-	-
25-Oct-13	-	-	-	-	-	-	-
30-Nov-13	-	-	-	-	-	-	-
18-Dec-13	-	-	-	-	-	-	-
15-Mar-14	-	-	-	-	-	-	-
28-Apr-14	-	-	-	-	-	-	-
24-May-14	-	-	-	-	-	-	-
27-Jun-14	241.29	-	-	-	-	-	-
15-Jul-14	-	-	-	-	-	-	-
12-Sep-14	-	-	-	-	-	-	-
23-Oct-14	244.02	-	-	-	-	-	-

Notes:

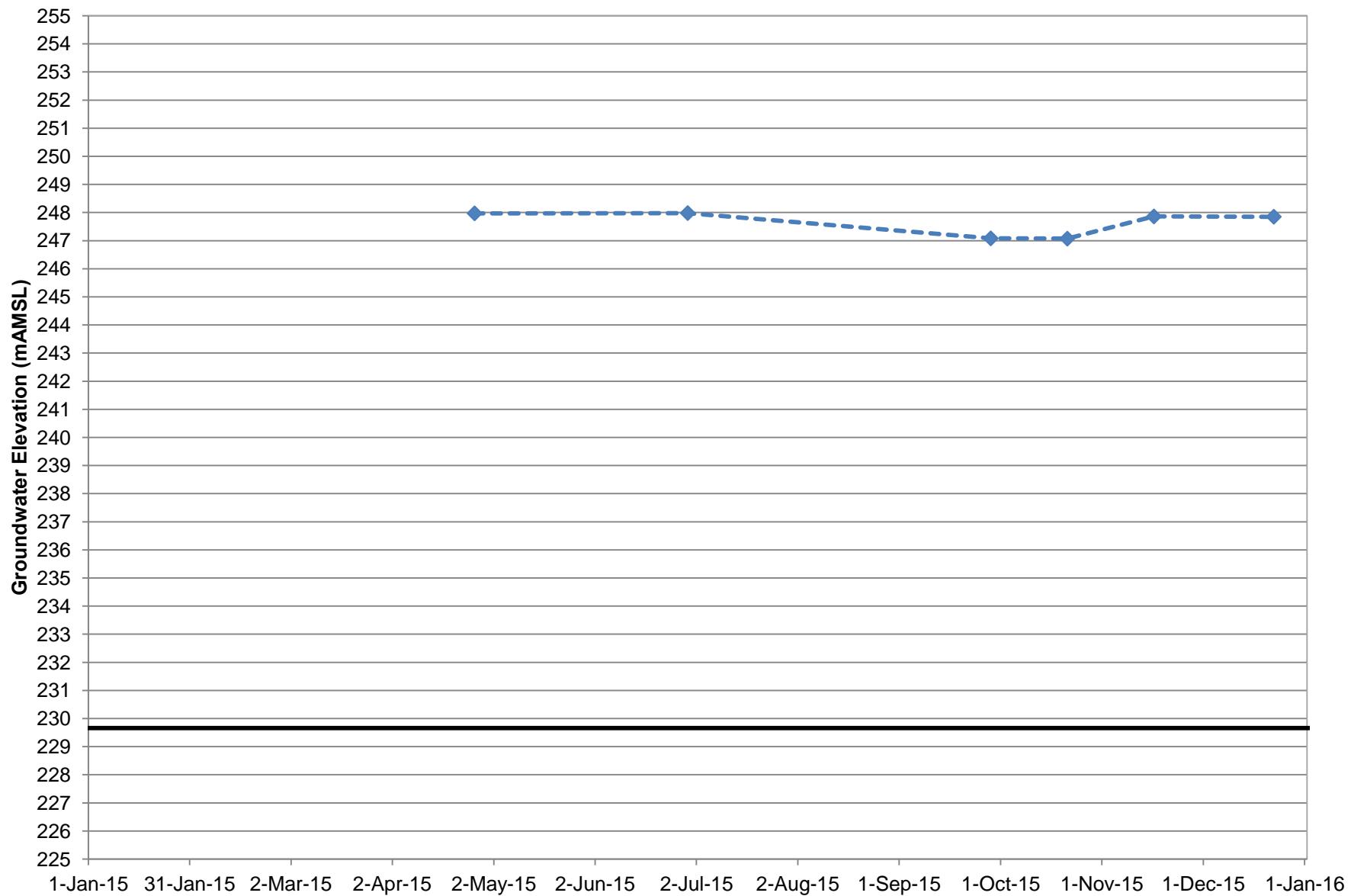
- = not measured

Hydrograph C-7.1 - Category A Private Wells - Well 7253

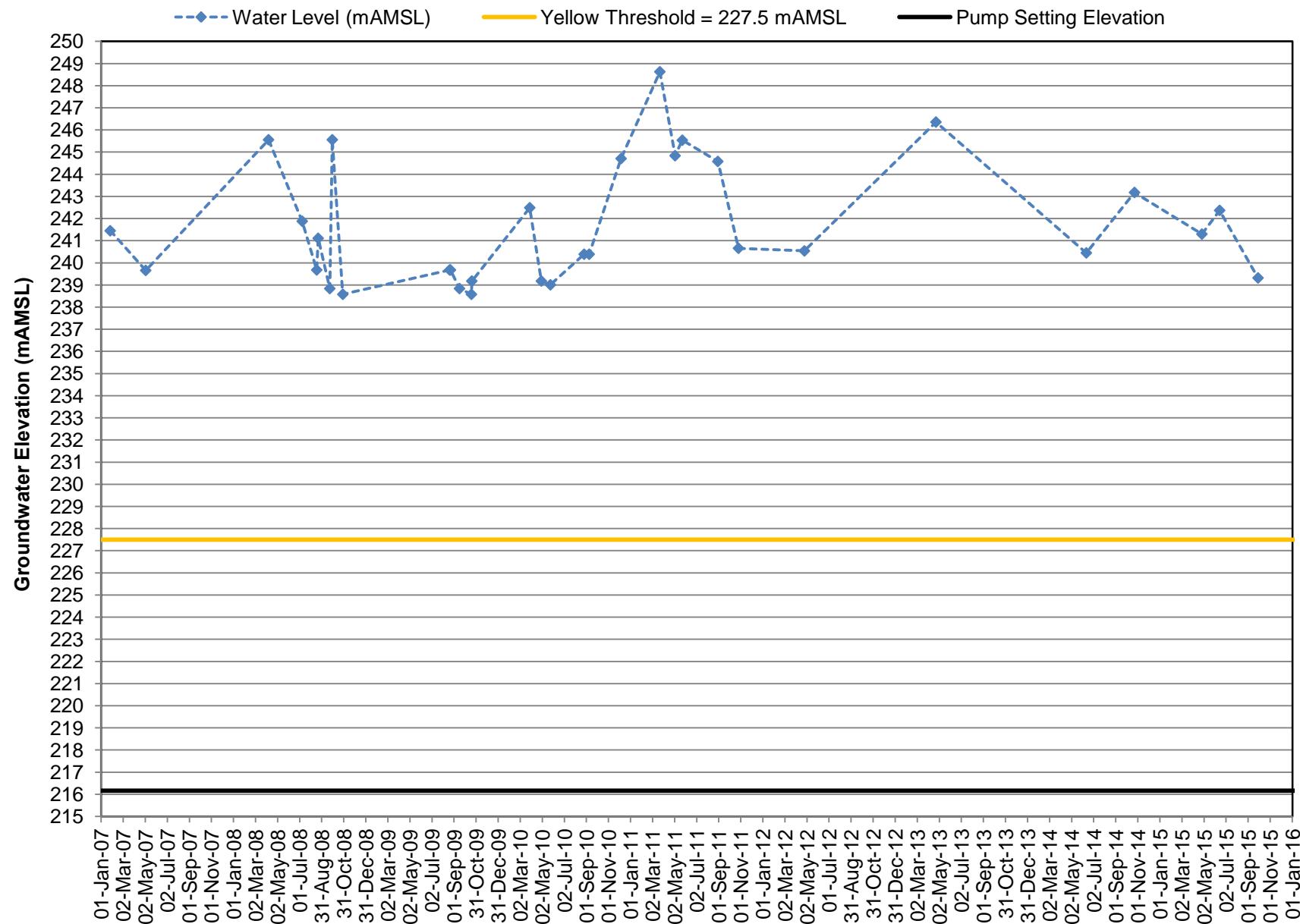


Hydrograph C-7.2 - Catagory A Private Wells - Well 3447

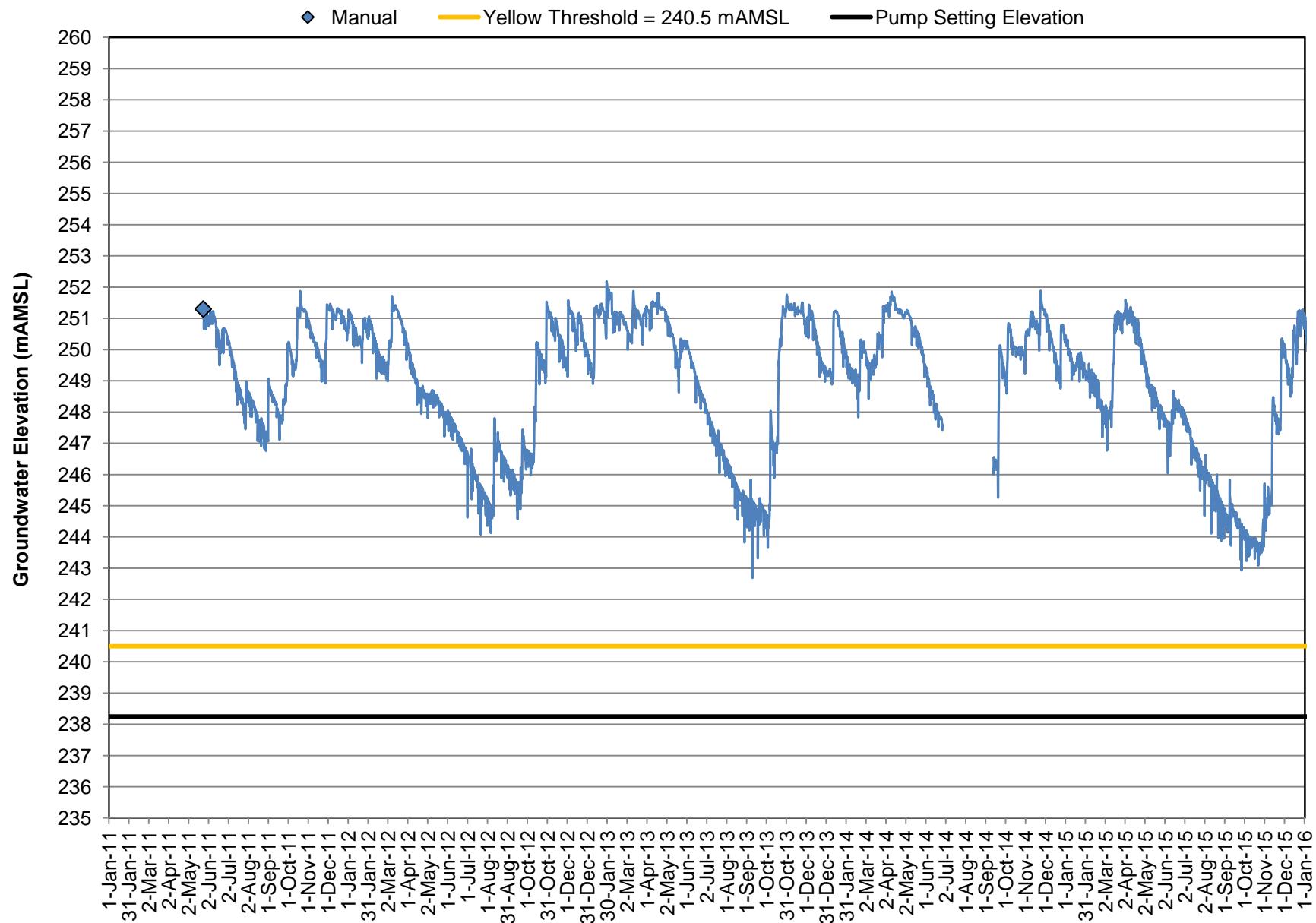
—♦— 3447 ——— Pump Setting Elevation



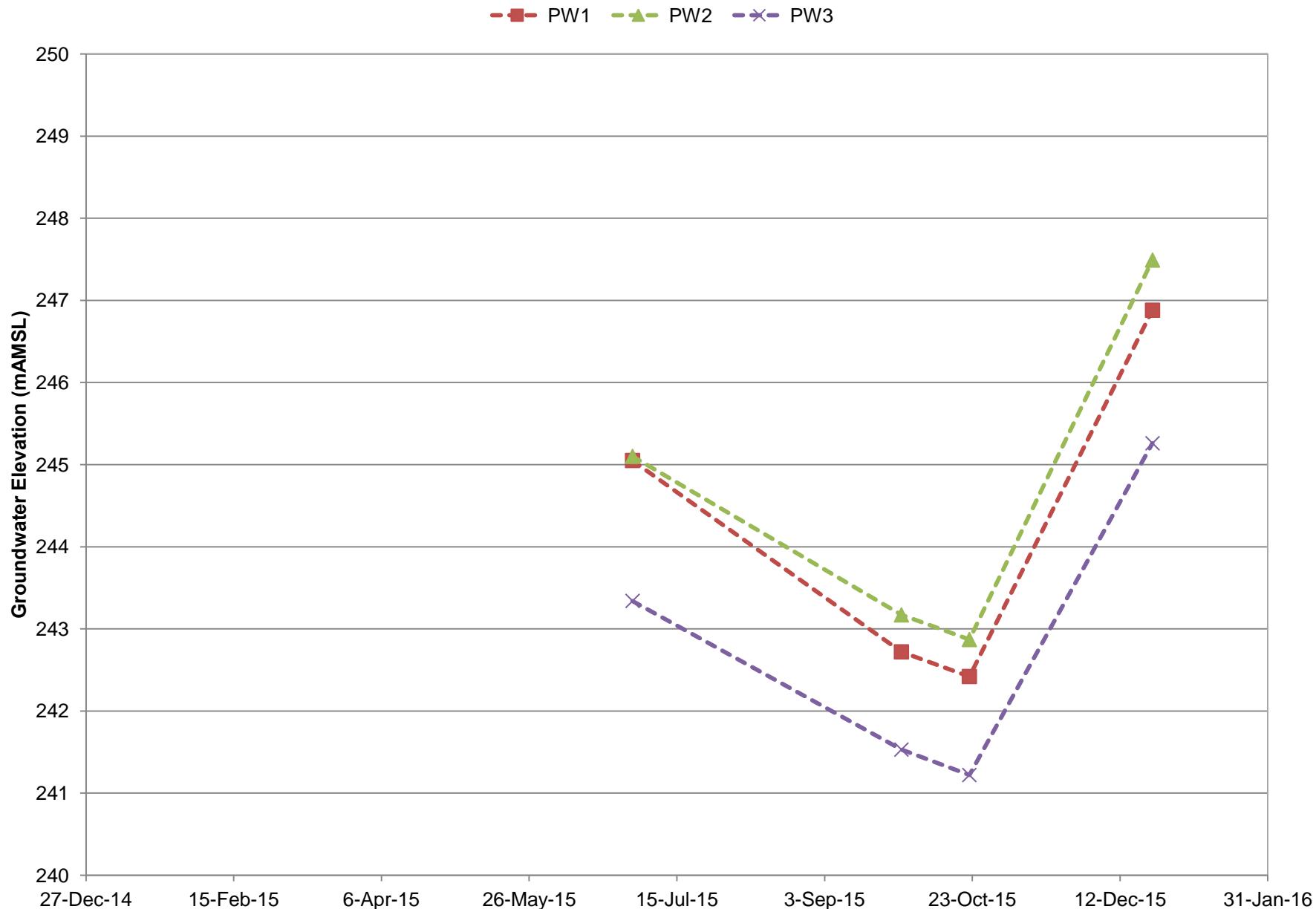
Hydrograph C-7.3 - Catagory A Private Wells - Well 3345



Hydrograph C-7.4 - Category A Private Wells - Well 5197



Hydrograph C-7.5 - Catagory B Private Wells





More Than Engineering

WATER WELL INVENTORY

Resident Name: Sam Ruthven.

911 Number: 283197 Road: Concession 10

Address: _____

Phone Number: 519-371-0015 Email: _____

Property Owner: Yes No If No, Property Owner's Name: _____

Previous Property Owners: none.

Number of Wells on Property: 1

Type of Well: Drilled Dug Sand Point Other jet pump.

Diameter of Well: 2 in. 4 in. 6 in. 8 in. 3 ft.

Depth of Well: ± 62'

Depth of Water: 3.93m from floor surface.

Pump Depth: n

Pump Type: jet pump.

Water Source: Bedrock Sand/Gravel/Overburden

Name of Well Driller: Wrights Drilling ± 1975.

Date Installed: Upgraded tank 2004

I have the MOE Water Well Record: Yes No

MOE Water Well Record Number: _____

Type of Water Use: Domestic Farm Irrigation Industrial Other 80 head of cattle

Water Treatment: Softener Sand Filter Carbon Filter Fiber Filter. Aluminum Oxide

5 micron UV Reverse Osmosis distillation Ion Exchange. Ozonation

Other Water Treatment: _____

Don't Know

WATER WELL INVENTORY

Condition of Well Casing: Good Buried Corroded Seized Broken Don't Know
 Other: 2000-2001 bleeding,

Any problems with water quantity in the past? Yes No

Any problem with water quality in the past? Yes No

If yes, what type? Sulphur smell Iron Taste Brown Water Bacteria

Other: little lime in kettle.

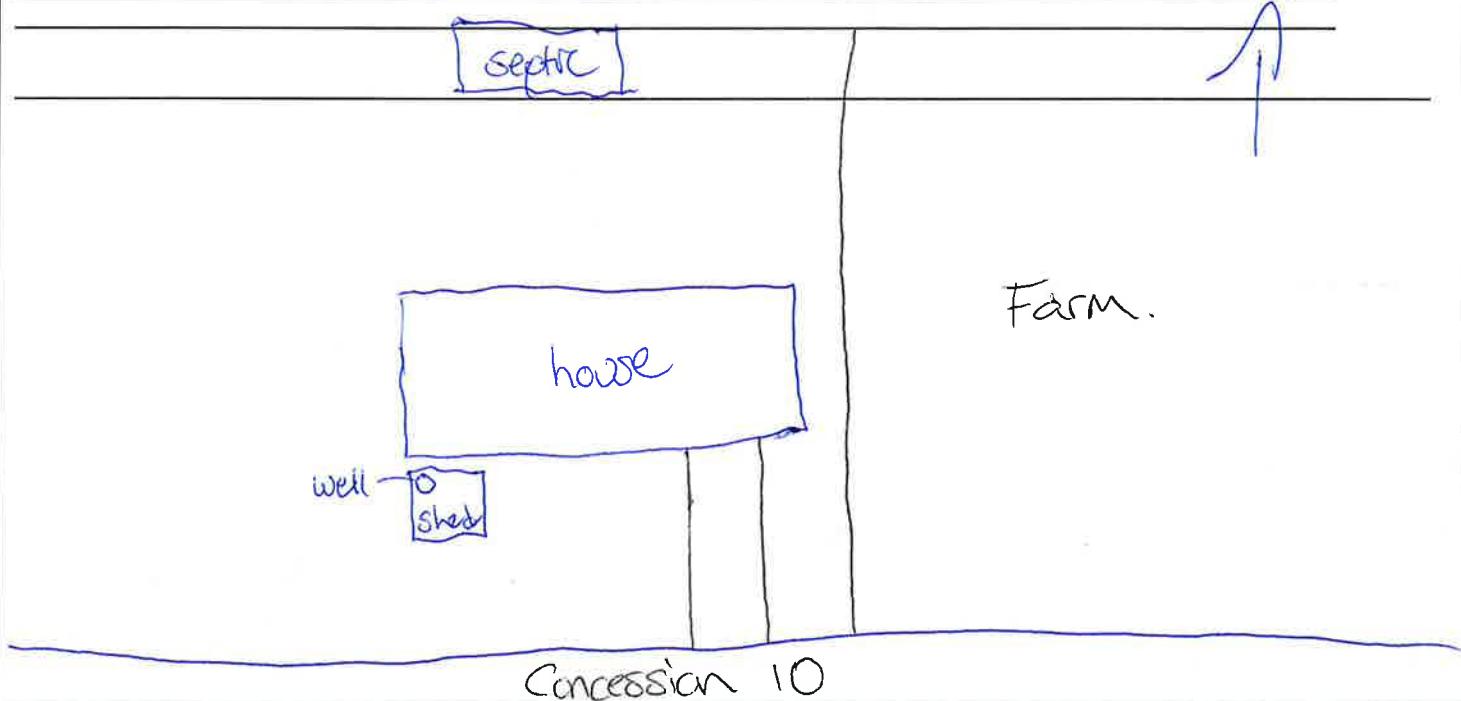
Location of Septic Bed: back of house 150ft.

Potential Sources of Contamination: Barn Manure Pile Gas Tanks Heating Oil Tank
 Other: far side of barn.

Is the well easily accessible? Yes No Sam can move lid with hook.
call ahead.

If Yes, may we measure water levels in this well? Yes No

Describe Well Location back left side in floor inside shed. AJ



Water Well Inventory – Page 1

Resident Name _____

911 Number _____ Road _____

Address _____

Phone Number _____ email _____

Property Owner: Yes No If No, Property Owner's Name _____

Previous Property Owners _____

Number of Wells on property	_____	Don't Know
Type of Well:	Drilled Dug Sand Point Other	_____ Don't Know
Diameter of Well:	2 inches 4 inches 5 inches 8 inches 3 feet	Don't Know
Depth of Well	_____	Don't Know
Depth to Water	_____	Don't Know
Pump Depth	_____	Don't Know
Pump Type	_____	Don't Know
Water Source:	Bedrock Sand/Gravel/Overburden	Don't Know
Name of Well Driller	_____	Don't Know
Date Installed	_____	Don't Know
I have the MOE Water Well Record	Yes No	Don't Know
MOE Water Well Record Number	_____	Don't Know
Type of Water Use:	Domestic Farm Irrigation Industrial Other	_____
Water Treatment:	Softener Sand Filter Carbon Filter Fiber Filter Aluminum Oxide UV Reverse Osmosis Distillation Ion Exchange Ozonation	
Other Water Treatment	_____	Don't Know

Water Well Inventory – Page 2

Condition of Well Casing Good Buried Corroded Seized Broken Don't Know

Other _____

Any problems with water quantity in the past? Yes No

Any problems with water quality in the past? Yes No

If yes, what type ? Sulphur smell Iron taste Brown water Bacteria

Other _____

Location of Septic Bed _____

Potential Sources of Contamination: barn manure pile gas tanks heating oil tank

Other _____

Is the well easily accessible? Yes No

If Yes, may we measure the water level in this well? Yes No

Describe Well Location _____

Sketch a diagram to show the location of well(s), house, buildings, road(s), and septic bed:



Important!! Learn to protect your water supply. Ask us for an information package or visit:

www.qca.ca

www.wellaware.ca

WATER WELL INSPECTION FORM

Resident Name: TOM JENKS

911 Number:

Road:

Address: 283247 Conc 10 INDIAN ACRES ROAD
TWP OF GEORGIAN BLUFFS

Phone Number: 619-377-1868

Email:

Property Owner: Yes No

If No, Property Owner's Name: _____

Previous Property Owners: _____

Number of Wells on Property: 1

Don't Know

Type of Well: Drilled Dug Sand Point Other _____

Don't Know

Diameter of Well: 2 in. 4 in. 6 in. 8 in. 3 ft.

Don't Know

Depth of Well: 110 ft

Don't Know

Depth of Water: 7.80

Don't Know

Pump Depth: _____

Don't Know

Pump Type: SUBMERSIBLE

Don't Know

Water Source: Bedrock Sand/Gravel/Overburden

Don't Know

Name of Well Driller: WRIGHT WELL DRILLING

Don't Know

Date Installed: 1988

Don't Know

I have the MOE Water Well Record: Yes No

Don't Know

MOE Water Well Record Number: _____

Don't Know

Type of Water Use: Domestic Farm Irrigation Industrial Other _____

Water Treatment: Softener Sand Filter Carbon Filter Fiber Filter. Aluminum Oxide
 UV Reverse Osmosis distillation Ion Exchange. Ozonation

Other Water Treatment: _____

Don't Know

JENKS

WATER WELL INSPECTION FORM

PAGE 2

Condition of Well Casing: Good Buried Corroded Seized Broken Don't Know
Other: _____

Any problems with water quantity in the past? Yes No

Any problem with water quality in the past? Yes No

If yes, what type? Sulphur smell Iron Taste Brown Water Bacteria
Other: _____

Location of Septic Bed: 80 ft SOUTH OF HOUSE

Potential Sources of Contamination: Barn Manure Pile Gas Tanks Heating Oil Tank
Other: _____

Is the well easily accessible? Yes No

If Yes, may we measure water levels in this well? Yes No

Describe Well Location NE CORNER OF HOUSE (12 FT FROM HOUSE)

WATER WELL INSPECTION FORM

Resident Name: RALPH THOMPSON

911 Number: _____ Road: _____

Address: 283249 Cone 10 INDIAN ACRES ROAD
TWP OF GEORGIAN BLUFFS

Phone Number: 519-370-2073 Email: _____

Property Owner: Yes No If No, Property Owner's Name: _____

Previous Property Owners: _____

Number of Wells on Property: 1

Don't Know

Type of Well: Drilled Dug Sand Point Other _____

Don't Know

Diameter of Well: 2 in. 4 in. 6 in. 8 in. 3 ft.

Don't Know

Depth of Well: 120 PT

Don't Know

Depth of Water: 7.53m

Don't Know

Pump Depth: _____

Don't Know

Pump Type: SUBMERSIBLE

Don't Know

Water Source: Bedrock Sand/Gravel/Overburden

Don't Know

Name of Well Driller: WRIGHT WELL DRILLERS

Don't Know

Date Installed: PRE 1990

Don't Know

I have the MOE Water Well Record: Yes No

Don't Know

MOE Water Well Record Number: _____

Don't Know

Type of Water Use: Domestic Farm Irrigation Industrial Other _____

Water Treatment: Softener Sand Filter Carbon Filter Fiber Filter. Aluminum Oxide

UV Reverse Osmosis distillation Ion Exchange. Ozonation

Other Water Treatment: _____

Don't Know

THOMPSON

WATER WELL INSPECTION FORM

PAGE 2

Condition of Well Casing: Good Buried Corroded Seized Broken Don't Know
Other: _____

Any problems with water quantity in the past? Yes No

Any problem with water quality in the past? Yes No

If yes, what type? Sulphur smell Iron Taste Brown Water Bacteria
Other: _____

Location of Septic Bed: BEHIND HOUSE

Potential Sources of Contamination: Barn Manure Pile Gas Tanks Heating Oil Tank
Other: _____

Is the well easily accessible? Yes No

If Yes, may we measure water levels in this well? Yes No

Describe Well Location SOUTH SIDE AT FRONT OF HOUSE
100 FT FROM ROAD

WATER WELL INSPECTION FORM

Resident Name:	DON PORTER		
911 Number:			
Address:	283253 Conc 10 Twp of Georgian Bluffs	Road:	INDIAN ACRES ROAD
Phone Number:	519-371-0683	Email:	
Property Owner:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	If No, Property Owner's Name:
Previous Property Owners:			

Number of Wells on Property:	1	<input type="checkbox"/> Don't Know
Type of Well:	<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Dug <input type="checkbox"/> Sand Point <input type="checkbox"/> Other	<input type="checkbox"/> Don't Know
Diameter of Well:	<input type="checkbox"/> 2 in. <input type="checkbox"/> 4 in. <input checked="" type="checkbox"/> 6 in. <input type="checkbox"/> 8 in. <input type="checkbox"/> 3 ft.	<input type="checkbox"/> Don't Know
Depth of Well:	110 ft	<input type="checkbox"/> Don't Know
Depth of Water:	7.84 m	<input type="checkbox"/> Don't Know
Pump Depth:		<input checked="" type="checkbox"/> Don't Know
Pump Type:	SUBMERSIBLE	<input type="checkbox"/> Don't Know
Water Source:	<input checked="" type="checkbox"/> Bedrock <input type="checkbox"/> Sand/Gravel/Overburden	<input type="checkbox"/> Don't Know
Name of Well Driller:	WRIGHT WELL DRILLING	<input type="checkbox"/> Don't Know
Date Installed:	1988	<input type="checkbox"/> Don't Know
I have the MOE Water Well Record:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Don't Know
MOE Water Well Record Number:		<input checked="" type="checkbox"/> Don't Know
Type of Water Use:	<input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Farm <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other	
Water Treatment:	<input checked="" type="checkbox"/> Softener <input type="checkbox"/> Sand Filter <input type="checkbox"/> Carbon Filter <input type="checkbox"/> Fiber Filter. <input type="checkbox"/> Aluminum Oxide <input checked="" type="checkbox"/> UV <input type="checkbox"/> Reverse Osmosis <input type="checkbox"/> distillation <input type="checkbox"/> Ion Exchange. <input type="checkbox"/> Ozonation	
Other Water Treatment:		<input type="checkbox"/> Don't Know

DON PORTER

WATER WELL INSPECTION FORM

PAGE 2

Condition of Well Casing: Good Buried Corroded Seized Broken Don't Know
Other: _____

Any problems with water quantity in the past? Yes No

Any problem with water quality in the past? Yes No

If yes, what type? Sulphur smell Iron Taste Brown Water Bacteria
Other: _____

Location of Septic Bed: NE OF HOUSE

Potential Sources of Contamination: Barn Manure Pile Gas Tanks Heating Oil Tank
Other: _____

Is the well easily accessible? Yes No

If Yes, may we measure water levels in this well? Yes No

Describe Well Location SOUTH SIDE OF PROPERTY 150 FT
FROM ROAD



WATER WELL RECORD

WATER MANAGEMENT ACT ONTARIO		PRINT ONLY IN SPACES PROVIDED	<input checked="" type="checkbox"/>	2503345	2503348	REGN.	11
		2. CIVIC OR CONNECT BOX WHERE APPLICABLE					
COUNTY OR DISTRICT <i>Grey</i>	TOWNSHIP, COUNCIL, CITY, TOWN, VILLAGE <i>Bennetts</i>	3	4	5	6	7	8
SECTION, BLOCK, TRACT, SURVEY, ETC.				LOT	10-21-33		
				11			
				DATE COMPLETED	026		
				16 NOV 27 2000	16 NOV 27 2000		
				17	18	19	20
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				25	26	27	28
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				137	138	139	140
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				145	146	147	148
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				997	998	999	1000

LOG OF OVERTURGED AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

31 | 2024/05 | 160250/151 | 0005317 | 3/08/17

-32-

41 WATER RECORD

WATER-TEMP AT - FEET	RUN OF WATER
0075	1 FRESH 3 SWEET 2 SALTY 4 BURNT 3 SALT 5 MIN.
0100	1 FRESH 3 SWEET 2 SALTY 4 BURNT 3 SALT 5 MIN.
0125	1 FRESH 3 SWEET 2 SALTY 4 BURNT 3 SALT 5 MIN.
0150	1 FRESH 3 SWEET 2 SALTY 4 BURNT 3 SALT 5 MIN.
0175	1 FRESH 3 SWEET 2 SALTY 4 BURNT 3 SALT 5 MIN.

51 CASING & OPEN HOLE RECORD

61 PLUGGING & SEALING RECORD

DEPTH SET AT - P.A.T.		MATERIAL AND TYPE	(SOLVENT ABSENT, LIQUID PRESENT, ETC.)
DEPTH	TIME		
1000'	16:47		
1200'	22:07		
1400'	20:48		

LOCATION OF WELL

In diagram below show distances up well from road and lot line. Horizontal distance by arrow.

N ↑

FINAL STATUS OF WELL	<input type="checkbox"/> WATER SUPPLY	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
	<input type="checkbox"/> OBSERVATION WELL	<input type="checkbox"/> ABANDONED, POOR QUALITY
WATER USE	<input type="checkbox"/> TEST HOLE	<input type="checkbox"/> UNFINISHED
	<input type="checkbox"/> RECHARGE WELL	
METHOD OF DRILLING	<input type="checkbox"/> DOMESTIC	<input type="checkbox"/> COMMERCIAL
	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> MUNICIPAL
	<input type="checkbox"/> IRIGATION	<input type="checkbox"/> PUBLIC SUPPLY
	<input type="checkbox"/> MINERAL	<input type="checkbox"/> CULTIVATING OR AIR CONDITIONING
	<input type="checkbox"/> OTHER	<input type="checkbox"/> HOT SPRINGS
WELL TYPE	<input type="checkbox"/> PIPELINE TUBE	<input type="checkbox"/> BORING
	<input type="checkbox"/> ROTARY (CONVENTIONAL)	<input type="checkbox"/> DIAMOND
	<input type="checkbox"/> DRAVER (HORIZONTAL)	<input type="checkbox"/> CUTTING
	<input type="checkbox"/> ROTARY DRILL	<input type="checkbox"/> DRIVING

REMARQUES			
DATE SOURCE	1	LIAISON	SOURCE
ZONE ET TRAITEMENT		REFUSAL	P/E
REMARKS			

OWRC COPY

Sep 9 2003 NOTE: The current pumping rate of the well may have changed from when the well was first constructed.

The Ontario Water Resources Commission Act

41A10w.c

WATER WELL RECORD

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK CORRECT BOX WHERE APPLICABLE

11

2503447

MUNICIP.

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COUNTY OR DISTRICT

Grey

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

Kespel

3

CON., BLOCK, TRACT, SURVEY, ETC.

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OWNER (SURNAME FIRST)

William Wright

ADDRESS

1000 Wagoner St. Kespel

DATE COMPLETED

48-51

DAY

30

MO.

05

YR.

71

21

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Ontario

The Ontario Water Resources Commission

WATER WELL RECORD

The Ontario Water Resources Act

$\frac{d}{dt} \mathbb{P}(W_{2t})$

Ontario		1. PRINT ONLY IN SPACES PROVIDED				11		2505197		25009		CON.		10	
		2. CHECK <input checked="" type="checkbox"/> CORRECT BOX WHERE APPLICABLE													
COUNTRY OR DISTRICT		TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE						CON., BLOCK, TRACT, SURVEY, ETC.				LOT		SB-17	
GREY OWNER (SURNAME FIRST)		HEPPEL						Con 10				029			
SB-87		ADDRESS						DATE COMPLETED		48-88					
ZONE		NORTHING		RC.		ELEVATION		DAY		04		MO.		06	
BASING				RC.				YEAR		75					
21		501613		4841760		4		AUG 16, 1976		1976					

31 0091602111 00606151

32 13 14 15 11

PUMPING TEST METHOD		PUMPING RATE	DURATION OF PUMPING	
<input type="checkbox"/> PUMP	<input checked="" type="checkbox"/> TRAILER	0007	01	10-10 HOURS 00 MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING		
18-81	22-84	15 MINUTES	30 MINUTES	45 MINUTES 45 MINUTES
		38-38	29-31	32-34 38-37
026 FEET	045 FEET	FEET	FEET	FEET
IF FLOWING, GIVE RATE		PUMP INTAKE SET AT		
GPM		WATER AT END OF TEST		
		FEET	<input type="checkbox"/> CLEAR <input checked="" type="checkbox"/> CLOUDY	
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE	48-48 GPM
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP		055 FEET	0005	GPM
10-83 000.4 GPM / FT. SPECIFIC CAPACITY				

LOCATION OF WELL 0141

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

FINAL STATUS OF WELL	84	<input checked="" type="checkbox"/> WATER SUPPLY <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
	<input type="checkbox"/> OBSERVATION WELL <input type="checkbox"/> ABANDONED, POOR QUALITY	
	<input type="checkbox"/> TEST HOLE <input type="checkbox"/> UNFINISHED	
	<input type="checkbox"/> RECHARGE WELL	
WATER USE	85-85	<input checked="" type="checkbox"/> DOMESTIC <input type="checkbox"/> COMMERCIAL
	<input type="checkbox"/> STOCK <input type="checkbox"/> MUNICIPAL	
	<input type="checkbox"/> IRRIGATION <input type="checkbox"/> PUBLIC SUPPLY	
	<input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> COOLING OR AIR CONDITIONING	
	<input type="checkbox"/> OTHER <input type="checkbox"/> NOT USED	
METHOD OF DRILLING	87	<input checked="" type="checkbox"/> SPANNEL TOOL <input type="checkbox"/> BORING
	<input type="checkbox"/> ROTARY (CONVENTIONAL) <input type="checkbox"/> DIAMOND	
	<input type="checkbox"/> ROTARY (REVERSE) <input type="checkbox"/> JETTING	
	<input type="checkbox"/> ROTARY AIRI <input type="checkbox"/> DRIVING	
	<input type="checkbox"/> AIR PERCUSSION	

Co Rd
 17
 SRF NPK
 TWP
 BED ALLEN

DRILLERS REMARKS:

CONTRACTOR NAME OF WELL CONTRACTOR ADDRESS	NAME OF WELL CONTRACTOR ADDRESS	LICENCE NUMBER	DATA SOURCE	SD CONTRACTOR	BB-22	DATE RECEIVED
	Stan & Roy Wright 998 Grand St. Waterloo Ont.	5605-	1	5505		10975
NAME OF DRILLER OR OWNER SIGNATURE OF CONTRACTOR	NAME OF DRILLER OR OWNER SIGNATURE OF CONTRACTOR	LICENCE NUMBER	DATE OF INSPECTION	INSPECTOR		
	M. Wright Stan Wright	5519	31/07/75			
SUBMISSION DATE		OFFICE USE ONLY				
DAY	MO.	YR.				



Ministry
of the
Environment
Ontario

24
The Ontario Water Resources Act

WATER WELL RECORD

2507253

250091 CON

11A/10W

COUNTY OR DISTRICT

GREY

K E P P E L

CONTRACTOR

CON X

027

OWNER SURNAME FIRST

GRAMP GARNET

ADDRESS R. R. # 2, OWEN SOUND, OWEN SOUND

DATE COMPLETED 15 MAY 80

LOT NUMBER

17

SECTION

17

ROUNDS

100

DEPTH

500.00

FEET

150

INCHES

0

GRADING

100.00

MAIN CORE

150

INCHES

0

DEPTHS

100

INCHES

0

GENERAL COLOUR

BLACK

MOST COMMON MATERIAL

TOP SOIL

OTHER MATERIALS

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

0 1

GENERAL COLOUR

GREY

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

1 46

GENERAL COLOUR

BROWN

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

46 68

GENERAL COLOUR

BLUE

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

68 72

GENERAL COLOUR

BLUE

MOST COMMON MATERIAL

SHALE

GENERAL DESCRIPTION

SHALE

DEPTH FEET

72 75

GENERAL COLOUR

BLACK

MOST COMMON MATERIAL

TOP SOIL

GENERAL DESCRIPTION

TOP SOIL

DEPTH FEET

0 1

GENERAL COLOUR

GREY

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

1 46

GENERAL COLOUR

BROWN

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

46 68

GENERAL COLOUR

BLUE

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

68 72

GENERAL COLOUR

BLUE

MOST COMMON MATERIAL

SHALE

GENERAL DESCRIPTION

SHALE

DEPTH FEET

72 75

GENERAL COLOUR

BLACK

MOST COMMON MATERIAL

TOP SOIL

GENERAL DESCRIPTION

TOP SOIL

DEPTH FEET

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GENERAL COLOUR

GREY

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

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GENERAL COLOUR

BROWN

MOST COMMON MATERIAL

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GENERAL COLOUR

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GENERAL DESCRIPTION

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GENERAL COLOUR

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GENERAL COLOUR

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MOST COMMON MATERIAL

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GENERAL COLOUR

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68 72

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MOST COMMON MATERIAL

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GENERAL DESCRIPTION

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GENERAL COLOUR

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MOST COMMON MATERIAL

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GENERAL DESCRIPTION

TOP SOIL

DEPTH FEET

0 1

GENERAL COLOUR

GREY

MOST COMMON MATERIAL

LIMESTONE

GENERAL DESCRIPTION

LIMESTONE

DEPTH FEET

1 46

C.O.C.: G28356

REPORT No. B15-19916

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 06-Aug-15

DATE REPORTED: 27-Aug-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Parameter	Units	R.L.	Client I.D.		CRAMP			
			Sample I.D.		B15-19916-1			
			Date Collected		05-Aug-15			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	07-Aug-15/O	338			
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	07-Aug-15/O	288			
pH @25°C	pH Units		SM 4500H	06-Aug-15/O	7.88			
Conductivity @25°C	µmho/cm	1	SM 2510B	07-Aug-15/O	634			
Fluoride	mg/L	0.1	SM4110C	06-Aug-15/O	0.2			
Chloride	mg/L	0.5	SM4110C	06-Aug-15/O	31.2			
Nitrite (N)	mg/L	0.1	SM4110C	06-Aug-15/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	06-Aug-15/O	0.3			
Sulphate	mg/L	1	SM4110C	06-Aug-15/O	22			
Calcium	mg/L	0.02	SM 3120	07-Aug-15/O	80.0			
Magnesium	mg/L	0.01	SM 3120	07-Aug-15/O	33.5			
Sodium	mg/L	0.2	SM 3120	07-Aug-15/O	20.5			
Potassium	mg/L	0.1	SM 3120	07-Aug-15/O	2.8			
Arsenic	mg/L	0.0001	EPA 200.8	07-Aug-15/O	0.0002			
Cadmium	mg/L	0.00002	EPA 200.8	07-Aug-15/O	0.00003			
Copper	mg/L	0.002	SM 3120	07-Aug-15/O	< 0.002			
Manganese	mg/L	0.001	SM 3120	07-Aug-15/O	0.002			
Nickel	mg/L	0.01	SM 3120	07-Aug-15/O	< 0.01			
Sulphur	mg/L	0.1	SM 3120	07-Aug-15/O	8.0			
Zinc	mg/L	0.005	SM 3120	07-Aug-15/O	0.153			
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	20-Aug-15/O	< 0.01			
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	19-Aug-15/K	0.1			
Organic Nitrogen	mg/L	0.1	MOEE 3367	21-Aug-15/O	0.1			
Phosphorus-Total	mg/L	0.01	E3199A.1	19-Aug-15/K	0.03			
Anion Sum	meq/L		Calc.	07-Aug-15/O	7.12			
Cation Sum	meq/L		Calc.	07-Aug-15/O	7.72			
% Difference	%		Calc.	07-Aug-15/O	4.04			
Ion Ratio	AS/CS		Calc.	07-Aug-15/O	0.922			

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request

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C.O.C.: G28356

REPORT No. B15-19916

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Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 06-Aug-15

DATE REPORTED: 27-Aug-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

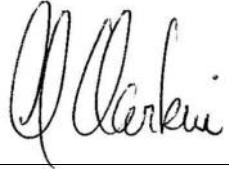
Parameter	Units	R.L.	Client I.D.	CRAMP			
			Sample I.D.	B15-19916-1			
			Date Collected	05-Aug-15			
Sodium Adsorption Ratio	-		Calc.	07-Aug-15/O	0.486		
TDS(ion sum calc.)	mg/L		Calc.	07-Aug-15/O	364		
Conductivity (calc.)	µmho/cm		Calc.	07-Aug-15/O	683		
TDS(calc.)/EC(actual)	-		Calc.	07-Aug-15/O	0.574		
EC(calc.)/EC(actual)	-		Calc.	07-Aug-15/O	1.08		
Langelier Index(25°C)	S.I.		Calc.	07-Aug-15/O	0.790		
pH	pH Units		Client Supplied Data	05-Aug-15	8.4		
Temperature	°C		Client Supplied Data	05-Aug-15	16.4		

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

C.O.C.: G54850

REPORT No. B15-22377 (i)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Client I.D.	Cramp	Ruthvan	Keppel Discharge	10S
Sample I.D.	B15-22377-1	B15-22377-2	B15-22377-3	B15-22377-4
Date Collected	28-Aug-15	28-Aug-15	28-Aug-15	28-Aug-15

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO ₃)	mg/L	1	SM 3120	01-Sep-15/O	330	357	250	378
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	01-Sep-15/O	291	324	146	308
pH @25°C	pH Units		SM 4500H	01-Sep-15/O	7.82	7.77	7.91	7.74
Conductivity @25°C	µmho/cm	1	SM 2510B	01-Sep-15/O	643	655	435	756
TDS (Calc. from Cond.)	mg/L		Calc.	01-Sep-15	432	440	292	514
Fluoride	mg/L	0.1	SM4110C	31-Aug-15/O	0.2	0.1	0.2	0.1
Chloride	mg/L	0.5	SM4110C	31-Aug-15/O	30.6	13.7	4.9	38.5
Nitrite (N)	mg/L	0.1	SM4110C	31-Aug-15/O	< 0.1	< 0.1	< 0.1	0.2
Nitrate (N)	mg/L	0.1	SM4110C	31-Aug-15/O	< 0.1	3.0	< 0.1	0.8
Sulphate	mg/L	1	SM4110C	31-Aug-15/O	22	15	91	52
Calcium	mg/L	0.02	SM 3120	01-Sep-15/O	79.2	88.2	44.2	90.5
Magnesium	mg/L	0.01	SM 3120	01-Sep-15/O	32.2	33.3	33.8	36.9
Sodium	mg/L	0.2	SM 3120	01-Sep-15/O	18.9	9.7	1.7	17.8
Potassium	mg/L	0.1	SM 3120	01-Sep-15/O	2.6	7.2	1.6	11.7
Arsenic	mg/L	0.0001	EPA 200.8	01-Sep-15/O	0.0002	0.0003	0.0013	0.0004
Cadmium	mg/L	0.00002	EPA 200.8	01-Sep-15/O	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Copper	mg/L	0.002	SM 3120	01-Sep-15/O	0.004	0.375	< 0.002	< 0.002
Manganese	mg/L	0.001	SM 3120	01-Sep-15/O	0.012	< 0.001	0.005	0.003
Nickel	mg/L	0.01	SM 3120	01-Sep-15/O	< 0.01	< 0.01	< 0.01	< 0.01
Sulphur	mg/L	0.1	SM 3120	01-Sep-15/O	7.6	5.3	30.7	17.0
Zinc	mg/L	0.005	SM 3120	01-Sep-15/O	1.39	0.007	< 0.005	< 0.005
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Sep-15/O	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.05	MOEE 3367	09-Sep-15/O	0.25	0.27	0.59	1.36
Organic Nitrogen	mg/L	0.05	MOEE 3367	09-Sep-15/O	0.25	0.27	0.59	1.36
Phosphorus-Total	mg/L	0.01	MOEE 3367	09-Sep-15/O	< 0.01	< 0.01	0.01	< 0.01
Anion Sum	meq/L		Calc.	01-Sep-15/O	7.14	7.40	4.96	8.40
Cation Sum	meq/L		Calc.	01-Sep-15/O	7.49	7.74	5.11	8.62

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request

Greg Clarkin , BSc., C. Chem

Lab Manager - Ottawa District

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C.O.C.: G54850

REPORT No. B15-22377 (i)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

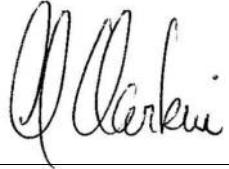
			Client I.D.	Cramp	Ruthvan	Keppel Discharge	10S	
			Sample I.D.	B15-22377-1	B15-22377-2	B15-22377-3	B15-22377-4	
			Date Collected	28-Aug-15	28-Aug-15	28-Aug-15	28-Aug-15	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
% Difference	%		Calc.	01-Sep-15/O	2.40	2.29	1.43	1.29
Ion Ratio	AS/CS		Calc.	01-Sep-15/O	0.953	0.955	0.972	0.975
Sodium Adsorption Ratio	-		Calc.	01-Sep-15/O	0.451	0.224	0.0479	0.399
TDS/ion sum calc.)	mg/L		Calc.	01-Sep-15/O	360	375	265	437
Conductivity (calc.)	µmho/cm		Calc.	01-Sep-15/O	673	687	489	788
TDS(calc.)/EC(actual)	-		Calc.	01-Sep-15/O	0.560	0.572	0.610	0.577
EC(calc.)/EC(actual)	-		Calc.	01-Sep-15/O	1.05	1.05	1.12	1.04
Langelier Index(25°C)	S.I.		Calc.	01-Sep-15/O	0.730	0.774	0.289	0.723
pH	pH Units		Client Supplied Data	28-Aug-15	8.0	7.9	8.6	7.6
Temperature	°C		Client Supplied Data	28-Aug-15	19.6	18.2	20.7	14.2

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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 Greg Clarkin , BSc., C. Chem
 Lab Manager - Ottawa District

C.O.C.: G54850

REPORT No. B15-22377 (i)

Report To:

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R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Client I.D.	10D			
Sample I.D.	B15-22377-5			
Date Collected	28-Aug-15			

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO ₃)	mg/L	1	SM 3120	01-Sep-15/O	230			
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	01-Sep-15/O	241			
pH @25°C	pH Units		SM 4500H	01-Sep-15/O	7.84			
Conductivity @25°C	µmho/cm	1	SM 2510B	01-Sep-15/O	494			
TDS (Calc. from Cond.)	mg/L		Calc.	01-Sep-15	332			
Fluoride	mg/L	0.1	SM4110C	31-Aug-15/O	0.6			
Chloride	mg/L	0.5	SM4110C	31-Aug-15/O	8.4			
Nitrite (N)	mg/L	0.1	SM4110C	31-Aug-15/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	31-Aug-15/O	0.2			
Sulphate	mg/L	1	SM4110C	31-Aug-15/O	15			
Calcium	mg/L	0.02	SM 3120	01-Sep-15/O	53.0			
Magnesium	mg/L	0.01	SM 3120	01-Sep-15/O	23.6			
Sodium	mg/L	0.2	SM 3120	01-Sep-15/O	15.6			
Potassium	mg/L	0.1	SM 3120	01-Sep-15/O	7.1			
Arsenic	mg/L	0.0001	EPA 200.8	01-Sep-15/O	0.0009			
Cadmium	mg/L	0.00002	EPA 200.8	01-Sep-15/O	< 0.00002			
Copper	mg/L	0.002	SM 3120	01-Sep-15/O	< 0.002			
Manganese	mg/L	0.001	SM 3120	01-Sep-15/O	0.011			
Nickel	mg/L	0.01	SM 3120	01-Sep-15/O	< 0.01			
Sulphur	mg/L	0.1	SM 3120	01-Sep-15/O	5.2			
Zinc	mg/L	0.005	SM 3120	01-Sep-15/O	< 0.005			
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Sep-15/O	0.48			
Total Kjeldahl Nitrogen	mg/L	0.05	MOEE 3367	09-Sep-15/O	1.20			
Organic Nitrogen	mg/L	0.05	MOEE 3367	09-Sep-15/O	0.72			
Phosphorus-Total	mg/L	0.01	MOEE 3367	09-Sep-15/O	0.06			
Anion Sum	meq/L		Calc.	01-Sep-15/O	5.41			
Cation Sum	meq/L		Calc.	01-Sep-15/O	5.49			
% Difference	%		Calc.	01-Sep-15/O	0.706			

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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Tel: 613-526-0123
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JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

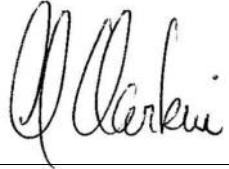
Parameter	Units	R.L.	Client I.D.	10D			
			Sample I.D.	B15-22377-5			
			Date Collected	28-Aug-15			
Ion Ratio	AS/CS		Calc.	01-Sep-15/O	0.986		
Sodium Adsorption Ratio	-		Calc.	01-Sep-15/O	0.448		
TDS/ion sum calc.)	mg/L		Calc.	01-Sep-15/O	270		
Conductivity (calc.)	µmho/cm		Calc.	01-Sep-15/O	500		
TDS(calc.)/EC(actual)	-		Calc.	01-Sep-15/O	0.546		
EC(calc.)/EC(actual)	-		Calc.	01-Sep-15/O	1.01		
Langelier Index(25°C)	S.I.		Calc.	01-Sep-15/O	0.503		
pH	pH Units		Client Supplied Data	28-Aug-15	8.2		
Temperature	°C		Client Supplied Data	28-Aug-15	15.2		

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

C.O.C.: G54850

REPORT No. B15-22377 (ii)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Client I.D.	Keppel Discharge			
Sample I.D.	B15-22377-3			
Date Collected	28-Aug-15			

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Benzene	µg/L	0.5	EPA 8260	31-Aug-15/O	< 0.5			
Toluene	µg/L	0.5	EPA 8260	31-Aug-15/O	< 0.5			
Ethylbenzene	µg/L	0.5	EPA 8260	31-Aug-15/O	< 0.5			
Xylene, m,p-	µg/L	0.4	EPA 8260	31-Aug-15/O	< 0.4			
Xylene, o-	µg/L	0.1	EPA 8260	31-Aug-15/O	< 0.1			
Xylene, m,p,o-	µg/L	0.4	EPA 8260	31-Aug-15/O	< 0.4			
Toluene-d8 (SS)	%		EPA 8260	31-Aug-15/O	101			
PHC F1 (C6-C10)	µg/L	20	MOE E3421	31-Aug-15/O	< 20			
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	03-Sep-15/K	< 50			
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	03-Sep-15/K	< 400			
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	03-Sep-15/K	< 400			
Acenaphthene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Acenaphthylene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Anthracene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Benzo(a)anthracene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Benzo(a)pyrene	µg/L	0.01	EPA 8270	03-Sep-15/K	< 0.01			
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	03-Sep-15/K	< 0.1			
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Chrysene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Fluoranthene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Fluorene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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C.O.C.: G54850

REPORT No. B15-22377 (ii)

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Harold Sutherland Construction Ltd.

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Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 31-Aug-15

DATE REPORTED: 08-Sep-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

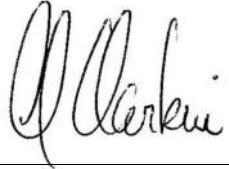
Client I.D.	Keppel Discharge			
Sample I.D.	B15-22377-3			
Date Collected	28-Aug-15			

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Naphthalene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Phenanthrene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
Pyrene	µg/L	0.05	EPA 8270	03-Sep-15/K	< 0.05			
2-Fluorobiphenyl (SS)	% rec.	10	EPA 8270	03-Sep-15/K	60.0			
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	03-Sep-15/K	76.0			

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.



TESTING REQUIREMENTS

REPORT NUMBER (Lab Use)

Aug 31. 15 REPORT NUMBER

B15-22377

CADUCEON™ ENVIRONMENTAL LABORATORIES Client committed. Quality assured.		TESTING REQUIREMENTS										REPORT NUMBER (Lab Use) <i>Aug 31. 15</i> B15-22377									
		<input type="checkbox"/> O.Reg 153	Table _____	<input type="checkbox"/> MISA Guidelines	<input type="checkbox"/> O.Reg 558 Leachate Analysis																
<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub Surface Soil	(O.Reg 153)	<input type="checkbox"/> Disposal Site: _____																		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Record of Site Condition	(O.Reg 153)	<input type="checkbox"/> Landfill Monitoring																	
		Provincial Water Quality Objectives		<input type="checkbox"/> Other:																	
		Sewer Use By-Law:																			
Indicate Laboratory Samples are submitted to:		<input type="checkbox"/> Kingston		<input type="checkbox"/> Ottawa		<input type="checkbox"/> Richmond Hill		<input type="checkbox"/> Windsor													
Organization: HAROLD SUTHERLAND	Address and Invoicing Address (if different)		ANALYSES REQUESTED (Print Test in Boxes)										TURNAROUND SERVICE REQUESTED (see back page)								
Contact: CHRIS HODGSON	323545 EAST LINTON RD KEMBLE ON N0M 1S0		PACKAGE #1	PACKAGE #2																	
Tel: 519-376-3506	Quote No.: P140404-CH	Project Name: KEPPEL DEVELOPMENT PERMIT																			
Fax:	P.O. No.:	Additional Info:												Suspected Highly Contaminated							
Email: chris@hsc-ltd.com																					
Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, submit all drinking water samples on a drinking water Chain of Custody)																					
* Sample Matrix Legend: WW=Waste Water SW=Surface Water GW=Groundwater LS=Liquid Sludge SS=Solid Sludge S=Soil Sed=Sediment PC=Paint Chips F=Filter Oil = Oil																					
Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided								# Bottles	Field Sample	Field Filtered(Y/N)					
						pH	Temp.														
	CRAMP		GW	15-08-28	11:00	✓								8.0	19.6	3	N				
	RUTHVAN		GW	15-08-28	11:30	✓								7.9	18.2	3	N				
	KEPPEL DISCHARGE		GW	15-08-28	11:45	✓		✓						8.6	20.7	573use	N				
	IOS		GW	15-08-28	12:00	✓								7.6	14.2	3	Y				
	IOD		GW	15-08-28	12:30	✓								8.2	15.2	3	Y				
SAMPLE SUBMISSION INFORMATION						SHIPPING INFORMATION						REPORTING / INVOICING						SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)			
Print: C HODGSON		Submitted by: C HODGSON		Client's Courier <input type="checkbox"/>		Invoice <input type="checkbox"/>		Report by Fax <input type="checkbox"/>		Received By (print): John		Signature: JB									
Sign: C HODGSON		Date (yy-mm-dd)/Time: 15-08-28 12:00		Caduceon's Courier <input checked="" type="checkbox"/>		<input type="checkbox"/>		Report by Email <input checked="" type="checkbox"/>		Date Received (yy-mm-dd): 31/08/15		Time Received: 10:10									
Date (yy-mm-dd)/Time: 15-08-28 12:00		Date (yy-mm-dd)/Time: 15-08-28 14:00		Drop Off <input type="checkbox"/>		# of Pieces <input type="checkbox"/>		Invoice by Email <input type="checkbox"/>		Laboratory Prepared Bottles: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Comments: 2-1L glass 5 PET 5 VIP 5 MI 3 VOC		Comments: 2-1L glass 5 PET 5 VIP 5 MI 3 VOC		Caduceon (Pick-up) <input type="checkbox"/>		Invoice by Mail <input type="checkbox"/>		Sample Temperature °C: B		Labeled by:											
Laboratory Locations/Shipping Addresses																					
Kingston Lab - 285 Dalton Ave., Kingston, ON K7K 6Z1, Tel: (613) 544-2001 Fax: (613) 544-2770 Email: contactkingston@caduceonlabs.com																					
Ottawa Lab - 2378 Holly Lane, Ottawa, ON K1V 7P1, Tel: (613) 526-0123 Fax: (613) 526-1244 Email: contactottawa@caduceonlabs.com																					
Richmond Hill Lab - #14-110 West Beaver Creek Rd., ON L4B 1J9, Tel: (289) 475-5442 Fax: (866) 562-1963 Email: contactrichmondhill@caduceonlabs.com																					
Windsor Lab - #5-3201 Marentette Ave., Windsor, ON N8X 4G3, Tel: (519) 966-9541 Fax: (519) 966-9567 Email: contactwindsor@caduceonlabs.com																					
														Page G	of 54850						

White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

CofC., Sept. 2014, Revision No: 18

QUOTATION FOR ANALYTICAL SERVICES

Quote # :	P140404_CH
Organization:	Harold Sutherland Construction Limited
Contact:	Chris Hodgson
Telephone:	519-376-3506
Facsimile:	
Email:	lab@hsc-ltd.com
Project #:	Monitoring Wells and Effluent
Address:	323545 East Linton Rd RR 2 Kemble ON N0H1S0
Additional Info:	
Additional Info:	
Date:	April 4, 2014
	Valid Until: December 31, 2015

Item #	Quantity	Analysis Request	Matrix	Unit Cost, \$	Amount, \$
Package 1 (9 Events x 3 months= 27 Packages/a)					
1	1	TP/TKN	DW/GW/WW	27.00	\$27.00
2	1	Alkalinity, pH, Conductivity	DW/GW/WW	32.00	\$32.00
3	1	NO2/NO3	DW/GW/WW	16.00	\$16.00
4	1	Cl, F, SO4	DW/GW/WW	21.00	\$21.00
5	1	Hardness, Ca, Mg, Mn, Zn, Cu, Ni, Cd, As, Na, K	DW/GW/WW	52.00	\$52.00
6	1	TDS, Organic Nitrogen, Sulfur	DW/GW/WW	30.00	\$31.00
7	1	Pkg1 Discount Price (Items 1-6)	DW/GW/WW	145.00	\$145.00
Package 2 (3 Events x 3 months= 9 Packages/a)					
8	1	PHC(F1-F4)	DW/GW/WW	130.00	\$130.00
9	1	BTEX (Benzene, Toluene, Ethylene, Xylene)	DW/GW/WW	75.00	\$75.00
10	1	Total PAH's (Polycyclic Aromatic Hydrocarbons)	DW/GW/WW	140.00	\$140.00
11	1	Pkg2 Discount Price (Items 8-10)	DW/GW/WW	250.00	\$250.00
Prices do not include shipping unless otherwise stated. \$1.50 Environmental Surcharge per sample					Subtotal
					395.00
					HST
					51.35
					Total Cost
					446.35

Kim Byers
 Customer Service Representative
 Caduceon Environmental Laboratories
 E-mail: kbyers@caduceonlabs.com

Laboratory Locations

Kingston - 285 Dalton Ave. Kingston, ON K7K 6Z1 Tel: (613) 544-2001 Fax: (613) 544-2770

Ottawa - 2378 Holly Lane Ottawa, ON K1V 7P1 Tel: (613) 526-0123 Fax: (613) 526-1244

Richmond Hill - 110 West Beaver Creek Road (Unit 14), Richmond Hill, ON L4B 1J9 Tel: (289) 475-5442 Fax: (866) 562-1963

Windsor - #5-3201 Marentette Ave. Windsor, ON N8X 4G3 Tel: (519) 966-9541 Fax: (519) 966-9567

C.O.C.: G54677

REPORT No. B15-25453 (i)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 30-Sep-15

DATE REPORTED: 07-Oct-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Parameter	Units	R.L.	Client I.D.		Keppel Discharge	Cramp	Ruthvan	Sutherland
			Sample I.D.		B15-25453-1	B15-25453-2	B15-25453-3	B15-25453-4
			Date Collected		29-Sep-15	29-Sep-15	29-Sep-15	29-Sep-15
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO ₃)	mg/L	1	SM 3120	01-Oct-15/O	234	344	368	347
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	30-Sep-15/O	131	300	329	304
pH @25°C	pH Units		SM 4500H	30-Sep-15/O	7.52	7.80	7.55	7.63
Conductivity @25°C	µmho/cm	1	SM 2510B	01-Oct-15/O	397	642	656	866
TDS (Calc. from Cond.)	mg/L		Calc.	01-Oct-15	266	437	446	589
Fluoride	mg/L	0.1	SM4110C	01-Oct-15/O	0.2	0.2	0.1	0.2
Chloride	mg/L	0.5	SM4110C	01-Oct-15/O	4.9	30.9	14.6	109
Nitrite (N)	mg/L	0.1	SM4110C	01-Oct-15/O	< 0.1	< 0.1	< 0.1	< 0.1
Nitrate (N)	mg/L	0.1	SM4110C	01-Oct-15/O	< 0.1	0.4	2.9	0.1
Sulphate	mg/L	1	SM4110C	01-Oct-15/O	86	22	18	17
Calcium	mg/L	0.02	SM 3120	01-Oct-15/O	37.2	83.0	90.3	87.1
Magnesium	mg/L	0.01	SM 3120	01-Oct-15/O	34.4	33.3	34.5	31.6
Sodium	mg/L	0.2	SM 3120	01-Oct-15/O	1.8	19.1	10.3	63.5
Potassium	mg/L	0.1	SM 3120	01-Oct-15/O	1.9	3.0	7.9	1.3
Arsenic	mg/L	0.0001	EPA 200.8	01-Oct-15/O	0.0009	0.0002	0.0002	< 0.0001
Cadmium	mg/L	0.00002	EPA 200.8	01-Oct-15/O	< 0.00002	0.00005	< 0.00002	< 0.00002
Copper	mg/L	0.002	SM 3120	01-Oct-15/O	< 0.002	0.002	0.008	0.004
Manganese	mg/L	0.001	SM 3120	01-Oct-15/O	0.002	0.011	< 0.001	0.002
Nickel	mg/L	0.01	SM 3120	01-Oct-15/O	< 0.01	< 0.01	< 0.01	< 0.01
Sulphur	mg/L	0.1	SM 3120	01-Oct-15/O	28.8	7.8	6.5	6.2
Zinc	mg/L	0.005	SM 3120	01-Oct-15/O	< 0.005	0.225	< 0.005	0.035
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Oct-15/O	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.05	MOEE 3367	05-Oct-15/O	0.39	< 0.05	0.12	< 0.05
Organic Nitrogen	mg/L	0.05	MOEE 3367	05-Oct-15/O	0.39	< 0.05	0.12	< 0.05
Phosphorus-Total	mg/L	0.01	MOEE 3367	05-Oct-15/O	0.01	< 0.01	< 0.01	< 0.01
Anion Sum	meq/L		Calc.	02-Oct-15/O	4.55	7.37	7.58	9.52
Cation Sum	meq/L		Calc.	02-Oct-15/O	4.82	7.80	8.00	9.74

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request


Greg Clarkin , BSc., C. Chem

Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G54677

REPORT No. B15-25453 (i)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE RECEIVED: 30-Sep-15

DATE REPORTED: 07-Oct-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

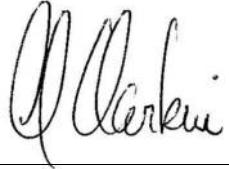
			Client I.D.	Keppel Discharge	Cramp	Ruthvan	Sutherland	
			Sample I.D.	B15-25453-1	B15-25453-2	B15-25453-3	B15-25453-4	
			Date Collected	29-Sep-15	29-Sep-15	29-Sep-15	29-Sep-15	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
% Difference	%		Calc.	02-Oct-15/O	2.83	2.84	2.70	1.14
Ion Ratio	AS/CS		Calc.	02-Oct-15/O	0.945	0.945	0.948	0.977
Sodium Adsorption Ratio	-		Calc.	02-Oct-15/O	0.0522	0.448	0.234	1.48
Conductivity (calc.)	µmho/cm		Calc.	02-Oct-15/O	458	696	706	919
TDS(ion sum calc.)	mg/L		Calc.	02-Oct-15/O	245	374	386	493
TDS(calc.)/EC(actual)	-		Calc.	02-Oct-15/O	0.617	0.582	0.589	0.569
EC(calc.)/EC(actual)	-		Calc.	02-Oct-15/O	1.15	1.08	1.08	1.06
Langelier Index(25°C)	S.I.		Calc.	02-Oct-15/O	-0.224	0.744	0.570	0.590
pH	pH Units		Client Supplied Data	29-Sep-15	8.60	8.20	8.50	7.90
Temperature	°C		Client Supplied Data	29-Sep-15	19.1	15.2	11.2	14.2

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Attention: Chris Hodgson

DATE RECEIVED: 30-Sep-15

DATE REPORTED: 07-Oct-15

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

Parameter	Units	R.L.	Client I.D.		10S	10D		
			Sample I.D.		B15-25453-5	B15-25453-6		
			Date Collected		29-Sep-15	29-Sep-15		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	01-Oct-15/O	378	240		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	30-Sep-15/O	310	243		
pH @25°C	pH Units		SM 4500H	30-Sep-15/O	7.63	7.80		
Conductivity @25°C	µmho/cm	1	SM 2510B	01-Oct-15/O	744	483		
TDS (Calc. from Cond.)	mg/L		Calc.	01-Oct-15	506	324		
Fluoride	mg/L	0.1	SM4110C	01-Oct-15/O	0.1	0.7		
Chloride	mg/L	0.5	SM4110C	01-Oct-15/O	39.8	8.4		
Nitrite (N)	mg/L	0.1	SM4110C	01-Oct-15/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	01-Oct-15/O	0.8	0.4		
Sulphate	mg/L	1	SM4110C	01-Oct-15/O	52	16		
Calcium	mg/L	0.02	SM 3120	01-Oct-15/O	87.9	55.6		
Magnesium	mg/L	0.01	SM 3120	01-Oct-15/O	38.5	24.5		
Sodium	mg/L	0.2	SM 3120	01-Oct-15/O	18.1	15.9		
Potassium	mg/L	0.1	SM 3120	01-Oct-15/O	14.0	8.1		
Arsenic	mg/L	0.0001	EPA 200.8	01-Oct-15/O	0.0002	0.0007		
Cadmium	mg/L	0.00002	EPA 200.8	01-Oct-15/O	< 0.00002	< 0.00002		
Copper	mg/L	0.002	SM 3120	01-Oct-15/O	0.002	< 0.002		
Manganese	mg/L	0.001	SM 3120	01-Oct-15/O	0.002	0.006		
Nickel	mg/L	0.01	SM 3120	01-Oct-15/O	< 0.01	< 0.01		
Sulphur	mg/L	0.1	SM 3120	01-Oct-15/O	17.5	5.6		
Zinc	mg/L	0.005	SM 3120	01-Oct-15/O	< 0.005	< 0.005		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Oct-15/O	0.03	0.32		
Total Kjeldahl Nitrogen	mg/L	0.05	MOEE 3367	05-Oct-15/O	0.70	0.44		
Organic Nitrogen	mg/L	0.05	MOEE 3367	05-Oct-15/O	0.67	0.12		
Phosphorus-Total	mg/L	0.01	MOEE 3367	05-Oct-15/O	0.01	0.03		
Anion Sum	meq/L		Calc.	02-Oct-15/O	8.47	5.49		
Cation Sum	meq/L		Calc.	02-Oct-15/O	8.70	5.71		
% Difference	%		Calc.	02-Oct-15/O	1.35	2.01		

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

C.O.C.: G54677

REPORT No. B15-25453 (i)

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

JOB/PROJECT NO.: Keppel Development Permit

P.O. NUMBER:

WATERWORKS NO.

DATE RECEIVED: 30-Sep-15

DATE REPORTED: 07-Oct-15

SAMPLE MATRIX: Groundwater

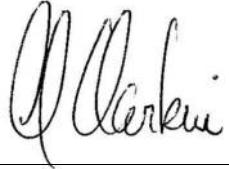
Parameter	Units	R.L.	Client I.D.	10S	10D		
			Sample I.D.	B15-25453-5	B15-25453-6		
			Date Collected	29-Sep-15	29-Sep-15		
Ion Ratio	AS/CS		Reference Method	Date/Site Analyzed			
Sodium Adsorption Ratio	-		Calc.	02-Oct-15/O	0.973	0.961	
Conductivity (calc.)	µmho/cm		Calc.	02-Oct-15/O	796	514	
TDS/ion sum calc.)	mg/L		Calc.	02-Oct-15/O	440	277	
TDS(calc.)/EC(actual)	-		Calc.	02-Oct-15/O	0.592	0.574	
EC(calc.)/EC(actual)	-		Calc.	02-Oct-15/O	1.07	1.06	
Langelier Index(25°C)	S.I.		Calc.	02-Oct-15/O	0.603	0.487	
pH	pH Units		Client Supplied Data	29-Sep-15	7.70	8.20	
Temperature	°C		Client Supplied Data	29-Sep-15	13.9	13.0	

R.L. = Reporting Limit

Site Analyzed: K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Uncertainty Values available upon request

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District



Certificate of Analysis
Final Report

REPORT No.B15-07696 & B15-09323

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson

DATE SUBMITTED: 4/30/2015 10:22

DATE REPORTED: 5/1/2015

SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

JOB/PROJECT NO: Keppler Quarry Expansion CAT B Monitoring

P.O. NUMBER:

WATERWORKS NO.:

Parameter	Units	M.D.L.	Reference	Date/Site	Porter B15-07696-2 13-Apr-15	Jenks B15-07696-4 13-Apr-15	Thompson B15-09323-1 29-Apr-15	McCutcheon B15-09323-2 29-Apr-15
Hardness (as CaCO ₃)	mg/L	1	SM 3120	01-May-15/O	222	294	272	313
Alkalinity(CaCO ₃) to pH @25°C	mg/L	5	SM 2320B	30-Apr-15/O	212	280	260	275
Conductivity @25°C	pH Units		SM 4500H	30-Apr-15/O	7.91	7.8	8.05	7.96
Chloride	µmho/cm	1	SM 2510B	30-Apr-15/O	376	535	561	704
Nitrite (N)	mg/L	0.5	SM4110C	30-Apr-15/O	2.4	16.2	19.7	54.8
Nitrate (N)	mg/L	0.1	SM4110C	30-Apr-15/O	< 0.1	< 0.1	< 0.1	< 0.1
Ammonia (N)-Total	mg/L	0.01	MOEE	30-Apr-15/O	< 0.01	< 0.01	< 0.01	< 0.01
Calcium	mg/L	0.02	SM 3120	01-May-15/O	52.3	75.9	69.9	78.8
Magnesium	mg/L	0.01	SM 3120	01-May-15/O	22.3	25.3	23.7	28.1
Sodium	mg/L	0.2	SM 3120	01-May-15/O	2.5	11.1	15.5	28.5
Potassium	mg/L	0.1	SM 3120	01-May-15/O	1.2	4.1	1.6	4.6
Iron	mg/L	0.005	SM 3120	01-May-15/O	< 0.005	0.051	0.02	0.058
Manganese	mg/L	0.001	SM 3120	01-May-15/O	< 0.001	< 0.001	0.006	0.008

Gordon Murphy
Laboratory Supervisor- Ottawa District

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-RichmondHill

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Certificate of Analysis
Final Report

REPORT No.B15-07696 & B15-09323

Report To:

Harold Sutherland Construction Ltd.

R.R. #2,
Kemble Ontario N0H 1S0 Canada

Attention: Chris Hodgson
DATE SUBMITTED: 4/30/2015 10:22
DATE REPORTED: 5/1/2015
SAMPLE MATRIX: Groundwater

Caduceon Environmental Laboratories

2378 Holly Lane
 Ottawa Ontario K1V 7P1
 Tel: 613-526-0123
 Fax: 613-526-1244
 JOB/PROJECT NO: Keppler Quarry Expansion CAT B Monitoring
 P.O. NUMBER:
 WATERWORKS NO.:

Parameter	Units	M.D.L.	Reference	Client ID: Sample ID: Date Collected:	Porter B15-07696-2 13-Apr-15	Jenks B15-07696-4 13-Apr-15	Thompson B15-09323-1 29-Apr-15	McCutcheon B15-09323-2 29-Apr-15
Anion Sum	meq/L		Calc.	01-May-15/O	6.13	4.39	6.15	7.4
Cation Sum	meq/L		Calc.	01-May-15/O	6.22	4.58	6.15	7.61
% Difference	%		Calc.	01-May-15/O	0.739	2.08	0.0372	1.34
Ion Ratio	AS/CS		Calc.	01-May-15/O	0.985	0.959	0.999	0.973
Sodium Adsorption	-		Calc.	01-May-15/O	53.8	0.0729	0.409	0.701
TDS(ion sum calc.)	mg/L		Calc.	01-May-15/O	337	213	305	380
Conductivity (calc.)	μmho/cm		Calc.	01-May-15/O	589	411	568	711
TDS(calc.)/EC(actual)	-		Calc.	01-May-15/O	0.617	0.566	0.544	0.54
EC(calc.)/EC(actual)	-		Calc.	01-May-15/O	1.08	1.09	1.01	1.01
Langelier Index(25°C)	S.I.		Calc.	01-May-15/O	-1.74	0.522	0.868	0.843
pH	pH Units		Client		7.2	7.2	8	8.4
Temperature	°C		Client		15.9	15.9	11.5	11.2

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 Laboratory Supervisor- Ottawa District

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To: Harold Sutherland Construction Ltd. (HSCL)

From: Mrs. D. Ritchie

Subject: Keppel Quarry Private Well Monitoring

I have been a participant in the private well monitoring program associated with HSCL's Keppel Quarry water monitoring program.

I, at this time, wish to withdraw from this monitoring program as I am concerned with the integrity of my well and I am not comfortable, any longer, allowing access to my property when I am not home.

Thanks very much,

Diane Ritchie

Dated Oct. 6/15