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R.J. BURNSIDE & ASSOCIATES
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July 12, 2012

Mr. Ron Kerr, MPA, P.Eng.
R.J. Burnside & Associates Limited
3 Ronell Crescent
Collingwood, Ontario, L9Y 4J6

RE: AES Hydrogeological Assessment Response to R.J. Burnside & Associates Limited Peer Review of Location of Watertable at Sibthorpe Pit North ½ Lot 80, Concession 1 WRP Township of Tiny, County of Simcoe AES File 12-16

Dear Mr. Kerr:

I have reviewed the above noted Peer Review that was forwarded to me on Friday, June 1, 2012. Unfortunately, Mr. David Hopkins, the reviewer, completed his review based on different MNR expectations than the ones used for the Alpha Environmental Services Inc. (AES) report that was completed for the proponent, Cedarhurst Quarries and Crushing Limited, April 12, 2011. In addition, much more background data exists for the site than was included in the report, as will be outlined below. This information was not originally included in the Letter of Opinion because of the different Ministry of Natural Resources (MNR) expectations to which the AES report was addressed. The following is an attempt to clarify the issues that the reviewer has raised.

1. The reviewer states that "The hydrogeological letter report was prepared in support of an application for a Class A, Category 3 sand and gravel pit in accordance with the Ontario Aggregate Resources Act. Policy A.R. 2.01.06 – License Applications – Hydrogeological Report Standards." This document was issued on March 15, 2006 and provides guidance on the information to be included in a hydrogeological report. The AES report was prepared using a different MNR document that supersedes to document referred to by the reviewer.

300031221
2012/07/16

The following document, dated May 6, 2006, outlines the guidance of the MNR for above watertable applications for pits and quarries. This guidance document has been followed in several similar applications by AES since May 6, 2006 including the present application.

Determining the Elevation of the Watertable for the Purpose of the Summary Statement under the Provincial Standards
May 6, 2006

In accordance with the Professional Geoscientists Act, 2000, only a professional Geoscientist (P. Geo) who is qualified to determine the established ground water table or a Professional Engineer (P. Eng), who is competent by virtue of training and experience, to engage in practices that would also constitute the practice of professional geosciences are capable of signing off on the summary statement with respect to determining the elevation of the established water table.

This does not mean that a detailed Hydrogeological report is required for the purpose of the Summary Statement similar to the Hydrogeological report Level 2 that is part of the technical reports for a pit or quarry that is intending to excavate material below the water table.

What MNR will accept is a "Letter of Opinion" from a Geoscientist or Professional Engineer that in his/her opinion the elevation of the water table is XXX and the operation will be either 1.5 metres above that elevation for a pit or 2 metres for a quarry. This opinion can be based on the geology of the area, nearby wetlands, creeks, lakes, wells, adjacent pits or quarries, digging a test pit, drilling a piezometric well in a quarry/pit or utilizing well records from MOE.

Any questions should be directed to the Aggregate & Petroleum Resources Section to either:

- Alistair MacKinnon @ 705-755-1947
- Maria VandenHeuvel @ 705-755-1375
- Stuart Thatcher @ 705-755-1286

2. The reviewer goes on to draw several points from the guidelines in Policy A.R. 2.01.06 that are appropriate for this site if that was the correct guideline document. However, since the AES report was prepared using the guidelines of a Letter of Opinion, as outlined above, with its different criteria, the issues are still addressed, but in a less rigorous fashion in the AES letter report as outlined below. The reviewer states:

   a) The aggregate operation will not adversely affect the watertable or ground water regime (e.g., wetlands, areas of natural and scientific interest or nearby wells).

      i. The AES letter report states, "By maintaining the 1.5m buffer above the watertable, the extraction should have no impact on existing water users near the site." This would include all nearby wells. There are no wetlands or areas of natural and scientific interest nearby.

   b) It is necessary to establish where the watertable is in relation to the depth of extraction.

      i. The AES letter report states, "Based on the location of the watertable in MW1-09, 16440, MW1, and MW4, the watertable is estimated to vary from 236.0m asl in the west portion of the site to 254.8m asl in the center to 252.2m asl in the east portion of the site, as shown in Figure 3. The floor of the pit will then be limited to an extraction depth of 237.5m asl in the west portion of the site to 256.3m asl in the center to 253.7m asl in the east portion of the site, as shown in Figure 3. This will allow up to 41.2 metres of material to be extracted from the site."

         This opinion has been further refined by taking into account two additional wells that were not considered in the original AES Letter of Opinion. With

reference to the attached Figures 1 and 2, AES now concludes that the watertable varies from 236.0m asl at MW1-09 at the western extreme of the site to less than 251.53m asl at well #5716439 near the south-central part of the site to 237.14m asl at well #7150632 (Sibthorpe) at the eastern extreme of the site. The well records are included in Appendix A. Thus the floor of the pit could be limited to an extraction depth of 237.5m asl in the west portion of the site, to 253.03m asl in the center, and to 238.64m asl in the east portion of the site, as shown in the attached Figure 2. This could allow up to 41.17 metres of material to be extracted from the site.

However, while the new well data noted above would allow an additional 15.06m of extraction in the east portion of the site, the original, more conservative estimate of the location of the watertable based on the water level data from MW4 is preferred. By maintaining this shallower watertable depth, the original site plans will not have to be changed etc.

c) The report must carefully consider mitigative measures by a qualified individual.

i. The AES letter report states, "If there is a well interference complaint (water quantity and/or water quality), Cedarhurst should be notified immediately and an investigation should be undertaken to determine the cause of the problem."

Unknown to the reviewer is the fact that the proponent applied for and received from the Ministry of the Environment (MOE) a Permit to Take Water (PTTW) to operate a wash plant and well to supplement wash water from the wash pond at the adjacent Teedon Pit shown on the site plan. A copy of that PTTW (Number 4317-87CNZN) is included as Appendix B. The concept is to use the wash plant on the Teedon site to wash aggregate removed from both the Sibthorpe and Teedon sites.

Under Section 5. Impacts of the Water Taking, the PTTW indicates the following:

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 Surface-Water Takings

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

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.

These mitigative measures are adequate to address any concerns related to the water taking operations at the Teedon site for washing aggregate from the Sibthorpe site.

ii. An additional issue that may result in groundwater concerns and require mitigation is groundwater quality management.

Groundwater quality concerns related to an aggregate operation could be divided into three components based on activities that could generate a potential contaminant of concern:

- Operational activities such as on-site storage of fuel and the use of dust suppressants;
- Ancillary uses on-site, such as asphalt plants; and
- Future land uses, site rehabilitation or uncontrolled/illegal dumping.

In the case of the Sibthorpe Pit, portable fuel tanks may be placed on site, but will remain far from the areas of on-site activity to reduce the potential of refuelling spills. A spills action plan will be prepared and administered to address the unlikely event of a fuel spill. Runoff water alone captured on the Teedon site will be used as a dust suppressant on the Sibthorpe site. There will be no ancillary uses on the Sibthorpe site, such as asphalt plants. Future land uses and site rehabilitation is controlled by the site plan agreement and will not permit the use of any noxious waste on the site. Uncontrolled/illegal

dumping will not occur as the site will be locked during non-operational times. Therefore, the Sibthorpe Pit will not be a source of future groundwater contamination and no mitigative measures will be required.

d) The hydrogeological report should implicitly state whether it is a level 1 or a level 2 report and include the supporting rationale.

i. The AES letter report states, "Alpha Environmental Services Inc. ("AES") is pleased to provide you with this letter of opinion as to the location of the watertable at the above noted site shown in Figure 1 and Figure 2." This is precisely what the MNR requires, a "Letter of Opinion" for an above watertable site.

3. The reviewer states that "One of the wells (16440) is reported dry, yet the bottom of the well appears to be used as the watertable elevation in Figure 3."

a) The AES letter report states, "Well 16440 was drilled as a test well and was decommissioned shortly after construction because it was dry." As a worst case scenario, it was assumed that the watertable was located just beyond the bottom of the well in Figure 3 in the Letter of Opinion. It may be that the watertable at this location may be deeper, but AES made a conservative estimate of its location.

This can also be seen in the attached Figure 2 where the bottom of well #5716439 (located in the attached Figure 1) was dry at an elevation of 251.53m asl. This well was also decommissioned shortly after construction because it was dry. Joining the static water levels at MW1-09 (236.0m asl) and well #7150632 (237.14m asl) with a straight line, as shown in the attached Figure 2, would result in a static water elevation of approximately 236.6m asl at the centre of the site near well #5716439. However, again as a worst case scenario, it was assumed that the watertable was located just beyond the bottom of well #5716439. It may be that the watertable at this location may be as deep as 236.6m asl, but AES has made a conservative

estimate of its location at just below 251.53m asl, the dry bottom of the well, resulting in a minimum floor elevation of 253.03m asl at this location.

4. The reviewer states that there is no discussion on how the water levels in the pond on the property to the south compared to water levels in MW1.

   a) The pond is an active wash water pond for the aggregate washing operation on the Teedon site. The water level in the pond varies with washing activity. The water in the pond is supplemented by pumping water from PW1-09 (MOE Well ID Number 7124734), a deep well located adjacent to MW4. Further, there is a fine sediment base building up in the bottom of the pond that tends to seal the bottom of the pond and separate it from the local groundwater system. Therefore the pond water level is not a significant consideration as to the location of the watertable on the Sibthorpe site.

5. The reviewer questions how many times water levels were measured in MW1-09, MW1 and MW4

   Again, unknown to the reviewer, Under Section 4. Monitoring, the PTTW (Number 4317-87CNZN, Appendix B) indicates the following:

   4.1 The Permit Holder shall install and maintain flow meters on each source listed in Table A. Meter readings for each source shall be recorded daily and available for inspection by a Provincial Officer upon his or her request.

   4.2 The Permit Holder shall install and maintain a continuous water level recorder within production well, PW1-09 prior to the start of any taking of water from that source. Additional water level recorders shall be installed and maintained in at least one onsite well of comparable depth to PW1-09 and one onsite well terminating within the shallower aquifer unit underlying this site. Data collected shall be available to Ministry staff at any time upon request.

To satisfy these conditions of the PTTW, flow meters have been installed on the wash pond pump and on PW1-09 (MOE Well ID Number 7124734). Meter readings from each source are recorded daily and available for inspection by a Provincial Officer upon his or her request. A continuous water level recorder was installed within production well PW1-09, reading water levels every four hours. In addition, MW1-09 (MOE Well ID Number 7124729) and MW1 (MOE Well ID Number 7054134) have had Leveloggers reading water levels at least every 4 hours since June 3 and July 7, 2009, respectively. During pumping tests, the readings were every 5 minutes.

MW4 (MOE Well ID Number 7150631) was installed in the shallower aquifer to a depth of 17.68m (58 feet) on August 5, 2010 and a Levelogger was installed on August 19, 2010 collecting water level data every 4 hours.

A deep well was installed (Figure 1) on the former Sibthorpe property (MOE Well ID Number 7150632) on August 4, 2010 to a depth of 79.2m (260 feet) and a Levelogger was installed on August 19, 2010 collecting water level data every 4 hours.

While not required by the PTTW, Leveloggers that were installed in private wells (MOE Well ID Numbers 5717709 and 5725425) on Darby Road during the pumping test have remained in place, collecting water level data every 4 hours.

A hydrograph of water levels (m bmpt) vs. Date is attached as Figure 3 for the period October 2010 to November 2011. This graph is part of an annual report prepared by AES. The pumping of PW1-09 has limited impact on Well #5717709 but on no other wells that are monitored. This was also the case during step-tests and a 72-hour pumping test on PW1-09.

6. The reviewer states that "There appears to be significant topographic variations across the site, but the wells are predominantly located along the southern portion of the site and as a result, the watertable variations with topography are not considered.

a) Unknown to the reviewer were two additional wells, (1) MOE Well ID Number 7150632 and (2) MOE Well ID Number 5716439 located on the attached Figure 1 and shown in the cross-section in the attached Figure 2. The well logs are presented in Appendix A. The well data suggests that watertable variations with topography can be considered as follows:

Well	MW1-09	5716439	7150632
Ground	247.5m asl	294.2m asl	260.0m asl
Static WL	236.0m asl	<251.53m asl	237.14m asl

The high point on the Sibthorpe site is located at 294.0m asl at the south central boundary close to MOE Well ID Number 5716439. The low point on the Sibthorpe site is located at 244m asl close to MW1-09 that is located at the west-central boundary of the Sibthorpe site. These two wells reflect the elevation difference on the site as well as the elevation difference of the static water level across the site. MOE Well ID Number 5716439 was drilled to a depth of 42.67m (140 feet) and was dry upon completion.

7. The reviewer suggests that there will be an increase in infiltration within the excavation area and notes that there is no discussion of how that will impact the watertable.

   a) This issue is not addressed in the MNR guidelines for above watertable applications. However, it is reasonable to predict that the sandy gravelly soils on site have a high infiltration capacity with little significant runoff, given that there are no ponds or streams on site. As the AES letter report states, "By maintaining the 1.5m buffer above the watertable, the extraction should have no impact on existing water users near the site." In other words, there will be no impact on the watertable by maintaining the 1.5m buffer above the watertable, as designated by MNR policy. The pre- and post-extraction infiltration rates on site are considered identical.

8. The reviewer notes that the stratigraphic information for MW1 (MOE Well ID Number 7054134, Appendix A) suggests that the well may not be completed in the same material as

the other wells and as a result, water levels from this well may not represent the watertable in the sand and gravel.

a) This may be a valid point since the well log identifies clay as the predominant material in which the water was found as opposed to sand and sand and gravel for MW4 (MOE Well ID Number 7150631) and MOE Well ID Number 5716439, respectively, the wells located east and west of MW1. With the watertable being located at MW4 and MOE Well ID Number 5716439 at about the same location as at MW1, the watertable at MW1 is considered a fairly reliable representation of the watertable at that location.

9. The reviewer states that MOE well records and a door-to-door survey should be used to locate domestic wells in the vicinity of the site. Further he states that these data should be used to develop an appropriate remediation plan.

a) The domestic wells in the vicinity of the site have been located using both MOE well records and a door-to-door survey. Leveloggers have been installed in three representative private wells (MOE Well ID Numbers 7150632, 5725425, 5717709) on Darby road and in four on-site wells (MW4, PW1-09, MW1, and MW1-09). Water levels in these wells are monitored manually three times per year and on a continuous basis every four hours using the Leveloggers. This has been going on for the last three years as part of the MOE PTTW monitoring program that will continue as long as the site is in operation. If any complaint does arise, which is highly unlikely, an investigation, as per the PTTW conditions, will be undertaken to determine the cause of the problem. If activity at the pit is found to be the cause of the complaint, an appropriate remediation plan will be implemented to the satisfaction of the MOE.

10. The reviewer has concluded that there is insufficient data to allow for a reliable interpretation of watertable elevations to be made. He has made the following four recommendations:

a) Additional monitoring wells be drilled along the northern property boundary at a minimum of three locations.

i. The AES letter report recognizes that the conclusions given in the Letter of Opinion are an opinion as to the watertable location. But that is what the MNR has asked for in this situation. An additional well, unknown to the reviewer, is located on the site MOE Well ID Number 7150632 (Sibthorpe) and another well, MOE Well ID Number 5716439, again unknown to the reviewer, was drilled immediately adjacent to the south-central site boundary. This second well was abandoned because it proved to be dry to a depth of 42.67 metres. A third well, MOE Well ID Number 7124729 (MW1-09) was drilled to a depth of 67.06 metres at the western extreme of the site. These three wells are sufficient to provide an opinion as to the location of the watertable at the site without the additional cost of drilling more wells on the property.

Further, AES stated that "It is proposed that the aggregate will be extracted in a series of lifts. It is recommended that following each lift and prior to the commencement of the next lift, a minimum of three test pits should be excavated in the existing pit floor to probe for the watertable to ensure that groundwater is not encountered at an unexpected upper elevation and that the 1.5 metre separation distance is maintained. If water is identified at an unexpected upper elevation, an investigation should be undertaken by qualified personnel to determine if the watertable has been encountered or a perched watertable condition has been identified." This is a more accurate approach to identifying the location of the watertable as extraction on site proceeds as opposed to drilling three additional monitoring wells.

b) Detailed borehole logs be provided for all monitoring wells.

i. The detailed logs of all monitoring wells, while not required by the MNR guidelines for a Letter of Opinion, are included in Appendix A. The logs of the

proposed test pits, which should extend at least 1.5 metres below the active floor on a progressive basis, would be recorded by a qualified individual.

c) The domestic wells within 500m of the site be identified so that baseline water level and water quality data can be obtained and a more detailed remediation plan developed.

   i. The domestic wells within 500m of the site have been identified and representative wells have continuous water level data being collected on a four-hour basis to the satisfaction of both the MNR and MOE. A detailed remediation plan has been developed as outlined as part of the PTTW noted above.

d) Water level monitoring be undertaken on a monthly basis and compared with precipitation so variations in the watertable can be predicted.

   i. Water levels are collected at seven representative locations on a continuous basis using Leveloggers that record the data every four hours. This continuous data collection process is supplemented by manual data collection three times per year. This data has been provided to the MOE on an annual basis. Insignificant variations in the watertable elevation have been recorded over the past three years of operation as represented in the hydrograph for 2010-2011 presented in the attached Figure 3.

Hopefully the above remarks will clarify the issues raised by the reviewer. If you have any further questions or comments, please contact the undersigned at your convenience.

Yours truly
ALPHA ENVIRONMENTAL SERVICES INC.

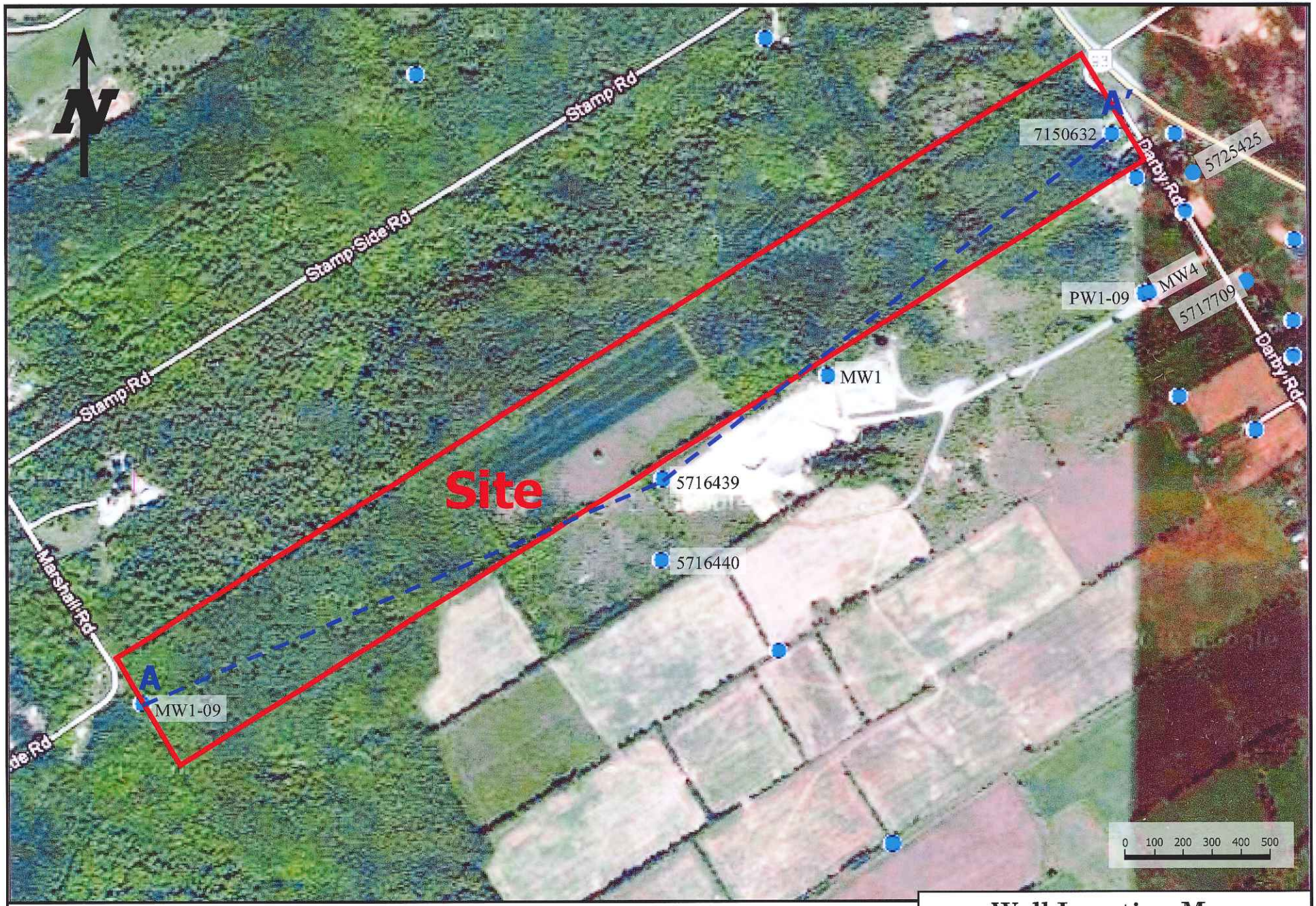
R Campbell

ROSS CAMPBELL
HYDROGEOLOGIST

c. Shawn Persaud, Tiny Township; Doug Leslie; Les Selby; Dennis Simmons; AES

Figures

Location of Watertable at Sibthorpe Pit Township of Tiny, County of Simcoe		
Date: June 2012	Project: AES 12-16	
Drawn: FRC	Scale: N/A	



Site Boundary (approx.)

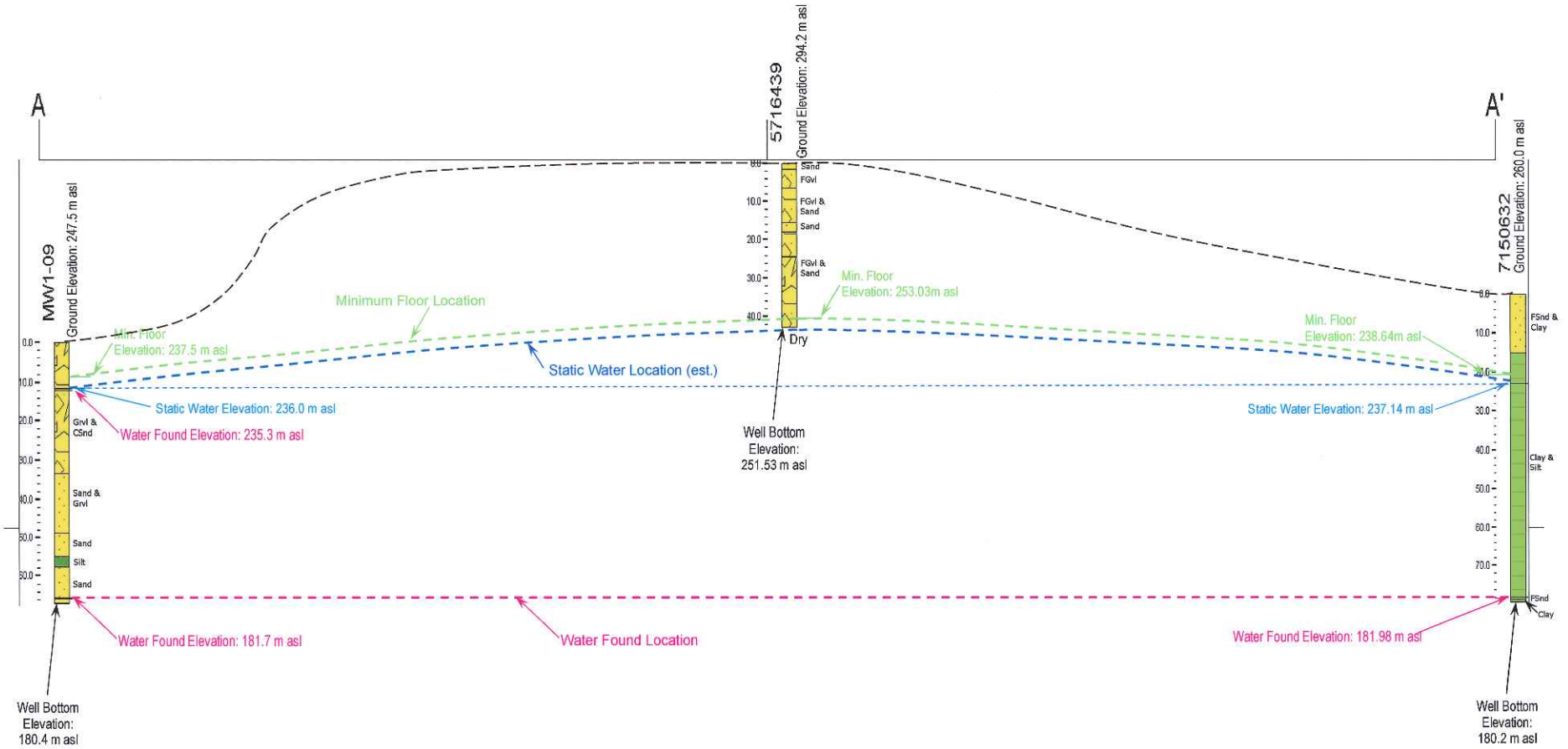
5716439 MOE Well # & Location

Cross-Section A-A' Location (shown in Figure 2)

Well Location Map

Date: June 2012	Project: AES 12-16
Drawn: FRC	Scale: as shown

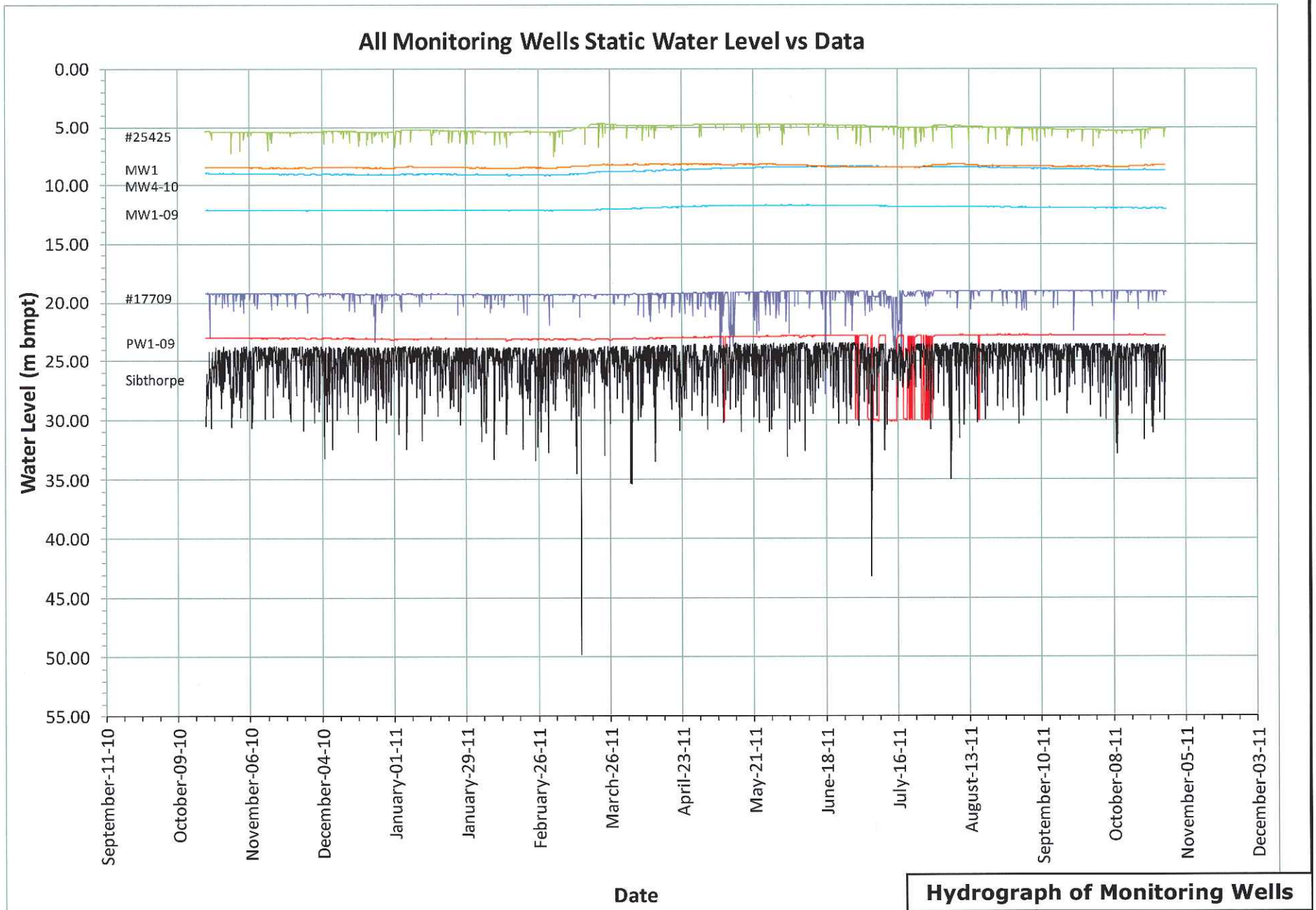
Figure 1



Location of Cross-Section A-A' shown on Figure 1

Cross-Section A-A'

Date: June 2012	Project: AES 12-16	**Figure 2**
Drawn: FRC	Scale: as shown	



Hydrograph of Monitoring Wells

Date: June 2012	Project: AES 12-16	**Figure 3**
Drawn: FRC	Scale: as shown	

Appendices

Location of Watertable at Sibthorpe Pit Township of Tiny, County of Simcoe		
Date: June 2012	Project: AES 12-16	
Drawn: FRC	Scale: N/A	

Appendix A

Location of Watertable at Sibthorpe Pit Township of Tiny, County of Simcoe		
Date: June 2012	Project: AES 12-16	
Drawn: FRC	Scale: N/A	

Well ID Number: 5725425

Well Audit Number: *none*
Well Tag Number: *none*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
not available	Tay Township	080	CON 01
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 592989.4
Northing: 4945977

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	MSND			0 ft	40 ft
GREY	CLAY			40 ft	65 ft

Annular Space/Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Rotary (Convent.)

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		31 ft
5 inch	STEEL		34 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
	X		

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1583

Results of Well Yield Testing

After test of well yield, water was CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate 5 GPM

Duration of Pumping 1 h:0 m

Final water level

If flowing give rate

Recommended pump depth 30 ft

Recommended pump rate 5 GPM

Well Production PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 3 ft		
1			
2			
3			
4			
5			
10			
15		15	3 ft
20			
25			
30		30	3 ft
40			
45		45	3 ft
50			
60		60	3 ft

Water Details

Water Found at Depth	*Kind*
38 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: *none*
Date Well Completed: August 08, 1989
Date Well Record Received by MOE: September 08, 1989

Well ID Number: 7150632

Well Audit Number: *Z099584*
Well Tag Number: *A105969*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
2 DARBY RD.	Tiny Township		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 592279
Northing: 4945367

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	FSND	CLAY	LOOS	0 ft	50 ft
GREY	CLAY	SILT	HARD	50 ft	256 ft
BRWN	FSND		LOOS	256 ft	258 ft
GREY	CLAY		HARD	258 ft	260 ft

Annular Space/Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	20 ft	GROUT	

Method of Construction

Other Method
AIR ROTARY

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
5.875 inch	STEEL	252 ft	254 ft
6.125 inch	STEEL	-2 ft	254 ft

Construction Record - Screen

Outside Diameter	*Material* X	*Depth From*	*To*
6 inch	STEEL	254 ft	258 ft

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at
250 ft

Pumping Rate
5 GPM

Duration of Pumping
1 h:0 m

Final water level
218 ft

If flowing give rate

Recommended pump depth
250 ft

Recommended pump rate
5 GPM

Well Production

Disinfected?

Draw Down		*Recovery*	
Time (min)	*Water level*	*Time (min)*	*Water level*
SWL	75 ft		
1	84 ft	1	216.7 ft
2	86 ft	2	215 ft
3	90 ft	3	214 ft
4	92 ft	4	212.9 ft
5	95 ft	5	211.4 ft
10	109.3 ft	10	206.4 ft
15	123.1 ft	15	199.8 ft
20	135.2 ft	20	195 ft
25	160.5 ft	25	186.1 ft
30	179.8 ft	30	178.3 ft
40	198.5 ft	40	170.2 ft
45			
50	214.8 ft	50	161.2 ft

Y		60	218 ft	60	152.3 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7075

Water Details

Water Found at Depth	*Kind*
256 ft	Untested

Hole Diameter

Depth From	*To*	*Diameter*
0 ft	20 ft	8.75 inch
20 ft	260 ft	7 inch

Audit Number: Z099584

Date Well Completed: August 04, 2010

Date Well Record Received by MOE: August 31, 2010

Well ID Number: 5717709

Well Audit Number: *none*
Well Tag Number: *none*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
not available	Tay Township	079	PR E 01
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 592414.4
Northing: 4945224

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BLCK	LOAM			0 ft	2 ft
BRWN	CLAY			2 ft	30 ft
GREY	CLAY			30 ft	65 ft
GREY	SAND			65 ft	73 ft
GREY	CLAY			73 ft	185 ft
GREY	SAND			185 ft	190 ft

Annular Space/Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Rotary (Convent.)

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
5 inch	STEEL		185 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
5 inch	X	187 ft	190 ft

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
6 GPM

Duration of Pumping
1 h:0 m

Final water level
172 ft

If flowing give rate

Recommended pump depth
175 ft

Recommended pump rate
6 GPM

Well Production

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	65 ft		
1			
2			
3			
4			
5			
10			
15	140 ft	15	
20			
25			
30	172 ft	30	
40			
45	172 ft	45	

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3660

BAILER 50

Disinfected?

60 172 ft 60

Water Details

Water Found at Depth *Kind*

185 ft Fresh

Hole Diameter

Depth *Diameter*

From *To*

Audit Number: *none*

Date Well Completed: September 23, 1981

Date Well Record Received by MOE: November 06, 1981

Well ID Number: 7150631

Well Audit Number: *Z099585*
Well Tag Number: *A105968*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
40 DARBY RD.	Tiny Township		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 592351
Northing: 4945076

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	SAND	GRVL	CLAY	0 ft	58 ft

Annular Space/Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	20 ft	GROUT	

Method of Construction

Other Method
AIR ROTARY

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
5.875 inch	STEEL	53 ft	55 ft
6.125 inch	STEEL	-2 ft	55 ft

Construction Record - Screen

Outside Diameter	*Material* X	*Depth From*	*Depth To*
6 inch	STEEL	55 ft	58 ft

Well Contractor and Well Technician Information

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at
50 ft

Pumping Rate
15 GPM

Duration of Pumping
1 h:0 m

Final water level
34 ft

If flowing give rate

Recommended pump depth
50 ft

Recommended pump rate
15 GPM

Well Production

Disinfected?
Y

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	28.9 ft		
1	32.9 ft	1	26.6 ft
2	3.4 ft	2	29.4 ft
3	33.5 ft	3	29.2 ft
4	33.6 ft	4	29.2 ft
5	33.6 ft	5	29.2 ft
10	33.8 ft	10	
15	33.8 ft	15	
20	33.9 ft	20	
25			
30	33.9 ft	30	
40	33.9 ft	40	
45			
50	33.2 ft	50	
60	34 ft	60	

Water Details

Hole Diameter

Well Contractor's Licence Number	7075

Water Found at Depth	*Kind*	*Depth From*	*Depth To*	*Diameter*
50 ft	Untested	20 ft	8 ft	7 inch
		0 ft	20 ft	8.75 inch

Audit Number: Z099585
Date Well Completed: August 05, 2010
Date Well Record Received by MOE: August 31, 2010

Well ID Number: 7124734

Well Audit Number: *Z94368*
Well Tag Number: *A082190*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
DARBY RD.	Tiny Township	079	PR W 01
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE	WAVERLEY	ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 592343
Northing: 4945072

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	SAND	CLAY	LOOS	0 ft	63 ft
GREY	CLAY	SILT	HARD	63 ft	125 ft
GREY	CLAY	SILT	SOFT	125 ft	155 ft
GREY	FSND		PCKD	155 ft	175 ft
BRWN	FSND		LOOS	175 ft	209 ft
BRWN	CSND		LOOS	209 ft	222 ft

Annular Space/Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	22 ft	GROUT	

Method of Construction
Rotary (Air)

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6.125 inch	STEEL	-2 ft	211 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
6 inch	STEEL	212 ft	222 ft

X

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at
100 ft

Pumping Rate
10 GPM

Duration of Pumping
1 h:0 m

Final water level
74 ft

If flowing give rate

Recommended pump depth
120 ft

Recommended pump rate
10 GPM

Well Production

Draw Down Time (min)	Water level	*Recovery* Time (min)	Water level
SWL	73 ft		
1	74 ft	1	73 ft
2	74 ft	2	
3			
4			
5			
10			
15			
20			
25			
30			
40			
45			

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7075

Disinfected?				
Y	50	60	74 ft	60

Water Details

Water Found at Depth	*Kind*
55 ft	Fresh
190 ft	Fresh

Hole Diameter

Depth		*Diameter*
From	*To*	
22 ft	222 ft	7 inch

Audit Number: Z94368

Date Well Completed: April 29, 2009

Date Well Record Received by MOE: June 29, 2009

Well ID Number: 7054134

Well Audit Number: *Z69299*
Well Tag Number: *A062215*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
40 DARBY ROAD	Tiny Township		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE	WAVERLY	ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 591767
Northing: 4944915

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	SAND			0 ft	5 ft
BRWN	CLAY	SLTY		5 ft	10 ft
GREY	CLAY	SLTY		10 ft	60 ft

Annular Space/Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	2 ft	CEMENT	
2 ft	10 ft	BENTONITE HOLEPLUG	
10 ft	44 ft	BENTONITE GROUT	
44 ft	47 ft	BENTONITE HOLEPLUG	
47 ft	60 ft	SILICA SAND	

Method of Construction
Boring

Well Use
Monitoring

Status of Well
Observation Wells

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
		2 inch	50 ft

Construction Record - Screen

Results of Well Yield Testing

After test of well yield, water was	*Draw Down Time (min)*	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
If pumping discontinued, give reason		SWL		
		1		
Pump intake set at		2		
		3		
Pumping Rate		4		
Duration of Pumping		5		
		10		
Final water level		15		
If flowing give rate		20		
Recommended pump depth		25		
		30		
Recommended pump rate		40		
Well Production		45		
		50		
Disinfected?		60		

Outside Diameter	Material	Depth From	Depth To
	X		

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter
	60 ft	8.25 inch

Well Contractor and Well Technician Information

Well Contractor's Licence Number 6809

Audit Number: Z69299
Date Well Completed: November 08, 2007
Date Well Record Received by MOE: December 24, 2007

Well ID Number: 5716439

Well Audit Number: *none*
Well Tag Number: *none*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
not available	Tiny Township	080	PR W 01
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 591464.4
Northing: 4944724

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	SAND			0 ft	5 ft
	FGVL			5 ft	21 ft
	FGVL	SAND	LYRD	21 ft	51 ft
	SAND			51 ft	59 ft
	FGVL	SAND	LYRD	59 ft	80 ft
	FGVL	SAND	LYRD	80 ft	140 ft

Annular Space/Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	140 ft		

Method of Construction

Rotary (Convent.)

Well Use

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
	X		

Results of Well Yield Testing

After test of well yield, water was	*Draw Down Time (min)*	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
If pumping discontinued, give reason		SWL		
		1		
Pump intake set at		2		
Pumping Rate		3		
		4		
Duration of Pumping		5		
Final water level		10		
		15		
If flowing give rate		20		
Recommended pump depth		25		
Recommended pump rate		30		
		40		
Well Production		45		

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4816

Disinfected? 50

60

Water Details

Water Found at Depth Kind

Hole Diameter

Depth *Diameter*

From *To*

Audit Number: *none*

Date Well Completed: November 09, 1979

Date Well Record Received by MOE: November 28, 1979

Well ID Number: 5716440

Well Audit Number: *none*
Well Tag Number: *none*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
not available	Tiny Township	080	PR W 01
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 591464.4
Northing: 4944574

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	SAND	GRVL	LYRD	0 ft	29 ft
	FGVL	SAND	LYRD	29 ft	36 ft
	FGVL			36 ft	53 ft
	SAND	GRVL	LYRD	53 ft	80 ft
	SAND			80 ft	104 ft
	GRVL			104 ft	114 ft
	GRVL	SAND	LYRD	114 ft	140 ft

Annular Space/Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	140 ft		

Method of Construction

Rotary (Convent.)

Well Use

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
	X		

Results of Well Yield Testing

After test of well yield, water was	*Draw Down Time (min)*	*Water level*	*Recovery Time (min)*	*Water level*
If pumping discontinued, give reason	SWL			
	1			
Pump intake set at	2			
Pumping Rate	3			
	4			
Duration of Pumping	5			
Final water level	10			
If flowing give rate	15			
	20			
Recommended pump depth	25			
Recommended pump rate	30			
	40			

Well Production	45
Disinfected?	50
	60

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4816

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth *Diameter*

From *To*

Audit Number: *none*

Date Well Completed: November 08, 1979

Date Well Record Received by MOE: November 28, 1979

Well ID Number: 7124729

Well Audit Number: *Z94354*
Well Tag Number: *A082184*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
MARSHALL-BASELINE RD.	Tiny Township		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
SIMCOE	WAVERLEY	ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 590519
Northing: 4944304

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	GRVL	CSND	LOOS	0 ft	110 ft
BRWN	SAND	GRVL	LOOS	110 ft	160 ft
BRWN	MSND	FSND	LOOS	160 ft	180 ft
BRWN	SILT	FSND	PCKD	180 ft	189 ft
BRWN	MSND	FSND	LOOS	189 ft	220 ft

Annular Space/Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	22 ft	GROUT	

Method of Construction

Rotary (Air)

Well Use

Monitoring

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6.125 inch	STEEL	-1.667 ft	216 ft

Construction Record - Screen

Outside Diameter	*Material* X	*Depth From*	*To*
6 inch	STEEL	216 ft	220 ft

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at
100 ft

Pumping Rate
14 GPM

Duration of Pumping
1 h:0 m

Final water level
54.583 ft

If flowing give rate

Recommended pump depth
75 ft

Recommended pump rate
15 GPM

Well Production

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	38.167 ft		
1	45 ft	1	46.5 ft
2	48.5 ft	2	43.1 ft
3	50.7 ft	3	41.0 ft
4	52.2 ft	4	39.7 ft
5	53.0 ft	5	39.0 ft
10	54.2 ft	10	38 ft
15	54.3 ft	15	37 ft
20	54.4 ft	20	
25	54.5 ft	25	
30	54.5 ft	30	
40	54.5 ft	40	
45			

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7075

Disinfected?

Y

50	54.5 ft	50	
60	54.5 ft	60	

Water Details

Water Found at Depth	*Kind*
40 ft	Untested
216 ft	Untested

Hole Diameter

Depth From	*To*	*Diameter*
0 ft	22 ft	8.75 inch
22 ft	220 ft	7 inch

Audit Number: Z94354

Date Well Completed: June 02, 2009

Date Well Record Received by MOE: June 29, 2009

Appendix B

Location of Watertable at Sibthorpe Pit Township of Tiny, County of Simcoe		
Date: June 2012	Project: AES 12-16	
Drawn: FRC	Scale: N/A	

Ontario

Ministry of the Environment
Ministère de l'Environnement

AMENDED PERMIT TO TAKE WATER
Surface and Ground Water
NUMBER 4317-87CNZN

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

Cedarhurst Quarries & Crushing Limited
3300 King Vaughan Townline
King City Ontario
L7B 1B2

For the water taking from: PW1-09 & Wash Pond

Located at: Lot: 79, 80, Concession: 1, Original Township of Tiny, 90 Darby Road Tiny, County of Simcoe

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 Barrie District Office.

(e) "Permit" means this Permit to Take Water No. 4317-87CNZN including its Schedules, if any, issued in accordance with Section 34 of the OWRA.

(f) "Permit Holder" means Cedarhurst Quarries & Crushing Limited.

(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 April 29, 2010 and signed by Robert E. Graham, 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 **April 30, 2018**. 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	PW1-09	Well Drilled	Aggregate Washing	Industrial	1,136	24	1,635,840	210	17 592343 4945072
2	Wash Pond	Pond Dugout	Aggregate Washing	Industrial	7,274	12	5,237,280	210	17 591900 4944960
						Total Taking:	6,873,120		

4. Monitoring

4.1 The Permit Holder shall install and maintain flow meters on each source listed in Table A. Meter readings for each source shall be recorded daily and available for inspection by a Provincial Officer upon his or her request.

4.2 The Permit Holder shall install and maintain a continuous water level recorder within production well, PW1-09 prior to the start of any taking of water from that source. Additional water level recorders shall be installed and maintained in at least one onsite well of comparable depth to PW1-09 and one onsite well terminating within the shallower aquifer unit underlying this site. Data collected shall be available to Ministry staff at any time upon request.

4.3 Any request for an amendment or renewal of this Permit shall be accompanied by a report by a Qualified Person (P.Geo. or equivalent) assessing all data collected under the Conditions of this Permit. The report shall include an electronic version of the monitoring data collected.

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 Surface-Water Takings

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

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

AND

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

AND

The Director, Section 34
Ministry of the Environment
8th Floor
5775 Yonge St
Toronto ON M2M 4J1
Fax: (416)325-6347

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.*

This Permit cancels and replaces Permit Number 0503-7D4PX7, issued on 2008/04/18.

Dated at Toronto this 23 rd day of July, 2010.

Kathryn Baker
Director, Section 34
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 4317-87CNZN, dated July 23, 2010.

1. Permit amendment application signed by Robert E. Graham on April 29, 2010.

2. Alpha Environmental Services Inc. report entitled "Aggregate Wash Water Supply Pumping Test Results, Teedon Pit, Waverly Ontario" dated April 2010.

3. E Mail clarification on proposed site monitors locations from Ross Campbell to MOE / MNR dated July 19, 2010.