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Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

- No Method Blank (MB) or Laboratory Control Spike (LCS) Results are required to be reported.

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- No Matrix Spike (MS) Results are required to be reported.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

The quality control term Matrix Spike (MS) and Matrix Spike Duplicate (MSD) refers to intralaboratory split samples spiked with a representative set of target analytes. The purpose of these QC parameters are to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.



Environmental Division



INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EN1302941	Page	: 1 of 5
Client	: TECNICAS REUNIDAS AUSTRALIAN BRANCH	Laboratory	: Environmental Division Newcastle
Contact	: S PACCIONE	Contact	: Peter Keyte
Address	: UNIT 21/200 BROCKMAN RD. BULGARRA WA 6714	Address	: 5 Rosegum Road Warabrook NSW Australia 2304
E-mail	: spaccione@trsa.es	E-mail	: peter.keyte@als.com.au
Telephone	: ---	Telephone	: +61-2-4968-9433
Facsimile	: ---	Facsimile	: +61-2-4968-0349
Project	: 2080 - TAN BURRUP PROJECT	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Site	: ---	Date Samples Received	: 09-AUG-2013
C-O-C number	: ---	Issue Date	: 13-AUG-2013
Sampler	: MDMFV	No. of samples received	: 2
Order number	: ---	No. of samples analysed	: 2
Quote number	: ---		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

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Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with recommended holding times (USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive as Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **AIR** Evaluation: * = Holding time breach ; ✓ = Within holding time

Method	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for instrument	Evaluation	Date analysed	Due for analysts	Evaluation
EA139: Total Soluble Matter							
Dust Gauge - Copper Sulfate (EA139)							
TBP-DG-E-0005 - 01/07/13 - 03/08/13	TBP-DG-W-0005 - 01/07/13 - 03/08/13	05-AUG-2013	---	30-JAN-2014	---	12-AUG-2013	30-JAN-2014 ✓
EA141: Total Insoluble Matter							
Dust Gauge - Copper Sulfate (EA141)							
TBP-DG-E-0005 - 01/07/13 - 03/08/13	TBP-DG-W-0005 - 01/07/13 - 03/08/13	05-AUG-2013	---	30-JAN-2014	---	12-AUG-2013	30-JAN-2014 ✓
EA142: Total Solids							
Dust Gauge - Copper Sulfate (EA142)							
TBP-DG-E-0005 - 01/07/13 - 03/08/13	TBP-DG-W-0005 - 01/07/13 - 03/08/13	05-AUG-2013	---	30-JAN-2014	---	12-AUG-2013	30-JAN-2014 ✓

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Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(whore) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification

Quality Control Sample Type	Analytical Methods	Method	Count		Rate (%)		Quality Control Specification
			DC	Regular	Actual	Expected	

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Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Description
Total Soluble Matter (SM)	EA139	AIR	AS 3580 10.1 - 2003 A gravimetric procedure reporting Soluble Solids in deposited dust.
Total Insoluble Matter (TIM)	EA141	AIR	AS 3580 10.1 - 2003 A gravimetric procedure reporting Total Insoluble solids in deposited dust.
Total Solids (TS)	EA142	AIR	AS 3580 10.1 - 2003 A gravimetric procedure reporting Total Solids in deposited dust.

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Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QW/EN38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance



This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples



The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.

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ATTACHMENT 08

Certificate and specifications for weather station

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24th June 2013

Certificate of Compliance of Weather Sensors Specifications

The weather sensors as purchased from LSA by TRA on Contract No. 0208023200 being

Part	Serial #
05103 – RMYOUNG WIND SENSOR	123322
CS215 – CSI TEMPERATURE/ RH SENSOR	E9695
RIM8000 – RIMCO RAIN GAUGE	103010

Comply to the manufacturers published specifications for range and accuracies.

Further particulars on the sensors are available in the respective manuals and brochures.

If you would like any further information please contact the undersigned

Yours Sincerely
Lear Siegler Australasia Pty Ltd



Joe Foti
 Director

Sydney Head Office: Unit 5A, 2 Resolution Drive, Caringbah 2229 Australia
 PO Box 2735, Taren Point NSW 2229, Tel (02) 9531 5444, Fax (02) 9531 5411, Email: joe@lear-siegler.com.au
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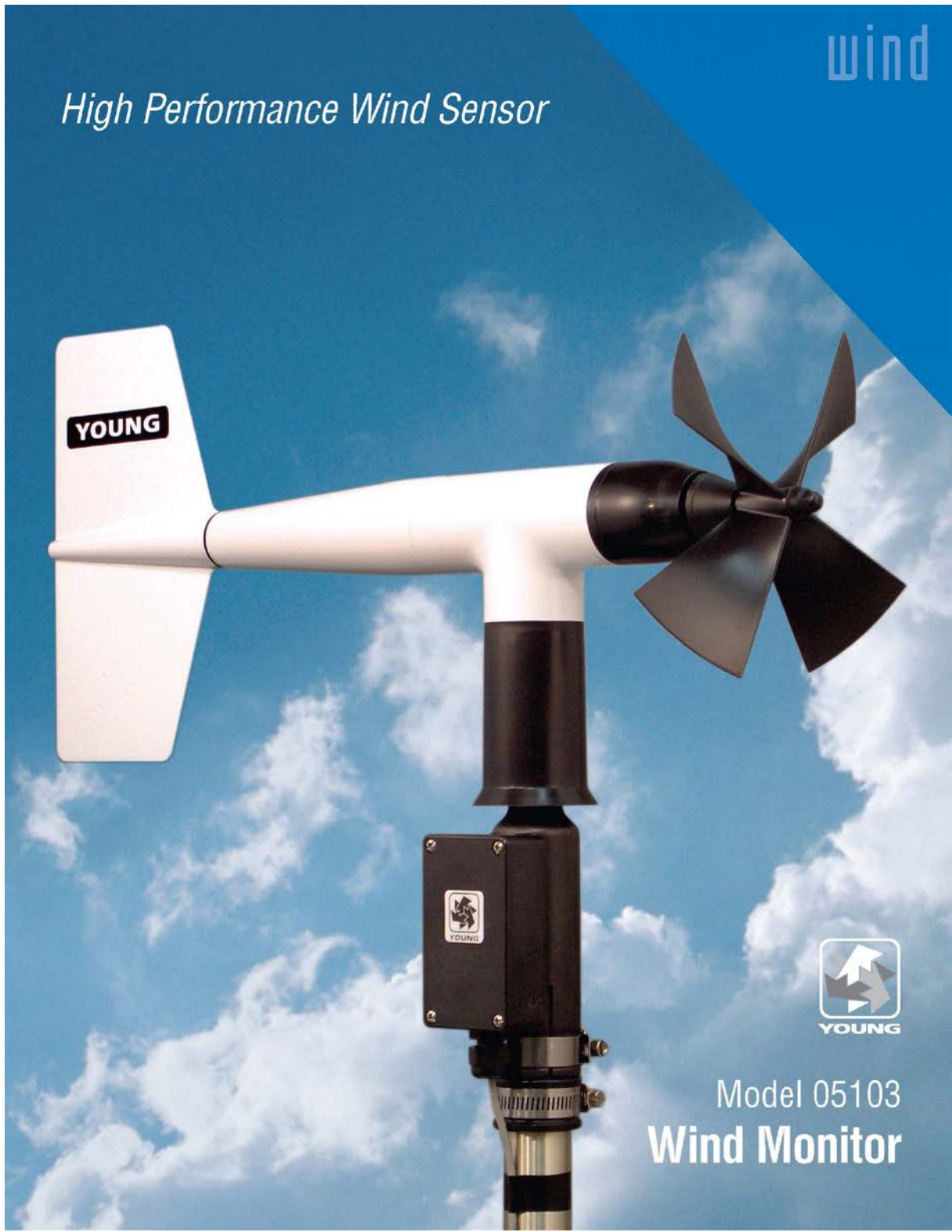
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YOUNG Model 05103 Wind Monitor

The Wind Monitor is a high performance, rugged wind sensor. Its simplicity and corrosion-resistant construction make it ideal for a wide range of wind measuring applications.

The wind speed sensor is a four blade helicoid propeller. Propeller rotation produces an AC sine wave voltage signal with frequency directly proportional to wind speed. Slip rings and brushes are eliminated for increased reliability.

The wind direction sensor is a rugged yet lightweight vane with a sufficiently low aspect ratio to assure good fidelity in fluctuating wind conditions. Vane angle is sensed by a precision potentiometer housed in a sealed chamber. With a known excitation voltage applied to the potentiometer, the output voltage is directly proportional to vane angle. A mounting orientation ring assures correct realignment of the wind direction reference when the instrument is removed for maintenance.

The instrument is made of UV stabilized plastic with stainless steel and anodized aluminum fittings. Precision grade, stainless steel ball bearings are used. Transient protection and cable terminations are in a convenient junction box. The instrument mounts on standard 1 inch pipe.



For offshore and marine use, **Model 05106, Wind Monitor-MA** features special waterproof bearing lubricant and a sealed, heavy duty cable pigtail in place of the standard junction box. Separate signal conditioning for voltage or current outputs is available.

The Wind Monitor is available with two additional output signal options. **Model 05103V** offers calibrated 0-5 VDC outputs, convenient for use with many dataloggers. **Model 05103L** provides a calibrated 4-20 mA current signal for each channel, useful in high noise areas or for long cables (up to several kilometers). Signal conditioning electronics are integrated into the sensor junction box.



Specifications

Range:
Wind speed: 0-100 m/s (224 mph)
Azimuth: 360° mechanical, 355° electrical (5° open)

Accuracy:
Wind speed: ±0.3 m/s (0.6 mph) or 1% of reading
Wind direction: ±3 degrees

Threshold:*
Propeller: 1.0 m/s (2.2 mph)
1.1 m/s (2.4 mph) 05106
Vane: 1.1 m/s (2.4 mph) 05103

Dynamic Response:*
Propeller distance constant (63% recovery) 2.7 m (8.9 ft)
Vane delay distance (50% recovery) 1.3 m (4.3 ft)
Damping ratio: 0.3
Damped natural wavelength: 7.4 m (24.3 ft)
Undamped natural wavelength: 7.2 m (23.6 ft)

Signal Output:
Wind speed: magnetically induced AC voltage, 3 pulses per revolution, 1800 rpm (90 Hz) = 8.8 m/s (19.7 mph)
Azimuth: analog DC voltage from conductive plastic potentiometer – resistance 10K Ω, linearity 0.25%, life expectancy – 50 million revolutions

Power Requirement:
Potentiometer excitation: 15 VDC maximum

Dimensions:
Overall height: 37 cm (14.6 in)
Overall length: 55 cm (21.7 in)
Propeller: 18 cm (7 in) diameter
Mounting: 34 mm (1.34 in) diameter (standard 1 inch pipe)

Weight:
Sensor weight: 1.0 kg (2.2 lbs)
Shipping weight: 2.3 kg (5 lbs)

**Nominal values, determined in accordance with ASTM standard procedures.*

MODEL 05103V 0-5 VDC outputs

Power Requirement:
8-24 VDC (5 mA @ 12 VDC)

Operating Temperature:
-50 to 50° C

Output Signals:
0-5.00 VDC full scale

MODEL 05103L 4-20 mA outputs

Power Requirement:
8-30 VDC (40 mA max.)

Operating Temperature:
-50 to 50° C

Output Signals:
4-20 mA full scale

CE Complies with applicable CE directives. Specifications subject to change without notice.

Ordering Information	MODEL
WIND MONITOR.....	05103
WIND MONITOR 0-5 VDC OUTPUTS	05103V
WIND MONITOR 4-20 mA OUTPUTS	05103L
WIND MONITOR-MA (MARINE MODEL)	05106
WIND SENSOR INTERFACE (FOR USE WITH 05106) 0-5 VDC.....	05603C
WIND LINE DRIVER (FOR USE WITH 05106) 4-20 mA	05631C

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*Naturally Ventilated
Requires No Power*

temperature
humidity

Model 41003
Multi-Plate Radiation Shield

The advertisement features a white, multi-plate radiation shield mounted on a metal pole against a sunset background. The shield has a series of horizontal plates that allow for natural ventilation. The Young logo, consisting of three arrows forming a square, is located in the bottom right corner of the advertisement.

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YOUNG Model 41003 Multi-Plate Radiation Shield

The Multi-Plate Radiation Shield protects temperature and relative humidity sensors from error-producing solar radiation and precipitation. Compact size and light weight make this shield useful for many applications.

The multiple plates have a unique profile that blocks direct and reflected solar radiation, yet permits easy passage of air. Enlarged top plate and steep edge profile minimize moisture accumulation from precipitation and dew. The plate material is specially formulated for high reflectivity, low thermal conductivity, and maximum weather resistance. The rugged U-bolt mounting clamp attaches easily to any vertical pipe up to 2 inches diameter.



Model 41003 employs a universal clamp-type adapter to securely hold sensors up to 12.5 mm diameter. Model 41003P features a special mounting adapter that is custom sized to fit a sensor from 12.5 mm to 26 mm diameter; please specify the sensor diameter when ordering.

The Temperature Probe is a precision Platinum RTD encased in a stainless steel protective sheath. The sensor assembly is securely mounted in a convenient junction box that fits YOUNG radiation shields. For special applications, the temperature probe is available with various output options. The 4-20 mA current output is useful in high noise, industrial settings or for long cable lengths. The 0-1 VDC option provides a calibrated voltage output signal. Low power circuitry makes it ideal for field studies and remote data-logging applications.



The Relative Humidity/Temperature Probe combines a high-accuracy humidity sensor and temperature sensor into one compact unit. The probe is available with 0-1 VDC or 4-20 mA outputs to satisfy a wide variety of applications.

Specifications

Sensor Types:
Accommodates temperature and humidity sensors up to 26 mm (1 in) diameter

Radiation Error:
@ 1080 W/m² intensity- Dependent on wind speed
0.4° C (0.7°F) RMS @ 3 m/s (6.7 mph)
0.7° C (1.3°F) RMS @ 2 m/s (4.5 mph)
1.5° C (2.7°F) RMS @ 1 m/s (2.2 mph)

Construction:
UV stabilized white thermoplastic plates
Aluminum mounting bracket, white powder coated
Stainless steel U-bolt clamp

Dimensions:
13 cm (5.1 in) diameter x 26 cm (10.2 in) high
Mounting fits vertical pipe 25-50 mm (1-2 in) diameter

Weight:
Net weight: 0.7 kg (1.5 lb)
Shipping weight: 1.4 kg (3 lb)

MODEL 41342 Platinum Temp. Probe

Sensor Type:
1000 Ω Platinum RTD

Range:
Temperature: -50° C to +50° C (-50° to +150° F)

Accuracy:
±0.3° C at 0° C (standard)
±0.1° C at 0° C (optional)

Available Outputs: (Power Requirement)
4 wire RTD 41342
4-20 mA (12-30 VDC, 20 mA) 41342L
0-1 VDC (8-24 VDC, 5 mA) 41342V

MODEL 41382 Rel. Humidity/Temp. Probe

Sensor Type:
Temperature: 100 Ω Platinum RTD
Humidity: Capacitive Polymer

Range:
Temperature: -50° C to +50° C (-50° to +150° F)
Humidity: 0 to 100% RH

Accuracy:
Temperature: ±0.3° C
Humidity: ±2% RH

Available Outputs: (Power Requirement)
4-20 mA (10-28 VDC, 20 mA) 41382L
0-1 VDC (10-28 VDC, 8 mA) 41382V

***SPECIFY TEMPERATURE SCALING:**
-50 to +50° C add suffix C
-50 to +150° F add suffix F

Ordering Information	MODEL
MULTI-PLATE RADIATION SHIELD <i>Includes universal adapter for sensors to 15 mm diameter.</i>	41003
MULTI-PLATE RADIATION SHIELD <i>With custom sensor adapter. Specify diameter from 12.5 mm to 26 mm.</i>	41003P
TEMPERATURE PROBE - RTD OUTPUT	41342
4-20 mA OUTPUT*	41342L*
0-1 VDC OUTPUT*	41342V*
RELATIVE HUMIDITY/TEMPERATURE PROBE:	
4-20 mA OUTPUT*	41382L*
0-1 VDC OUTPUT*	41382V*
ACCESSORY JUNCTION BOX <i>Specify sensor diameter (10 mm max.)</i>	41390

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YOUNG Model 41382 Relative Humidity / Temperature Probe
Model 41342 Temperature Probe



Specifications

Power Required:	41382	41342
V Option: 10-28 VDC	8 mA	5 mA
L Option: 10-28 VDC	40 mA	20 mA

RELATIVE HUMIDITY: (41382)
Measuring Range: 0-100 %RH
Accuracy at 20 °C: ±2 %RH,
Stability: Better than ±1 %RH per year
Response Time: 10 seconds (without filter)
Sensor Type: Rotronic Hygromer™
Output Signal: V option: 0-1 VDC,
 L option: 4-20 mA

TEMPERATURE: (41382, 41342)
Calibrated Measuring Range:
 -50 to 50 °C (suffix C)
 -50 to 150 °F (suffix F)
Response Time: 10 seconds (without filter)
Accuracy at 0 °C: ±0.3 °C**
 ±0.1 °C (optional) with NIST traceable calibration
Sensor Type: Platinum RTD
Output Signal: V Option: 0-1 VDC,
 L Option: 4-20 mA, 4 wire RTD (41342 only)

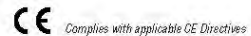
Recommended Radiation Shields:
 Model 41003P Multi-Plate Radiation Shield
 Model 43408P Aspirated Radiation Shield

**Differential measurement recommended with V option.

The Model 41382 Relative Humidity/Temperature Probe combines a high accuracy, capacitance type humidity sensor and precision Platinum RTD temperature sensor in one probe. This probe offers a choice of 0-1 VDC or 4-20 mA outputs for T and RH. Model 41342 Temperature Probe offers accurate temperature-only measurement. Three output options are available: 0-1 VDC, 4-20 mA, and 4 wire RTD. Probes are easily installed in YOUNG naturally ventilated (multi-plate) and aspirated radiation shields. A junction box is provided for cable terminations.

Ordering Information	SENSOR CABLE	MODEL
RELATIVE HUMIDITY/TEMP PROBE 4-20 mA output.....	18723	41382L*
RELATIVE HUMIDITY/TEMP PROBE 0-1 VDC output.....	18446	41382V*
TEMPERATURE PROBE 4 wire RTD output	18723	41342
TEMPERATURE PROBE 4-20 mA output	18641	41342L*
TEMPERATURE PROBE 0-1 VDC output	18443	41342V*



*Specify °F or °C



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ATTACHMENT 09

Weather measurement (wind speed / direction, temperature and rainfall)

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Station: TRAWeather Periodically: 07/03/2013 00:00-31/08/2013 23:55 Type: AVG 1 Day [5 Mins.]

13/03/2013 0:00	3,97	292,66	12,31	4,8	30,64	72	0	14,31
14/03/2013 0:00	4,54	295,73	11,08	5,5	30,95	68	0	16,35
15/03/2013 0:00	4,9	297,66	9,51	5,8	30,6	69	0	17,63
16/03/2013 0:00	4,87	297,09	8,39	5,7	31,26	70	0	17,52
17/03/2013 0:00	3,61	326,4	10,72	4,3	32,26	68	0	13
18/03/2013 0:00	3,18	331,9	12,01	3,9	31,54	77	0	11,43
19/03/2013 0:00	4,02	312,37	8,85	4,7	31,95	70	0	14,46
20/03/2013 0:00	4,42	303,81	9,03	5,2	33,81	65	0	15,9
21/03/2013 0:00	4,21	320,84	8,65	4,9	33,8	61	0	15,14
22/03/2013 0:00	3,07	2,81	9,82	3,7	34,34	49	0	11,05
23/03/2013 0:00	3,56	6,88	10,99	4,2	33,2	59	0	12,82
24/03/2013 0:00	3,34	8,48	10,43	4	32,29	67	0	12,03
25/03/2013 0:00	4,96	291,51	9,79	5,8	32,06	53	0	17,84
26/03/2013 0:00	6,29	277,56	9,81	7,5	29,61	53	0	22,64
27/03/2013 0:00	3,36	313,41	11,28	4,1	29,25	40	0	12,1
28/03/2013 0:00	5,77	125,92	7,83	6,7	30,1	42	0	20,77
29/03/2013 0:00	5,22	134,84	7,65	6,1	30,89	47	0	18,78
30/03/2013 0:00	4,62	45,19	8,95	5,4	29,28	64	0	16,62
31/03/2013 0:00	4,45	90,6	10,63	5,3	29,14	52	0	16,02
01/04/2013 0:00	3,68	244,11	9,53	4,3	29,32	53	0	13,25
02/04/2013 0:00	4,88	120,92	9,74	5,7	30,32	54	0	17,58
03/04/2013 0:00	4,22	112,68	9,57	5	29,38	62	0	15,21
04/04/2013 0:00	4,99	110,78	10,38	5,9	29,69	66	0	17,96
05/04/2013 0:00	3,79	110,57	10,4	4,5	29,83	58	0	13,66
06/04/2013 0:00	3,22	18,41	11,81	3,9	30,15	58	0	11,59
07/04/2013 0:00	3,7	233,11	11,21	4,5	30,91	53	0	13,32
08/04/2013 0:00	3,91	97,31	12,95	4,7	31,83	46	0	14,08
09/04/2013 0:00	4,38	109,29	8,73	5,1	30,25	60	0	15,78
10/04/2013 0:00	3,9	126,8	8,44	4,6	30,81	54	0	14,05
11/04/2013 0:00	4,38	111,53	6,49	5,1	29,85	57	0	15,78
12/04/2013 0:00	3,4	112,73	8,94	3,9	28,62	60	0	12,25
13/04/2013 0:00	2,82	48,7	10,91	3,3	28,4	66	0	10,16
14/04/2013 0:00	3,45	287,6	14,54	4,2	30,24	52	0	12,42
15/04/2013 0:00	3,52	315,99	9,43	4,1	30,19	65	0	12,67
16/04/2013 0:00	3,15	338,49	8,65	3,7	29,81	69	0	11,35
17/04/2013 0:00	2,65	304,35	12,99	3,2	30,46	63	0	9,53
18/04/2013 0:00	3,84	304,87	9,59	4,5	29,82	68	0	13,82

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19/04/2013 0:00	3,67	296,19	8,63	4,2	30,43	62	0	13,22
20/04/2013 0:00	5,14	251,83	8,8	6,1	33,04	37	0	18,5
21/04/2013 0:00	4,26	267,41	11,59	5,1	31,79	43	0	15,35
22/04/2013 0:00	3,79	295,83	9,63	4,4	29,4	60	0	13,65
23/04/2013 0:00	3	321,51	11,38	3,7	29,32	53	0	10,82
24/04/2013 0:00	2,35	324,45	12,93	2,9	28,61	60	0	8,46
25/04/2013 0:00	3,37	256,93	10,84	4	29,02	61	0	12,13
26/04/2013 0:00	3,73	58,09	13,29	4,5	28,54	60	0,01	13,42
27/04/2013 0:00	3,58	118,02	8,15	4,2	25,76	75	0	12,88
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30/04/2013 0:00	2,69	341,68	10,95	3,2	30,61	45	0	9,69
01/05/2013 0:00	2,9	97,1	11,71	3,4	30,27	40	0	10,45
02/05/2013 0:00	2,1	31,71	12,49	2,6	29,04	58	0	7,55
03/05/2013 0:00	1,81	326,65	12,83	2,4	29,36	63	0	6,53
04/05/2013 0:00	2,33	355,86	13,26	3	29,54	58	0	8,39
05/05/2013 0:00	2,67	288,76	11,51	3,2	28,86	60	0	9,61
06/05/2013 0:00	3,45	286,1	11,2	4,1	28,92	56	0	12,4
07/05/2013 0:00	3,14	287,35	10,36	3,7	29,25	56	0	11,31
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11/05/2013 0:00	4,46	134,84	8,27	5,1	27,12	46	0	16,04
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20/05/2013 0:00	5,43	230,78	9,78	6,4	22,68	68	0,01	19,53
21/05/2013 0:00	3,29	258,21	12,22	4,1	22,04	53	0	11,86
22/05/2013 0:00	5,01	119,66	8,15	5,8	21,19	61	0	18,05
23/05/2013 0:00	4,57	128	7,47	5,3	21,43	63	0	16,47
24/05/2013 0:00	4,64	109,81	6,6	5,3	22,43	62	0	16,69
25/05/2013 0:00	5,15	124,74	6,55	5,9	22,89	66	0	18,55

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26/05/2013 0:00	5,48	111,76	6,56	6,3	23,59	70	0	19,74
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28/05/2013 0:00	2,4	86,15	8,38	2,8	23,68	90	0,02	8,63
29/05/2013 0:00	3,05	292,78	8,19	3,6	23,76	76	0	10,97
30/05/2013 0:00	2,57	184,09	11,32	3,2	23,31	56	0	9,26
31/05/2013 0:00	4,72	151,64	7,12	5,5	22,55	50	0	17
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24/06/2013 0:00	6,7	125,08	6,65	7,7	17,38	88	0,41	24,12
25/06/2013 0:00	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
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11/07/2013 0:00	3,54	289,8	10,41	4,1	22,88	59	0	12,73
12/07/2013 0:00	3,69	273,74	10,61	4,3	21,67	59	0	13,27
13/07/2013 0:00	2,68	101,82	11,67	3,2	21,02	58	0	9,65
14/07/2013 0:00	2,43	80,93	6,11	2,8	21,7	72	0	8,75
15/07/2013 0:00	2,45	60,89	11,05	2,9	23,25	65	0	8,8
16/07/2013 0:00	3,03	282,02	10,59	3,6	24,21	63	0	10,92
17/07/2013 0:00	3,79	248,84	12,28	4,7	22,08	54	0	13,65
18/07/2013 0:00	4,04	154,93	10,28	4,9	18,34	45	0	14,56
19/07/2013 0:00	6,53	142,51	8,05	7,6	18,29	41	0	23,51
20/07/2013 0:00	6,91	132,21	9,32	8,1	17,42	42	0	24,88
21/07/2013 0:00	3,77	141,61	11,13	4,6	17,88	43	0	13,57
22/07/2013 0:00	4,65	121,01	8,37	5,4	18,86	52	0	16,74
23/07/2013 0:00	4,39	118,52	6,42	4,9	19,86	73	0	15,81
24/07/2013 0:00	3,84	103,52	6,9	4,3	20,87	78	0	13,81
25/07/2013 0:00	3,74	101,3	7,13	4,3	19,7	67	0	13,45
26/07/2013 0:00	2,58	56,21	8,95	3	20,07	67	0	9,3
27/07/2013 0:00	3,71	258,04	12,24	4,6	21,51	55	0	13,36
28/07/2013 0:00	3,71	179,02	8,28	4,3	20,57	50	0	13,35
29/07/2013 0:00	2,84	97,06	9,96	3,3	20,55	49	0	10,24
30/07/2013 0:00	3,02	104,79	9,97	3,5	20,64	54	0	10,86
31/07/2013 0:00	3,37	331,93	8,36	3,8	21,44	50	0	12,12
01/08/2013 0:00	2,98	60,73	9,23	3,4	21,66	51	0	10,73
02/08/2013 0:00	3,09	124,04	10,56	3,7	22,23	40	0	11,11
03/08/2013 0:00	3,93	104,28	13,48	4,7	23,38	39	0	14,15
04/08/2013 0:00	3,42	96,52	8,68	4	22,1	54	0	12,31

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05/08/2013 0:00	1,87	101,49	14,92	2,3	21,18	49	0	6,71
06/08/2013 0:00	1,95	87,62	12,02	2,4	21,96	37	0	7,02
07/08/2013 0:00	1,79	92,5	11,65	2,2	22,84	32	0	6,45
08/08/2013 0:00	2,55	305,1	11,27	3	22,42	43	0	9,18
09/08/2013 0:00	2,7	286,11	10	3,1	23,63	48	0	9,7
10/08/2013 0:00	2,86	285,05	10,16	3,3	22,36	56	0	10,29
11/08/2013 0:00	3,37	297,75	8,78	3,9	22,14	66	0	12,12
12/08/2013 0:00	3,75	76,67	9,08	4,3	22,01	61	0	13,48
13/08/2013 0:00	2,25	301,02	12,47	2,7	22,04	75	0	8,09
14/08/2013 0:00	2,03	340,43	10,14	2,5	21,92	75	0	7,29
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16/08/2013 0:00	3,35	289,52	11,15	4	23,32	45	0	12,04
17/08/2013 0:00	3,62	93,13	11,77	4,3	22,38	56	0	13,02
18/08/2013 0:00	2,92	119,29	11,88	3,4	22,33	45	0	10,53
19/08/2013 0:00	2,73	108,46	13,96	3,2	22,68	38	0	9,81
20/08/2013 0:00	2,87	52,89	13,98	3,4	23,22	48	0	10,33
21/08/2013 0:00	3,39	92,05	11,83	4	23,4	50	0	12,19
22/08/2013 0:00	4,28	113,31	8,74	5	22,44	40	0	15,42
23/08/2013 0:00	3,48	135,87	11,03	4,1	22,58	35	0	12,52
24/08/2013 0:00	3,78	128,85	8,53	4,4	23,03	43	0	13,59
25/08/2013 0:00	3,04	355,54	11,24	3,6	22,36	80	0	10,93
26/08/2013 0:00	3,77	282,85	15,47	4,5	22,55	65	0	13,57
27/08/2013 0:00	4,4	294,49	8,64	5,1	22,61	54	0	15,85
28/08/2013 0:00	4,44	285,46	12,41	5,3	21,94	57	0	15,99
29/08/2013 0:00	5,49	291,09	8,33	6,4	20,81	66	0	19,75
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31/08/2013 0:00	5,08	286,51	7,81	5,9	22,08	66	0	18,29
Minimum	1,79	3	6,08	2,2	17,33	32	0	6,45
MinDate	07/08/2013 0:00:00	08/03/2013 0:00	22/06/2013 0:00	07/08/2013 0:00	02/06/2013 0:00	07/08/2013 0:00	07/08/2013 0:00	07/08/2013 0:00
Maximum	9,76	356	15,47	11,3	34,34	95	0,41	35,13
MaxDate	02/06/2013 0:00:00	08/03/2013 0:00	26/08/2013 0:00	02/06/2013 0:00	22/03/2013 0:00	03/06/2013 0:00	24/06/2013 0:00	02/06/2013 0:00
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STD	1,3	191,3	2,2	1,5	4,5	12,3	0	4,8

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	TAN BURRUP PROJECT	02080	
	TAN BURRUP PROJECT COMPLIANCE ASSESSMENT REPORT (MS 870)	PAGE 1 OF 1	
	2-250-329-REP-TRE-8001-Att10	REV.: 00	

ATTACHMENT 10

Monitoring on PM10 at Rock Art sites

MultiStation: Periodically: 22/08/2013 14:00-08/09/2013 08:00 Type: AVG 5 Mins.

Date & Time	Burrup Rd	Burrup Rd	Burrup Rd	Deep Gauge	Deep Gauge	Deep Gauge	Water Tank	Water Tank	Water Tank
	PM10	PM10-Alarm	Battery	PM10	PM10-Alarm	Battery	PM10	PM10-Alarm	Battery
	µg/m ³	0=None	Volts	µg/m ³	0=None	Volts	µg/m ³	0=None	Volts
22/08/2013 14:00	7,19	0	12,72	13,94	0	12,36	NoData	NoData	NoData
22/08/2013 14:05	7,22	0	12,72	14,34	0	12,36	0,18	1	13,04
22/08/2013 14:10	7,35	0	12,72	14,06	0	12,36	0,23	1	12,99
22/08/2013 14:15	7,18	0	12,72	14,25	0	12,36	0,22	1	12,97
22/08/2013 14:20	7,61	0	12,72	14,04	0	12,35	0,23	1	12,96
22/08/2013 14:25	7,03	0	12,72	14,18	0	12,35	0,23	1	12,96
22/08/2013 14:30	7,31	0	12,71	14,12	0	12,35	0,25	1	12,95
22/08/2013 14:35	7,14	0	12,72	13,86	0	12,35	0,24	1	12,95
22/08/2013 14:40	7,25	0	12,71	14,03	0	12,35	0,28	1	12,94
22/08/2013 14:45	6,93	0	12,71	13,42	0	12,35	0,24	1	12,94
22/08/2013 14:50	6,69	0	12,71	13,92	0	12,35	0,25	1	12,93
22/08/2013 14:55	6,83	0	12,71	13,54	0	12,35	0,24	1	12,93
22/08/2013 15:00	6,71	0	12,71	14,09	0	12,34	0,26	1	12,93
22/08/2013 15:05	6,85	0	12,71	13,75	0	12,34	0,22	1	12,92
22/08/2013 15:10	6,71	0	12,71	13,07	0	12,34	0,24	1	12,92
22/08/2013 15:15	6,53	0	12,71	13,38	0	12,34	0,24	1	12,91
22/08/2013 15:20	6,48	0	12,7	13,02	0	12,34	NoData	NoData	NoData
22/08/2013 15:25	6,4	0	12,7	12,92	0	12,34	4,22	0	12,92
22/08/2013 15:30	6,44	0	12,7	12,82	0	12,34	5,7	0	12,89
22/08/2013 15:35	6,28	0	12,7	12,72	0	12,34	5,6	0	12,88
22/08/2013 15:40	6,6	0	12,7	13,05	0	12,34	5,62	0	12,88
22/08/2013 15:45	6,26	0	12,7	12,97	0	12,34	5,57	0	12,87
22/08/2013 15:50	6,33	0	12,7	12,89	0	12,33	5,32	0	12,87
22/08/2013 15:55	6,35	0	12,7	12,3	0	12,33	5,35	0	12,87
22/08/2013 16:00	6,53	0	12,69	12,46	0	12,33	5,76	0	12,87
22/08/2013 16:05	6,78	0	12,69	13,08	0	12,33	5,58	0	12,86
22/08/2013 16:10	7,04	0	12,69	12,73	0	12,33	6,48	0	12,86
22/08/2013 16:15	7,27	0	12,69	13,52	0	12,33	6,95	0	12,86
22/08/2013 16:20	7,19	0	12,69	13,72	0	12,33	7	0	12,86
22/08/2013 16:25	6,9	0	12,69	13,84	0	12,33	7,07	0	12,86
22/08/2013 16:30	6,86	0	12,68	14,21	0	12,32	6,86	0	12,86
22/08/2013 16:35	6,64	0	12,69	13,78	0	12,32	6,16	0	12,85
22/08/2013 16:40	6,32	0	12,68	13,65	0	12,32	6,65	0	12,85
22/08/2013 16:45	6,48	0	12,68	13,18	0	12,32	6,12	0	12,85
22/08/2013 16:50	6,3	0	12,68	13,05	0	12,32	5,89	0	12,84
22/08/2013 16:55	6,31	0	12,68	13,55	0	12,32	5,4	0	12,83
22/08/2013 17:00	6,26	0	12,67	13,48	0	12,31	5,35	0	12,83
22/08/2013 17:05	6,16	0	12,67	13,06	0	12,31	5,08	0	12,83
22/08/2013 17:10	6,35	0	12,67	13,74	0	12,31	5,27	0	12,83
22/08/2013 17:15	6,2	0	12,67	13,53	0	12,31	5,41	0	12,82
22/08/2013 17:20	6,58	0	12,67	13,05	0	12,31	5,29	0	12,82
22/08/2013 17:25	6,8	0	12,67	12,83	0	12,31	4,87	0	12,82
22/08/2013 17:30	7,43	0	12,66	13,01	0	12,31	5,05	0	12,81
22/08/2013 17:35	7,81	0	12,66	12,91	0	12,31	5,04	0	12,81
22/08/2013 17:40	8,15	0	12,66	12,9	0	12,3	5,38	0	12,8
22/08/2013 17:45	7,57	0	12,66	12,9	0	12,3	6,23	0	12,8
22/08/2013 17:50	7,6	0	12,66	13,11	0	12,3	6,18	0	12,8
22/08/2013 17:55	7,69	0	12,66	13,55	0	12,3	6,17	0	12,79
22/08/2013 18:00	7,64	0	12,65	13,66	0	12,3	6,13	0	12,79
22/08/2013 18:05	7,52	0	12,65	13,82	0	12,29	6,02	0	12,79
22/08/2013 18:10	7,43	0	12,65	13,14	0	12,29	5,69	0	12,78
22/08/2013 18:15	7,41	0	12,65	13,28	0	12,29	6,07	0	12,78
22/08/2013 18:20	7,46	0	12,64	12,78	0	12,29	6,04	0	12,78
22/08/2013 18:25	7,65	0	12,64	12,47	0	12,29	5,9	0	12,78
22/08/2013 18:30	7,77	0	12,64	12,44	0	12,29	5,98	0	12,77
22/08/2013 18:35	8,04	0	12,64	12,47	0	12,28	6,19	0	12,77
22/08/2013 18:40	NoData	NoData	NoData	12,38	0	12,28	6,77	0	12,77
22/08/2013 18:45	8,27	0	12,63	12,6	0	12,28	10,41	0	12,77
22/08/2013 18:50	8,31	0	12,63	12,6	0	12,28	7,98	0	12,76
22/08/2013 18:55	7,86	0	12,63	12,78	0	12,27	7,36	0	12,76
22/08/2013 19:00	7,99	0	12,62	12,44	0	12,27	6,76	0	12,75

22/08/2013 19:05	8,36	0	12,62	12,49	0	12,27	7,01	0	12,75
22/08/2013 19:10	7,56	0	12,62	12,63	0	12,27	6,34	0	12,75
22/08/2013 19:15	7,33	0	12,62	12,43	0	12,27	6,19	0	12,75
22/08/2013 19:20	7,62	0	12,61	12,47	0	12,27	5,86	0	12,74
22/08/2013 19:25	8,14	0	12,61	12,61	0	12,26	5,73	0	12,74
22/08/2013 19:30	8,09	0	12,61	12,59	0	12,26	5,66	0	12,72
22/08/2013 19:35	8,54	0	12,61	24,58	0	12,26	6,45	0	12,73
22/08/2013 19:40	7,98	0	12,6	102,93	2	12,26	5,29	0	12,73
22/08/2013 19:45	7,8	0	12,6	151,23	2	12,25	5,29	0	12,73
22/08/2013 19:50	7,78	0	12,6	70,66	2	12,25	5,35	0	12,72
22/08/2013 19:55	7,61	0	12,6	49,79	0	12,25	5,19	0	12,72
22/08/2013 20:00	7,79	0	12,59	64,81	2	12,25	4,83	0	12,71
22/08/2013 20:05	7,68	0	12,59	28,57	0	12,24	5,13	0	12,71
22/08/2013 20:10	7,59	0	12,59	18,51	0	12,24	5,61	0	12,71
22/08/2013 20:15	7,37	0	12,59	16,89	0	12,24	4,97	0	12,71
22/08/2013 20:20	7,39	0	12,58	20,36	2	12,24	4,96	0	12,7
22/08/2013 20:25	7,23	0	12,58	115,32	2	12,23	5,01	0	12,7
22/08/2013 20:30	7,3	0	12,58	131,91	2	12,23	5,04	0	12,69
22/08/2013 20:35	7,24	0	12,58	113,51	2	12,23	4,92	0	12,7
22/08/2013 20:40	7,31	0	12,57	68,39	2	12,23	4,83	0	12,69
22/08/2013 20:45	7,78	0	12,57	55,25	2	12,23	4,98	0	12,69
22/08/2013 20:50	7,98	0	12,57	88,34	2	12,23	5,04	0	12,68
22/08/2013 20:55	8,09	0	12,57	90,13	2	12,22	4,8	0	12,69
22/08/2013 21:00	7,87	0	12,56	24,19	0	12,22	4,75	0	12,68
22/08/2013 21:05	8,97	0	12,56	16,75	0	12,22	4,93	0	12,68
22/08/2013 21:10	10,57	0	12,56	16,35	0	12,22	4,54	0	12,67
22/08/2013 21:15	9,51	0	12,56	15,61	0	12,22	4,72	0	12,67
22/08/2013 21:20	10,58	0	12,55	16,02	0	12,22	4,87	0	12,67
22/08/2013 21:25	11,09	0	12,55	16,19	0	12,21	4,79	0	12,67
22/08/2013 21:30	11,77	0	12,55	28,91	0	12,21	4,74	0	12,66
22/08/2013 21:35	11,25	0	12,54	22,16	0	12,21	4,72	0	12,67
22/08/2013 21:40	10,35	0	12,54	16,58	0	12,21	5,03	0	12,66
22/08/2013 21:45	9,93	0	12,54	16,14	0	12,2	4,76	0	12,66
22/08/2013 21:50	9,47	0	12,54	15,7	0	12,2	4,87	0	12,66
22/08/2013 21:55	9,76	0	12,54	14,18	0	12,2	5,04	0	12,66
22/08/2013 22:00	9,37	0	12,53	13,96	0	12,2	5,19	0	12,65
22/08/2013 22:05	8,44	0	12,53	13,39	0	12,2	5,17	0	12,66
22/08/2013 22:10	8,1	0	12,53	13,09	0	12,19	5,13	0	12,65
22/08/2013 22:15	7,78	0	12,53	13,27	0	12,19	5,73	0	12,65
22/08/2013 22:20	7,6	0	12,52	13,48	0	12,19	6,18	0	12,64
22/08/2013 22:25	7,62	0	12,52	13,07	0	12,19	6,53	0	12,65
22/08/2013 22:30	7,75	0	12,52	13,29	0	12,19	6,37	0	12,64
22/08/2013 22:35	7,68	0	12,52	12,86	0	12,18	6,83	0	12,64
22/08/2013 22:40	7,86	0	12,51	12,72	0	12,18	6,61	0	12,64
22/08/2013 22:45	7,41	0	12,51	12,9	0	12,18	6,63	0	12,64
22/08/2013 22:50	7,09	0	12,51	13,09	0	12,18	7	0	12,63
22/08/2013 22:55	7,16	0	12,51	13,53	0	12,18	7,06	0	12,63
22/08/2013 23:00	NoData	NoData	NoData	14,46	0	12,18	6,51	0	12,63
22/08/2013 23:05	6,58	0	12,5	18,33	0	12,17	7,3	0	12,63
22/08/2013 23:10	NoData	NoData	NoData	24,43	0	12,17	7,19	0	12,63
22/08/2013 23:15	13,98	0	12,5	17,85	0	12,17	14,37	0	12,63
22/08/2013 23:20	12,37	0	12,49	15,28	0	12,17	14,88	0	12,62
22/08/2013 23:25	10,6	0	12,49	13,99	0	12,17	14,07	0	12,62
22/08/2013 23:30	9,56	0	12,49	13,81	0	12,17	11,9	0	12,62
22/08/2013 23:35	8,07	0	12,49	13,94	0	12,16	12,62	0	12,62
22/08/2013 23:40	8,62	0	12,48	13,99	0	12,16	10,85	0	12,61
22/08/2013 23:45	9,2	0	12,48	14,21	0	12,16	9,08	0	12,62
22/08/2013 23:50	8,69	0	12,48	14,2	0	12,16	8,25	0	12,61
22/08/2013 23:55	8,06	0	12,48	13,73	0	12,16	7,76	0	12,61
23/08/2013 0:00	6,93	0	12,48	14,04	0	12,16	7,68	0	12,61
23/08/2013 0:05	7,59	0	12,48	14,02	0	12,16	7,34	0	12,61
23/08/2013 0:10	7,84	0	12,47	14,36	0	12,16	7,16	0	12,6
23/08/2013 0:15	7,47	0	12,47	14,19	0	12,15	7,15	0	12,6
23/08/2013 0:20	7,08	0	12,47	14,17	0	12,15	7,14	0	12,6
23/08/2013 0:25	6,93	0	12,47	13,7	0	12,15	6,53	0	12,6
23/08/2013 0:30	7,17	0	12,46	13,48	0	12,15	6,65	0	12,59
23/08/2013 0:35	7,45	0	12,46	13,37	0	12,15	6,57	0	12,59

23/08/2013 0:40	7,18	0	12,46	13,33	0	12,15	6,43	0	12,59
23/08/2013 0:45	7,06	0	12,46	13,23	0	12,15	6,85	0	12,59
23/08/2013 0:50	7,77	0	12,46	13,38	0	12,15	6,69	0	12,58
23/08/2013 0:55	7,62	0	12,46	13,55	0	12,15	6,74	0	12,59
23/08/2013 1:00	7,47	0	12,45	13,47	0	12,15	6,44	0	12,58
23/08/2013 1:05	7,31	0	12,45	13,47	0	12,14	6,04	0	12,58
23/08/2013 1:10	6,96	0	12,45	13,31	0	12,14	5,96	0	12,58
23/08/2013 1:15	6,87	0	12,45	12,51	0	12,14	6,02	0	12,58
23/08/2013 1:20	7,14	0	12,45	12,64	0	12,14	5,79	0	12,57
23/08/2013 1:25	NoData	NoData	NoData	12,42	0	12,14	5,44	0	12,58
23/08/2013 1:30	6,83	0	12,44	12,45	0	12,14	5,64	0	12,57
23/08/2013 1:35	6,66	0	12,44	12,25	0	12,14	5,72	0	12,57
23/08/2013 1:40	6,84	0	12,44	12,58	0	12,14	5,86	0	12,57
23/08/2013 1:45	6,69	0	12,44	12,22	0	12,13	6,1	0	12,57
23/08/2013 1:50	7,04	0	12,43	12,23	0	12,14	6,11	0	12,56
23/08/2013 1:55	6,59	0	12,43	12,25	0	12,13	6,22	0	12,56
23/08/2013 2:00	6,74	0	12,43	12,54	0	12,13	5,32	0	12,56
23/08/2013 2:05	6,74	0	12,43	12,47	0	12,13	4,97	0	12,56
23/08/2013 2:10	6,72	0	12,43	12,62	0	12,13	5,06	0	12,56
23/08/2013 2:15	6,74	0	12,43	12,68	0	12,13	4,77	0	12,56
23/08/2013 2:20	6,81	0	12,43	12,32	0	12,13	4,65	0	12,55
23/08/2013 2:25	6,88	0	12,42	11,97	0	12,13	5,13	0	12,55
23/08/2013 2:30	6,66	0	12,42	12,05	0	12,13	5,15	0	12,55
23/08/2013 2:35	7	0	12,42	12,05	0	12,13	4,6	0	12,55
23/08/2013 2:40	7,09	0	12,42	11,98	0	12,12	4,42	0	12,55
23/08/2013 2:45	7,05	0	12,42	11,82	0	12,12	4,57	0	12,55
23/08/2013 2:50	6,9	0	12,42	12,05	0	12,12	4,35	0	12,54
23/08/2013 2:55	6,96	0	12,41	11,91	0	12,12	4,68	0	12,54
23/08/2013 3:00	7,65	0	12,41	11,95	0	12,12	4,63	0	12,54
23/08/2013 3:05	7,29	0	12,41	12,07	0	12,12	4,36	0	12,54
23/08/2013 3:10	7,21	0	12,41	11,83	0	12,12	4,41	0	12,54
23/08/2013 3:15	7,26	0	12,41	11,79	0	12,12	4,58	0	12,54
23/08/2013 3:20	7,46	0	12,41	11,87	0	12,11	4,48	0	12,53
23/08/2013 3:25	8,47	0	12,4	11,94	0	12,11	4,73	0	12,53
23/08/2013 3:30	7,69	0	12,41	11,73	0	12,11	4,64	0	12,53
23/08/2013 3:35	7,65	0	12,4	11,85	0	12,11	5,01	0	12,53
23/08/2013 3:40	7,57	0	12,4	11,53	0	12,11	5,07	0	12,53
23/08/2013 3:45	8,21	0	12,4	11,67	0	12,11	4,91	0	12,53
23/08/2013 3:50	7,32	0	12,4	11,82	0	12,11	4,67	0	12,53
23/08/2013 3:55	7,84	0	12,4	11,65	0	12,11	4,61	0	12,52
23/08/2013 4:00	7,27	0	12,4	11,71	0	12,11	4,84	0	12,53
23/08/2013 4:05	7,45	0	12,39	11,72	0	12,11	4,99	0	12,52
23/08/2013 4:10	7,54	0	12,39	11,65	0	12,1	4,98	0	12,52
23/08/2013 4:15	7,29	0	12,39	11,72	0	12,1	4,87	0	12,52
23/08/2013 4:20	6,87	0	12,39	11,72	0	12,1	4,89	0	12,52
23/08/2013 4:25	7,03	0	12,39	11,73	0	12,1	4,67	0	12,52
23/08/2013 4:30	6,76	0	12,39	11,59	0	12,1	4,52	0	12,52
23/08/2013 4:35	6,7	0	12,38	11,65	0	12,1	4,89	0	12,51
23/08/2013 4:40	6,72	0	12,38	11,48	0	12,09	4,63	0	12,52
23/08/2013 4:45	6,75	0	12,38	11,55	0	12,09	4,55	0	12,51
23/08/2013 4:50	6,81	0	12,38	11,49	0	12,09	4,56	0	12,51
23/08/2013 4:55	6,58	0	12,38	11,45	0	12,09	4,69	0	12,51
23/08/2013 5:00	6,76	0	12,38	11,6	0	12,09	4,49	0	12,51
23/08/2013 5:05	6,57	0	12,37	11,48	0	12,09	4,48	0	12,51
23/08/2013 5:10	6,72	0	12,37	11,55	0	12,09	4,73	0	12,51
23/08/2013 5:15	7,19	0	12,37	11,45	0	12,09	4,59	0	12,51
23/08/2013 5:20	NoData	NoData	NoData	11,56	0	12,08	5,47	0	12,51
23/08/2013 5:25	6,59	0	12,37	11,61	0	12,09	4,83	0	12,5
23/08/2013 5:30	6,69	0	12,37	11,32	0	12,08	4,59	0	12,5
23/08/2013 5:35	7,14	0	12,36	11,25	0	12,08	5,89	0	12,5
23/08/2013 5:40	7,77	0	12,36	11,3	0	12,08	6,69	0	12,5
23/08/2013 5:45	7,44	0	12,36	11,44	0	12,08	5,3	0	12,5
23/08/2013 5:50	7,32	0	12,36	11,47	0	12,08	11,93	0	12,5
23/08/2013 5:55	7,58	0	12,36	11,29	0	12,08	4,88	0	12,5
23/08/2013 6:00	7,11	0	12,36	11,63	0	12,07	9,15	0	12,49
23/08/2013 6:05	6,73	0	12,35	11,34	0	12,08	9,04	0	12,49
23/08/2013 6:10	6,49	0	12,35	11,33	0	12,08	19,45	0	12,49

23/08/2013 6:15	5,89	0	12,35	11,49	0	12,08	9,82	0	12,49
23/08/2013 6:20	6,48	0	12,35	11,34	0	12,08	31,13	0	12,49
23/08/2013 6:25	5,71	0	12,35	11,26	0	12,08	11,71	0	12,48
23/08/2013 6:30	5,5	0	12,35	11,14	0	12,08	4,19	0	12,48
23/08/2013 6:35	5,71	0	12,34	11,27	0	12,08	3,92	0	12,48
23/08/2013 6:40	6,1	0	12,34	11,18	0	12,07	4,31	0	12,48
23/08/2013 6:45	6,1	0	12,34	11,22	0	12,07	3,88	0	12,48
23/08/2013 6:50	6,78	0	12,34	11,04	0	12,07	4	0	12,48
23/08/2013 6:55	6,65	0	12,34	11,1	0	12,07	3,92	0	12,48
23/08/2013 7:00	6,62	0	12,34	11,07	0	12,07	3,86	0	12,48
23/08/2013 7:05	6,22	0	12,33	11,12	0	12,07	4	0	12,48
23/08/2013 7:10	6,66	0	12,33	11,17	0	12,07	5,09	0	12,48
23/08/2013 7:15	6,98	0	12,33	NoData	NoData	NoData	7,24	0	12,48
23/08/2013 7:20	NoData	NoData	NoData	NoData	NoData	NoData	4,39	0	12,47
23/08/2013 7:25	7,13	0	12,33	NoData	NoData	NoData	3,93	0	12,48
23/08/2013 7:30	8,69	0	12,33	NoData	NoData	NoData	4,19	0	12,48
23/08/2013 7:35	7,17	0	12,32	5,13	0	12,58	9,05	0	12,48
23/08/2013 7:40	6,59	0	12,32	12,31	2	12,56	4,89	0	12,49
23/08/2013 7:45	6,09	0	12,32	11,64	0	12,56	5,76	0	12,48
23/08/2013 7:50	6,49	0	12,32	11,46	0	12,56	7,5	0	12,5
23/08/2013 7:55	6,85	0	12,32	11,16	0	12,56	8,1	0	12,53
23/08/2013 8:00	7,58	0	12,32	11,18	0	12,57	4,82	0	12,56
23/08/2013 8:05	7,08	0	12,32	11,02	0	12,57	4,44	0	12,63
23/08/2013 8:10	7,42	0	12,31	11,44	0	12,57	4,45	0	12,74
23/08/2013 8:15	7,69	0	12,32	11,51	0	12,58	4,64	0	12,85
23/08/2013 8:20	NoData	NoData	NoData	11,58	0	12,59	5,19	0	12,93
23/08/2013 8:25	NoData	NoData	NoData	11,45	0	12,61	5,52	0	12,97
23/08/2013 8:30	22,03	2	12,86	11,71	0	12,67	5,66	0	13,01
23/08/2013 8:35	7,92	0	12,81	11,87	0	12,73	6,11	0	13,04
23/08/2013 8:40	8,62	0	12,78	11,89	0	12,83	5,9	0	13,07
23/08/2013 8:45	7,99	0	12,75	12,15	0	12,92	3,07	0	13
23/08/2013 8:50	7,93	0	12,75	12,09	0	13,05	9,62	2	12,82
23/08/2013 8:55	7,37	0	12,88	11,8	0	13,2	8,75	2	12,75
23/08/2013 9:00	7,76	0	13,1	11,29	0	13,31	6,16	0	12,73
23/08/2013 9:05	8,49	0	13,21	11,33	0	13,38	5,28	0	12,7
23/08/2013 9:10	7,98	0	13,28	11,75	0	13,46	5,22	0	12,68
23/08/2013 9:15	6,88	0	13,31	11,97	0	13,49	4,48	0	12,66
23/08/2013 9:20	7,13	0	13,34	11,87	0	13,53	4,45	0	12,65
23/08/2013 9:25	7,98	0	13,36	11,55	0	13,57	4,6	0	12,64
23/08/2013 9:30	9,17	2	13,39	11,6	0	13,61	NoData	NoData	NoData
23/08/2013 9:35	7,7	0	13,42	11,33	0	13,64	5,15	0	12,62
23/08/2013 9:40	7,8	0	13,46	11,46	0	13,68	4,59	0	12,64
23/08/2013 9:45	7,53	0	13,47	11,5	0	13,71	5,22	0	12,82
23/08/2013 9:50	7,48	0	13,49	11,65	0	13,75	5,57	0	13,15
23/08/2013 9:55	6,63	0	13,49	11,54	0	13,78	5,41	0	13,21
23/08/2013 10:00	6,51	0	13,5	12,16	0	13,81	5,04	0	13,24
23/08/2013 10:05	6,64	0	13,5	12,25	0	13,84	5,56	0	13,25
23/08/2013 10:10	6,71	0	13,51	12,05	0	13,87	8,13	2	13,26
23/08/2013 10:15	6,38	0	13,52	12,26	0	13,89	6,56	0	13,27
23/08/2013 10:20	6,78	0	13,52	12,12	0	13,91	5,44	0	13,28
23/08/2013 10:25	6,89	0	13,36	12,58	0	13,93	NoData	NoData	NoData
23/08/2013 10:30	6,71	0	13,19	12,72	0	13,95	5,73	0	13,29
23/08/2013 10:35	6,6	0	13,07	12,33	0	13,94	5,46	0	13,29
23/08/2013 10:40	6,63	0	13,03	12,96	0	13,5	5,52	0	13,29
23/08/2013 10:45	6,86	0	13,02	12,75	0	13,18	5,41	0	13,29
23/08/2013 10:50	6,79	0	13	12,61	0	13,07	5,12	0	13,29
23/08/2013 10:55	6,43	0	12,95	12,9	0	13,01	5,17	0	13,28
23/08/2013 11:00	6,46	0	12,93	12,85	0	13	5,49	0	13,27
23/08/2013 11:05	6,46	0	12,91	12,64	0	12,99	5,65	0	13,25
23/08/2013 11:10	6,65	0	12,91	13,08	0	12,97	6,83	0	13,23
23/08/2013 11:15	6,56	0	12,91	12,88	0	12,95	5,49	0	13,15
23/08/2013 11:20	6,64	0	12,9	12,89	0	12,96	NoData	NoData	NoData
23/08/2013 11:25	6,31	0	12,88	13,03	0	12,95	6,44	0	13,04
23/08/2013 11:30	6,55	0	12,88	12,63	0	12,95	9,04	2	13,21
23/08/2013 11:35	6,46	0	12,91	12,67	0	12,94	5,95	0	13,23
23/08/2013 11:40	6,55	0	13,17	13,08	0	12,93	5,85	0	13,21
23/08/2013 11:45	6,97	0	13,56	13,09	0	12,93	5,71	0	13,18

23/08/2013 11:50	6,68	0	13,68	12,84	0	12,94	6,83	0	13,15
23/08/2013 11:55	6,8	0	13,68	12,69	0	12,93	7,05	0	13,1
23/08/2013 12:00	7,09	0	13,66	13,44	0	12,95	6,95	0	13,06
23/08/2013 12:05	6,42	0	13,71	13,11	0	12,95	6,23	0	13,01
23/08/2013 12:10	6,52	0	13,72	13,6	0	12,95	6,73	0	12,95
23/08/2013 12:15	6,92	0	13,73	13,94	0	12,93	6,09	0	12,91
23/08/2013 12:20	7,18	0	13,75	13,75	0	12,99	6,4	0	12,89
23/08/2013 12:25	7,55	0	13,76	13,88	0	12,99	6,07	0	12,87
23/08/2013 12:30	7,19	0	13,77	13,74	0	12,95	6,23	0	12,86
23/08/2013 12:35	6,98	0	13,77	13,93	0	12,93	6,04	0	12,85
23/08/2013 12:40	6,76	0	13,78	13,49	0	12,91	5,69	0	12,85
23/08/2013 12:45	6,96	0	13,8	13,41	0	12,89	5,64	0	12,84
23/08/2013 12:50	6,83	0	13,81	13,33	0	12,89	5,61	0	12,83
23/08/2013 12:55	6,84	0	13,82	13,7	0	12,88	5,52	0	12,82
23/08/2013 13:00	6,87	0	13,84	13,38	0	12,88	5,74	0	12,82
23/08/2013 13:05	6,89	0	13,85	12,96	0	12,88	5,36	0	12,81
23/08/2013 13:10	6,81	0	13,86	13,09	0	12,87	5,28	0	12,81
23/08/2013 13:15	6,73	0	13,87	13,23	0	12,87	5,06	0	12,8
23/08/2013 13:20	6,84	0	13,89	13,18	0	12,87	5,51	0	12,8
23/08/2013 13:25	6,84	0	13,9	13,26	0	12,86	5,67	0	12,8
23/08/2013 13:30	7	0	13,91	13,22	0	12,86	5,42	0	12,79
23/08/2013 13:35	6,41	0	13,91	13,13	0	12,86	5,37	0	12,79
23/08/2013 13:40	6,8	0	13,93	13,45	0	12,86	5,11	0	12,79
23/08/2013 13:45	6,69	0	13,93	13	0	12,86	6,05	0	12,78
23/08/2013 13:50	6,77	0	13,95	12,7	0	12,86	5,14	0	12,78
23/08/2013 13:55	6,62	0	13,95	12,85	0	12,85	4,8	0	12,77
23/08/2013 14:00	6,63	0	13,96	12,75	0	12,85	5,28	0	12,77
23/08/2013 14:05	6,59	0	13,96	12,81	0	12,85	4,98	0	12,77
23/08/2013 14:10	6,64	0	13,97	12,62	0	12,85	5,19	0	12,77
23/08/2013 14:15	6,48	0	13,96	12,59	0	12,84	4,85	0	12,76
23/08/2013 14:20	6,43	0	13,97	12,67	0	12,84	4,76	0	12,76
23/08/2013 14:25	6,33	0	13,97	12,94	0	12,84	4,7	0	12,76
23/08/2013 14:30	6,43	0	13,97	12,66	0	12,83	4,85	0	12,76
23/08/2013 14:35	6,57	0	13,98	12,83	0	12,83	4,82	0	12,75
23/08/2013 14:40	6,73	0	13,98	12,88	0	12,83	5,13	0	12,75
23/08/2013 14:45	6,81	0	13,96	12,95	0	12,82	5,38	0	12,75
23/08/2013 14:50	6,41	0	13,96	12,92	0	12,82	4,86	0	12,75
23/08/2013 14:55	6,57	0	13,95	13,18	0	12,82	7,3	2	12,74
23/08/2013 15:00	6,68	0	13,94	13,38	0	12,81	4,66	0	12,74
23/08/2013 15:05	6,3	0	13,93	13,46	0	12,81	4,79	0	12,74
23/08/2013 15:10	6,39	0	13,91	13	0	12,81	4,79	0	12,74
23/08/2013 15:15	6,3	0	13,78	12,39	0	12,8	5,39	0	12,73
23/08/2013 15:20	6,43	0	13,59	12,68	0	12,8	4,85	0	12,73
23/08/2013 15:25	6,28	0	13,47	12,52	0	12,79	4,94	0	12,72
23/08/2013 15:30	6,21	0	13,4	12,6	0	12,79	4,66	0	12,72
23/08/2013 15:35	6,36	0	13,33	12,57	0	12,79	4,59	0	12,72
23/08/2013 15:40	6,48	0	13,3	12,34	0	12,78	4,78	0	12,72
23/08/2013 15:45	6,32	0	13,26	12,7	0	12,78	4,66	0	12,71
23/08/2013 15:50	7,66	0	13,23	12,09	0	12,77	6,32	0	12,71
23/08/2013 15:55	8,74	2	13,19	12,54	0	12,77	8,89	2	12,69
23/08/2013 16:00	6,88	0	13,2	12,59	0	12,76	4,76	0	12,7
23/08/2013 16:05	6,77	0	13,19	12,57	0	12,76	4,68	0	12,7
23/08/2013 16:10	6,83	0	13,19	12,42	0	12,76	4,57	0	12,69
23/08/2013 16:15	6,26	0	13,14	12,31	0	12,75	4,69	0	12,69
23/08/2013 16:20	6,19	0	13,1	12,27	0	12,75	4,45	0	12,69
23/08/2013 16:25	6,32	0	13,07	14,49	0	12,75	4,74	0	12,69
23/08/2013 16:30	6,46	0	13,06	12,31	0	12,74	4,67	0	12,68
23/08/2013 16:35	6,78	0	13,05	11,87	0	12,73	4,59	0	12,68
23/08/2013 16:40	6,95	0	13,04	12,04	0	12,73	4,48	0	12,68
23/08/2013 16:45	6,53	0	13,04	11,91	0	12,73	4,53	0	12,68
23/08/2013 16:50	6,26	0	13,03	12,16	0	12,72	4,6	0	12,66
23/08/2013 16:55	6,41	0	13,02	12,34	0	12,72	4,51	0	12,66
23/08/2013 17:00	6,55	0	13,02	11,99	0	12,71	4,23	0	12,65
23/08/2013 17:05	6,61	0	13,01	11,87	0	12,71	4,13	0	12,65
23/08/2013 17:10	6,35	0	13,01	11,67	0	12,7	4,2	0	12,65
23/08/2013 17:15	6,55	0	13	11,87	0	12,7	4,07	0	12,64
23/08/2013 17:20	6,17	0	13	13,99	0	12,69	4,11	0	12,63

23/08/2013 17:25	6,39	0	12,99	13,38	0	12,69	4,11	0	12,63
23/08/2013 17:30	6,2	0	12,99	12,17	0	12,68	3,95	0	12,63
23/08/2013 17:35	6,21	0	12,97	11,69	0	12,68	3,91	0	12,62
23/08/2013 17:40	6,07	0	12,97	11,43	0	12,67	3,74	0	12,62
23/08/2013 17:45	5,9	0	12,95	11,69	0	12,67	3,95	0	12,61
23/08/2013 17:50	6,11	0	12,95	11,56	0	12,66	3,93	0	12,61
23/08/2013 17:55	6,06	0	12,94	11,6	0	12,66	3,85	0	12,61
23/08/2013 18:00	6,59	0	12,94	11,67	0	12,65	3,86	0	12,6
23/08/2013 18:05	6,31	0	12,93	11,42	0	12,65	3,76	0	12,6
23/08/2013 18:10	6,51	0	12,92	11,57	0	12,64	3,73	0	12,59
23/08/2013 18:15	6,96	0	12,92	11,58	0	12,64	3,73	0	12,59
23/08/2013 18:20	6,63	0	12,91	11,65	0	12,63	3,96	0	12,59
23/08/2013 18:25	7,08	0	12,91	12,13	0	12,63	3,92	0	12,58
23/08/2013 18:30	7,3	0	12,9	12,47	0	12,62	4,28	0	12,58
23/08/2013 18:35	6,84	0	12,9	13,53	0	12,62	4,03	0	12,58
23/08/2013 18:40	6,3	0	12,89	12,55	0	12,62	3,9	0	12,57
23/08/2013 18:45	6,16	0	12,89	12,49	0	12,62	3,89	0	12,57
23/08/2013 18:50	6,01	0	12,89	12,12	0	12,61	3,8	0	12,56
23/08/2013 18:55	6,17	0	12,88	11,95	0	12,61	3,82	0	12,56
23/08/2013 19:00	6,54	0	12,88	12,14	0	12,6	4,13	0	12,56
23/08/2013 19:05	6,57	0	12,88	12,25	0	12,6	3,7	0	12,56
23/08/2013 19:10	6,48	0	12,87	11,83	0	12,59	3,94	0	12,55
23/08/2013 19:15	6,47	0	12,87	11,82	0	12,59	4,06	0	12,55
23/08/2013 19:20	6,38	0	12,86	11,86	0	12,59	3,86	0	12,55
23/08/2013 19:25	6,2	0	12,86	11,76	0	12,59	3,61	0	12,55
23/08/2013 19:30	6,4	0	12,86	11,4	0	12,58	3,61	0	12,54
23/08/2013 19:35	6,08	0	12,85	11,62	0	12,58	3,59	0	12,54
23/08/2013 19:40	6,18	0	12,85	12,04	0	12,57	3,46	0	12,53
23/08/2013 19:45	6,24	0	12,85	12,13	0	12,58	3,46	0	12,53
23/08/2013 19:50	6,8	0	12,84	12,44	0	12,57	3,48	0	12,53
23/08/2013 19:55	7,1	0	12,84	11,3	0	12,57	3,58	0	12,53
23/08/2013 20:00	7,16	0	12,84	10,99	0	12,56	3,35	0	12,52
23/08/2013 20:05	7,29	0	12,84	34,8	2	12,53	3,39	0	12,52
23/08/2013 20:10	7,36	0	12,83	272,48	2	12,39	3,37	0	12,51
23/08/2013 20:15	7,14	0	12,83	101,9	2	12,48	3,55	0	12,52
23/08/2013 20:20	6,59	0	12,82	78,59	2	12,43	3,32	0	12,51
23/08/2013 20:25	6,74	0	12,82	26,13	2	12,52	3,52	0	12,51
23/08/2013 20:30	6,41	0	12,82	245,32	2	12,39	3,31	0	12,51
23/08/2013 20:35	6,2	0	12,82	117,5	2	12,39	4,14	0	12,51
23/08/2013 20:40	6,4	0	12,81	18,44	2	12,52	6,31	0	12,5
23/08/2013 20:45	6,7	0	12,81	11,3	0	12,55	8,76	0	12,5
23/08/2013 20:50	8,64	0	12,8	11,08	0	12,55	8,82	0	12,5
23/08/2013 20:55	10,08	0	12,8	11,16	0	12,55	11,2	0	12,5
23/08/2013 21:00	14,95	0	12,8	11,34	0	12,54	13,16	0	12,49
23/08/2013 21:05	20,27	0	12,8	11,26	0	12,55	12,38	0	12,49
23/08/2013 21:10	23,54	0	12,79	11,2	0	12,54	13,21	0	12,49
23/08/2013 21:15	19,16	0	12,79	11,27	0	12,54	15,86	0	12,49
23/08/2013 21:20	17,18	0	12,79	11,43	0	12,54	19,94	0	12,48
23/08/2013 21:25	14,3	0	12,79	11,72	0	12,54	24,05	2	12,46
23/08/2013 21:30	12,71	0	12,78	12,12	0	12,54	30,99	2	12,35
23/08/2013 21:35	10,53	0	12,78	12,39	0	12,54	25,96	2	12,45
23/08/2013 21:40	8,79	0	12,78	12,25	0	12,53	22,6	0	12,47
23/08/2013 21:45	7,82	0	12,78	11,96	0	12,54	17,01	0	12,47
23/08/2013 21:50	7,56	0	12,77	11,91	0	12,53	11,67	0	12,47
23/08/2013 21:55	7,47	0	12,77	12,12	0	12,54	11,08	0	12,47
23/08/2013 22:00	7,97	0	12,77	12,28	0	12,53	9,7	0	12,46
23/08/2013 22:05	7,61	0	12,77	12,27	0	12,53	8	0	12,47
23/08/2013 22:10	7,5	0	12,76	12,09	0	12,53	6,77	0	12,46
23/08/2013 22:15	7,38	0	12,76	12,58	0	12,53	8,41	0	12,46
23/08/2013 22:20	7,22	0	12,76	12,24	0	12,53	7,59	0	12,45
23/08/2013 22:25	7,48	0	12,76	12,48	0	12,53	5,78	0	12,45
23/08/2013 22:30	7,2	0	12,75	12,3	0	12,53	5,37	0	12,45
23/08/2013 22:35	7,09	0	12,76	12,02	0	12,53	5,21	0	12,45
23/08/2013 22:40	7,05	0	12,76	12,14	0	12,52	5,07	0	12,45
23/08/2013 22:45	7,24	0	12,76	12,33	0	12,53	4,94	0	12,45
23/08/2013 22:50	6,89	0	12,76	12	0	12,52	4,61	0	12,45
23/08/2013 22:55	6,84	0	12,76	12,12	0	12,52	4,48	0	12,45

23/08/2013 23:00	6,78	0	12,75	12,24	0	12,52	4,79	0	12,44
23/08/2013 23:05	6,63	0	12,75	12,08	0	12,52	4,82	0	12,44
23/08/2013 23:10	6,79	0	12,75	12,01	0	12,52	4,85	0	12,44
23/08/2013 23:15	6,4	0	12,75	12,24	0	12,52	4,56	0	12,44
23/08/2013 23:20	6,46	0	12,75	12,26	0	12,52	4,57	0	12,44
23/08/2013 23:25	6,4	0	12,74	12,21	0	12,52	4,75	0	12,44
23/08/2013 23:30	6,34	0	12,74	12,09	0	12,51	5,05	0	12,43
23/08/2013 23:35	6,66	0	12,74	12,44	0	12,52	4,84	0	12,43
23/08/2013 23:40	6,86	0	12,74	11,88	0	12,5	4,96	0	12,43
23/08/2013 23:45	6,76	0	12,74	12,25	0	12,5	5,76	0	12,43
23/08/2013 23:50	6,71	0	12,73	11,96	0	12,5	6,65	0	12,43
23/08/2013 23:55	6,58	0	12,74	12,11	0	12,5	7,65	0	12,43
24/08/2013 0:00	6,31	0	12,73	11,88	0	12,5	6,3	0	12,42
24/08/2013 0:05	6,64	0	12,73	11,6	0	12,5	5,25	0	12,42
24/08/2013 0:10	6,53	0	12,73	11,51	0	12,49	4,88	0	12,42
24/08/2013 0:15	6,68	0	12,73	11,39	0	12,49	4,38	0	12,42
24/08/2013 0:20	6,54	0	12,73	11,5	0	12,49	3,95	0	12,42
24/08/2013 0:25	6,9	0	12,72	11,6	0	12,49	3,89	0	12,42
24/08/2013 0:30	6,62	0	12,72	11,3	0	12,49	3,5	0	12,41
24/08/2013 0:35	7,08	0	12,72	11,26	0	12,49	3,59	0	12,41
24/08/2013 0:40	7,51	0	12,72	11,4	0	12,49	3,74	0	12,41
24/08/2013 0:45	7,33	0	12,72	11,24	0	12,49	3,6	0	12,41
24/08/2013 0:50	7,31	0	12,71	11,36	0	12,48	3,37	0	12,41
24/08/2013 0:55	6,64	0	12,72	11,44	0	12,49	3,56	0	12,41
24/08/2013 1:00	6,41	0	12,71	11,04	0	12,48	3,5	0	12,4
24/08/2013 1:05	6,54	0	12,71	11,1	0	12,48	3,34	0	12,4
24/08/2013 1:10	6,55	0	12,71	10,85	0	12,48	3,38	0	12,4
24/08/2013 1:15	6,45	0	12,71	10,92	0	12,48	3,26	0	12,4
24/08/2013 1:20	5,97	0	12,71	10,97	0	12,48	3,35	0	12,4
24/08/2013 1:25	6,39	0	12,71	11,15	0	12,48	3,61	0	12,4
24/08/2013 1:30	6,46	0	12,7	11,11	0	12,48	3,74	0	12,39
24/08/2013 1:35	6,28	0	12,7	11,25	0	12,48	4,45	0	12,39
24/08/2013 1:40	6,08	0	12,7	10,93	0	12,48	4,87	0	12,39
24/08/2013 1:45	5,82	0	12,7	11,07	0	12,47	4,01	0	12,39
24/08/2013 1:50	5,65	0	12,7	11,09	0	12,47	3,63	0	12,39
24/08/2013 1:55	5,75	0	12,7	10,97	0	12,47	3,6	0	12,39
24/08/2013 2:00	5,8	0	12,69	11,22	0	12,47	3,54	0	12,38
24/08/2013 2:05	5,77	0	12,7	11	0	12,47	3,45	0	12,38
24/08/2013 2:10	5,92	0	12,69	11,07	0	12,47	3,46	0	12,38
24/08/2013 2:15	5,96	0	12,69	10,82	0	12,47	3,55	0	12,38
24/08/2013 2:20	5,97	0	12,69	10,77	0	12,46	3,43	0	12,38
24/08/2013 2:25	5,82	0	12,69	10,69	0	12,46	3,58	0	12,38
24/08/2013 2:30	5,67	0	12,68	10,6	0	12,46	3,23	0	12,37
24/08/2013 2:35	5,73	0	12,69	10,65	0	12,46	3,29	0	12,38
24/08/2013 2:40	5,47	0	12,68	10,6	0	12,46	3,39	0	12,37
24/08/2013 2:45	5,88	0	12,68	10,71	0	12,46	3,29	0	12,37
24/08/2013 2:50	5,45	0	12,68	10,66	0	12,46	3,33	0	12,37
24/08/2013 2:55	5,55	0	12,68	10,81	0	12,46	3,22	0	12,37
24/08/2013 3:00	5,45	0	12,68	10,6	0	12,46	3,24	0	12,37
24/08/2013 3:05	5,47	0	12,68	10,58	0	12,46	3,5	0	12,37
24/08/2013 3:10	5,62	0	12,68	10,66	0	12,45	3,31	0	12,36
24/08/2013 3:15	5,59	0	12,68	10,57	0	12,45	3,18	0	12,36
24/08/2013 3:20	5,52	0	12,68	10,64	0	12,45	3,15	0	12,36
24/08/2013 3:25	5,56	0	12,68	10,63	0	12,45	3,16	0	12,36
24/08/2013 3:30	5,57	0	12,67	10,73	0	12,45	3,14	0	12,36
24/08/2013 3:35	5,57	0	12,67	10,67	0	12,45	3,19	0	12,35
24/08/2013 3:40	5,55	0	12,67	10,66	0	12,44	2,97	0	12,35
24/08/2013 3:45	5,68	0	12,67	10,81	0	12,44	3,11	0	12,35
24/08/2013 3:50	5,72	0	12,67	10,8	0	12,44	3,18	0	12,35
24/08/2013 3:55	5,73	0	12,67	10,66	0	12,44	3,36	0	12,35
24/08/2013 4:00	5,69	0	12,67	10,59	0	12,44	3,24	0	12,34
24/08/2013 4:05	5,52	0	12,67	10,69	0	12,44	3,45	0	12,34
24/08/2013 4:10	5,63	0	12,67	10,66	0	12,44	3,38	0	12,34
24/08/2013 4:15	5,54	0	12,67	10,76	0	12,44	3,17	0	12,34
24/08/2013 4:20	5,47	0	12,67	10,72	0	12,44	2,87	0	12,34
24/08/2013 4:25	5,59	0	12,67	10,57	0	12,43	3,2	0	12,34
24/08/2013 4:30	5,44	0	12,66	10,72	0	12,43	3,57	0	12,33

24/08/2013 4:35	5,59	0	12,66	10,75	0	12,43	3,61	0	12,33
24/08/2013 4:40	5,45	0	12,65	10,65	0	12,43	3,27	0	12,33
24/08/2013 4:45	5,49	0	12,65	10,57	0	12,43	3,17	0	12,33
24/08/2013 4:50	5,54	0	12,65	10,71	0	12,43	3,14	0	12,33
24/08/2013 4:55	5,46	0	12,65	10,66	0	12,43	3,45	0	12,33
24/08/2013 5:00	5,34	0	12,64	10,65	0	12,43	3,26	0	12,32
24/08/2013 5:05	5,43	0	12,64	10,73	0	12,42	3,18	0	12,33
24/08/2013 5:10	5,67	0	12,64	10,61	0	12,42	3,28	0	12,32
24/08/2013 5:15	5,55	0	12,64	10,69	0	12,42	3,3	0	12,32
24/08/2013 5:20	5,7	0	12,64	10,64	0	12,42	3,25	0	12,32
24/08/2013 5:25	5,56	0	12,64	10,74	0	12,42	3,5	0	12,32
24/08/2013 5:30	5,61	0	12,64	10,65	0	12,42	3,2	0	12,32
24/08/2013 5:35	5,58	0	12,64	10,68	0	12,42	3,25	0	12,31
24/08/2013 5:40	5,84	0	12,63	10,58	0	12,42	6,2	0	12,31
24/08/2013 5:45	5,85	0	12,63	10,9	0	12,42	4,95	0	12,31
24/08/2013 5:50	5,78	0	12,63	11,07	0	12,42	3,91	0	12,31
24/08/2013 5:55	5,74	0	12,63	11,06	0	12,42	4,18	0	12,31
24/08/2013 6:00	5,81	0	12,63	11,07	0	12,42	3,96	0	12,31
24/08/2013 6:05	6,55	0	12,63	10,81	0	12,42	6,21	0	12,3
24/08/2013 6:10	6,59	0	12,63	11,05	0	12,42	4,38	0	12,3
24/08/2013 6:15	6,53	0	12,63	10,84	0	12,42	7,44	0	12,3
24/08/2013 6:20	6,06	0	12,62	11,14	0	12,42	9,86	0	12,3
24/08/2013 6:25	5,79	0	12,62	11,02	0	12,41	5,92	0	12,29
24/08/2013 6:30	5,79	0	12,62	10,96	0	12,41	4,93	0	12,29
24/08/2013 6:35	6,27	0	12,62	11	0	12,41	3,76	0	12,29
24/08/2013 6:40	6,29	0	12,62	11,1	0	12,41	3,93	0	12,29
24/08/2013 6:45	7,37	0	12,62	11,15	0	12,41	4,12	0	12,29
24/08/2013 6:50	7,67	0	12,62	10,91	0	12,41	3,26	0	12,29
24/08/2013 6:55	5,88	0	12,62	11,02	0	12,41	3,11	0	12,29
24/08/2013 7:00	5,79	0	12,62	11	0	12,41	3,78	0	12,29
24/08/2013 7:05	5,78	0	12,62	11,18	0	12,41	6,52	0	12,28
24/08/2013 7:10	5,49	0	12,63	11,12	0	12,41	4,74	0	12,29
24/08/2013 7:15	5,65	0	12,62	10,89	0	12,41	4,22	0	12,28
24/08/2013 7:20	5,83	0	12,63	10,79	0	12,41	6,38	0	12,28
24/08/2013 7:25	6,75	0	12,63	10,67	0	12,41	3,94	0	12,28
24/08/2013 7:30	7,67	0	12,63	10,8	0	12,42	3,27	0	12,29
24/08/2013 7:35	7,21	0	12,63	10,82	0	12,42	2,93	0	12,3
24/08/2013 7:40	6,83	0	12,63	10,86	0	12,43	3,21	0	12,33
24/08/2013 7:45	6,46	0	12,63	10,79	0	12,41	3,29	0	12,36
24/08/2013 7:50	7,1	0	12,64	10,63	0	12,42	3,34	0	12,42
24/08/2013 7:55	7,17	0	12,65	10,83	0	12,42	3,31	0	12,49
24/08/2013 8:00	7,11	0	12,65	10,63	0	12,42	3,29	0	12,57
24/08/2013 8:05	8,61	0	12,66	10,61	0	12,42	3,48	0	12,63
24/08/2013 8:10	8,09	0	12,68	10,97	0	12,43	3,75	0	12,68
24/08/2013 8:15	7,77	0	12,69	10,92	0	12,43	3,54	0	12,72
24/08/2013 8:20	8,55	0	12,71	10,86	0	12,44	3,57	0	12,76
24/08/2013 8:25	7,84	0	12,72	10,94	0	12,46	3,82	0	12,78
24/08/2013 8:30	6,71	0	12,7	11,32	0	12,5	3,92	0	12,81
24/08/2013 8:35	7,35	0	12,68	11,17	0	12,54	5,72	0	12,83
24/08/2013 8:40	7,82	0	12,67	11,22	0	12,59	4,32	0	12,79
24/08/2013 8:45	7,62	0	12,67	11,27	0	12,63	4,27	0	12,64
24/08/2013 8:50	7,35	0	12,7	11,5	0	12,7	4,28	0	12,59
24/08/2013 8:55	7,3	0	12,81	11,45	0	12,79	4,44	0	12,56
24/08/2013 9:00	7,53	0	12,91	11,62	0	12,86	4,81	0	12,55
24/08/2013 9:05	7,79	0	12,97	11,64	0	12,93	4,56	0	12,53
24/08/2013 9:10	8,93	0	13,04	11,8	0	12,99	4,61	0	12,51
24/08/2013 9:15	7,87	0	13,07	11,58	0	13,01	4,58	0	12,5
24/08/2013 9:20	9,64	0	13,11	11,69	0	13,02	4,6	0	12,49
24/08/2013 9:25	8,14	0	13,14	11,95	0	13,03	4,59	0	12,48
24/08/2013 9:30	8,01	0	13,17	11,85	0	13,04	4,88	0	12,47
24/08/2013 9:35	8,25	0	13,2	12,15	0	13,05	4,55	0	12,46
24/08/2013 9:40	7,68	0	13,23	12	0	13,05	5,09	0	12,48
24/08/2013 9:45	7,84	0	13,25	12,26	0	13,06	5,31	0	12,68
24/08/2013 9:50	8,05	0	13,27	12,46	0	13,08	5,73	0	12,88
24/08/2013 9:55	7,15	0	13,28	12,13	0	13,08	4,97	0	12,93
24/08/2013 10:00	7,88	0	13,29	11,72	0	13,09	5,13	0	12,96
24/08/2013 10:05	7,41	0	13,3	11,32	0	13,1	4,76	0	12,98

24/08/2013 10:10	7,1	0	13,31	11,43	0	13,11	5,07	0	12,99
24/08/2013 10:15	7,48	0	13,33	11,29	0	13,12	4,74	0	13
24/08/2013 10:20	7,4	0	13,32	11,35	0	13,13	4,71	0	13,01
24/08/2013 10:25	6,49	0	13,21	11,39	0	13,13	4,45	0	13,01
24/08/2013 10:30	6,34	0	13,1	11,48	0	13,14	4,52	0	13,02
24/08/2013 10:35	6,54	0	13,04	11,5	0	13,1	4,71	0	13,02
24/08/2013 10:40	6,42	0	13,02	12	0	12,91	4,86	0	13,02
24/08/2013 10:45	6,27	0	13	11,46	0	12,84	5,74	0	13,02
24/08/2013 10:50	6,28	0	12,99	11,91	0	12,82	5,16	0	13,02
24/08/2013 10:55	6,21	0	12,95	11,7	0	12,8	4,33	0	13,01
24/08/2013 11:00	5,95	0	12,93	11,86	0	12,79	4,64	0	13,01
24/08/2013 11:05	5,96	0	12,91	12,04	0	12,78	4,71	0	13
24/08/2013 11:10	6,65	0	12,91	11,88	0	12,77	4,99	0	12,99
24/08/2013 11:15	6,49	0	12,9	11,97	0	12,76	4,78	0	12,98
24/08/2013 11:20	6,37	0	12,9	12,19	0	12,77	4,98	0	12,97
24/08/2013 11:25	6,41	0	12,88	12,08	0	12,75	5,25	0	12,96
24/08/2013 11:30	7,35	0	12,88	12,03	0	12,76	5,11	0	12,95
24/08/2013 11:35	6,6	0	12,92	12,13	0	12,74	5,45	0	12,92
24/08/2013 11:40	7,18	0	13,14	12,62	0	12,74	5,12	0	12,9
24/08/2013 11:45	6,53	0	13,36	12,79	0	12,73	5,22	0	12,87
24/08/2013 11:50	6,9	0	13,41	12,78	0	12,72	5,44	0	12,85
24/08/2013 11:55	6,84	0	13,43	13,16	0	12,73	5,5	0	12,82
24/08/2013 12:00	6,68	0	13,45	13,04	0	12,73	5,36	0	12,79
24/08/2013 12:05	6,56	0	13,47	13,31	0	12,73	4,99	0	12,75
24/08/2013 12:10	6,57	0	13,5	13,77	0	12,72	5,98	0	12,74
24/08/2013 12:15	6,91	0	13,52	13,1	0	12,73	5,31	0	12,72
24/08/2013 12:20	7,03	0	13,55	12,92	0	12,76	5,52	0	12,71
24/08/2013 12:25	6,37	0	13,57	13,12	0	12,74	5,19	0	12,7
24/08/2013 12:30	6,34	0	13,6	13,05	0	12,72	5,19	0	12,7
24/08/2013 12:35	6,51	0	13,62	13,41	0	12,72	5,5	0	12,69
24/08/2013 12:40	6,69	0	13,65	13,13	0	12,7	5,42	0	12,68
24/08/2013 12:45	6,69	0	13,67	13,48	0	12,69	5,25	0	12,68
24/08/2013 12:50	6,74	0	13,7	13,79	0	12,68	5,23	0	12,67
24/08/2013 12:55	6,68	0	13,72	13,64	0	12,68	5,44	0	12,66
24/08/2013 13:00	6,75	0	13,75	13,37	0	12,68	5,53	0	12,66
24/08/2013 13:05	6,66	0	13,77	13,39	0	12,68	5,7	0	12,65
24/08/2013 13:10	6,7	0	13,8	13,35	0	12,67	5,58	0	12,65
24/08/2013 13:15	6,78	0	13,83	13,55	0	12,67	5,34	0	12,64
24/08/2013 13:20	6,67	0	13,85	13,34	0	12,66	5,27	0	12,64
24/08/2013 13:25	6,58	0	13,88	12,99	0	12,66	5,08	0	12,63
24/08/2013 13:30	6,44	0	13,9	13,11	0	12,65	5,38	0	12,63
24/08/2013 13:35	6,37	0	13,92	13,05	0	12,65	5,25	0	12,63
24/08/2013 13:40	6,52	0	13,95	12,87	0	12,65	4,94	0	12,62
24/08/2013 13:45	6,54	0	13,98	13,23	0	12,65	4,75	0	12,61
24/08/2013 13:50	6,88	0	14	13,17	0	12,64	4,86	0	12,61
24/08/2013 13:55	6,38	0	14,01	13,13	0	12,64	5,13	0	12,61
24/08/2013 14:00	6,52	0	14,03	13,19	0	12,64	4,94	0	12,61
24/08/2013 14:05	6,65	0	14,03	12,4	0	12,63	5,02	0	12,6
24/08/2013 14:10	7,09	0	14,05	12,5	0	12,63	5,1	0	12,6
24/08/2013 14:15	6,89	0	14,05	12,77	0	12,63	5,14	0	12,59
24/08/2013 14:20	7,61	0	14,06	12,77	0	12,62	5,14	0	12,59
24/08/2013 14:25	6,96	0	14,06	12,88	0	12,62	4,81	0	12,58
24/08/2013 14:30	6,75	0	14,06	12,54	0	12,61	5,1	0	12,58
24/08/2013 14:35	6,91	0	14,05	12,76	0	12,61	5,43	0	12,58
24/08/2013 14:40	6,73	0	14,06	12,94	0	12,61	5,4	0	12,58
24/08/2013 14:45	7,04	0	14,05	12,69	0	12,6	5,38	0	12,57
24/08/2013 14:50	7,1	0	14,05	13,1	0	12,6	5,44	0	12,57
24/08/2013 14:55	7,26	0	14,04	12,95	0	12,6	5,65	0	12,56
24/08/2013 15:00	7,5	0	14,04	13,06	0	12,59	5,86	0	12,56
24/08/2013 15:05	7,52	0	14,02	13,46	0	12,59	5,92	0	12,56
24/08/2013 15:10	7,74	0	14,01	13,76	0	12,58	6,25	0	12,56
24/08/2013 15:15	7,71	0	13,92	13,65	0	12,58	6,06	0	12,55
24/08/2013 15:20	7,85	0	13,73	13,98	0	12,58	6,44	0	12,55
24/08/2013 15:25	7,81	0	13,55	14,17	0	12,57	6,26	0	12,54
24/08/2013 15:30	8,1	0	13,46	13,87	0	12,57	6,4	0	12,54
24/08/2013 15:35	8	0	13,39	14,02	0	12,57	6,44	0	12,54
24/08/2013 15:40	8,03	0	13,34	14,06	0	12,56	6,52	0	12,53

24/08/2013 15:45	8,27	0	13,3	14,16	0	12,56	6,77	0	12,53
24/08/2013 15:50	8,4	0	13,26	14,07	0	12,55	6,84	0	12,53
24/08/2013 15:55	8,39	0	13,23	14,08	0	12,55	7,02	0	12,52
24/08/2013 16:00	8,63	0	13,21	14,51	0	12,55	6,76	0	12,52
24/08/2013 16:05	8,55	0	13,21	14,65	0	12,54	6,84	0	12,52
24/08/2013 16:10	8,83	0	13,17	14,55	0	12,54	7,11	0	12,51
24/08/2013 16:15	8,86	0	13,12	14,44	0	12,54	7,53	0	12,51
24/08/2013 16:20	9,18	0	13,09	14,92	0	12,53	7,82	0	12,51
24/08/2013 16:25	9,27	0	13,07	14,88	0	12,53	7,46	0	12,5
24/08/2013 16:30	9,24	0	13,06	15,16	0	12,52	7,98	0	12,5
24/08/2013 16:35	9,31	0	13,05	15,11	0	12,52	7,82	0	12,49
24/08/2013 16:40	9,95	0	13,04	15,44	0	12,52	7,92	0	12,49
24/08/2013 16:45	9,71	0	13,04	15,97	0	12,51	8,25	0	12,49
24/08/2013 16:50	9,33	0	13,02	15,67	0	12,51	8,32	0	12,48
24/08/2013 16:55	9,63	0	13,02	15,77	0	12,51	8,43	0	12,47
24/08/2013 17:00	9,78	0	13,01	16,11	0	12,5	8,3	0	12,47
24/08/2013 17:05	9,91	0	13,01	16,48	0	12,5	8,68	0	12,46
24/08/2013 17:10	10,27	0	13	16,71	0	12,49	8,78	0	12,45
24/08/2013 17:15	9,93	0	13	16,27	0	12,49	9,26	0	12,45
24/08/2013 17:20	10,47	0	12,99	16,38	0	12,49	9,02	0	12,45
24/08/2013 17:25	10,48	0	12,99	16,43	0	12,48	9,11	0	12,44
24/08/2013 17:30	10,76	0	12,98	16,65	0	12,48	9,14	0	12,44
24/08/2013 17:35	10,64	0	12,97	16,55	0	12,48	8,95	0	12,43
24/08/2013 17:40	10,97	0	12,96	17,06	0	12,47	8,74	0	12,43
24/08/2013 17:45	11,19	0	12,95	17,34	0	12,47	9,31	0	12,43
24/08/2013 17:50	11,01	0	12,94	17,54	0	12,46	9,4	0	12,42
24/08/2013 17:55	10,86	0	12,94	16,71	0	12,46	9,86	0	12,42
24/08/2013 18:00	11,23	0	12,93	19,94	2	12,44	9,51	0	12,42
24/08/2013 18:05	12,02	0	12,93	34,18	2	12,31	9,52	0	12,41
24/08/2013 18:10	11,79	0	12,92	24,3	2	12,43	9,5	0	12,41
24/08/2013 18:15	11,64	0	12,92	18,8	0	12,44	9,36	0	12,41
24/08/2013 18:20	11,95	0	12,91	16,73	0	12,44	9,37	0	12,4
24/08/2013 18:25	11,7	0	12,91	16,87	0	12,44	9,51	0	12,4
24/08/2013 18:30	11,25	0	12,91	16,88	0	12,43	9,49	0	12,39
24/08/2013 18:35	11,25	0	12,9	16,51	0	12,43	9,19	0	12,39
24/08/2013 18:40	11,31	0	12,9	20,89	2	12,42	9,41	0	12,38
24/08/2013 18:45	10,88	0	12,9	32,31	2	12,29	9,08	0	12,38
24/08/2013 18:50	10,73	0	12,89	35,74	2	12,3	9,26	0	12,38
24/08/2013 18:55	10,85	0	12,89	16,91	0	12,42	9,25	0	12,38
24/08/2013 19:00	11,19	0	12,88	15,67	0	12,41	8,99	0	12,37
24/08/2013 19:05	12,14	0	12,88	15,87	0	12,41	8,9	0	12,37
24/08/2013 19:10	12,08	0	12,88	15,26	0	12,41	8,5	0	12,36
24/08/2013 19:15	12,06	0	12,88	15,26	0	12,41	8,7	0	12,36
24/08/2013 19:20	11,42	0	12,87	15,22	0	12,4	8,83	0	12,36
24/08/2013 19:25	11,67	0	12,87	15,03	0	12,4	8,47	0	12,35
24/08/2013 19:30	11,97	0	12,86	15,12	0	12,4	8,01	0	12,35
24/08/2013 19:35	11,45	0	12,86	14,47	0	12,4	8,04	0	12,35
24/08/2013 19:40	11,12	0	12,86	14,4	0	12,39	8,41	0	12,34
24/08/2013 19:45	11,27	0	12,86	14,39	0	12,39	8,12	0	12,34
24/08/2013 19:50	10,75	0	12,85	13,85	0	12,39	8,32	0	12,34
24/08/2013 19:55	10,64	0	12,85	14,09	0	12,39	8,13	0	12,34
24/08/2013 20:00	10,17	0	12,85	13,5	0	12,38	7,89	0	12,33
24/08/2013 20:05	10,46	0	12,85	12,78	0	12,38	7,93	0	12,33
24/08/2013 20:10	10,74	0	12,84	13,45	0	12,38	7,85	0	12,33
24/08/2013 20:15	10,55	0	12,84	13,49	0	12,38	7,44	0	12,32
24/08/2013 20:20	10,36	0	12,83	13,58	0	12,37	7,54	0	12,32
24/08/2013 20:25	10,05	0	12,83	13,24	0	12,38	7,8	0	12,32
24/08/2013 20:30	10,04	0	12,83	13,04	0	12,37	7,5	0	12,31
24/08/2013 20:35	9,82	0	12,83	12,77	0	12,37	7,29	0	12,31
24/08/2013 20:40	9,87	0	12,82	12,84	0	12,37	6,93	0	12,31
24/08/2013 20:45	10,07	0	12,82	12,7	0	12,37	6,84	0	12,31
24/08/2013 20:50	9,41	0	12,81	12,87	0	12,36	7,26	0	12,3
24/08/2013 20:55	9,51	0	12,82	12,63	0	12,36	6,37	0	12,31
24/08/2013 21:00	9,4	0	12,81	12,38	0	12,36	6,94	0	12,3
24/08/2013 21:05	9,24	0	12,81	12,3	0	12,36	7,16	0	12,3
24/08/2013 21:10	9,01	0	12,81	11,74	0	12,36	7,82	0	12,29
24/08/2013 21:15	8,89	0	12,81	11,68	0	12,36	7,72	0	12,29

24/08/2013 21:20	9,18	0	12,8	13,85	0	12,35	7,25	0	12,29
24/08/2013 21:25	8,91	0	12,8	27,91	2	12,29	6,84	0	12,29
24/08/2013 21:30	9,47	0	12,8	36,14	2	12,2	6,71	0	12,29
24/08/2013 21:35	8,78	0	12,8	36,29	2	12,2	5,89	0	12,29
24/08/2013 21:40	8,59	0	12,79	26,14	2	12,28	5,68	0	12,28
24/08/2013 21:45	9,13	0	12,79	26,59	2	12,28	5,77	0	12,28
24/08/2013 21:50	8,73	0	12,78	22,02	0	12,34	5,92	0	12,28
24/08/2013 21:55	8,2	0	12,79	26,45	2	12,3	8,1	0	12,28
24/08/2013 22:00	8,35	0	12,78	38,74	2	12,18	8,05	0	12,27
24/08/2013 22:05	8,02	0	12,78	26,45	2	12,27	7,94	0	12,27
24/08/2013 22:10	7,81	0	12,77	21,8	2	12,32	7,62	0	12,27
24/08/2013 22:15	8,48	0	12,77	16,87	0	12,33	7,12	0	12,27
24/08/2013 22:20	7,9	0	12,77	13,48	0	12,33	4,88	0	12,27
24/08/2013 22:25	7,04	0	12,77	12,05	0	12,33	6,83	0	12,27
24/08/2013 22:30	7,73	0	12,77	9,84	0	12,32	7,36	0	12,26
24/08/2013 22:35	7,36	0	12,76	9,62	0	12,32	6,98	0	12,26
24/08/2013 22:40	7,25	0	12,76	9,45	0	12,32	6,4	0	12,26
24/08/2013 22:45	7,62	0	12,76	10,25	0	12,32	6,22	0	12,26
24/08/2013 22:50	6,3	0	12,75	10,3	0	12,31	5,66	0	12,25
24/08/2013 22:55	6,07	0	12,76	9,39	0	12,32	5,32	0	12,25
24/08/2013 23:00	6,17	0	12,75	10,39	0	12,31	5,14	0	12,25
24/08/2013 23:05	5,85	0	12,75	10,35	0	12,31	5,09	0	12,25
24/08/2013 23:10	5,71	0	12,75	11,71	0	12,31	5,21	0	12,25
24/08/2013 23:15	5,93	0	12,75	12,13	0	12,31	5,11	0	12,25
24/08/2013 23:20	5,93	0	12,75	12,55	0	12,31	5,28	0	12,25
24/08/2013 23:25	5,93	0	12,74	12,55	0	12,31	4,99	0	12,24
24/08/2013 23:30	5,78	0	12,74	11,63	0	12,3	5,12	0	12,24
24/08/2013 23:35	5,77	0	12,74	10,5	0	12,3	4,99	0	12,24
24/08/2013 23:40	5,85	0	12,74	10,95	0	12,3	4,96	0	12,24
24/08/2013 23:45	5,86	0	12,74	11,41	0	12,3	5,27	0	12,24
24/08/2013 23:50	5,83	0	12,73	10,69	0	12,3	5,21	0	12,24
24/08/2013 23:55	5,75	0	12,73	10,46	0	12,3	4,35	0	12,24
25/08/2013 0:00	6,48	0	12,73	11	0	12,29	5,73	0	12,24
25/08/2013 0:05	5,93	0	12,73	12,4	0	12,29	5,49	0	12,23
25/08/2013 0:10	6,47	0	12,72	14,1	0	12,29	4,65	0	12,23
25/08/2013 0:15	7,12	0	12,73	12,19	0	12,29	4,88	0	12,23
25/08/2013 0:20	7,08	0	12,72	11,88	0	12,29	6,2	0	12,23
25/08/2013 0:25	7	0	12,72	10,96	0	12,29	5,54	0	12,23
25/08/2013 0:30	6,32	0	12,72	10,69	0	12,28	5,74	0	12,22
25/08/2013 0:35	6,21	0	12,72	9,97	0	12,28	5,43	0	12,22
25/08/2013 0:40	6,09	0	12,71	10,5	0	12,28	5,22	0	12,22
25/08/2013 0:45	5,99	0	12,71	9,28	0	12,28	4,51	0	12,22
25/08/2013 0:50	5,99	0	12,71	9,45	0	12,28	4,8	0	12,22
25/08/2013 0:55	5,84	0	12,71	10,56	0	12,28	5,16	0	12,22
25/08/2013 1:00	5,83	0	12,7	10,39	0	12,27	5,19	0	12,22
25/08/2013 1:05	7,11	0	12,71	10,2	0	12,27	5,36	0	12,22
25/08/2013 1:10	6,52	0	12,7	8,68	0	12,27	4,89	0	12,22
25/08/2013 1:15	5,8	0	12,7	9	0	12,27	4,45	0	12,21
25/08/2013 1:20	6,06	0	12,7	8,41	0	12,27	4,47	0	12,21
25/08/2013 1:25	7,08	0	12,7	8,03	0	12,27	4,58	0	12,21
25/08/2013 1:30	5,68	0	12,69	9,18	0	12,27	5,02	0	12,21
25/08/2013 1:35	5,12	0	12,7	10,47	0	12,26	5,04	0	12,21
25/08/2013 1:40	5,21	0	12,69	10	0	12,26	4,89	0	12,21
25/08/2013 1:45	5,45	0	12,69	7,88	0	12,26	4,49	0	12,2
25/08/2013 1:50	5,42	0	12,69	5,6	0	12,27	4,78	0	12,2
25/08/2013 1:55	5,85	0	12,69	7,31	0	12,26	4,14	0	12,2
25/08/2013 2:00	5,52	0	12,69	7,83	0	12,26	5,01	0	12,2
25/08/2013 2:05	5,41	0	12,69	6,55	0	12,26	4,59	0	12,19
25/08/2013 2:10	5,8	0	12,68	6,31	0	12,26	4,87	0	12,19
25/08/2013 2:15	5,74	0	12,68	6,35	0	12,25	4,41	0	12,19
25/08/2013 2:20	5,2	0	12,68	6,36	0	12,26	3,97	0	12,19
25/08/2013 2:25	6,57	0	12,68	6,81	0	12,25	4,99	0	12,19
25/08/2013 2:30	6,78	0	12,68	7,06	0	12,25	5,3	0	12,19
25/08/2013 2:35	6,08	0	12,68	7,36	0	12,25	5,15	0	12,18
25/08/2013 2:40	5,91	0	12,67	7,67	0	12,25	4,94	0	12,19
25/08/2013 2:45	5,43	0	12,67	8,04	0	12,25	4,55	0	12,18
25/08/2013 2:50	6,37	0	12,67	8,42	0	12,25	4,68	0	12,18

25/08/2013 2:55	6,88	0	12,67	8,53	0	12,25	4,6	0	12,18
25/08/2013 3:00	6,82	0	12,67	8,86	0	12,25	4,36	0	12,18
25/08/2013 3:05	6,79	0	12,67	9,17	0	12,24	4,46	0	12,18
25/08/2013 3:10	6,45	0	12,66	9,06	0	12,25	5,09	0	12,18
25/08/2013 3:15	6,93	0	12,66	9,04	0	12,24	4,74	0	12,18
25/08/2013 3:20	6,25	0	12,66	8,9	0	12,24	4,56	0	12,18
25/08/2013 3:25	5,88	0	12,66	9,08	0	12,24	4,78	0	12,17
25/08/2013 3:30	6,07	0	12,66	9,26	0	12,24	4,47	0	12,17
25/08/2013 3:35	6,08	0	12,66	9,52	0	12,24	4,12	0	12,17
25/08/2013 3:40	6,31	0	12,66	9,48	0	12,24	4,47	0	12,17
25/08/2013 3:45	6,37	0	12,65	9,2	0	12,24	4,23	0	12,16
25/08/2013 3:50	6,55	0	12,65	9,13	0	12,24	4,4	0	12,17
25/08/2013 3:55	6,14	0	12,65	9,24	0	12,23	4,32	0	12,16
25/08/2013 4:00	5,91	0	12,65	9,07	0	12,23	3,97	0	12,17
25/08/2013 4:05	5,6	0	12,65	9,75	0	12,23	3,63	0	12,16
25/08/2013 4:10	5,63	0	12,65	9,89	0	12,23	3,97	0	12,16
25/08/2013 4:15	5,47	0	12,65	10,03	0	12,23	3,97	0	12,16
25/08/2013 4:20	5,5	0	12,64	10,15	0	12,23	5,37	0	12,16
25/08/2013 4:25	5,65	0	12,64	9,96	0	12,23	4,2	0	12,16
25/08/2013 4:30	5,7	0	12,64	10,46	0	12,23	4,58	0	12,16
25/08/2013 4:35	5,71	0	12,64	10,48	0	12,23	5,36	0	12,15
25/08/2013 4:40	5,54	0	12,64	10,44	0	12,23	5,94	0	12,15
25/08/2013 4:45	5,53	0	12,64	10,51	0	12,22	5,19	0	12,15
25/08/2013 4:50	5,51	0	12,64	10,52	0	12,22	4,99	0	12,15
25/08/2013 4:55	5,45	0	12,64	10,49	0	12,22	4,65	0	12,15
25/08/2013 5:00	5,42	0	12,65	11	0	12,22	5,6	0	12,15
25/08/2013 5:05	5,61	0	12,64	10,85	0	12,22	4,01	0	12,14
25/08/2013 5:10	5,66	0	12,64	10,75	0	12,22	4,93	0	12,14
25/08/2013 5:15	5,97	0	12,64	11,21	0	12,22	6,26	0	12,14
25/08/2013 5:20	5,62	0	12,64	11,3	0	12,22	6,39	0	12,14
25/08/2013 5:25	5,53	0	12,64	11,28	0	12,21	6,58	0	12,14
25/08/2013 5:30	5,72	0	12,64	10,71	0	12,21	5,78	0	12,14
25/08/2013 5:35	5,86	0	12,64	10,59	0	12,21	5,62	0	12,13
25/08/2013 5:40	6,25	0	12,64	10,93	0	12,21	5,73	0	12,13
25/08/2013 5:45	6,01	0	12,63	10,44	0	12,21	5,14	0	12,13
25/08/2013 5:50	6,06	0	12,63	10,54	0	12,21	5,03	0	12,13
25/08/2013 5:55	6,32	0	12,63	10,68	0	12,21	4,64	0	12,13
25/08/2013 6:00	6,35	0	12,63	10,89	0	12,2	6,8	0	12,13
25/08/2013 6:05	6,54	0	12,63	11,44	0	12,2	6,78	0	12,13
25/08/2013 6:10	6,75	0	12,63	11,15	0	12,2	6,26	0	12,13
25/08/2013 6:15	6,87	0	12,63	10,61	0	12,2	6,64	0	12,12
25/08/2013 6:20	7,08	0	12,63	10,59	0	12,2	6,24	0	12,12
25/08/2013 6:25	7,07	0	12,62	10,45	0	12,2	6,28	0	12,12
25/08/2013 6:30	7,22	0	12,63	10,54	0	12,2	7,05	0	12,12
25/08/2013 6:35	7,38	0	12,63	10,79	0	12,2	6,69	0	12,12
25/08/2013 6:40	7,39	0	12,63	10,95	0	12,2	6,48	0	12,12
25/08/2013 6:45	7,07	0	12,63	10,82	0	12,19	6,43	0	12,12
25/08/2013 6:50	6,88	0	12,63	11,19	0	12,19	6,37	0	12,12
25/08/2013 6:55	6,5	0	12,62	11,13	0	12,19	6,31	0	12,12
25/08/2013 7:00	6,09	0	12,62	10,92	0	12,2	6,23	0	12,12
25/08/2013 7:05	5,84	0	12,62	11,17	0	12,19	6,91	0	12,12
25/08/2013 7:10	5,78	0	12,63	10,93	0	12,2	6,52	0	12,12
25/08/2013 7:15	5,5	0	12,63	10,45	0	12,19	3,88	0	12,12
25/08/2013 7:20	5,81	0	12,63	10,4	0	12,2	3,46	0	12,12
25/08/2013 7:25	6	0	12,64	10,06	0	12,2	2,28	0	12,13
25/08/2013 7:30	6,3	0	12,64	10,21	0	12,21	2,03	0	12,13
25/08/2013 7:35	6,42	0	12,64	10,03	0	12,21	1,99	0	12,15
25/08/2013 7:40	6,84	0	12,64	9,58	0	12,21	1,7	0	12,16
25/08/2013 7:45	7,47	0	12,64	10,05	0	12,21	2,33	0	12,19
25/08/2013 7:50	7,86	0	12,65	10,34	0	12,21	2,71	0	12,22
25/08/2013 7:55	8,34	0	12,66	10,99	0	12,21	2,39	0	12,28
25/08/2013 8:00	8,81	0	12,66	11,23	0	12,22	2,48	0	12,34
25/08/2013 8:05	8,93	0	12,67	11,44	0	12,22	3,09	0	12,39
25/08/2013 8:10	9,18	0	12,68	11,42	0	12,23	4,32	0	12,42
25/08/2013 8:15	9,61	0	12,69	11,73	0	12,24	4,88	0	12,46
25/08/2013 8:20	10,09	0	12,71	12,45	0	12,26	5,63	0	12,49
25/08/2013 8:25	10,49	0	12,71	12,41	0	12,3	6,5	0	12,52

25/08/2013 8:30	10,91	0	12,72	12,62	0	12,32	7,2	0	12,54
25/08/2013 8:35	11,47	0	12,7	13,02	0	12,34	7,9	0	12,57
25/08/2013 8:40	10,59	0	12,71	13,22	0	12,38	8,43	0	12,51
25/08/2013 8:45	10,7	0	12,68	13,31	0	12,42	8,89	0	12,46
25/08/2013 8:50	11,24	0	12,68	13,65	0	12,46	9,1	0	12,46
25/08/2013 8:55	11,25	0	12,66	14,19	0	12,54	9,59	0	12,45
25/08/2013 9:00	11,49	0	12,66	14,58	0	12,58	10,36	0	12,43
25/08/2013 9:05	11,44	0	12,68	15,22	0	12,65	10,52	0	12,4
25/08/2013 9:10	11,6	0	12,68	15,37	0	12,69	10,81	0	12,4
25/08/2013 9:15	11,53	0	12,68	15,59	0	12,71	11,17	0	12,39
25/08/2013 9:20	11,68	0	12,66	16,12	0	12,73	10,96	0	12,38
25/08/2013 9:25	11,72	0	12,65	16,59	0	12,74	11,69	0	12,39
25/08/2013 9:30	11,5	0	12,66	16,52	0	12,76	11,61	0	12,39
25/08/2013 9:35	11,67	0	12,67	16,82	0	12,76	11,71	0	12,38
25/08/2013 9:40	11,17	0	12,78	17,2	0	12,77	12,35	0	12,45
25/08/2013 9:45	10,75	0	12,94	17,21	0	12,77	11,69	0	12,65
25/08/2013 9:50	10,39	0	12,95	17,1	0	12,79	12,16	0	12,72
25/08/2013 9:55	9,46	0	13,09	16,78	0	12,8	12,27	0	12,73
25/08/2013 10:00	8,02	0	13,06	16,77	0	12,8	12,77	0	12,77
25/08/2013 10:05	8,04	0	13,18	16,84	0	12,8	12,95	0	12,72
25/08/2013 10:10	7,99	0	13,19	16,84	0	12,83	12,81	0	12,7
25/08/2013 10:15	8,63	0	13,23	17,44	0	12,81	13,02	0	12,73
25/08/2013 10:20	8,8	0	13,22	17,02	0	12,7	13,07	0	12,8
25/08/2013 10:25	8,94	0	13,12	17,46	0	12,61	12,98	0	12,77
25/08/2013 10:30	8,6	0	13,04	17,75	0	12,58	13,27	0	12,83
25/08/2013 10:35	8,88	0	13	17,77	0	12,63	12,41	0	12,83
25/08/2013 10:40	9,18	0	12,98	17,63	0	12,59	9,91	0	12,83
25/08/2013 10:45	9,43	0	12,97	17,88	0	12,59	10,64	0	12,74
25/08/2013 10:50	9,38	0	12,96	18,15	0	12,58	9,37	0	12,64
25/08/2013 10:55	9,73	0	12,93	18,17	0	12,58	9,88	0	12,59
25/08/2013 11:00	10,42	0	12,9	23,06	2	12,53	10,54	0	12,58
25/08/2013 11:05	10,16	0	12,89	17,3	2	12,55	10,16	0	12,57
25/08/2013 11:10	10,36	0	12,89	16,05	0	12,55	10,22	0	12,55
25/08/2013 11:15	9,84	0	12,89	16,13	0	12,56	10,11	0	12,54
25/08/2013 11:20	10,36	0	12,89	18,57	0	12,55	10,47	0	12,55
25/08/2013 11:25	10,07	0	12,86	19,37	0	12,53	9,61	0	12,58
25/08/2013 11:30	10,53	0	12,85	19,13	2	12,52	9,6	0	12,65
25/08/2013 11:35	10,34	0	12,92	18,64	0	12,53	9,17	0	12,67
25/08/2013 11:40	10,24	0	13,14	19,99	2	12,5	9,34	0	12,66
25/08/2013 11:45	10,2	0	13,29	21,91	2	12,51	9,27	0	12,64
25/08/2013 11:50	10,46	0	13,32	16,94	0	12,53	8,99	0	12,61
25/08/2013 11:55	10,38	0	13,33	16,38	0	12,53	8,99	0	12,59
25/08/2013 12:00	10,57	0	13,35	18,93	0	12,53	9,05	0	12,56
25/08/2013 12:05	10,54	0	13,37	16,64	0	12,54	9,03	0	12,54
25/08/2013 12:10	10,24	0	13,39	16,4	0	12,54	9,3	0	12,53
25/08/2013 12:15	10,53	0	13,41	16,79	0	12,55	9,3	0	12,51
25/08/2013 12:20	10,43	0	13,43	21,73	2	12,52	9,57	0	12,5
25/08/2013 12:25	10,7	0	13,45	17,49	0	12,53	9,48	0	12,5
25/08/2013 12:30	10,71	0	13,47	18,56	2	12,51	9,88	0	12,49
25/08/2013 12:35	10,7	0	13,49	17,89	0	12,52	9,67	0	12,48
25/08/2013 12:40	10,77	0	13,51	17,85	0	12,51	9,82	0	12,47
25/08/2013 12:45	10,83	0	13,53	16,8	0	12,49	9,8	0	12,47
25/08/2013 12:50	10,69	0	13,56	16,77	0	12,49	9,94	0	12,46
25/08/2013 12:55	11,33	0	13,58	17,28	0	12,48	9,58	0	12,46
25/08/2013 13:00	10,91	0	13,6	17,57	0	12,48	9,66	0	12,45
25/08/2013 13:05	10,82	0	13,63	17,61	0	12,47	9,98	0	12,45
25/08/2013 13:10	10,82	0	13,65	22,61	2	12,42	9,72	0	12,44
25/08/2013 13:15	10,57	0	13,68	20,57	2	12,43	9,69	0	12,43
25/08/2013 13:20	10,48	0	13,71	17,05	0	12,45	9,77	0	12,43
25/08/2013 13:25	10,56	0	13,73	21,22	2	12,43	9,77	0	12,43
25/08/2013 13:30	10,71	0	13,76	18,04	0	12,43	9,75	0	12,42
25/08/2013 13:35	10,68	0	13,78	17,51	0	12,43	9,98	0	12,42
25/08/2013 13:40	10,83	0	13,81	18,17	0	12,42	9,91	0	12,41
25/08/2013 13:45	10,73	0	13,83	18,32	0	12,42	9,87	0	12,41
25/08/2013 13:50	10,62	0	13,86	18,2	0	12,42	9,59	0	12,41
25/08/2013 13:55	10,76	0	13,88	17,75	0	12,42	10,01	0	12,41
25/08/2013 14:00	11,34	0	13,9	18,33	0	12,41	10,08	0	12,41

25/08/2013 14:05	10,89	0	13,92	17,31	0	12,41	10,01	0	12,41
25/08/2013 14:10	11,18	0	13,94	24,29	2	12,36	9,65	0	12,4
25/08/2013 14:15	10,64	0	13,95	18,01	0	12,4	9,69	0	12,4
25/08/2013 14:20	10,44	0	13,97	31,54	2	12,31	9,6	0	12,4
25/08/2013 14:25	10,4	0	13,97	22,68	2	12,37	9,26	0	12,4
25/08/2013 14:30	11,25	0	13,98	17,8	0	12,38	9,08	0	12,39
25/08/2013 14:35	11,62	0	13,98	17,83	0	12,38	9,35	0	12,39
25/08/2013 14:40	10,8	0	13,99	17,61	0	12,38	8,92	0	12,38
25/08/2013 14:45	10,9	0	13,99	21,18	0	12,38	8,94	0	12,38
25/08/2013 14:50	10,59	0	13,99	20,87	0	12,37	8,25	0	12,38
25/08/2013 14:55	10,91	0	13,99	19,39	0	12,37	9,29	0	12,38
25/08/2013 15:00	11,16	0	13,98	18,98	0	12,37	9,35	0	12,37
25/08/2013 15:05	11,68	0	13,98	17,76	0	12,36	10,28	0	12,37
25/08/2013 15:10	12,39	0	13,97	18,53	0	12,36	10,12	0	12,37
25/08/2013 15:15	12,04	0	13,96	19,22	0	12,36	10,55	0	12,36
25/08/2013 15:20	14,07	0	13,8	19,48	0	12,35	10,22	0	12,36
25/08/2013 15:25	14,83	0	13,61	18,39	0	12,35	10,55	0	12,36
25/08/2013 15:30	15,06	0	13,49	18,68	0	12,34	10,68	0	12,35
25/08/2013 15:35	13,98	0	13,42	20,8	0	12,34	11,35	0	12,35
25/08/2013 15:40	13,53	0	13,34	19,62	0	12,34	10,76	0	12,35
25/08/2013 15:45	13,54	0	13,31	21	2	12,32	10,94	0	12,34
25/08/2013 15:50	11,62	0	13,26	18,21	0	12,33	10,53	0	12,33
25/08/2013 15:55	12,66	0	13,24	18,55	0	12,33	10,81	0	12,33
25/08/2013 16:00	12,02	0	13,2	18,59	0	12,32	10,89	0	12,32
25/08/2013 16:05	11,43	0	13,21	18,16	0	12,32	9,8	0	12,32
25/08/2013 16:10	12,57	0	13,16	18,15	0	12,32	10,44	0	12,31
25/08/2013 16:15	12,03	0	13,11	19,68	0	12,31	11,68	0	12,31
25/08/2013 16:20	11,66	0	13,08	18,2	0	12,31	10,98	0	12,31
25/08/2013 16:25	12,49	0	13,07	19,34	0	12,3	10,05	0	12,3
25/08/2013 16:30	12,2	0	13,05	19,4	0	12,3	10,06	0	12,3
25/08/2013 16:35	12,53	0	13,05	18,68	0	12,3	10,52	0	12,3
25/08/2013 16:40	12,86	0	13,04	19,01	0	12,3	10,52	0	12,29
25/08/2013 16:45	12,44	0	13,03	18,05	0	12,29	10,92	0	12,29
25/08/2013 16:50	12,67	0	13,02	18,05	0	12,29	9,65	0	12,28
25/08/2013 16:55	12,1	0	13,02	18,24	0	12,29	10,02	0	12,27
25/08/2013 17:00	12,45	0	13,01	18,39	0	12,28	9,61	0	12,26
25/08/2013 17:05	12,9	0	13	18	0	12,28	9,94	0	12,26
25/08/2013 17:10	11,63	0	13	19,74	0	12,28	10,4	0	12,25
25/08/2013 17:15	10,23	0	13	18,62	0	12,28	9,54	0	12,25
25/08/2013 17:20	9,86	0	12,99	17,92	0	12,27	8,66	0	12,24
25/08/2013 17:25	9,57	0	12,98	20,61	2	12,27	8,36	0	12,24
25/08/2013 17:30	9,63	0	12,97	22,18	0	12,26	7,84	0	12,24
25/08/2013 17:35	9,48	0	12,97	21,62	2	12,26	7,91	0	12,23
25/08/2013 17:40	9,39	0	12,96	20,75	0	12,26	7,65	0	12,23
25/08/2013 17:45	9,09	0	12,95	21,21	0	12,25	7,68	0	12,22
25/08/2013 17:50	9,34	0	12,94	20,96	0	12,25	7,71	0	12,22
25/08/2013 17:55	9,94	0	12,94	18,93	0	12,25	7,7	0	12,22
25/08/2013 18:00	9,37	0	12,93	20,15	0	12,24	7,37	0	12,21
25/08/2013 18:05	9,46	0	12,92	20,45	0	12,24	7,15	0	12,21
25/08/2013 18:10	8,43	0	12,92	18,08	0	12,24	7,01	0	12,21
25/08/2013 18:15	8,25	0	12,92	17,35	0	12,23	6,89	0	12,2
25/08/2013 18:20	7,71	0	12,91	18,14	0	12,23	7,12	0	12,2
25/08/2013 18:25	7,14	0	12,91	17,7	0	12,23	6,9	0	12,2
25/08/2013 18:30	7,22	0	12,9	16,96	0	12,22	5,61	0	12,19
25/08/2013 18:35	7,32	0	12,9	18,84	0	12,22	5,57	0	12,19
25/08/2013 18:40	7,1	0	12,9	16,36	0	12,22	5,83	0	12,19
25/08/2013 18:45	7,07	0	12,89	15,17	0	12,22	5,64	0	12,18
25/08/2013 18:50	7,62	0	12,89	15,25	0	12,21	5,55	0	12,18
25/08/2013 18:55	6,91	0	12,89	16,63	0	12,21	5,67	0	12,18
25/08/2013 19:00	6,69	0	12,88	16,53	0	12,21	5,33	0	12,17
25/08/2013 19:05	6,69	0	12,88	14,65	0	12,21	5,17	0	12,17
25/08/2013 19:10	6,88	0	12,88	13,33	0	12,2	5,17	0	12,17
25/08/2013 19:15	7,26	0	12,88	12,16	0	12,2	5,68	0	12,17
25/08/2013 19:20	7,37	0	12,87	11,89	0	12,2	5,68	0	12,16
25/08/2013 19:25	7,06	0	12,87	11,76	0	12,2	5,85	0	12,16
25/08/2013 19:30	6,87	0	12,87	11,69	0	12,19	6,01	0	12,16
25/08/2013 19:35	6,73	0	12,87	11,43	0	12,19	5,42	0	12,16

25/08/2013 19:40	6,72	0	12,86	11,16	0	12,19	5,3	0	12,15
25/08/2013 19:45	6,53	0	12,86	10,9	0	12,19	5,3	0	12,15
25/08/2013 19:50	5,79	0	12,85	10,76	0	12,18	5,02	0	12,15
25/08/2013 19:55	5,73	0	12,85	10,68	0	12,18	4,31	0	12,14
25/08/2013 20:00	5,57	0	12,85	10,81	0	12,18	4,02	0	12,14
25/08/2013 20:05	5,65	0	12,85	11,85	0	12,18	3,86	0	12,14
25/08/2013 20:10	5,65	0	12,85	12,81	0	12,17	3,81	0	12,14
25/08/2013 20:15	5,6	0	12,84	13,8	0	12,18	3,82	0	12,13
25/08/2013 20:20	5,54	0	12,84	13,48	0	12,17	3,96	0	12,13
25/08/2013 20:25	5,63	0	12,84	13,15	0	12,17	3,73	0	12,13
25/08/2013 20:30	5,41	0	12,83	12,65	0	12,17	3,8	0	12,13
25/08/2013 20:35	5,82	0	12,83	14,76	0	12,17	3,9	0	12,13
25/08/2013 20:40	5,7	0	12,83	12,31	0	12,16	4,03	0	12,13
25/08/2013 20:45	5,9	0	12,83	10,93	0	12,16	4,04	0	12,12
25/08/2013 20:50	6,89	0	12,82	10,83	0	12,16	4,72	0	12,12
25/08/2013 20:55	7,54	0	12,82	9,9	0	12,16	5,32	0	12,12
25/08/2013 21:00	6,61	0	12,82	9,56	0	12,15	5,85	0	12,12
25/08/2013 21:05	5,9	0	12,82	9,53	0	12,16	5,62	0	12,11
25/08/2013 21:10	5,78	0	12,81	9,3	0	12,15	5,01	0	12,11
25/08/2013 21:15	5,8	0	12,81	9,07	0	12,15	3,81	0	12,11
25/08/2013 21:20	6,79	0	12,81	9,03	0	12,15	3,91	0	12,11
25/08/2013 21:25	6,89	0	12,81	9,64	0	12,15	3,9	0	12,11
25/08/2013 21:30	7,64	0	12,81	10,54	0	12,15	4,22	0	12,11
25/08/2013 21:35	8,45	0	12,81	10,93	0	12,14	3,9	0	12,1
25/08/2013 21:40	8,42	0	12,8	11,29	0	12,14	4,31	0	12,1
25/08/2013 21:45	7,94	0	12,8	11,34	0	12,14	4,25	0	12,1
25/08/2013 21:50	8,05	0	12,8	11,36	0	12,14	4,42	0	12,1
25/08/2013 21:55	9,87	0	12,8	11,26	0	12,14	4,59	0	12,1
25/08/2013 22:00	10,31	0	12,79	11,23	0	12,14	4,33	0	12,1
25/08/2013 22:05	10,32	0	12,79	11,18	0	12,13	4,74	0	12,09
25/08/2013 22:10	10,34	0	12,79	11,34	0	12,13	5,29	0	12,1
25/08/2013 22:15	10,41	0	12,79	11,14	0	12,13	5,36	0	12,09
25/08/2013 22:20	10,38	0	12,78	11,16	0	12,13	6,03	0	12,09
25/08/2013 22:25	9,92	0	12,78	11,22	0	12,13	6,83	0	12,09
25/08/2013 22:30	11,27	0	12,78	11,26	0	12,12	6,27	0	12,09
25/08/2013 22:35	12,19	0	12,78	11,52	0	12,12	5,92	0	12,08
25/08/2013 22:40	11,61	0	12,77	11,38	0	12,12	6,58	0	12,08
25/08/2013 22:45	10,33	0	12,77	11,28	0	12,12	6,95	0	12,08
25/08/2013 22:50	10,01	0	12,77	11,32	0	12,12	6,99	0	12,07
25/08/2013 22:55	12,03	0	12,77	11,23	0	12,11	5,82	0	12,08
25/08/2013 23:00	13,68	0	12,76	11,13	0	12,11	5,79	0	12,07
25/08/2013 23:05	13,41	0	12,76	11,05	0	12,11	6,57	0	12,07
25/08/2013 23:10	12,31	0	12,76	11,1	0	12,11	7,8	0	12,07
25/08/2013 23:15	10,41	0	12,76	10,89	0	12,11	8,52	0	12,07
25/08/2013 23:20	10,53	0	12,75	10,82	0	12,11	9,08	0	12,07
25/08/2013 23:25	11,43	0	12,75	10,99	0	12,1	9,05	0	12,07
25/08/2013 23:30	11,7	0	12,75	10,92	0	12,1	8,79	0	12,07
25/08/2013 23:35	9,95	0	12,75	10,98	0	12,1	9,07	0	12,06
25/08/2013 23:40	9,21	0	12,75	10,8	0	12,1	8,74	0	12,06
25/08/2013 23:45	9,22	0	12,74	10,84	0	12,1	6,99	0	12,06
25/08/2013 23:50	9,28	0	12,74	10,76	0	12,1	6,34	0	12,06
25/08/2013 23:55	8,47	0	12,74	10,73	0	12,09	6,27	0	12,04
26/08/2013 0:00	8,03	0	12,74	10,63	0	12,1	6,12	0	12,05
26/08/2013 0:05	8,44	0	12,74	10,58	0	12,1	6,34	0	12,04
26/08/2013 0:10	8,61	0	12,73	10,54	0	12,1	6,35	0	12,05
26/08/2013 0:15	8,77	0	12,73	10,57	0	12,1	6,56	0	12,04
26/08/2013 0:20	9	0	12,73	10,57	0	12,1	7	0	12,04
26/08/2013 0:25	8,9	0	12,73	10,27	0	12,09	7,33	0	12,04
26/08/2013 0:30	9,19	0	12,72	10,18	0	12,1	6,34	0	12,03
26/08/2013 0:35	9,37	0	12,72	10,01	0	12,09	6,09	0	12,03
26/08/2013 0:40	9,31	0	12,72	9,89	0	12,09	5,39	0	12,03
26/08/2013 0:45	9,35	0	12,72	9,78	0	12,09	5,12	0	12,03
26/08/2013 0:50	8,46	0	12,71	9,72	0	12,09	5,54	0	12,03
26/08/2013 0:55	8,11	0	12,71	9,64	0	12,09	6,57	0	12,03
26/08/2013 1:00	7,82	0	12,71	9,74	0	12,09	6,95	0	12,03
26/08/2013 1:05	8,02	0	12,71	9,76	0	12,08	6,44	0	12,02
26/08/2013 1:10	8,07	0	12,71	9,69	0	12,09	6,62	0	12,03

26/08/2013 1:15	8,32	0	12,7	9,82	0	12,08	6,11	0	12,02
26/08/2013 1:20	8,92	0	12,7	9,77	0	12,08	6,25	0	12,02
26/08/2013 1:25	9,1	0	12,7	9,68	0	12,08	5,9	0	12,02
26/08/2013 1:30	8,78	0	12,7	9,79	0	12,08	5,92	0	12,02
26/08/2013 1:35	8,39	0	12,69	9,81	0	12,08	5,57	0	12,01
26/08/2013 1:40	8,14	0	12,69	9,57	0	12,08	6,16	0	12,02
26/08/2013 1:45	8,17	0	12,69	9,67	0	12,07	6,35	0	12,01
26/08/2013 1:50	8,29	0	12,69	9,65	0	12,08	6,14	0	12,01
26/08/2013 1:55	8,7	0	12,68	9,58	0	12,07	6,33	0	12,01
26/08/2013 2:00	8,37	0	12,68	9,77	0	12,07	6,44	0	12,01
26/08/2013 2:05	8,16	0	12,68	9,61	0	12,06	6,48	0	12
26/08/2013 2:10	8,72	0	12,68	9,69	0	12,07	6,77	0	12,01
26/08/2013 2:15	8,92	0	12,68	9,84	0	12,06	6,72	0	12
26/08/2013 2:20	8,34	0	12,68	9,7	0	12,07	6,24	0	12
26/08/2013 2:25	8,74	0	12,67	9,62	0	12,06	5,82	0	12
26/08/2013 2:30	8,53	0	12,67	9,52	0	12,06	5,37	0	12
26/08/2013 2:35	9,03	0	12,67	9,32	0	12,06	4,99	0	11,99
26/08/2013 2:40	9,04	0	12,67	9,47	0	12,06	4,72	0	12
26/08/2013 2:45	8,91	0	12,66	9,35	0	12,06	4,68	0	11,99
26/08/2013 2:50	8,44	0	12,66	9,25	0	12,06	4,6	0	12
26/08/2013 2:55	6,95	0	12,66	9,23	0	12,05	4,59	0	11,99
26/08/2013 3:00	6,48	0	12,66	9,33	0	12,05	4,36	0	11,99
26/08/2013 3:05	6,24	0	12,65	9,3	0	12,05	4,3	0	11,99
26/08/2013 3:10	6,18	0	12,66	9,42	0	12,05	4,33	0	11,99
26/08/2013 3:15	6,24	0	12,65	9,31	0	12,05	4,19	0	11,98
26/08/2013 3:20	6,33	0	12,65	9,42	0	12,05	4,29	0	11,98
26/08/2013 3:25	6,19	0	12,65	9,45	0	12,05	4,33	0	11,98
26/08/2013 3:30	6,37	0	12,65	9,56	0	12,05	4,57	0	11,98
26/08/2013 3:35	6,45	0	12,64	9,59	0	12,04	4,36	0	11,98
26/08/2013 3:40	6,39	0	12,65	9,93	0	12,05	4,48	0	11,98
26/08/2013 3:45	6,44	0	12,64	9,87	0	12,04	4,52	0	11,98
26/08/2013 3:50	6,3	0	12,64	10,05	0	12,04	4,63	0	11,97
26/08/2013 3:55	6,38	0	12,64	10,11	0	12,04	4,84	0	11,97
26/08/2013 4:00	6,54	0	12,64	10,24	0	12,04	4,82	0	11,98
26/08/2013 4:05	6,34	0	12,63	10,09	0	12,03	4,82	0	11,97
26/08/2013 4:10	6,57	0	12,63	10,34	0	12,03	5,03	0	11,98
26/08/2013 4:15	6,66	0	12,63	10,25	0	12,02	5,06	0	11,97
26/08/2013 4:20	6,62	0	12,63	10,7	0	12,03	5,11	0	11,97
26/08/2013 4:25	6,61	0	12,63	10,8	0	12,02	5,11	0	11,97
26/08/2013 4:30	6,43	0	12,63	10,84	0	12,02	5,02	0	11,97
26/08/2013 4:35	6,47	0	12,63	10,91	0	12,02	5,17	0	11,97
26/08/2013 4:40	6,67	0	12,63	11,35	0	12,02	5,21	0	11,97
26/08/2013 4:45	6,61	0	12,62	11,37	0	12,02	5,47	0	11,96
26/08/2013 4:50	6,7	0	12,62	11,42	0	12,02	5,27	0	11,96
26/08/2013 4:55	6,9	0	12,62	11,68	0	12,01	5,03	0	11,96
26/08/2013 5:00	6,84	0	12,62	11,98	0	12,02	5,51	0	11,96
26/08/2013 5:05	7,1	0	12,62	11,95	0	12,01	5,5	0	11,96
26/08/2013 5:10	7,06	0	12,63	12,09	0	12,01	5,7	0	11,96
26/08/2013 5:15	7,1	0	12,62	12,01	0	12,01	5,68	0	11,95
26/08/2013 5:20	7,17	0	12,62	12,24	0	12,01	5,69	0	11,95
26/08/2013 5:25	7,06	0	12,62	12,25	0	12,01	5,5	0	11,95
26/08/2013 5:30	7,14	0	12,62	12,3	0	12,01	5,85	0	11,95
26/08/2013 5:35	7,17	0	12,62	12,53	0	12,01	5,65	0	11,95
26/08/2013 5:40	7,39	0	12,62	12,49	0	12,01	5,82	0	11,95
26/08/2013 5:45	7,74	0	12,61	12,58	0	12	5,86	0	11,94
26/08/2013 5:50	7,38	0	12,62	12,61	0	12	5,94	0	11,95
26/08/2013 5:55	7,59	0	12,61	12,64	0	12	7,41	0	11,94
26/08/2013 6:00	7,42	0	12,61	12,76	0	12	6,01	0	11,94
26/08/2013 6:05	7,74	0	12,61	12,79	0	12	5,85	0	11,94
26/08/2013 6:10	7,51	0	12,61	12,82	0	12,01	6,08	0	11,94
26/08/2013 6:15	7,29	0	12,61	12,91	0	12	6,02	0	11,94
26/08/2013 6:20	7,41	0	12,61	12,87	0	12,01	6,08	0	11,94
26/08/2013 6:25	7,59	0	12,6	13,03	0	12	6,06	0	11,93
26/08/2013 6:30	7,56	0	12,61	13,25	0	12	6,06	0	11,93
26/08/2013 6:35	7,77	0	12,6	13,03	0	12	6,23	0	11,93
26/08/2013 6:40	8,16	0	12,61	13,31	0	12	6,24	0	11,93
26/08/2013 6:45	8,15	0	12,61	13,42	0	12	6,37	0	11,93

26/08/2013 6:50	8,16	0	12,61	13,3	0	12	6,3	0	11,93
26/08/2013 6:55	8,15	0	12,61	13,21	0	12	6,3	0	11,93
26/08/2013 7:00	8,73	0	12,61	13,32	0	12	6,45	0	11,93
26/08/2013 7:05	9,05	0	12,6	13,05	0	12	6,13	0	11,93
26/08/2013 7:10	9,22	0	12,6	13,39	0	12	6,24	0	11,93
26/08/2013 7:15	9,02	0	12,6	13,17	0	12	6,35	0	11,93
26/08/2013 7:20	9,25	0	12,6	13,36	0	12	6,25	0	11,93
26/08/2013 7:25	8,99	0	12,6	13,37	0	12,01	6,74	0	11,93
26/08/2013 7:30	8,85	0	12,61	13,2	0	12,01	6,59	0	11,94
26/08/2013 7:35	8,83	0	12,61	13,12	0	12,01	7,53	0	11,95
26/08/2013 7:40	9,07	0	12,61	13,46	0	12,01	9,63	0	11,96
26/08/2013 7:45	8,63	0	12,61	13,37	0	12,01	8,31	0	11,98
26/08/2013 7:50	9,01	0	12,62	13,57	0	12,02	8,82	0	12,01
26/08/2013 7:55	9,72	0	12,62	13,68	0	12,02	8,96	0	12,05
26/08/2013 8:00	9,11	0	12,62	13,97	0	12,02	7,84	0	12,1
26/08/2013 8:05	8,99	0	12,63	13,95	0	12,02	8,14	0	12,15
26/08/2013 8:10	9,17	0	12,64	14,15	0	12,02	7,54	0	12,19
26/08/2013 8:15	9,52	0	12,65	14,5	0	12,02	8,32	0	12,22
26/08/2013 8:20	9,31	0	12,67	15	0	12,04	8,44	0	12,25
26/08/2013 8:25	10,08	0	12,68	15,88	0	12,05	8,51	0	12,28
26/08/2013 8:30	11,04	0	12,68	16,87	0	12,08	8,76	0	12,31
26/08/2013 8:35	10,84	0	12,68	17,39	0	12,12	8,64	0	12,31
26/08/2013 8:40	11,95	0	12,66	18,42	0	12,14	9,56	0	12,21
26/08/2013 8:45	12,3	0	12,65	19,29	0	12,18	9,54	0	12,16
26/08/2013 8:50	13,25	0	12,7	18,34	0	12,22	10,05	0	12,14
26/08/2013 8:55	13,33	0	12,8	15,93	0	12,28	9,55	0	12,13
26/08/2013 9:00	12,09	0	12,86	14,78	0	12,34	8,15	0	12,11
26/08/2013 9:05	11,39	0	12,91	14,98	0	12,42	7,74	0	12,1
26/08/2013 9:10	9,43	0	12,96	14,95	0	12,46	7,2	0	12,09
26/08/2013 9:15	9,01	0	13	15,09	0	12,49	7,14	0	12,08
26/08/2013 9:20	9,01	0	13,04	14,63	0	12,51	6,82	0	12,07
26/08/2013 9:25	9,09	0	13,08	14,89	0	12,52	6,98	0	12,06
26/08/2013 9:30	9,57	0	13,12	15,1	0	12,53	7,01	0	12,05
26/08/2013 9:35	9,32	0	13,14	14,99	0	12,54	7,58	0	12,07
26/08/2013 9:40	9,45	0	13,18	14,85	0	12,55	7,65	0	12,23
26/08/2013 9:45	9,34	0	13,2	14,63	0	12,55	7,32	0	12,38
26/08/2013 9:50	8,96	0	13,22	14,59	0	12,56	7,53	0	12,44
26/08/2013 9:55	9,05	0	13,23	14,58	0	12,57	7,1	0	12,48
26/08/2013 10:00	9,09	0	13,24	14,77	0	12,57	7,69	0	12,49
26/08/2013 10:05	9,15	0	13,25	14,51	0	12,57	7,29	0	12,51
26/08/2013 10:10	9,64	0	13,27	14,46	0	12,57	6,95	0	12,53
26/08/2013 10:15	8,56	0	13,27	14,83	0	12,58	7,87	0	12,55
26/08/2013 10:20	8,69	0	13,22	14,76	0	12,58	7,47	0	12,55
26/08/2013 10:25	8,85	0	13,11	14,84	0	12,59	6,99	0	12,56
26/08/2013 10:30	8,35	0	13,04	14,85	0	12,58	6,65	0	12,57
26/08/2013 10:35	8,44	0	13,01	14,83	0	12,45	6,69	0	12,56
26/08/2013 10:40	8,19	0	13	14,65	0	12,37	6,8	0	12,56
26/08/2013 10:45	8,14	0	12,99	14,86	0	12,34	6,48	0	12,56
26/08/2013 10:50	8,02	0	12,98	14,78	0	12,32	6,56	0	12,56
26/08/2013 10:55	9,84	0	12,95	15,06	0	12,32	6,65	0	12,56
26/08/2013 11:00	9,63	0	12,93	14,69	0	12,31	6,54	0	12,55
26/08/2013 11:05	10,09	0	12,92	14,58	0	12,29	7,75	0	12,55
26/08/2013 11:10	9,47	0	12,91	14,53	0	12,29	7,2	0	12,54
26/08/2013 11:15	9,76	0	12,92	14,51	0	12,29	7,67	0	12,54
26/08/2013 11:20	10,25	0	12,91	14,7	0	12,28	8,15	0	12,52
26/08/2013 11:25	9,97	0	12,89	14,64	0	12,28	8,06	0	12,52
26/08/2013 11:30	9,82	0	12,89	14,49	0	12,27	8,15	0	12,5
26/08/2013 11:35	9,68	0	12,99	15	0	12,27	8,17	0	12,49
26/08/2013 11:40	9,56	0	13,2	14,53	0	12,27	8,5	0	12,47
26/08/2013 11:45	9,7	0	13,32	14,37	0	12,27	8,74	0	12,45
26/08/2013 11:50	9,77	0	13,35	18,03	2	12,26	8,41	0	12,43
26/08/2013 11:55	9,66	0	13,37	16,72	0	12,27	8,65	0	12,41
26/08/2013 12:00	9,8	0	13,39	16,7	0	12,27	8,42	0	12,38
26/08/2013 12:05	10,28	0	13,41	16,63	0	12,27	8,06	0	12,36
26/08/2013 12:10	10,39	0	13,43	17,97	0	12,26	7,74	0	12,34
26/08/2013 12:15	9,86	0	13,45	16,93	0	12,3	7,37	0	12,33
26/08/2013 12:20	9,54	0	13,47	19,36	2	12,29	7,81	0	12,32

26/08/2013 12:25	9,02	0	13,49	19,06	0	12,27	7,84	0	12,31
26/08/2013 12:30	9,14	0	13,51	15,91	0	12,26	7,79	0	12,31
26/08/2013 12:35	9,4	0	13,54	16,41	0	12,26	6,87	0	12,3
26/08/2013 12:40	8,81	0	13,56	17,13	0	12,25	6,69	0	12,29
26/08/2013 12:45	8,78	0	13,59	16,51	0	12,24	6,73	0	12,29
26/08/2013 12:50	8,94	0	13,61	15,63	0	12,24	6,67	0	12,28
26/08/2013 12:55	9,68	0	13,64	15,93	0	12,23	6,53	0	12,28
26/08/2013 13:00	9,67	0	13,67	15,8	0	12,23	6,73	0	12,27
26/08/2013 13:05	9,46	0	13,7	16,09	0	12,23	6,82	0	12,27
26/08/2013 13:10	8,9	0	13,73	16,42	0	12,22	6,88	0	12,26
26/08/2013 13:15	9,37	0	13,76	15,35	0	12,22	6,88	0	12,26
26/08/2013 13:20	9,39	0	13,79	15,59	0	12,21	6,95	0	12,25
26/08/2013 13:25	9,55	0	13,83	16,15	0	12,21	7,08	0	12,25
26/08/2013 13:30	9,43	0	13,86	15,82	0	12,21	7,55	0	12,24
26/08/2013 13:35	9,35	0	13,9	18,1	0	12,21	7,11	0	12,24
26/08/2013 13:40	9,19	0	13,93	16,76	0	12,2	7,34	0	12,24
26/08/2013 13:45	9,19	0	13,96	16,54	0	12,2	7,32	0	12,23
26/08/2013 13:50	9,01	0	13,98	15,29	0	12,19	7,11	0	12,23
26/08/2013 13:55	9,01	0	14,01	17,12	0	12,19	7,01	0	12,22
26/08/2013 14:00	9,16	0	14,03	16,05	0	12,19	6,8	0	12,22
26/08/2013 14:05	8,71	0	14,05	16,64	0	12,19	6,81	0	12,21
26/08/2013 14:10	8,95	0	14,07	15,8	0	12,18	6,53	0	12,21
26/08/2013 14:15	8,72	0	14,09	16,02	0	12,18	6,66	0	12,21
26/08/2013 14:20	8,18	0	14,1	16,38	0	12,18	6,44	0	12,2
26/08/2013 14:25	8,46	0	14,12	17,67	0	12,18	6,51	0	12,2
26/08/2013 14:30	8,36	0	14,12	15,22	0	12,17	6,15	0	12,2
26/08/2013 14:35	8,58	0	14,13	15,93	2	12,17	6,68	0	12,19
26/08/2013 14:40	8,29	0	14,13	15,23	0	12,17	6,86	0	12,19
26/08/2013 14:45	8,41	0	14,13	15	0	12,17	6,26	0	12,19
26/08/2013 14:50	8,65	0	14,13	15,76	0	12,16	5,99	0	12,19
26/08/2013 14:55	9,01	0	14,09	15,13	0	12,16	6,19	0	12,18
26/08/2013 15:00	8,7	0	13,46	17,29	0	12,16	6,69	0	12,18
26/08/2013 15:05	8,3	0	13,2	15,49	0	12,16	6,52	0	12,18
26/08/2013 15:10	8,91	0	13,16	15,52	0	12,16	7,04	0	12,19
26/08/2013 15:15	8,24	0	13,2	18,82	0	12,17	6,88	0	12,19
26/08/2013 15:20	8,35	0	13,21	18,95	0	12,17	7,06	0	12,19
26/08/2013 15:25	8,21	0	13,21	16,91	0	12,18	6,17	0	12,19
26/08/2013 15:30	8,52	0	13,2	15,88	0	12,18	6,85	0	12,19
26/08/2013 15:35	8,68	0	13,21	14,73	0	12,17	6,41	0	12,18
26/08/2013 15:40	8,45	0	13,2	14,96	0	12,16	6,34	0	12,18
26/08/2013 15:45	8,97	0	13,2	15,52	0	12,16	6,59	0	12,17
26/08/2013 15:50	8,71	0	13,2	14,85	0	12,15	6,77	0	12,16
26/08/2013 15:55	9,32	0	13,23	15,33	0	12,15	6,43	0	12,16
26/08/2013 16:00	9,4	0	13,24	16,15	0	12,15	6,46	0	12,17
26/08/2013 16:05	9,3	0	13,22	16,87	0	12,15	6,58	0	12,17
26/08/2013 16:10	9,13	0	13,22	17,5	0	12,14	6,98	0	12,18
26/08/2013 16:15	9,08	0	13,25	21,05	0	12,14	7,2	0	12,17
26/08/2013 16:20	9,01	0	13,22	18,91	0	12,14	6,67	0	12,17
26/08/2013 16:25	9,31	0	13,2	17,69	0	12,14	6,8	0	12,17
26/08/2013 16:30	9,16	0	13,21	17,95	0	12,14	7,36	0	12,17
26/08/2013 16:35	9,8	0	13,18	17,34	0	12,14	8,16	0	12,16
26/08/2013 16:40	9,62	0	13,16	18,52	0	12,13	8,03	0	12,16
26/08/2013 16:45	9,55	0	13,12	20,25	0	12,13	8,11	0	12,15
26/08/2013 16:50	9,7	0	13,08	17,48	0	12,12	8,16	0	12,15
26/08/2013 16:55	10,22	0	13,05	16,95	0	12,12	8,32	0	12,14
26/08/2013 17:00	9,95	0	13,04	16,97	0	12,11	8,46	0	12,14
26/08/2013 17:05	10,15	0	13,05	17,24	0	12,11	8,36	0	12,13
26/08/2013 17:10	9,92	0	13,03	16,5	0	12,1	8,85	0	12,13
26/08/2013 17:15	9,92	0	13,03	17,51	0	12,1	8,66	0	12,12
26/08/2013 17:20	10,52	0	13,02	17,97	0	12,1	8,62	0	12,12
26/08/2013 17:25	10,83	0	13,02	16,43	0	12,09	9,9	0	12,11
26/08/2013 17:30	10,97	0	13	15,63	0	12,09	10,12	0	12,11
26/08/2013 17:35	11,7	0	13	16,28	0	12,08	10,9	0	12,1
26/08/2013 17:40	12,6	0	12,99	15,23	0	12,08	10,59	0	12,1
26/08/2013 17:45	12,57	0	12,98	15,66	0	12,06	9,8	0	12,09
26/08/2013 17:50	11,26	0	12,97	14,93	0	12,05	9,56	0	12,09
26/08/2013 17:55	11,7	0	12,96	15,36	0	12,06	9,48	0	12,08

26/08/2013 18:00	11,15	0	12,95	15,16	0	12,06	10,05	0	12,07
26/08/2013 18:05	11,63	0	12,95	14,77	0	12,05	8,74	0	12,06
26/08/2013 18:10	11,3	0	12,94	14,94	0	12,05	8,87	0	12,05
26/08/2013 18:15	11,34	0	12,94	14,61	0	12,05	8,82	0	12,05
26/08/2013 18:20	11,05	0	12,93	14,59	0	12,04	9,18	0	12,05
26/08/2013 18:25	11,19	0	12,93	14,57	0	12,04	9,53	0	12,04
26/08/2013 18:30	10,59	0	12,93	14,48	0	12,04	9,64	0	12,04
26/08/2013 18:35	9,62	0	12,93	14,19	0	12,04	9,12	0	12,03
26/08/2013 18:40	10,02	0	12,92	14,13	0	12,03	8,53	0	12,03
26/08/2013 18:45	9,94	0	12,92	13,68	0	12,03	9,17	0	12,03
26/08/2013 18:50	9,61	0	12,91	13,62	0	12,03	8,73	0	12,02
26/08/2013 18:55	9,99	0	12,91	13,81	0	12,03	8,33	0	12,02
26/08/2013 19:00	10,32	0	12,91	13,63	0	12,02	8,45	0	12,01
26/08/2013 19:05	10,49	0	12,91	13,77	0	12,02	9,9	0	12,01
26/08/2013 19:10	10,24	0	12,9	13,59	0	12,02	8,54	0	12,01
26/08/2013 19:15	10,59	0	12,89	13,23	0	12,02	7,99	0	12,01
26/08/2013 19:20	10,71	0	12,89	13,26	0	12,01	8,06	0	12
26/08/2013 19:25	11,34	0	12,88	13,13	0	12,01	8,29	0	12
26/08/2013 19:30	11,15	0	12,88	13,05	0	12,01	7,66	0	12
26/08/2013 19:35	11,77	0	12,88	13,23	0	12,01	8,43	0	11,99
26/08/2013 19:40	11,71	0	12,88	13,05	0	12,01	7,9	0	11,99
26/08/2013 19:45	12,1	0	12,87	12,76	0	12	6,62	0	11,99
26/08/2013 19:50	12,61	0	12,87	12,62	0	12	7,39	0	11,99
26/08/2013 19:55	11,98	0	12,87	12,55	0	12	7,04	0	11,98
26/08/2013 20:00	11,21	0	12,87	12,65	0	12	6,77	0	11,98
26/08/2013 20:05	10,26	0	12,86	12,81	0	12	6,57	0	11,98
26/08/2013 20:10	10,84	0	12,86	12,89	0	12	6,09	0	11,98
26/08/2013 20:15	12,43	0	12,86	13,14	0	11,99	6,04	0	11,98
26/08/2013 20:20	10,64	0	12,86	13,09	0	11,99	7,01	0	11,98
26/08/2013 20:25	10,68	0	12,86	13,03	0	11,99	8,03	0	11,97
26/08/2013 20:30	10,35	0	12,85	13,22	0	11,99	6,3	0	11,97
26/08/2013 20:35	9,71	0	12,85	13,14	0	11,98	5,56	0	11,97
26/08/2013 20:40	9,76	0	12,85	13,06	0	11,98	5,6	0	11,97
26/08/2013 20:45	10,27	0	12,85	13,08	0	11,98	5,26	0	11,96
26/08/2013 20:50	9,35	0	12,84	13,15	0	11,98	5,08	0	11,96
26/08/2013 20:55	9,38	0	12,84	13,09	0	11,98	5,23	0	11,96
26/08/2013 21:00	10,07	0	12,84	13,1	0	11,98	5,5	0	11,96
26/08/2013 21:05	10,61	0	12,83	13,26	0	11,97	5,66	0	11,95
26/08/2013 21:10	9,97	0	12,83	13,59	0	11,97	5,74	0	11,95
26/08/2013 21:15	10,26	0	12,83	13,88	0	11,97	6,21	0	11,95
26/08/2013 21:20	11,61	0	12,83	13,8	0	11,97	6,4	0	11,95
26/08/2013 21:25	11,89	0	12,83	13,57	0	11,96	6,65	0	11,94
26/08/2013 21:30	11,78	0	12,82	13,85	0	11,97	7,38	0	11,95
26/08/2013 21:35	13,07	0	12,82	13,85	0	11,96	6,89	0	11,94
26/08/2013 21:40	11,69	0	12,82	14,25	0	11,96	5,87	0	11,94
26/08/2013 21:45	11,27	0	12,82	15,17	0	11,96	5,81	0	11,94
26/08/2013 21:50	11,07	0	12,81	15,32	0	11,96	5,88	0	11,94
26/08/2013 21:55	11,22	0	12,81	15,05	0	11,95	6,19	0	11,93
26/08/2013 22:00	11,56	0	12,81	14,96	0	11,95	6,57	0	11,94
26/08/2013 22:05	11,75	0	12,81	15,29	0	11,95	6,45	0	11,92
26/08/2013 22:10	11,44	0	12,8	15,15	0	11,95	6,5	0	11,92
26/08/2013 22:15	11,26	0	12,8	15,15	0	11,94	6,31	0	11,92
26/08/2013 22:20	11,69	0	12,8	14,71	0	11,94	6,39	0	11,92
26/08/2013 22:25	11,13	0	12,8	14,71	0	11,94	6,34	0	11,91
26/08/2013 22:30	11,34	0	12,8	14,75	0	11,94	6,84	0	11,91
26/08/2013 22:35	11,33	0	12,79	14,86	0	11,94	6,95	0	11,91
26/08/2013 22:40	10,94	0	12,79	14,84	0	11,94	7,34	0	11,91
26/08/2013 22:45	10,61	0	12,79	14,85	0	11,93	7,22	0	11,9
26/08/2013 22:50	10,32	0	12,79	15,1	0	11,93	6,93	0	11,9
26/08/2013 22:55	11,17	0	12,79	14,68	0	11,93	7,15	0	11,9
26/08/2013 23:00	12,01	0	12,78	14,61	0	11,93	6,71	0	11,9
26/08/2013 23:05	11,68	0	12,78	14,74	0	11,93	6,96	0	11,9
26/08/2013 23:10	11,56	0	12,78	14,46	0	11,92	6,8	0	11,9
26/08/2013 23:15	11,47	0	12,77	14,67	0	11,92	6,52	0	11,89
26/08/2013 23:20	11,95	0	12,77	14,98	0	11,92	6,93	0	11,89
26/08/2013 23:25	11,41	0	12,77	14,7	0	11,92	6,59	0	11,89
26/08/2013 23:30	10,93	0	12,77	14,95	0	11,92	6,56	0	11,89

26/08/2013 23:35	10,71	0	12,77	14,64	0	11,91	6,78	0	11,88
26/08/2013 23:40	11,3	0	12,76	14,72	0	11,91	6,74	0	11,88
26/08/2013 23:45	11,98	0	12,76	14,43	0	11,91	6,63	0	11,88
26/08/2013 23:50	11,85	0	12,76	14,67	0	11,91	6,82	0	11,88
26/08/2013 23:55	11,67	0	12,76	14,53	0	11,91	6,83	0	11,87
27/08/2013 0:00	11,13	0	12,76	14,69	0	11,91	6,46	0	11,88
27/08/2013 0:05	10,85	0	12,75	14,38	0	11,9	6,52	0	11,88
27/08/2013 0:10	10,64	0	12,75	14,36	0	11,9	6,71	0	11,88
27/08/2013 0:15	10,35	0	12,75	14,19	0	11,9	6,73	0	11,87
27/08/2013 0:20	10,59	0	12,75	14,39	0	11,91	6,68	0	11,88
27/08/2013 0:25	10,23	0	12,75	14,17	0	11,91	6,51	0	11,87
27/08/2013 0:30	10,72	0	12,74	14,33	0	11,91	6,43	0	11,87
27/08/2013 0:35	11,78	0	12,74	14,28	0	11,9	6,37	0	11,87
27/08/2013 0:40	12,44	0	12,74	14,12	0	11,9	6,35	0	11,87
27/08/2013 0:45	12,63	0	12,74	14,35	0	11,9	6,62	0	11,86
27/08/2013 0:50	12,78	0	12,73	14,13	0	11,9	6,25	0	11,86
27/08/2013 0:55	12,68	0	12,73	14,24	0	11,9	6,19	0	11,86
27/08/2013 1:00	12,35	0	12,73	14,12	0	11,9	6,59	0	11,86
27/08/2013 1:05	12,73	0	12,73	14,05	0	11,89	6,35	0	11,85
27/08/2013 1:10	13,04	0	12,73	14,05	0	11,89	6,16	0	11,85
27/08/2013 1:15	12,42	0	12,72	14,01	0	11,89	6,21	0	11,85
27/08/2013 1:20	12,05	0	12,72	14,01	0	11,89	6,12	0	11,85
27/08/2013 1:25	11,19	0	12,72	14,08	0	11,89	6	0	11,85
27/08/2013 1:30	11,65	0	12,72	14	0	11,89	6,12	0	11,85
27/08/2013 1:35	11,51	0	12,72	13,97	0	11,88	6,2	0	11,84
27/08/2013 1:40	11,75	0	12,72	13,81	0	11,88	6,07	0	11,84
27/08/2013 1:45	11,91	0	12,71	13,76	0	11,88	6	0	11,84
27/08/2013 1:50	12,54	0	12,71	13,57	0	11,88	5,97	0	11,84
27/08/2013 1:55	11,12	0	12,71	13,74	0	11,88	5,92	0	11,84
27/08/2013 2:00	11,66	0	12,71	13,54	0	11,88	6,12	0	11,84
27/08/2013 2:05	11,65	0	12,7	13,38	0	11,87	6,7	0	11,83
27/08/2013 2:10	11,12	0	12,7	13,5	0	11,87	8,85	0	11,82
27/08/2013 2:15	11,11	0	12,7	13,47	0	11,86	9,62	0	11,82
27/08/2013 2:20	11,06	0	12,7	13,58	0	11,86	9,67	0	11,82
27/08/2013 2:25	11,02	0	12,69	13,39	0	11,86	9,37	0	11,82
27/08/2013 2:30	11,2	0	12,69	13,54	0	11,86	9,51	0	11,82
27/08/2013 2:35	12,26	0	12,69	13,43	0	11,85	8,82	0	11,81
27/08/2013 2:40	12,47	0	12,69	13,48	0	11,85	8,53	0	11,81
27/08/2013 2:45	12,73	0	12,68	13,24	0	11,85	9,06	0	11,81
27/08/2013 2:50	12,79	0	12,68	13,2	0	11,85	9,02	0	11,81
27/08/2013 2:55	12,17	0	12,68	13,35	0	11,84	8,7	0	11,81
27/08/2013 3:00	12,52	0	12,68	13,17	0	11,84	9,15	0	11,81
27/08/2013 3:05	13,43	0	12,68	12,92	0	11,84	9,73	0	11,8
27/08/2013 3:10	13,85	0	12,68	13,13	0	11,84	10,25	0	11,81
27/08/2013 3:15	11,76	0	12,67	13,01	0	11,83	10,42	0	11,8
27/08/2013 3:20	11,52	0	12,67	13,22	0	11,84	10,84	0	11,8
27/08/2013 3:25	11,41	0	12,67	12,93	0	11,83	10,53	0	11,8
27/08/2013 3:30	11,65	0	12,67	13,3	0	11,83	9,62	0	11,79
27/08/2013 3:35	12,08	0	12,67	13,46	0	11,83	10,1	0	11,79
27/08/2013 3:40	11,85	0	12,66	13,23	0	11,83	9,58	0	11,79
27/08/2013 3:45	11,12	0	12,66	13,24	0	11,82	9,51	0	11,79
27/08/2013 3:50	10,84	0	12,66	13,17	0	11,83	9,14	0	11,79
27/08/2013 3:55	11,47	0	12,66	13,01	0	11,82	9,42	0	11,78
27/08/2013 4:00	11,93	0	12,66	12,8	0	11,82	9,38	0	11,78
27/08/2013 4:05	12,18	0	12,65	12,35	0	11,82	9,31	0	11,78
27/08/2013 4:10	11,6	0	12,65	12,15	0	11,82	9,22	0	11,78
27/08/2013 4:15	11,21	0	12,65	11,98	0	11,81	9,83	0	11,78
27/08/2013 4:20	11,37	0	12,65	12,03	0	11,81	9,83	0	11,78
27/08/2013 4:25	11,89	0	12,64	11,6	0	11,81	9,64	0	11,78
27/08/2013 4:30	11,24	0	12,64	11,87	0	11,81	8,91	0	11,78
27/08/2013 4:35	11,46	0	12,64	12,04	0	11,81	9,95	0	11,77
27/08/2013 4:40	11,8	0	12,64	11,73	0	11,8	11,41	0	11,77
27/08/2013 4:45	12,72	0	12,64	11,79	0	11,8	13,23	0	11,77
27/08/2013 4:50	12,82	0	12,64	11,75	0	11,8	11,33	0	11,77
27/08/2013 4:55	11,83	0	12,63	11,14	0	11,8	7,63	0	11,77
27/08/2013 5:00	13,7	0	12,63	11,04	0	11,79	5,83	0	11,77
27/08/2013 5:05	17,62	0	12,63	11,13	0	11,79	6,32	0	11,76

27/08/2013 5:10	16,33	0	12,63	11,18	0	11,79	6,01	0	11,76
27/08/2013 5:15	13,59	0	12,63	10,85	0	11,78	5,92	0	11,76
27/08/2013 5:20	14,49	0	12,63	10,94	0	11,79	5,34	0	11,76
27/08/2013 5:25	14,03	0	12,63	10,76	0	11,78	5,15	0	11,75
27/08/2013 5:30	13,42	0	12,63	10,4	0	11,79	5,71	0	11,76
27/08/2013 5:35	12,02	0	12,63	10,71	0	11,78	6,1	0	11,75
27/08/2013 5:40	12,5	0	12,63	11,73	0	11,78	5,63	0	11,75
27/08/2013 5:45	12,02	0	12,62	11,81	0	11,78	5,25	0	11,75
27/08/2013 5:50	11,01	0	12,62	11,77	0	11,78	5,51	0	11,75
27/08/2013 5:55	10,92	0	12,62	11,4	0	11,77	5,76	0	11,74
27/08/2013 6:00	10,91	0	12,62	10,89	0	11,77	6,19	0	11,74
27/08/2013 6:05	12,03	0	12,62	10,87	0	11,77	7,82	0	11,74
27/08/2013 6:10	12,3	0	12,62	10,78	0	11,77	7,78	0	11,73
27/08/2013 6:15	12,12	0	12,61	11,38	0	11,77	7,59	0	11,73
27/08/2013 6:20	11,16	0	12,61	11,06	0	11,77	6,39	0	11,73
27/08/2013 6:25	11,92	0	12,61	11,52	0	11,77	6,38	0	11,73
27/08/2013 6:30	11,83	0	12,61	11,07	0	11,76	6,22	0	11,72
27/08/2013 6:35	12,36	0	12,61	11,35	0	11,76	6,47	0	11,72
27/08/2013 6:40	12,35	0	12,61	11,21	0	11,76	6,06	0	11,72
27/08/2013 6:45	12,8	0	12,61	10,51	0	11,76	7,7	0	11,73
27/08/2013 6:50	12,34	0	12,61	10,1	0	11,76	6,44	0	11,72
27/08/2013 6:55	12,52	0	12,61	10,11	0	11,76	6,53	0	11,73
27/08/2013 7:00	12,7	0	12,62	9,94	0	11,76	6,83	0	11,72
27/08/2013 7:05	12,83	0	12,62	10,7	0	11,76	7,96	0	11,73
27/08/2013 7:10	12,92	0	12,62	12,37	0	11,76	6,95	0	11,73
27/08/2013 7:15	11,68	0	12,61	13,43	0	11,76	6,52	0	11,73
27/08/2013 7:20	10,91	0	12,61	13,82	0	11,76	7	0	11,73
27/08/2013 7:25	10,73	0	12,61	12,76	0	11,78	6,23	0	11,73
27/08/2013 7:30	10,36	0	12,61	10,15	0	11,78	5,73	0	11,74
27/08/2013 7:35	10,31	0	12,61	10,21	0	11,78	5,25	0	11,75
27/08/2013 7:40	11,18	0	12,61	10,34	0	11,77	5,93	0	11,76
27/08/2013 7:45	12,45	0	12,61	10,62	0	11,78	6,36	0	11,77
27/08/2013 7:50	13,99	0	12,63	11,09	0	11,79	6,74	0	11,8
27/08/2013 7:55	13,39	0	12,64	11,56	0	11,8	6,37	0	11,85
27/08/2013 8:00	15,2	0	12,64	11,88	0	11,8	7,28	0	11,91
27/08/2013 8:05	16,69	0	12,65	12,36	0	11,82	8,66	0	11,97
27/08/2013 8:10	18,48	0	12,65	12,84	0	11,81	7,54	0	12,01
27/08/2013 8:15	18,74	0	12,65	13,51	0	11,8	7,61	0	12,03
27/08/2013 8:20	21,08	0	12,67	13,17	0	11,8	8,22	0	12,06
27/08/2013 8:25	19,98	0	12,69	13,39	0	11,81	9,88	0	12,09
27/08/2013 8:30	13,44	0	12,7	14,18	0	11,84	12,83	0	12,11
27/08/2013 8:35	14,1	0	12,7	16,32	0	11,88	16,47	0	12,07
27/08/2013 8:40	12,65	0	12,68	14,63	0	11,91	16,67	0	11,99
27/08/2013 8:45	12,38	0	12,67	14,82	0	11,93	13,76	0	11,97
27/08/2013 8:50	13,07	0	12,73	16,28	0	11,98	11,98	0	11,95
27/08/2013 8:55	13,53	0	12,81	15,69	0	12,02	10,28	0	11,94
27/08/2013 9:00	13,87	0	12,86	15,13	0	12,07	10,39	0	11,93
27/08/2013 9:05	12,93	0	12,91	19,43	0	12,15	10,94	0	11,92
27/08/2013 9:10	12,01	0	12,95	20,51	0	12,19	11,14	0	11,91
27/08/2013 9:15	12,07	0	13	18,53	0	12,22	11,34	0	11,9
27/08/2013 9:20	10,92	0	13,03	17,91	0	12,23	10,09	0	11,89
27/08/2013 9:25	10,57	0	13,07	19,5	0	12,25	9,87	0	11,88
27/08/2013 9:30	10,1	0	13,11	23,74	2	12,24	9,54	0	11,88
27/08/2013 9:35	10,02	0	13,14	22,82	0	12,26	9,64	0	11,95
27/08/2013 9:40	10,03	0	13,17	21,5	0	12,27	9,62	0	12,13
27/08/2013 9:45	9,67	0	13,21	21,37	0	12,28	8,75	0	12,21
27/08/2013 9:50	9,67	0	13,22	22,84	2	12,27	8,6	0	12,25
27/08/2013 9:55	9,96	0	13,24	21,51	2	12,28	7,81	0	12,28
27/08/2013 10:00	9,26	0	13,25	21,39	2	12,29	7,31	0	12,3
27/08/2013 10:05	8,82	0	13,26	18,39	0	12,3	7,54	0	12,32
27/08/2013 10:10	8,49	0	13,27	17,58	0	12,31	5,62	0	12,33
27/08/2013 10:15	8,06	0	13,28	19,22	0	12,32	4,96	0	12,34
27/08/2013 10:20	7,76	0	13,2	17,96	0	12,32	4,55	0	12,35
27/08/2013 10:25	7,44	0	13,1	16,56	0	12,34	4,81	0	12,36
27/08/2013 10:30	6,99	0	13,04	16,53	0	12,3	4,2	0	12,36
27/08/2013 10:35	6,89	0	13,02	17,93	0	12,17	4,29	0	12,36
27/08/2013 10:40	8,61	0	13	14,49	0	12,12	3,92	0	12,37

27/08/2013 10:45	7,56	0	12,99	14,2	0	12,1	4,52	0	12,37
27/08/2013 10:50	8,29	0	12,98	14,24	0	12,09	4,81	0	12,36
27/08/2013 10:55	6,89	0	12,96	14,01	0	12,09	5,09	0	12,36
27/08/2013 11:00	6,98	0	12,93	13,21	0	12,08	5,22	0	12,36
27/08/2013 11:05	7,05	0	12,92	13,52	0	12,07	4,57	0	12,35
27/08/2013 11:10	NoData	NoData	NoData	13	0	12,06	3,97	0	12,35
27/08/2013 11:15	NoData	NoData	NoData	13,38	0	12,07	4,36	0	12,34
27/08/2013 11:20	NoData	NoData	NoData	13,42	0	12,05	4,32	0	12,33
27/08/2013 11:25	NoData	NoData	NoData	13,07	0	12,06	4,46	0	12,33
27/08/2013 11:30	NoData	NoData	NoData	14,62	0	12,05	4,69	0	12,31
27/08/2013 11:35	7,2	0	13,04	15,04	0	12,05	4,58	0	12,3
27/08/2013 11:40	NoData	NoData	NoData	13,48	0	12,05	4,81	0	12,28
27/08/2013 11:45	7,2	0	13,34	13,14	0	12,05	4,87	0	12,27
27/08/2013 11:50	7,03	0	13,37	13,77	0	12,05	4,78	0	12,25
27/08/2013 11:55	7,27	0	13,39	13,88	0	12,05	4,84	0	12,23
27/08/2013 12:00	7,17	0	13,4	14,59	0	12,05	4,93	0	12,2
27/08/2013 12:05	6,94	0	13,43	14,35	0	12,05	5,04	0	12,18
27/08/2013 12:10	7,11	0	13,44	13,76	0	12,06	4,97	0	12,16
27/08/2013 12:15	7,06	0	13,47	14,01	0	12,09	5,17	0	12,14
27/08/2013 12:20	7,77	0	13,49	14,27	0	12,06	4,93	0	12,14
27/08/2013 12:25	8,09	0	13,51	14,96	0	12,05	4,86	0	12,13
27/08/2013 12:30	7,62	0	13,53	13,46	0	12,04	4,9	0	12,13
27/08/2013 12:35	7,25	0	13,56	13,7	0	12,03	4,94	0	12,12
27/08/2013 12:40	6,74	0	13,58	18,03	0	12,02	4,88	0	12,11
27/08/2013 12:45	6,46	0	13,62	14,21	0	12,02	4,83	0	12,11
27/08/2013 12:50	6,62	0	13,64	14,75	0	12,02	5,74	0	12,1
27/08/2013 12:55	6,73	0	13,68	15,28	0	12,01	5,01	0	12,1
27/08/2013 13:00	7,02	0	13,71	16,88	0	12,01	10,78	2	12,09
27/08/2013 13:05	6,66	0	13,75	16,62	0	12,01	6,15	0	12,09
27/08/2013 13:10	6,42	0	13,78	16,28	0	12	5,58	0	12,08
27/08/2013 13:15	6,7	0	13,83	14,63	0	12	4,78	0	12,08
27/08/2013 13:20	6,36	0	13,86	14,84	0	12	4,69	0	12,08
27/08/2013 13:25	6,54	0	13,9	14,96	0	11,99	4,68	0	12,08
27/08/2013 13:30	6,66	0	13,92	16,7	0	11,99	4,53	0	12,07
27/08/2013 13:35	6,54	0	13,92	19,21	0	11,99	4,35	0	12,07
27/08/2013 13:40	6,37	0	13,92	18,22	0	11,98	4,02	0	12,06
27/08/2013 13:45	6,27	0	13,91	17,72	0	11,98	4,68	0	12,06
27/08/2013 13:50	6,37	0	13,37	16,47	0	11,98	4,02	0	12,05
27/08/2013 13:55	6,68	0	13,16	16,63	0	11,98	4,29	0	12,05
27/08/2013 14:00	6,38	0	13,16	16,59	0	11,97	7,85	0	12,05
27/08/2013 14:05	6,54	0	13,16	17,21	0	11,97	4,27	0	12,05
27/08/2013 14:10	6,69	0	13,16	18,23	0	11,97	4,1	0	12,04
27/08/2013 14:15	6,71	0	13,16	17,22	0	11,97	4,44	0	12,04
27/08/2013 14:20	6,72	0	13,18	17,85	0	11,96	4,29	0	12,03
27/08/2013 14:25	6,7	0	13,2	17,19	0	11,97	4,67	0	12,03
27/08/2013 14:30	6,66	0	13,2	15,57	0	11,97	5,01	0	12,03
27/08/2013 14:35	6,86	0	13,2	14,39	0	11,97	4,54	0	12,03
27/08/2013 14:40	6,83	0	13,2	14,05	0	11,96	4,81	0	12,02
27/08/2013 14:45	7,06	0	13,2	13,73	0	11,96	4,77	0	12,02
27/08/2013 14:50	6,77	0	13,2	13,99	0	11,96	4,87	0	12,02
27/08/2013 14:55	6,73	0	13,2	13,63	0	11,96	4,47	0	12,02
27/08/2013 15:00	6,7	0	13,2	13,88	0	11,95	4,75	0	12,01
27/08/2013 15:05	6,59	0	13,2	13,72	0	11,95	4,61	0	12,01
27/08/2013 15:10	6,5	0	13,22	15,27	0	11,95	4,41	0	12
27/08/2013 15:15	6,46	0	13,24	16,36	0	11,95	4,49	0	12,01
27/08/2013 15:20	6,67	0	13,24	15,2	0	11,94	4,35	0	12
27/08/2013 15:25	6,77	0	13,24	15,24	0	11,94	4,46	0	12
27/08/2013 15:30	7,13	0	13,24	14,25	0	11,94	4,7	0	11,99
27/08/2013 15:35	7,19	0	13,24	14,61	0	11,94	4,76	0	11,99
27/08/2013 15:40	7,18	0	13,21	15,96	0	11,93	6,47	0	11,99
27/08/2013 15:45	7,64	0	13,18	15,72	0	11,93	6,16	0	11,99
27/08/2013 15:50	7,4	0	13,16	13,97	0	11,93	6,77	0	11,98
27/08/2013 15:55	7,5	0	13,13	14,48	0	11,93	5,91	0	11,98
27/08/2013 16:00	7,42	0	13,11	14,75	0	11,93	6	0	11,98
27/08/2013 16:05	7,16	0	13,11	14,38	0	11,92	5,23	0	11,98
27/08/2013 16:10	7,49	0	13,07	14,95	0	11,92	5,14	0	11,97
27/08/2013 16:15	7,24	0	13,03	14,69	0	11,92	5,53	0	11,97

27/08/2013 16:20	7,22	0	13,02	15,07	0	11,91	5,13	0	11,96
27/08/2013 16:25	7,18	0	13,01	14,34	0	11,9	5,48	0	11,96
27/08/2013 16:30	7,47	0	13,01	13,91	0	11,9	5,47	0	11,96
27/08/2013 16:35	7,4	0	13	15,01	0	11,9	5,47	0	11,96
27/08/2013 16:40	7,83	0	12,99	14,47	0	11,9	6,18	0	11,96
27/08/2013 16:45	7,97	0	12,99	13,86	0	11,89	6,53	0	11,95
27/08/2013 16:50	8,4	0	12,98	14,29	0	11,89	6,77	0	11,94
27/08/2013 16:55	8,52	0	12,98	13,98	0	11,89	7,12	0	11,94
27/08/2013 17:00	9,22	0	12,98	14,24	0	11,88	7,54	0	11,93
27/08/2013 17:05	9,73	0	12,97	13,74	0	11,88	8,6	0	11,93
27/08/2013 17:10	10,75	0	12,97	13,53	0	11,88	10,16	0	11,92
27/08/2013 17:15	11,43	0	12,97	13,2	0	11,87	9,61	0	11,92
27/08/2013 17:20	11,09	0	12,96	13,26	0	11,87	8,92	0	11,91
27/08/2013 17:25	11,26	0	12,95	13,33	0	11,86	8,98	0	11,91
27/08/2013 17:30	11,19	0	12,94	13,39	0	11,86	8,89	0	11,9
27/08/2013 17:35	10,97	0	12,94	13,25	0	11,86	9,32	0	11,9
27/08/2013 17:40	11,08	0	12,93	13,42	0	11,85	8,79	0	11,89
27/08/2013 17:45	11,25	0	12,92	13,53	0	11,85	8,51	0	11,89
27/08/2013 17:50	11,05	0	12,91	13,56	0	11,84	8,67	0	11,88
27/08/2013 17:55	10,99	0	12,91	13,46	0	11,84	8,42	0	11,88
27/08/2013 18:00	12,05	0	12,9	13,77	0	11,84	8,88	0	11,87
27/08/2013 18:05	11,52	0	12,9	13,34	0	11,83	9,75	0	11,87
27/08/2013 18:10	11,7	0	12,89	13,63	0	11,83	9,82	0	11,87
27/08/2013 18:15	10,84	0	12,89	13,44	0	11,83	9,48	0	11,86
27/08/2013 18:20	11,45	0	12,89	13,52	0	11,82	8,77	0	11,86
27/08/2013 18:25	11,9	0	12,88	13,4	0	11,82	9,07	0	11,86
27/08/2013 18:30	12,46	0	12,88	13,48	0	11,82	9,53	0	11,86
27/08/2013 18:35	11,84	0	12,88	13,66	0	11,81	8,67	0	11,85
27/08/2013 18:40	9,97	0	12,87	13,73	0	11,81	8,61	0	11,85
27/08/2013 18:45	10,9	0	12,87	13,67	0	11,8	8,54	0	11,84
27/08/2013 18:50	12,76	0	12,87	14,1	0	11,8	10,3	0	11,84
27/08/2013 18:55	11,65	0	12,87	14,09	0	11,8	9,81	0	11,84
27/08/2013 19:00	11,4	0	12,86	14,1	0	11,8	9,31	0	11,84
27/08/2013 19:05	11,52	0	12,86	13,74	0	11,79	9,17	0	11,83
27/08/2013 19:10	11,6	0	12,86	13,84	0	11,79	9,49	0	11,83
27/08/2013 19:15	11,65	0	12,85	13,77	0	11,78	9,93	0	11,82
27/08/2013 19:20	11,57	0	12,85	13,96	0	11,78	10,12	0	11,82
27/08/2013 19:25	10,82	0	12,85	14,06	0	11,78	9,76	0	11,82
27/08/2013 19:30	9,77	0	12,84	14,19	0	11,78	9,16	0	11,82
27/08/2013 19:35	9,75	0	12,84	13,88	0	11,77	9,04	0	11,81
27/08/2013 19:40	10,24	0	12,84	14,03	0	11,77	9,83	0	11,81
27/08/2013 19:45	10,5	0	12,84	14,16	0	11,77	11,25	0	11,8
27/08/2013 19:50	12,14	0	12,83	14,03	0	11,77	10,62	0	11,81
27/08/2013 19:55	12,85	0	12,83	14,17	0	11,76	11,82	0	11,8
27/08/2013 20:00	12,96	0	12,83	13,92	0	11,76	12,23	0	11,8
27/08/2013 20:05	11,64	0	12,82	13,7	0	11,76	11,42	0	11,79
27/08/2013 20:10	11,9	0	12,82	13,87	0	11,76	11,38	0	11,79
27/08/2013 20:15	11,64	0	12,82	14,14	0	11,75	10,07	0	11,78
27/08/2013 20:20	11,78	0	12,81	13,99	0	11,75	10,17	0	11,78
27/08/2013 20:25	12,11	0	12,81	13,62	0	11,75	9,43	0	11,77
27/08/2013 20:30	10,91	0	12,81	13,42	0	11,75	8,08	0	11,77
27/08/2013 20:35	10,42	0	12,81	13,74	0	11,74	7,55	0	11,77
27/08/2013 20:40	11,27	0	12,8	13,64	0	11,74	7,12	0	11,77
27/08/2013 20:45	11,56	0	12,8	13,49	0	11,73	8,04	0	11,76
27/08/2013 20:50	12,5	0	12,8	13,31	0	11,73	8,46	0	11,76
27/08/2013 20:55	14,3	0	12,8	13,18	0	11,73	9,27	0	11,76
27/08/2013 21:00	13,58	0	12,79	13,42	0	11,73	10,56	0	11,76
27/08/2013 21:05	12,57	0	12,79	13,33	0	11,73	8,86	0	11,75
27/08/2013 21:10	11,91	0	12,79	13,41	0	11,73	9,47	0	11,75
27/08/2013 21:15	12,05	0	12,79	13,3	0	11,72	10,62	0	11,75
27/08/2013 21:20	12,38	0	12,79	13,35	0	11,72	11,27	0	11,75
27/08/2013 21:25	10,13	0	12,78	13,48	0	11,71	11,12	0	11,74
27/08/2013 21:30	9,96	0	12,78	13,44	0	11,72	10,58	0	11,74
27/08/2013 21:35	9,84	0	12,78	13,41	0	11,71	10,45	0	11,74
27/08/2013 21:40	9,77	0	12,78	13,85	0	11,71	10,03	0	11,74
27/08/2013 21:45	9,63	0	12,77	13,49	0	11,71	9,77	0	11,73
27/08/2013 21:50	10,1	0	12,77	13,52	0	11,71	9,76	0	11,73

27/08/2013 21:55	9,8	0	12,76	13,32	0	11,7	11,11	0	11,73
27/08/2013 22:00	10,05	0	12,76	13,24	0	11,7	12,49	0	11,73
27/08/2013 22:05	10,38	0	12,76	13,49	0	11,7	13,31	0	11,72
27/08/2013 22:10	10,13	0	12,76	13,6	0	11,7	12,33	0	11,72
27/08/2013 22:15	10,07	0	12,76	13,48	0	11,69	12,56	0	11,72
27/08/2013 22:20	10,53	0	12,76	13,84	0	11,69	12,14	0	11,72
27/08/2013 22:25	11,09	0	12,75	13,99	0	11,68	10,42	0	11,71
27/08/2013 22:30	11,5	0	12,75	13,86	0	11,69	9,43	0	11,71
27/08/2013 22:35	11,43	0	12,75	13,62	0	11,68	8,87	0	11,71
27/08/2013 22:40	11,06	0	12,75	13,92	0	11,68	8,06	0	11,71
27/08/2013 22:45	11,16	0	12,74	13,71	0	11,68	7,18	0	11,7
27/08/2013 22:50	10,45	0	12,74	13,76	0	11,68	6,74	0	11,7
27/08/2013 22:55	10,8	0	12,74	13,49	0	11,67	7,21	0	11,7
27/08/2013 23:00	11,85	0	12,74	13,68	0	11,67	7,73	0	11,7
27/08/2013 23:05	12,15	0	12,73	13,52	0	11,67	7,86	0	11,69
27/08/2013 23:10	12,45	0	12,73	13,75	0	11,67	8,02	0	11,69
27/08/2013 23:15	12,6	0	12,73	13,73	0	11,67	7,83	0	11,69
27/08/2013 23:20	12,04	0	12,73	13,94	0	11,66	7,78	0	11,69
27/08/2013 23:25	11,89	0	12,73	13,78	0	11,66	8,18	0	11,68
27/08/2013 23:30	10,95	0	12,73	13,76	0	11,66	8,24	0	11,68
27/08/2013 23:35	10,63	0	12,73	13,84	0	11,66	7,94	0	11,68
27/08/2013 23:40	10,38	0	12,73	13,89	0	11,66	8,06	0	11,68
27/08/2013 23:45	10,66	0	12,72	13,64	0	11,65	8,43	0	11,68
27/08/2013 23:50	10,67	0	12,72	13,52	0	11,65	8,65	0	11,68
27/08/2013 23:55	10,68	0	12,72	13,36	0	11,65	8,45	0	11,67
28/08/2013 0:00	10,54	0	12,72	13,46	0	11,65	8,28	0	11,67
28/08/2013 0:05	10,87	0	12,71	13,21	0	11,64	7,31	0	11,66
28/08/2013 0:10	10,81	0	12,71	13,06	0	11,64	7,06	0	11,67
28/08/2013 0:15	10,23	0	12,71	13,1	0	11,64	6,56	0	11,66
28/08/2013 0:20	10,14	0	12,71	12,95	0	11,64	6,85	0	11,66
28/08/2013 0:25	10,43	0	12,7	12,83	0	11,63	7,01	0	11,66
28/08/2013 0:30	9,64	0	12,7	12,8	0	11,63	6,44	0	11,66
28/08/2013 0:35	9,95	0	12,7	12,66	0	11,63	5,59	0	11,65
28/08/2013 0:40	9,83	0	12,7	12,72	0	11,63	6,08	0	11,65
28/08/2013 0:45	10,5	0	12,7	12,77	0	11,62	6,19	0	11,65
28/08/2013 0:50	9,26	0	12,7	12,59	0	11,63	6,12	0	11,65
28/08/2013 0:55	9,47	0	12,69	12,69	0	11,62	4,98	0	11,65
28/08/2013 1:00	9,8	0	12,69	12,6	0	11,62	4,7	0	11,64
28/08/2013 1:05	9,81	0	12,69	12,47	0	11,61	4,46	0	11,64
28/08/2013 1:10	9,85	0	12,69	12,27	0	11,61	4,5	0	11,64
28/08/2013 1:15	10,27	0	12,68	12,41	0	11,61	4,44	0	11,63
28/08/2013 1:20	9,49	0	12,68	12,63	0	11,61	4,6	0	11,64
28/08/2013 1:25	8,88	0	12,66	12,24	0	11,6	4,59	0	11,63
28/08/2013 1:30	8,86	0	12,66	12,25	0	11,61	4,54	0	11,63
28/08/2013 1:35	8,89	0	12,66	12,46	0	11,6	4,65	0	11,63
28/08/2013 1:40	8,5	0	12,66	12,17	0	11,6	4,59	0	11,63
28/08/2013 1:45	8,34	0	12,66	12,17	0	11,59	4,76	0	11,62
28/08/2013 1:50	8,53	0	12,66	12,32	0	11,59	4,7	0	11,62
28/08/2013 1:55	8,89	0	12,65	12,34	0	11,59	4,85	0	11,61
28/08/2013 2:00	8,94	0	12,65	12	0	11,59	5,38	0	11,62
28/08/2013 2:05	8,78	0	12,65	11,97	0	11,59	5,73	0	11,61
28/08/2013 2:10	9,26	0	12,65	12,26	0	11,59	5,59	0	11,61
28/08/2013 2:15	8,72	0	12,64	11,95	0	11,58	5,51	0	11,61
28/08/2013 2:20	9,25	0	12,64	11,9	0	11,58	5,24	0	11,61
28/08/2013 2:25	10,06	0	12,64	12,1	0	11,58	6,08	0	11,6
28/08/2013 2:30	9,89	0	12,64	11,95	0	11,59	5,7	0	11,6
28/08/2013 2:35	9,89	0	12,63	12,07	0	11,58	5,5	0	11,6
28/08/2013 2:40	9,66	0	12,63	12,2	0	11,59	6,34	0	11,6
28/08/2013 2:45	10,45	0	12,63	12,41	0	11,58	6,31	0	11,59
28/08/2013 2:50	9,94	0	12,63	12,12	0	11,58	6,45	0	11,59
28/08/2013 2:55	8,57	0	12,62	11,91	0	11,58	6,38	0	11,59
28/08/2013 3:00	9,84	0	12,62	11,83	0	11,58	5,79	0	11,59
28/08/2013 3:05	10,62	0	12,62	11,75	0	11,57	5,47	0	11,58
28/08/2013 3:10	11,39	0	12,62	11,76	0	11,57	5,59	0	11,58
28/08/2013 3:15	10,77	0	12,61	11,93	0	11,57	6,72	0	11,58
28/08/2013 3:20	12,09	0	12,61	11,8	0	11,57	6,93	0	11,58
28/08/2013 3:25	11,04	0	12,61	11,91	0	11,56	7,02	0	11,57

28/08/2013 3:30	10,43	0	12,61	11,79	0	11,56	6,69	0	11,57
28/08/2013 3:35	10,09	0	12,6	11,6	0	11,56	6,82	0	11,57
28/08/2013 3:40	10,17	0	12,61	11,84	0	11,56	6,63	0	11,57
28/08/2013 3:45	9,78	0	12,6	11,8	0	11,55	6,3	0	11,56
28/08/2013 3:50	10,34	0	12,6	12,21	0	11,56	6,57	0	11,56
28/08/2013 3:55	10,24	0	12,6	11,94	0	11,55	7,18	0	11,55
28/08/2013 4:00	9,03	0	12,6	12,17	0	11,55	7,74	0	11,56
28/08/2013 4:05	7,58	0	12,59	11,68	0	11,55	7,19	0	11,55
28/08/2013 4:10	7,38	0	12,59	11,49	0	11,55	5,62	0	11,55
28/08/2013 4:15	7,92	0	12,59	11,43	0	11,54	5,41	0	11,55
28/08/2013 4:20	8,21	0	12,59	11,28	0	11,54	5,49	0	11,54
28/08/2013 4:25	8,7	0	12,59	11,22	0	11,53	6,11	0	11,54
28/08/2013 4:30	9,24	0	12,59	11,01	0	11,52	6,82	0	11,54
28/08/2013 4:35	10,05	0	12,58	11,06	0	11,52	8,08	0	11,54
28/08/2013 4:40	9,21	0	12,58	11,21	0	11,51	7,22	0	11,53
28/08/2013 4:45	9,46	0	12,58	11,16	0	11,51	7,47	0	11,53
28/08/2013 4:50	9,52	0	12,58	10,81	0	11,5	5,84	0	11,52
28/08/2013 4:55	9,37	0	12,58	11,17	0	11,51	5,3	0	11,52
28/08/2013 5:00	10,07	0	12,58	11,25	0	11,5	4,4	0	11,52
28/08/2013 5:05	9,82	0	12,58	11,04	0	11,5	4,21	0	11,52
28/08/2013 5:10	9,33	0	12,58	11,08	0	11,5	4	0	11,51
28/08/2013 5:15	10,32	0	12,57	10,83	0	11,5	3,51	0	11,51
28/08/2013 5:20	9,35	0	12,57	10,82	0	11,49	3,07	0	11,5
28/08/2013 5:25	7,66	0	12,57	10,79	0	11,49	3,08	0	11,5
28/08/2013 5:30	6,72	0	12,57	10,93	0	11,49	2,81	0	11,5
28/08/2013 5:35	6,65	0	12,57	10,85	0	11,49	2,96	0	11,5
28/08/2013 5:40	7,88	0	12,57	10,83	0	11,48	2,95	0	11,49
28/08/2013 5:45	6,48	0	12,57	10,99	0	11,48	2,76	0	11,49
28/08/2013 5:50	6,4	0	12,56	10,88	0	11,48	2,77	0	11,48
28/08/2013 5:55	6,04	0	12,56	10,94	0	11,48	2,86	0	11,48
28/08/2013 6:00	6,02	0	12,56	10,93	0	11,47	2,76	0	11,47
28/08/2013 6:05	6,55	0	12,56	10,92	0	11,47	2,82	0	11,47
28/08/2013 6:10	5,97	0	12,56	10,87	0	11,47	2,84	0	11,47
28/08/2013 6:15	5,85	0	12,56	11,09	0	11,47	2,95	0	11,47
28/08/2013 6:20	5,63	0	12,56	11,03	0	11,46	2,86	0	11,45
28/08/2013 6:25	5,47	0	12,55	11,01	0	11,46	2,93	0	11,45
28/08/2013 6:30	5,72	0	12,55	10,95	0	11,45	2,91	0	11,45
28/08/2013 6:35	5,53	0	12,55	11,11	0	11,46	2,82	0	11,45
28/08/2013 6:40	5,71	0	12,55	11,01	0	11,45	2,67	0	11,44
28/08/2013 6:45	5,7	0	12,56	11,03	0	11,45	3,28	0	11,44
28/08/2013 6:50	5,93	0	12,56	11,08	0	11,45	3,46	0	11,43
28/08/2013 6:55	6,2	0	12,56	10,9	0	11,45	3,89	0	11,43
28/08/2013 7:00	6,98	0	12,56	11,01	0	11,45	4,12	0	11,42
28/08/2013 7:05	7,45	0	12,56	10,94	0	11,45	3,61	0	11,42
28/08/2013 7:10	9,79	0	12,56	10,97	0	11,44	3,89	0	11,41
28/08/2013 7:15	9,72	0	12,56	11	0	11,45	4	0	11,41
28/08/2013 7:20	9,11	0	12,56	11	0	11,44	3,86	0	11,4
28/08/2013 7:25	8,45	0	12,57	11,13	0	11,45	3,88	0	11,41
28/08/2013 7:30	7,59	0	12,58	11,18	0	11,45	3,58	0	11,4
28/08/2013 7:35	6,62	0	12,58	11,07	0	11,46	3,32	0	11,42
28/08/2013 7:40	7,15	0	12,58	11,14	0	11,45	3,08	0	11,45
28/08/2013 7:45	7,11	0	12,58	11,19	0	11,46	2,89	0	11,46
28/08/2013 7:50	6,73	0	12,58	11,47	0	11,46	2,9	0	11,49
28/08/2013 7:55	6,02	0	12,59	11,57	0	11,46	3,25	0	11,57
28/08/2013 8:00	6,02	0	12,59	11,55	0	11,46	3,04	0	11,65
28/08/2013 8:05	5,97	0	12,6	11,74	0	11,46	3,46	0	11,73
28/08/2013 8:10	6,65	0	12,61	11,96	0	11,46	3,66	0	11,78
28/08/2013 8:15	6,1	0	12,62	11,96	0	11,47	4,53	0	11,83
28/08/2013 8:20	6,34	0	12,64	12,01	0	11,47	4,57	0	11,86
28/08/2013 8:25	6,37	0	12,65	12,31	0	11,5	3,95	0	11,9
28/08/2013 8:30	6,51	0	12,67	12,15	0	11,53	4,83	0	11,91
28/08/2013 8:35	6,33	0	12,68	12,26	0	11,58	5,94	0	11,82
28/08/2013 8:40	6,5	0	12,66	12,9	0	11,62	5,77	0	11,76
28/08/2013 8:45	6,92	0	12,66	13,25	0	11,67	6,1	0	11,73
28/08/2013 8:50	7,43	0	12,74	13,49	0	11,73	6,42	0	11,71
28/08/2013 8:55	7,43	0	12,8	12,81	0	11,79	6,82	0	11,7
28/08/2013 9:00	8,7	0	12,84	12,45	0	11,9	7,67	0	11,68

28/08/2013 9:05	9,18	0	12,9	12,68	0	11,97	7,32	0	11,68
28/08/2013 9:10	7,51	0	12,93	12,21	0	12	7,36	0	11,66
28/08/2013 9:15	7,25	0	12,98	12,03	0	12,02	7,05	0	11,65
28/08/2013 9:20	7,12	0	13,02	11,88	0	12,03	6,19	0	11,64
28/08/2013 9:25	7,05	0	13,06	11,81	0	12,05	7,79	0	11,63
28/08/2013 9:30	7,62	0	13,08	11,91	0	12,05	7,31	0	11,65
28/08/2013 9:35	7,13	0	13,11	11,84	0	12,07	6,58	0	11,87
28/08/2013 9:40	14,26	2	13,13	12,01	0	12,07	5,73	0	12,01
28/08/2013 9:45	10,17	2	13,16	11,82	0	12,08	5,06	0	12,06
28/08/2013 9:50	7,26	0	13,19	11,84	0	12,08	5,44	0	12,09
28/08/2013 9:55	7,08	0	13,21	11,75	0	12,09	4,47	0	12,12
28/08/2013 10:00	7,43	0	13,21	11,78	0	12,1	4,51	0	12,13
28/08/2013 10:05	7,52	0	13,23	12	0	12,1	4,41	0	12,15
28/08/2013 10:10	8,08	0	13,23	12,18	0	12,11	8,34	2	12,15
28/08/2013 10:15	8,92	0	13,23	11,88	0	12,12	5,18	0	12,18
28/08/2013 10:20	8,13	0	13,14	11,98	0	12,12	6,73	0	12,11
28/08/2013 10:25	7,15	0	13,05	12,1	0	12,13	4,4	0	11,99
28/08/2013 10:30	8,62	0	13	12,31	0	12,01	7,88	2	12,15
28/08/2013 10:35	8,81	0	12,98	12,31	0	11,9	4,98	0	12,18
28/08/2013 10:40	7,33	0	12,96	12,37	0	11,87	5,6	0	12,18
28/08/2013 10:45	7,76	0	12,96	12,47	0	11,85	7,71	0	12,18
28/08/2013 10:50	9,94	0	12,95	12,51	0	11,84	5,89	0	12,18
28/08/2013 10:55	7,21	0	12,93	13,08	0	11,84	5,01	0	12,18
28/08/2013 11:00	6,99	0	12,9	12,58	0	11,82	5,99	0	12,18
28/08/2013 11:05	9,7	0	12,89	12,27	0	11,82	5,64	0	12,17
28/08/2013 11:10	6,74	0	12,88	11,98	0	11,81	6,94	0	12,17
28/08/2013 11:15	6,43	0	12,88	12,58	0	11,81	4,87	0	12,16
28/08/2013 11:20	6,55	0	12,88	12,43	0	11,8	5,41	0	12,15
28/08/2013 11:25	6,93	0	12,87	11,71	0	11,81	6,37	0	12,14
28/08/2013 11:30	5,88	0	12,88	11,47	0	11,8	5,89	0	12,13
28/08/2013 11:35	5,85	0	13,05	11,9	0	11,8	6,42	0	12,12
28/08/2013 11:40	5,82	0	13,24	11,62	0	11,8	4,17	0	12,1
28/08/2013 11:45	6,47	0	13,3	11,78	0	11,79	4,42	0	12,08
28/08/2013 11:50	6,36	0	13,32	12,08	0	11,8	5,12	0	12,06
28/08/2013 11:55	7,6	0	13,34	11,94	0	11,8	4,37	0	12,04
28/08/2013 12:00	6,35	0	13,35	11,78	0	11,8	4,83	0	12,02
28/08/2013 12:05	6,68	0	13,37	11,86	0	11,8	4,65	0	11,99
28/08/2013 12:10	6,56	0	13,39	12,56	0	11,83	5,25	0	11,97
28/08/2013 12:15	6,51	0	13,41	13,96	0	11,85	5,36	0	11,96
28/08/2013 12:20	6,19	0	13,42	15,23	0	11,83	5,18	0	11,95
28/08/2013 12:25	5,89	0	13,44	17,1	0	11,81	4,23	0	11,95
28/08/2013 12:30	5,97	0	13,46	14,95	0	11,8	4,15	0	11,94
28/08/2013 12:35	6,08	0	13,48	13,78	0	11,78	4,45	0	11,93
28/08/2013 12:40	6,31	0	13,5	13,03	0	11,77	4,48	0	11,92
28/08/2013 12:45	6,46	0	13,52	14,37	0	11,77	4,47	0	11,92
28/08/2013 12:50	5,73	0	13,54	13,11	0	11,76	4,35	0	11,91
28/08/2013 12:55	6,18	0	13,57	12,81	0	11,76	3,87	0	11,91
28/08/2013 13:00	6,07	0	13,59	12,44	0	11,75	4,17	0	11,9
28/08/2013 13:05	6,35	0	13,62	14,63	0	11,75	4,02	0	11,9
28/08/2013 13:10	6,96	0	13,65	13,41	0	11,74	4,01	0	11,89
28/08/2013 13:15	5,95	0	13,68	12,22	0	11,74	3,43	0	11,89
28/08/2013 13:20	6,01	0	13,71	12,24	0	11,73	3,52	0	11,88
28/08/2013 13:25	7,23	0	13,74	11,96	0	11,73	3,72	0	11,88
28/08/2013 13:30	6,49	0	13,77	12,39	0	11,72	3,69	0	11,88
28/08/2013 13:35	6,13	0	13,81	12,07	0	11,72	3,92	0	11,87
28/08/2013 13:40	6,2	0	13,84	11,85	0	11,72	3,71	0	11,87
28/08/2013 13:45	6,59	0	13,88	12,74	0	11,71	3,83	0	11,86
28/08/2013 13:50	6,64	0	13,91	13,82	0	11,71	3,9	0	11,86
28/08/2013 13:55	6,91	0	13,92	12,63	0	11,71	4,01	0	11,86
28/08/2013 14:00	6,56	0	13,92	13,32	0	11,7	4,4	0	11,85
28/08/2013 14:05	7,03	0	13,94	25,61	2	11,63	4,48	0	11,85
28/08/2013 14:10	6,98	0	13,96	14,58	0	11,69	4,49	0	11,85
28/08/2013 14:15	7,04	0	13,96	17,19	0	11,69	4,92	0	11,84
28/08/2013 14:20	7,16	0	13,66	13,07	0	11,69	4,61	0	11,84
28/08/2013 14:25	7,05	0	13,18	15,16	0	11,69	4,46	0	11,83
28/08/2013 14:30	6,79	0	13,19	13,69	0	11,68	4,61	0	11,83
28/08/2013 14:35	6,91	0	13,21	13,67	0	11,68	4,8	0	11,83

28/08/2013 14:40	6,74	0	13,2	15,11	0	11,68	4,48	0	11,83
28/08/2013 14:45	6,8	0	13,2	13,85	0	11,67	4,5	0	11,82
28/08/2013 14:50	6,98	0	13,21	13,51	0	11,67	4,48	0	11,82
28/08/2013 14:55	6,82	0	13,2	13,15	0	11,67	4,5	0	11,81
28/08/2013 15:00	6,99	0	13,2	14,17	0	11,67	4,69	0	11,81
28/08/2013 15:05	7,08	0	13,2	13,68	0	11,66	4,96	0	11,81
28/08/2013 15:10	7,43	0	13,2	14,69	0	11,66	4,65	0	11,81
28/08/2013 15:15	7,71	0	13,2	13,14	0	11,66	4,68	0	11,8
28/08/2013 15:20	7,78	0	13,2	14,04	0	11,65	5,03	0	11,8
28/08/2013 15:25	8,02	0	13,2	14,89	0	11,65	5,18	0	11,79
28/08/2013 15:30	8,25	0	13,2	15,35	0	11,65	5,16	0	11,79
28/08/2013 15:35	8,9	0	13,2	14,66	0	11,64	5,54	0	11,79
28/08/2013 15:40	8,77	0	13,19	15,61	0	11,64	5,45	0	11,78
28/08/2013 15:45	7,91	0	13,17	15,66	0	11,64	5,78	0	11,78
28/08/2013 15:50	7,69	0	13,15	16,41	0	11,64	6,09	0	11,78
28/08/2013 15:55	7,66	0	13,13	15,35	0	11,63	5,2	0	11,77
28/08/2013 16:00	7,46	0	13,11	15,89	0	11,63	5,25	0	11,77
28/08/2013 16:05	7,29	0	13,09	15,89	0	11,62	5,17	0	11,77
28/08/2013 16:10	7,37	0	13,05	15,67	0	11,62	4,72	0	11,77
28/08/2013 16:15	7,32	0	13,03	15,58	0	11,62	4,72	0	11,76
28/08/2013 16:20	7,46	0	13,03	14,53	0	11,62	4,99	0	11,76
28/08/2013 16:25	7,46	0	13,02	15,85	0	11,61	4,97	0	11,75
28/08/2013 16:30	7,28	0	13,01	15	0	11,61	5,44	0	11,75
28/08/2013 16:35	7,79	0	13,01	15,09	0	11,6	5,25	0	11,75
28/08/2013 16:40	8,63	0	13	15,11	0	11,6	5,67	0	11,75
28/08/2013 16:45	8,43	0	12,99	15,28	0	11,6	5,39	0	11,75
28/08/2013 16:50	8,49	0	12,99	15,01	0	11,59	5,9	0	11,74
28/08/2013 16:55	8,41	0	12,99	15,12	0	11,59	5,54	0	11,73
28/08/2013 17:00	8,34	0	12,99	15,68	0	11,58	6,05	0	11,72
28/08/2013 17:05	8,32	0	12,98	15,14	0	11,58	7,06	0	11,72
28/08/2013 17:10	7,98	0	12,98	14,8	0	11,58	6,87	0	11,71
28/08/2013 17:15	7,73	0	12,97	15,05	0	11,57	5,95	0	11,7
28/08/2013 17:20	7,72	0	12,97	16,62	0	11,57	5,93	0	11,7
28/08/2013 17:25	7,94	0	12,96	15,11	0	11,56	5,5	0	11,69
28/08/2013 17:30	8,05	0	12,96	16,44	0	11,56	6,21	0	11,69
28/08/2013 17:35	8,34	0	12,94	15,38	0	11,55	6,05	0	11,68
28/08/2013 17:40	8,32	0	12,94	15,1	0	11,55	6,1	0	11,68
28/08/2013 17:45	8,54	0	12,93	15,15	0	11,54	6,06	0	11,67
28/08/2013 17:50	9,07	0	12,92	17,29	0	11,53	6,43	0	11,67
28/08/2013 17:55	9,16	0	12,91	19,19	0	11,52	6,67	0	11,66
28/08/2013 18:00	9,62	0	12,91	18,04	0	11,52	6,82	0	11,66
28/08/2013 18:05	9,86	0	12,9	16,47	0	11,51	7,45	0	11,65
28/08/2013 18:10	9,94	0	12,9	16,39	0	11,51	7,8	0	11,65
28/08/2013 18:15	10,24	0	12,89	16,5	0	11,5	7,85	0	11,64
28/08/2013 18:20	9,95	0	12,89	17,11	0	11,49	7,83	0	11,64
28/08/2013 18:25	10,29	0	12,89	18,77	0	11,49	7,72	0	11,63
28/08/2013 18:30	10,48	0	12,89	20,91	0	11,48	8,04	0	11,63
28/08/2013 18:35	10,73	0	12,88	17,16	0	11,48	7,89	0	11,62
28/08/2013 18:40	10,62	0	12,88	17,43	0	11,48	8,3	0	11,62
28/08/2013 18:45	10,83	0	12,87	17,49	0	11,48	8,31	0	11,61
28/08/2013 18:50	10,78	0	12,87	18,28	0	11,48	8,64	0	11,61
28/08/2013 18:55	11,01	0	12,87	19,14	0	11,47	8,43	0	11,6
28/08/2013 19:00	10,74	0	12,87	19,85	0	11,47	8,45	0	11,6
28/08/2013 19:05	10,83	0	12,86	17,26	0	11,46	8,32	0	11,59
28/08/2013 19:10	11,69	0	12,86	16,4	0	11,46	8,69	0	11,59
28/08/2013 19:15	12,37	0	12,86	15,7	0	11,44	9,33	0	11,58
28/08/2013 19:20	12,44	0	12,86	15,51	0	11,43	9,24	0	11,57
28/08/2013 19:25	12,09	0	12,85	15,41	0	11,43	9,76	0	11,57
28/08/2013 19:30	12,24	0	12,85	15,45	0	11,44	10,07	0	11,57
28/08/2013 19:35	12,37	0	12,84	15,11	0	11,43	8,85	0	11,56
28/08/2013 19:40	11,5	0	12,84	14,56	0	11,43	9,16	0	11,56
28/08/2013 19:45	11,64	0	12,84	14,74	0	11,42	9,38	0	11,55
28/08/2013 19:50	11,29	0	12,84	14,84	0	11,42	9,25	0	11,55
28/08/2013 19:55	11,02	0	12,83	14,84	0	11,4	9,06	0	11,54
28/08/2013 20:00	10,57	0	12,81	14,29	0	11,38	8,86	0	11,52
28/08/2013 20:05	10,71	0	12,83	14,57	0	11,4	8,37	0	11,53
28/08/2013 20:10	10,58	0	12,83	14,76	0	11,4	8,93	0	11,53

28/08/2013 20:15	10,8	0	12,82	14,5	0	11,39	8,88	0	11,52
28/08/2013 20:20	11,33	0	12,82	14,78	0	11,39	8,59	0	11,52
28/08/2013 20:25	10,66	0	12,82	14,65	0	11,38	8,41	0	11,52
28/08/2013 20:30	10,92	0	12,82	14,92	0	11,38	8,19	0	11,51
28/08/2013 20:35	11,23	0	12,81	14,49	0	11,35	8,22	0	11,51
28/08/2013 20:40	10,98	0	12,81	14,57	0	11,35	7,63	0	11,5
28/08/2013 20:45	11,15	0	12,8	14,85	0	11,34	7,75	0	11,49
28/08/2013 20:50	11,73	0	12,8	15	0	11,34	7,88	0	11,49
28/08/2013 20:55	12,12	0	12,8	15,37	0	11,33	8,62	0	11,48
28/08/2013 21:00	11,79	0	12,8	15,27	0	11,33	9,45	0	11,48
28/08/2013 21:05	11,84	0	12,8	15,36	0	11,32	9,56	0	11,47
28/08/2013 21:10	11,6	0	12,8	15,64	0	11,31	9,8	0	11,46
28/08/2013 21:15	12,24	0	12,79	15,39	0	11,31	9,96	0	11,45
28/08/2013 21:20	12,59	0	12,79	15,54	0	11,3	9,87	0	11,44
28/08/2013 21:25	12,69	0	12,79	15,57	0	11,29	10,13	0	11,42
28/08/2013 21:30	12,38	0	12,79	15,71	0	11,29	10,17	0	11,4
28/08/2013 21:35	12,34	0	12,78	15,58	0	11,27	9,94	0	11,36
28/08/2013 21:40	12,71	0	12,78	15,72	0	11,27	10,23	0	10,85
28/08/2013 21:45	12,47	0	12,78	16,01	0	11,26	11,22	0	10,66
28/08/2013 21:50	12,65	0	12,78	16,17	0	11,25	11,01	0	10,22
28/08/2013 21:55	12,92	0	12,77	16,05	0	11,24	11,35	0	10
28/08/2013 22:00	13,07	0	12,77	16,08	0	11,24	11,3	0	9,79
28/08/2013 22:05	13,46	0	12,77	16,09	0	11,22	11,09	0	9,57
28/08/2013 22:10	13,41	0	12,77	16,34	0	11,22	11,35	0	9,43
28/08/2013 22:15	13,36	0	12,76	16,35	0	11,2	11,6	0	9,43
28/08/2013 22:20	13,47	0	12,76	16,32	0	11,19	10,71	0	9,45
28/08/2013 22:25	13,85	0	12,76	16,4	0	11,17	10,19	0	9,46
28/08/2013 22:30	13,85	0	12,76	16,31	0	11,16	10,87	0	9,46
28/08/2013 22:35	13,8	0	12,75	16,42	0	11,14	10,72	0	9,46
28/08/2013 22:40	13,99	0	12,76	16,64	0	11,12	11,31	0	9,46
28/08/2013 22:45	14,24	0	12,75	NoData	NoData	NoData	11,02	0	9,46
28/08/2013 22:50	13,72	0	12,75	NoData	NoData	NoData	10,73	0	9,47
28/08/2013 22:55	13,8	0	12,75	NoData	NoData	NoData	11,21	0	9,47
28/08/2013 23:00	13,49	0	12,75	NoData	NoData	NoData	11,52	0	9,47
28/08/2013 23:05	13,9	0	12,74	NoData	NoData	NoData	11,34	0	9,47
28/08/2013 23:10	13,85	0	12,74	NoData	NoData	NoData	10,94	0	9,47
28/08/2013 23:15	13,74	0	12,74	NoData	NoData	NoData	10,01	0	9,47
28/08/2013 23:20	14,11	0	12,74	NoData	NoData	NoData	10,09	0	9,47
28/08/2013 23:25	13,52	0	12,73	NoData	NoData	NoData	10,09	0	9,47
28/08/2013 23:30	12,05	0	12,73	NoData	NoData	NoData	9,73	0	9,47
28/08/2013 23:35	11,71	0	12,73	NoData	NoData	NoData	9,96	0	9,47
28/08/2013 23:40	11,93	0	12,73	NoData	NoData	NoData	9,89	0	9,47
28/08/2013 23:45	12,03	0	12,72	NoData	NoData	NoData	10,26	0	9,47
28/08/2013 23:50	12,14	0	12,73	NoData	NoData	NoData	9,76	0	9,47
28/08/2013 23:55	12,47	0	12,72	NoData	NoData	NoData	9,92	0	9,47
29/08/2013 0:00	12,61	0	12,72	NoData	NoData	NoData	9,98	0	9,47
29/08/2013 0:05	13,48	0	12,72	NoData	NoData	NoData	9,98	0	9,47
29/08/2013 0:10	13,63	0	12,72	NoData	NoData	NoData	10,03	0	9,47
29/08/2013 0:15	13,91	0	12,71	NoData	NoData	NoData	9,99	0	9,47
29/08/2013 0:20	13,79	0	12,71	NoData	NoData	NoData	10,25	0	9,47
29/08/2013 0:25	13,64	0	12,71	NoData	NoData	NoData	10,02	0	9,47
29/08/2013 0:30	13,6	0	12,71	NoData	NoData	NoData	10,07	0	9,47
29/08/2013 0:35	13,86	0	12,7	NoData	NoData	NoData	10,14	0	9,47
29/08/2013 0:40	13,59	0	12,7	NoData	NoData	NoData	10,1	0	9,47
29/08/2013 0:45	13,18	0	12,7	NoData	NoData	NoData	10,01	0	9,46
29/08/2013 0:50	13,23	0	12,7	NoData	NoData	NoData	10,01	0	9,46
29/08/2013 0:55	12,95	0	12,69	NoData	NoData	NoData	10,2	0	9,46
29/08/2013 1:00	12,88	0	12,69	NoData	NoData	NoData	10,23	0	9,46
29/08/2013 1:05	12,43	0	12,69	NoData	NoData	NoData	10,34	0	9,46
29/08/2013 1:10	12,41	0	12,69	NoData	NoData	NoData	10,27	0	9,46
29/08/2013 1:15	12,24	0	12,68	NoData	NoData	NoData	10,47	0	9,46
29/08/2013 1:20	12,65	0	12,68	NoData	NoData	NoData	10,3	0	9,46
29/08/2013 1:25	12,66	0	12,68	NoData	NoData	NoData	10,36	0	9,46
29/08/2013 1:30	12,71	0	12,68	NoData	NoData	NoData	10,49	0	9,46
29/08/2013 1:35	12,7	0	12,67	NoData	NoData	NoData	10,04	0	9,46
29/08/2013 1:40	12,44	0	12,67	NoData	NoData	NoData	10,32	0	9,46
29/08/2013 1:45	12,4	0	12,67	NoData	NoData	NoData	10,45	0	9,46

29/08/2013 1:50	12,14	0	12,67	NoData	NoData	NoData	10,12	0	9,46
29/08/2013 1:55	12,32	0	12,67	NoData	NoData	NoData	10,08	0	9,46
29/08/2013 2:00	12,3	0	12,67	NoData	NoData	NoData	9,82	0	9,46
29/08/2013 2:05	12,31	0	12,66	NoData	NoData	NoData	9,71	0	9,46
29/08/2013 2:10	12,25	0	12,66	NoData	NoData	NoData	9,5	0	9,46
29/08/2013 2:15	12,56	0	12,66	NoData	NoData	NoData	9,85	0	9,46
29/08/2013 2:20	12,51	0	12,66	NoData	NoData	NoData	9,53	0	9,46
29/08/2013 2:25	12,89	0	12,65	NoData	NoData	NoData	9,15	0	9,45
29/08/2013 2:30	12,46	0	12,65	NoData	NoData	NoData	9,61	0	9,45
29/08/2013 2:35	12,58	0	12,65	NoData	NoData	NoData	9,59	0	9,45
29/08/2013 2:40	12,64	0	12,65	NoData	NoData	NoData	9,77	0	9,45
29/08/2013 2:45	12,23	0	12,64	NoData	NoData	NoData	9,59	0	9,45
29/08/2013 2:50	12,39	0	12,64	NoData	NoData	NoData	9,41	0	9,45
29/08/2013 2:55	12,08	0	12,64	NoData	NoData	NoData	9,9	0	9,45
29/08/2013 3:00	12,4	0	12,64	NoData	NoData	NoData	10,3	0	9,45
29/08/2013 3:05	12,77	0	12,63	NoData	NoData	NoData	10,43	0	9,45
29/08/2013 3:10	13,04	0	12,63	NoData	NoData	NoData	10,61	0	9,45
29/08/2013 3:15	12,61	0	12,63	NoData	NoData	NoData	10,84	0	9,45
29/08/2013 3:20	12,12	0	12,63	NoData	NoData	NoData	10,3	0	9,45
29/08/2013 3:25	12,35	0	12,62	NoData	NoData	NoData	10,4	0	9,45
29/08/2013 3:30	12,26	0	12,62	NoData	NoData	NoData	9,77	0	9,45
29/08/2013 3:35	12,68	0	12,62	NoData	NoData	NoData	9,92	0	9,45
29/08/2013 3:40	13,34	0	12,62	NoData	NoData	NoData	10,13	0	9,45
29/08/2013 3:45	12,05	0	12,61	NoData	NoData	NoData	9,87	0	9,45
29/08/2013 3:50	12,04	0	12,61	NoData	NoData	NoData	9,55	0	9,44
29/08/2013 3:55	12,31	0	12,61	NoData	NoData	NoData	9,93	0	9,44
29/08/2013 4:00	11,88	0	12,61	NoData	NoData	NoData	10,27	0	9,44
29/08/2013 4:05	12,22	0	12,6	NoData	NoData	NoData	10,64	0	9,44
29/08/2013 4:10	12,11	0	12,6	NoData	NoData	NoData	10,51	0	9,44
29/08/2013 4:15	11,94	0	12,6	NoData	NoData	NoData	10,34	0	9,44
29/08/2013 4:20	11,91	0	12,6	NoData	NoData	NoData	10,62	0	9,44
29/08/2013 4:25	12,4	0	12,6	NoData	NoData	NoData	9,83	0	9,44
29/08/2013 4:30	12,82	0	12,59	NoData	NoData	NoData	10,36	0	9,44
29/08/2013 4:35	13,85	0	12,59	NoData	NoData	NoData	10,69	0	9,44
29/08/2013 4:40	13,04	0	12,59	NoData	NoData	NoData	10,84	0	9,44
29/08/2013 4:45	12,2	0	12,59	NoData	NoData	NoData	11,33	0	9,44
29/08/2013 4:50	11,93	0	12,58	NoData	NoData	NoData	10,96	0	9,44
29/08/2013 4:55	11,51	0	12,58	NoData	NoData	NoData	10,71	0	9,44
29/08/2013 5:00	11,81	0	12,58	NoData	NoData	NoData	10,28	0	9,44
29/08/2013 5:05	11,32	0	12,58	NoData	NoData	NoData	10,12	0	9,44
29/08/2013 5:10	11	0	12,58	NoData	NoData	NoData	9,59	0	9,44
29/08/2013 5:15	11,32	0	12,57	NoData	NoData	NoData	9,35	0	9,44
29/08/2013 5:20	11,28	0	12,57	NoData	NoData	NoData	9,74	0	9,44
29/08/2013 5:25	11,13	0	12,57	NoData	NoData	NoData	9,67	0	9,44
29/08/2013 5:30	11,36	0	12,57	NoData	NoData	NoData	9,84	0	9,44
29/08/2013 5:35	11,76	0	12,57	NoData	NoData	NoData	9,84	0	9,43
29/08/2013 5:40	11,59	0	12,56	NoData	NoData	NoData	10,38	0	9,43
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29/08/2013 5:50	11,74	0	12,56	NoData	NoData	NoData	10,28	0	9,43
29/08/2013 5:55	11,54	0	12,56	NoData	NoData	NoData	10,33	0	9,43
29/08/2013 6:00	11,43	0	12,56	NoData	NoData	NoData	10,09	0	9,43
29/08/2013 6:05	11,62	0	12,56	NoData	NoData	NoData	9,78	0	9,43
29/08/2013 6:10	11,65	0	12,56	NoData	NoData	NoData	9,57	0	9,43
29/08/2013 6:15	11,96	0	12,56	NoData	NoData	NoData	9,29	0	9,43
29/08/2013 6:20	11,75	0	12,55	NoData	NoData	NoData	8,72	0	9,43
29/08/2013 6:25	12,29	0	12,55	NoData	NoData	NoData	8,55	0	9,43
29/08/2013 6:30	12,71	0	12,55	NoData	NoData	NoData	8,91	0	9,43
29/08/2013 6:35	12,7	0	12,55	NoData	NoData	NoData	10,44	0	9,45
29/08/2013 6:40	13,77	0	12,55	NoData	NoData	NoData	10,63	0	9,46
29/08/2013 6:45	13,93	0	12,55	NoData	NoData	NoData	10,76	0	9,49
29/08/2013 6:50	13,6	0	12,55	NoData	NoData	NoData	11,12	0	9,65
29/08/2013 6:55	15,64	0	12,55	NoData	NoData	NoData	11,42	0	9,7
29/08/2013 7:00	13,79	0	12,55	NoData	NoData	NoData	12,61	0	9,66
29/08/2013 7:05	12,67	0	12,55	NoData	NoData	NoData	12,88	0	9,64
29/08/2013 7:10	14,91	0	12,55	NoData	NoData	NoData	12,86	0	9,62
29/08/2013 7:15	15,93	0	12,56	NoData	NoData	NoData	12,82	0	9,61
29/08/2013 7:20	16,27	0	12,56	NoData	NoData	NoData	13,75	0	9,62

29/08/2013 7:25	15,63	0	12,56	NoData	NoData	NoData	13,71	0	9,64
29/08/2013 7:30	14,16	0	12,56	NoData	NoData	NoData	12,93	0	9,68
29/08/2013 7:35	15,11	0	12,56	NoData	NoData	NoData	12,54	0	9,84
29/08/2013 7:40	15,5	0	12,56	NoData	NoData	NoData	11,89	0	10,22
29/08/2013 7:45	14,55	0	12,56	NoData	NoData	NoData	12,32	0	10,51
29/08/2013 7:50	15,16	0	12,56	NoData	NoData	NoData	11,16	0	10,71
29/08/2013 7:55	14,16	0	12,57	NoData	NoData	NoData	10,4	0	10,98
29/08/2013 8:00	14	0	12,57	NoData	NoData	NoData	9,39	0	11,17
29/08/2013 8:05	13,74	0	12,58	NoData	NoData	NoData	9,34	0	11,47
29/08/2013 8:10	13,86	0	12,58	NoData	NoData	NoData	8,67	0	11,62
29/08/2013 8:15	12,84	0	12,59	NoData	NoData	NoData	9,04	0	11,67
29/08/2013 8:20	13,31	0	12,61	NoData	NoData	NoData	8,73	0	11,72
29/08/2013 8:25	12,3	0	12,62	NoData	NoData	NoData	8,91	0	11,76
29/08/2013 8:30	12,28	0	12,64	NoData	NoData	NoData	9,64	0	11,74
29/08/2013 8:35	13,09	0	12,65	NoData	NoData	NoData	9,87	0	10,76
29/08/2013 8:40	13,74	0	12,63	NoData	NoData	NoData	10,71	0	10,66
29/08/2013 8:45	12,59	0	12,66	NoData	NoData	NoData	10,81	0	10,8
29/08/2013 8:50	11,28	0	12,72	NoData	NoData	NoData	10,19	0	10,74
29/08/2013 8:55	11,29	0	12,77	NoData	NoData	NoData	9,57	0	10,78
29/08/2013 9:00	12,33	0	12,81	NoData	NoData	NoData	9,81	0	10,79
29/08/2013 9:05	11,83	0	12,85	NoData	NoData	NoData	9,68	0	10,79
29/08/2013 9:10	14,11	0	12,88	NoData	NoData	NoData	9,58	0	10,82
29/08/2013 9:15	14,61	0	12,93	NoData	NoData	NoData	9,55	0	10,76
29/08/2013 9:20	12,24	0	12,97	NoData	NoData	NoData	10,23	0	10,83
29/08/2013 9:25	11,07	0	13,01	NoData	NoData	NoData	10,48	0	10,77
29/08/2013 9:30	10,08	0	13,05	NoData	NoData	NoData	9,53	0	11,58
29/08/2013 9:35	9,54	0	13,09	NoData	NoData	NoData	8,62	0	11,91
29/08/2013 9:40	9,54	0	13,12	NoData	NoData	NoData	7,26	0	11,99
29/08/2013 9:45	10,64	0	13,15	NoData	NoData	NoData	7,22	0	12,02
29/08/2013 9:50	10,82	0	13,18	NoData	NoData	NoData	7,46	0	12,04
29/08/2013 9:55	10,88	0	13,19	NoData	NoData	NoData	7,89	0	12,06
29/08/2013 10:00	10,93	0	13,2	NoData	NoData	NoData	7,97	0	12,08
29/08/2013 10:05	10,98	0	13,21	NoData	NoData	NoData	7,73	0	12,1
29/08/2013 10:10	10,83	0	13,22	NoData	NoData	NoData	7,63	0	12,11
29/08/2013 10:15	10,76	0	13,2	NoData	NoData	NoData	7,89	0	12,12
29/08/2013 10:20	10,82	0	13,11	NoData	NoData	NoData	7,94	0	12,13
29/08/2013 10:25	11,54	0	13,02	NoData	NoData	NoData	7,89	0	12,14
29/08/2013 10:30	10,88	0	12,98	NoData	NoData	NoData	7,97	0	12,14
29/08/2013 10:35	11,26	0	12,97	NoData	NoData	NoData	8,09	0	12,15
29/08/2013 10:40	11,54	0	12,95	NoData	NoData	NoData	8,59	0	12,14
29/08/2013 10:45	11,14	0	12,95	NoData	NoData	NoData	8,86	0	12,15
29/08/2013 10:50	11,21	0	12,94	NoData	NoData	NoData	8,49	0	12,14
29/08/2013 10:55	11,21	0	12,92	NoData	NoData	NoData	8,64	0	12,14
29/08/2013 11:00	10,85	0	12,89	NoData	NoData	NoData	8,99	0	12,14
29/08/2013 11:05	10,88	0	12,88	NoData	NoData	NoData	8,49	0	12,13
29/08/2013 11:10	11,17	0	12,87	NoData	NoData	NoData	8,27	0	12,12
29/08/2013 11:15	11,04	0	12,87	NoData	NoData	NoData	8,52	0	12,12
29/08/2013 11:20	10,69	0	12,89	NoData	NoData	NoData	8,07	0	12,1
29/08/2013 11:25	10,41	0	12,87	NoData	NoData	NoData	8,24	0	12,1
29/08/2013 11:30	10,94	0	12,91	NoData	NoData	NoData	7,92	0	12,08
29/08/2013 11:35	10,82	0	13,11	NoData	NoData	NoData	8,17	0	12,06
29/08/2013 11:40	11,02	0	13,28	NoData	NoData	NoData	8,1	0	12,05
29/08/2013 11:45	10,97	0	13,32	NoData	NoData	NoData	8,09	0	12,03
29/08/2013 11:50	10,84	0	13,34	NoData	NoData	NoData	7,81	0	12
29/08/2013 11:55	10,92	0	13,36	NoData	NoData	NoData	7,86	0	11,98
29/08/2013 12:00	10,62	0	13,38	NoData	NoData	NoData	8,59	0	11,96
29/08/2013 12:05	10,94	0	13,39	NoData	NoData	NoData	8,32	0	11,93
29/08/2013 12:10	11,14	0	13,41	NoData	NoData	NoData	8,57	0	11,91
29/08/2013 12:15	10,73	0	13,43	NoData	NoData	NoData	8,36	0	11,9
29/08/2013 12:20	11,11	0	13,45	NoData	NoData	NoData	8,54	0	11,88
29/08/2013 12:25	11,07	0	13,47	NoData	NoData	NoData	8,73	0	11,88
29/08/2013 12:30	11,15	0	13,49	NoData	NoData	NoData	8,83	0	11,87
29/08/2013 12:35	11,44	0	13,52	NoData	NoData	NoData	9,46	0	11,86
29/08/2013 12:40	11,47	0	13,54	NoData	NoData	NoData	9,2	0	11,85
29/08/2013 12:45	11,55	0	13,57	NoData	NoData	NoData	9,53	0	11,85
29/08/2013 12:50	11,35	0	13,59	NoData	NoData	NoData	8,67	0	11,84
29/08/2013 12:55	11,69	0	13,62	NoData	NoData	NoData	8,82	0	11,84

29/08/2013 13:00	11,36	0	13,65	NoData	NoData	NoData	9,09	0	11,83
29/08/2013 13:05	11,8	0	13,69	NoData	NoData	NoData	9,55	0	11,83
29/08/2013 13:10	11,61	0	13,72	NoData	NoData	NoData	9,14	0	11,82
29/08/2013 13:15	11,84	0	13,75	NoData	NoData	NoData	9	0	11,82
29/08/2013 13:20	11,66	0	13,79	NoData	NoData	NoData	9,19	0	11,81
29/08/2013 13:25	11,69	0	13,83	NoData	NoData	NoData	9,38	0	11,81
29/08/2013 13:30	12,17	0	13,87	NoData	NoData	NoData	10,14	0	11,81
29/08/2013 13:35	12,53	0	13,91	NoData	NoData	NoData	9,85	0	11,8
29/08/2013 13:40	12,58	0	13,96	NoData	NoData	NoData	10,43	0	11,8
29/08/2013 13:45	12,55	0	14,02	NoData	NoData	NoData	10,58	0	11,79
29/08/2013 13:50	12,18	0	14,05	NoData	NoData	NoData	10,19	0	11,78
29/08/2013 13:55	12,39	0	14,05	NoData	NoData	NoData	10,21	0	11,78
29/08/2013 14:00	12,45	0	14,05	NoData	NoData	NoData	9,99	0	11,77
29/08/2013 14:05	12,27	0	14,05	NoData	NoData	NoData	10,04	0	11,77
29/08/2013 14:10	12,23	0	14,05	NoData	NoData	NoData	10,26	0	11,77
29/08/2013 14:15	11,68	0	13,92	NoData	NoData	NoData	9,38	0	11,76
29/08/2013 14:20	12,49	0	13,31	NoData	NoData	NoData	9,38	0	11,76
29/08/2013 14:25	11,79	0	13,29	NoData	NoData	NoData	9,97	0	11,76
29/08/2013 14:30	11,45	0	13,29	NoData	NoData	NoData	9,89	0	11,75
29/08/2013 14:35	11,86	0	13,29	NoData	NoData	NoData	9,54	0	11,75
29/08/2013 14:40	11,62	0	13,29	NoData	NoData	NoData	9,49	0	11,74
29/08/2013 14:45	11,26	0	13,29	NoData	NoData	NoData	9,12	0	11,74
29/08/2013 14:50	11,9	0	13,29	NoData	NoData	NoData	9,79	0	11,74
29/08/2013 14:55	11,27	0	13,29	NoData	NoData	NoData	9,04	0	11,74
29/08/2013 15:00	11,05	0	13,29	NoData	NoData	NoData	8,44	0	11,73
29/08/2013 15:05	10,97	0	13,29	NoData	NoData	NoData	8,67	0	11,73
29/08/2013 15:10	10,84	0	13,29	NoData	NoData	NoData	9,16	0	11,72
29/08/2013 15:15	11,17	0	13,29	NoData	NoData	NoData	9,57	0	11,72
29/08/2013 15:20	11,16	0	13,28	NoData	NoData	NoData	9,51	0	11,71
29/08/2013 15:25	11,03	0	13,29	NoData	NoData	NoData	9,13	0	11,71
29/08/2013 15:30	11,03	0	13,28	NoData	NoData	NoData	9,21	0	11,71
29/08/2013 15:35	11,21	0	13,28	NoData	NoData	NoData	8,8	0	11,71
29/08/2013 15:40	10,95	0	13,28	NoData	NoData	NoData	8,72	0	11,71
29/08/2013 15:45	11,29	0	13,22	NoData	NoData	NoData	8,91	0	11,7
29/08/2013 15:50	11,16	0	13,19	NoData	NoData	NoData	9,05	0	11,7
29/08/2013 15:55	10,75	0	13,17	NoData	NoData	NoData	8,61	0	11,7
29/08/2013 16:00	10,78	0	13,15	NoData	NoData	NoData	8,8	0	11,69
29/08/2013 16:05	11,26	0	13,1	NoData	NoData	NoData	8,81	0	11,69
29/08/2013 16:10	11,18	0	13,07	NoData	NoData	NoData	9,11	0	11,69
29/08/2013 16:15	11,88	0	13,05	NoData	NoData	NoData	9,72	0	11,68
29/08/2013 16:20	11,58	0	13,04	NoData	NoData	NoData	9,29	0	11,68
29/08/2013 16:25	11,78	0	13,03	NoData	NoData	NoData	9,41	0	11,68
29/08/2013 16:30	12,15	0	13,03	NoData	NoData	NoData	10,26	0	11,68
29/08/2013 16:35	11,7	0	13,02	NoData	NoData	NoData	10,13	0	11,68
29/08/2013 16:40	11,98	0	13,01	NoData	NoData	NoData	9,79	0	11,67
29/08/2013 16:45	12,07	0	13	NoData	NoData	NoData	10,24	0	11,67
29/08/2013 16:50	11,25	0	13	NoData	NoData	NoData	9,65	0	11,66
29/08/2013 16:55	10,73	0	12,99	NoData	NoData	NoData	8,55	0	11,65
29/08/2013 17:00	10,76	0	12,99	NoData	NoData	NoData	9,48	0	11,65
29/08/2013 17:05	11,01	0	12,99	NoData	NoData	NoData	8,76	0	11,64
29/08/2013 17:10	10,84	0	12,98	NoData	NoData	NoData	9,16	0	11,64
29/08/2013 17:15	10,3	0	12,98	NoData	NoData	NoData	9,29	0	11,63
29/08/2013 17:20	10,78	0	12,97	NoData	NoData	NoData	8,54	0	11,63
29/08/2013 17:25	13,04	0	12,96	NoData	NoData	NoData	9,3	0	11,62
29/08/2013 17:30	11,39	0	12,96	NoData	NoData	NoData	9,45	0	11,62
29/08/2013 17:35	10,44	0	12,95	NoData	NoData	NoData	8,44	0	11,6
29/08/2013 17:40	11,07	0	12,94	NoData	NoData	NoData	7,99	0	11,59
29/08/2013 17:45	11,16	0	12,92	NoData	NoData	NoData	8,29	0	11,59
29/08/2013 17:50	11,23	0	12,92	NoData	NoData	NoData	8,62	0	11,58
29/08/2013 17:55	11,29	0	12,92	NoData	NoData	NoData	8,46	0	11,58
29/08/2013 18:00	11,3	0	12,91	NoData	NoData	NoData	8,53	0	11,57
29/08/2013 18:05	11,1	0	12,91	NoData	NoData	NoData	8,71	0	11,57
29/08/2013 18:10	10,99	0	12,9	NoData	NoData	NoData	8,51	0	11,56
29/08/2013 18:15	11,68	0	12,9	NoData	NoData	NoData	8,39	0	11,55
29/08/2013 18:20	11,54	0	12,9	NoData	NoData	NoData	8,95	0	11,55
29/08/2013 18:25	11,08	0	12,89	NoData	NoData	NoData	8,4	0	11,54
29/08/2013 18:30	11,24	0	12,89	NoData	NoData	NoData	8,26	0	11,54

29/08/2013 18:35	10,93	0	12,89	NoData	NoData	NoData	8,4	0	11,53
29/08/2013 18:40	12,06	0	12,89	NoData	NoData	NoData	8,97	0	11,52
29/08/2013 18:45	11,2	0	12,88	NoData	NoData	NoData	8,92	0	11,52
29/08/2013 18:50	10,87	0	12,88	NoData	NoData	NoData	8,1	0	11,51
29/08/2013 18:55	10,99	0	12,87	NoData	NoData	NoData	8,14	0	11,51
29/08/2013 19:00	11,13	0	12,87	NoData	NoData	NoData	8,51	0	11,5
29/08/2013 19:05	10,87	0	12,87	NoData	NoData	NoData	8,43	0	11,49
29/08/2013 19:10	10,71	0	12,87	NoData	NoData	NoData	7,76	0	11,48
29/08/2013 19:15	11,1	0	12,86	NoData	NoData	NoData	8,22	0	11,48
29/08/2013 19:20	11,05	0	12,86	NoData	NoData	NoData	8,44	0	11,47
29/08/2013 19:25	10,23	0	12,86	NoData	NoData	NoData	7,57	0	11,46
29/08/2013 19:30	10,23	0	12,86	NoData	NoData	NoData	7,18	0	11,45
29/08/2013 19:35	10,3	0	12,85	NoData	NoData	NoData	7,28	0	11,43
29/08/2013 19:40	10,52	0	12,85	NoData	NoData	NoData	7,81	0	11,42
29/08/2013 19:45	10,08	0	12,84	NoData	NoData	NoData	7,59	0	11,4
29/08/2013 19:50	9,76	0	12,84	NoData	NoData	NoData	7,84	0	11,34
29/08/2013 19:55	10,48	0	12,84	NoData	NoData	NoData	8,39	0	10,41
29/08/2013 20:00	9,85	0	12,84	NoData	NoData	NoData	8,25	0	9,53
29/08/2013 20:05	9,88	0	12,83	NoData	NoData	NoData	8,03	0	9,36
29/08/2013 20:10	10,17	0	12,83	NoData	NoData	NoData	8,36	0	9,4
29/08/2013 20:15	10,06	0	12,83	NoData	NoData	NoData	8,16	0	9,41
29/08/2013 20:20	10,04	0	12,83	NoData	NoData	NoData	8,18	0	9,42
29/08/2013 20:25	10,33	0	12,82	NoData	NoData	NoData	8,17	0	9,43
29/08/2013 20:30	10,34	0	12,82	NoData	NoData	NoData	8,54	0	9,43
29/08/2013 20:35	10	0	12,82	NoData	NoData	NoData	8,03	0	9,43
29/08/2013 20:40	10,62	0	12,82	NoData	NoData	NoData	8,31	0	9,43
29/08/2013 20:45	11,22	0	12,81	NoData	NoData	NoData	9,17	0	9,43
29/08/2013 20:50	10,33	0	12,81	NoData	NoData	NoData	9,18	0	9,43
29/08/2013 20:55	10,95	0	12,81	NoData	NoData	NoData	9,16	0	9,43
29/08/2013 21:00	10,16	0	12,81	NoData	NoData	NoData	8,91	0	9,43
29/08/2013 21:05	10,69	0	12,8	NoData	NoData	NoData	8,84	0	9,43
29/08/2013 21:10	10,47	0	12,8	NoData	NoData	NoData	9,05	0	9,43
29/08/2013 21:15	10,68	0	12,8	NoData	NoData	NoData	8,88	0	9,44
29/08/2013 21:20	10,29	0	12,8	NoData	NoData	NoData	8,9	0	9,44
29/08/2013 21:25	10,6	0	12,79	NoData	NoData	NoData	8,81	0	9,44
29/08/2013 21:30	11,06	0	12,8	NoData	NoData	NoData	9,69	0	9,43
29/08/2013 21:35	12,02	0	12,79	NoData	NoData	NoData	9,57	0	9,43
29/08/2013 21:40	11,5	0	12,79	NoData	NoData	NoData	8,47	0	9,43
29/08/2013 21:45	11,01	0	12,79	NoData	NoData	NoData	7,18	0	9,43
29/08/2013 21:50	10,81	0	12,79	NoData	NoData	NoData	7,12	0	9,43
29/08/2013 21:55	10,74	0	12,79	NoData	NoData	NoData	7,15	0	9,43
29/08/2013 22:00	10,48	0	12,79	NoData	NoData	NoData	7,3	0	9,43
29/08/2013 22:05	10,45	0	12,78	NoData	NoData	NoData	7,63	0	9,43
29/08/2013 22:10	10,76	0	12,79	NoData	NoData	NoData	7,81	0	9,43
29/08/2013 22:15	11,04	0	12,78	NoData	NoData	NoData	7,77	0	9,43
29/08/2013 22:20	11,33	0	12,78	NoData	NoData	NoData	7,56	0	9,43
29/08/2013 22:25	10,96	0	12,78	NoData	NoData	NoData	7,39	0	9,43
29/08/2013 22:30	10,88	0	12,78	NoData	NoData	NoData	7,2	0	9,43
29/08/2013 22:35	11,16	0	12,77	NoData	NoData	NoData	7,31	0	9,43
29/08/2013 22:40	10,95	0	12,78	NoData	NoData	NoData	7,12	0	9,43
29/08/2013 22:45	10,99	0	12,77	NoData	NoData	NoData	7,09	0	9,43
29/08/2013 22:50	10,63	0	12,77	NoData	NoData	NoData	6,8	0	9,43
29/08/2013 22:55	9,88	0	12,77	NoData	NoData	NoData	6,93	0	9,43
29/08/2013 23:00	10,56	0	12,77	NoData	NoData	NoData	6,99	0	9,42
29/08/2013 23:05	11	0	12,76	NoData	NoData	NoData	6,92	0	9,42
29/08/2013 23:10	11,07	0	12,76	NoData	NoData	NoData	6,91	0	9,42
29/08/2013 23:15	10,9	0	12,76	NoData	NoData	NoData	6,84	0	9,42
29/08/2013 23:20	10,51	0	12,76	NoData	NoData	NoData	6,68	0	9,42
29/08/2013 23:25	10,92	0	12,75	NoData	NoData	NoData	6,6	0	9,42
29/08/2013 23:30	11,38	0	12,75	NoData	NoData	NoData	6,42	0	9,42
29/08/2013 23:35	9,91	0	12,75	NoData	NoData	NoData	6,25	0	9,42
29/08/2013 23:40	9,05	0	12,75	NoData	NoData	NoData	6,44	0	9,42
29/08/2013 23:45	9	0	12,74	NoData	NoData	NoData	6,36	0	9,42
29/08/2013 23:50	8,73	0	12,74	NoData	NoData	NoData	6,14	0	9,42
29/08/2013 23:55	8,99	0	12,74	NoData	NoData	NoData	6,12	0	9,42
30/08/2013 0:00	8,92	0	12,74	NoData	NoData	NoData	6,1	0	9,42
30/08/2013 0:05	9,06	0	12,74	NoData	NoData	NoData	6,06	0	9,42

30/08/2013 0:10	9,93	0	12,74	NoData	NoData	NoData	5,98	0	9,42
30/08/2013 0:15	10,25	0	12,73	NoData	NoData	NoData	6,07	0	9,41
30/08/2013 0:20	9,49	0	12,73	NoData	NoData	NoData	5,89	0	9,41
30/08/2013 0:25	8,33	0	12,73	NoData	NoData	NoData	6,01	0	9,41
30/08/2013 0:30	8,82	0	12,73	NoData	NoData	NoData	5,75	0	9,41
30/08/2013 0:35	8,19	0	12,72	NoData	NoData	NoData	5,72	0	9,41
30/08/2013 0:40	7,91	0	12,72	NoData	NoData	NoData	5,76	0	9,41
30/08/2013 0:45	7,96	0	12,72	NoData	NoData	NoData	5,52	0	9,41
30/08/2013 0:50	7,63	0	12,72	NoData	NoData	NoData	5,59	0	9,41
30/08/2013 0:55	7,27	0	12,71	NoData	NoData	NoData	5,39	0	9,41
30/08/2013 1:00	7,02	0	12,71	NoData	NoData	NoData	5,15	0	9,41
30/08/2013 1:05	7,02	0	12,71	NoData	NoData	NoData	4,74	0	9,41
30/08/2013 1:10	6,92	0	12,71	NoData	NoData	NoData	4,9	0	9,41
30/08/2013 1:15	6,49	0	12,71	NoData	NoData	NoData	4,85	0	9,41
30/08/2013 1:20	6,68	0	12,7	NoData	NoData	NoData	4,72	0	9,41
30/08/2013 1:25	6,69	0	12,7	NoData	NoData	NoData	4,64	0	9,41
30/08/2013 1:30	6,39	0	12,7	NoData	NoData	NoData	4,59	0	9,4
30/08/2013 1:35	6,4	0	12,7	NoData	NoData	NoData	4,55	0	9,4
30/08/2013 1:40	6,36	0	12,7	NoData	NoData	NoData	4,14	0	9,4
30/08/2013 1:45	6,21	0	12,69	NoData	NoData	NoData	4,34	0	9,4
30/08/2013 1:50	6,01	0	12,68	NoData	NoData	NoData	4,26	0	9,4
30/08/2013 1:55	6	0	12,68	NoData	NoData	NoData	4,08	0	9,4
30/08/2013 2:00	6,02	0	12,67	NoData	NoData	NoData	4	0	9,4
30/08/2013 2:05	6,13	0	12,67	NoData	NoData	NoData	4,1	0	9,4
30/08/2013 2:10	5,81	0	12,67	NoData	NoData	NoData	3,96	0	9,4
30/08/2013 2:15	5,78	0	12,67	NoData	NoData	NoData	3,9	0	9,4
30/08/2013 2:20	5,8	0	12,66	NoData	NoData	NoData	3,72	0	9,4
30/08/2013 2:25	5,96	0	12,66	NoData	NoData	NoData	3,61	0	9,4
30/08/2013 2:30	5,63	0	12,66	NoData	NoData	NoData	3,45	0	9,39
30/08/2013 2:35	5,71	0	12,66	NoData	NoData	NoData	3,61	0	9,39
30/08/2013 2:40	5,63	0	12,65	NoData	NoData	NoData	3,57	0	9,39
30/08/2013 2:45	5,78	0	12,65	NoData	NoData	NoData	3,61	0	9,39
30/08/2013 2:50	5,59	0	12,65	NoData	NoData	NoData	3,29	0	9,39
30/08/2013 2:55	5,56	0	12,65	NoData	NoData	NoData	3,5	0	9,39
30/08/2013 3:00	5,44	0	12,64	NoData	NoData	NoData	3,56	0	9,39
30/08/2013 3:05	5,78	0	12,64	NoData	NoData	NoData	3,42	0	9,39
30/08/2013 3:10	5,27	0	12,64	NoData	NoData	NoData	3,43	0	9,39
30/08/2013 3:15	5,3	0	12,64	NoData	NoData	NoData	3,46	0	9,39
30/08/2013 3:20	5,58	0	12,63	NoData	NoData	NoData	3,19	0	9,38
30/08/2013 3:25	5,33	0	12,63	NoData	NoData	NoData	3,2	0	9,38
30/08/2013 3:30	5,28	0	12,63	NoData	NoData	NoData	3,23	0	9,38
30/08/2013 3:35	5,9	0	12,63	NoData	NoData	NoData	3,47	0	9,38
30/08/2013 3:40	5,54	0	12,62	NoData	NoData	NoData	3,19	0	9,38
30/08/2013 3:45	5,66	0	12,62	NoData	NoData	NoData	3,16	0	9,38
30/08/2013 3:50	5,2	0	12,61	NoData	NoData	NoData	3,13	0	9,38
30/08/2013 3:55	5,13	0	12,62	NoData	NoData	NoData	3,02	0	9,38
30/08/2013 4:00	5,22	0	12,61	NoData	NoData	NoData	3,24	0	9,38
30/08/2013 4:05	5,31	0	12,61	NoData	NoData	NoData	3,14	0	9,38
30/08/2013 4:10	5,2	0	12,61	NoData	NoData	NoData	2,8	0	9,38
30/08/2013 4:15	5,12	0	12,61	NoData	NoData	NoData	3,1	0	9,37
30/08/2013 4:20	5,17	0	12,6	NoData	NoData	NoData	3,01	0	9,37
30/08/2013 4:25	5,3	0	12,6	NoData	NoData	NoData	3,01	0	9,37
30/08/2013 4:30	5,1	0	12,6	NoData	NoData	NoData	2,82	0	9,37
30/08/2013 4:35	5,33	0	12,6	NoData	NoData	NoData	2,78	0	9,37
30/08/2013 4:40	5,58	0	12,59	NoData	NoData	NoData	2,77	0	9,37
30/08/2013 4:45	5,82	0	12,58	NoData	NoData	NoData	2,86	0	9,37
30/08/2013 4:50	6,8	0	12,55	NoData	NoData	NoData	2,78	0	9,37
30/08/2013 4:55	8,21	0	12,55	NoData	NoData	NoData	2,71	0	9,36
30/08/2013 5:00	9,51	0	12,58	NoData	NoData	NoData	2,81	0	9,36
30/08/2013 5:05	9,82	0	12,58	NoData	NoData	NoData	2,87	0	9,36
30/08/2013 5:10	10,27	0	12,58	NoData	NoData	NoData	2,75	0	9,36
30/08/2013 5:15	11,09	0	12,57	NoData	NoData	NoData	2,76	0	9,36
30/08/2013 5:20	10,87	0	12,57	NoData	NoData	NoData	2,72	0	9,36
30/08/2013 5:25	9,9	0	12,57	NoData	NoData	NoData	2,76	0	9,36
30/08/2013 5:30	8,33	0	12,57	NoData	NoData	NoData	2,63	0	9,36
30/08/2013 5:35	8,24	0	12,56	NoData	NoData	NoData	2,64	0	9,36
30/08/2013 5:40	7,54	0	12,56	NoData	NoData	NoData	2,62	0	9,35

30/08/2013 5:45	6,43	0	12,56	NoData	NoData	NoData	2,81	0	9,35
30/08/2013 5:50	5,07	0	12,56	NoData	NoData	NoData	2,56	0	9,35
30/08/2013 5:55	4,8	0	12,57	NoData	NoData	NoData	2,54	0	9,35
30/08/2013 6:00	4,8	0	12,56	NoData	NoData	NoData	2,53	0	9,35
30/08/2013 6:05	5,06	0	12,57	NoData	NoData	NoData	2,4	0	9,35
30/08/2013 6:10	5,04	0	12,56	NoData	NoData	NoData	2,49	0	9,35
30/08/2013 6:15	4,92	0	12,56	NoData	NoData	NoData	2,57	0	9,35
30/08/2013 6:20	4,87	0	12,56	NoData	NoData	NoData	2,56	0	9,34
30/08/2013 6:25	4,73	0	12,56	NoData	NoData	NoData	2,4	0	9,35
30/08/2013 6:30	5,11	0	12,56	NoData	NoData	NoData	2,39	0	9,35
30/08/2013 6:35	4,83	0	12,56	NoData	NoData	NoData	2,3	0	9,35
30/08/2013 6:40	5,6	0	12,56	NoData	NoData	NoData	2,37	0	9,36
30/08/2013 6:45	6,13	0	12,56	NoData	NoData	NoData	2,31	0	9,37
30/08/2013 6:50	6,07	0	12,56	NoData	NoData	NoData	2,37	0	9,37
30/08/2013 6:55	6,12	0	12,56	NoData	NoData	NoData	2,35	0	9,38
30/08/2013 7:00	5,81	0	12,56	NoData	NoData	NoData	2,34	0	9,39
30/08/2013 7:05	6,84	0	12,56	NoData	NoData	NoData	2,25	0	9,41
30/08/2013 7:10	7,71	0	12,56	NoData	NoData	NoData	2,31	0	9,48
30/08/2013 7:15	7,93	0	12,56	NoData	NoData	NoData	2,51	0	9,55
30/08/2013 7:20	7,65	0	12,56	NoData	NoData	NoData	2,25	0	9,61
30/08/2013 7:25	6,15	0	12,57	NoData	NoData	NoData	2,57	0	9,65
30/08/2013 7:30	5,08	0	12,56	NoData	NoData	NoData	2,43	0	9,67
30/08/2013 7:35	5,42	0	12,57	NoData	NoData	NoData	2,47	0	9,75
30/08/2013 7:40	5,56	0	12,57	NoData	NoData	NoData	2,68	0	9,86
30/08/2013 7:45	5,18	0	12,57	NoData	NoData	NoData	3,11	0	10,17
30/08/2013 7:50	5,22	0	12,56	NoData	NoData	NoData	2,96	0	10,32
30/08/2013 7:55	5,2	0	12,56	NoData	NoData	NoData	4,26	0	10,64
30/08/2013 8:00	5,54	0	12,56	NoData	NoData	NoData	6,09	0	10,95
30/08/2013 8:05	5,38	0	12,57	NoData	NoData	NoData	5,51	0	11,17
30/08/2013 8:10	5,45	0	12,57	NoData	NoData	NoData	4,88	0	11,46
30/08/2013 8:15	6,61	0	12,58	NoData	NoData	NoData	3,65	0	11,6
30/08/2013 8:20	7,88	0	12,6	NoData	NoData	NoData	2,44	0	11,66
30/08/2013 8:25	8,07	0	12,61	NoData	NoData	NoData	2,68	0	11,71
30/08/2013 8:30	8,3	0	12,63	NoData	NoData	NoData	2,3	0	11,26
30/08/2013 8:35	7,5	0	12,64	NoData	NoData	NoData	5,39	0	10,71
30/08/2013 8:40	6,58	0	12,64	NoData	NoData	NoData	4,98	0	10,89
30/08/2013 8:45	6,75	0	12,67	NoData	NoData	NoData	8,75	2	10,69
30/08/2013 8:50	7,06	0	12,72	NoData	NoData	NoData	4,7	0	10,82
30/08/2013 8:55	6,85	0	12,76	NoData	NoData	NoData	5,02	0	10,8
30/08/2013 9:00	7,03	0	12,8	NoData	NoData	NoData	3,82	0	10,77
30/08/2013 9:05	8,26	0	12,85	NoData	NoData	NoData	4,32	0	11,02
30/08/2013 9:10	8,87	0	12,88	NoData	NoData	NoData	4,46	0	10,75
30/08/2013 9:15	7,84	0	12,93	NoData	NoData	NoData	5,78	0	10,84
30/08/2013 9:20	7,3	0	12,98	NoData	NoData	NoData	3,84	0	10,89
30/08/2013 9:25	5,99	0	13,02	NoData	NoData	NoData	4,06	0	11,02
30/08/2013 9:30	5,79	0	13,07	NoData	NoData	NoData	3,87	0	11,74
30/08/2013 9:35	5,47	0	13,11	NoData	NoData	NoData	4,37	0	11,91
30/08/2013 9:40	5,27	0	13,14	NoData	NoData	NoData	4,03	0	11,96
30/08/2013 9:45	5,46	0	13,17	NoData	NoData	NoData	3,83	0	11,99
30/08/2013 9:50	5,13	0	13,19	NoData	NoData	NoData	3,74	0	12,01
30/08/2013 9:55	5,21	0	13,21	NoData	NoData	NoData	4,11	0	12,03
30/08/2013 10:00	5,17	0	13,22	NoData	NoData	NoData	4,5	0	12,04
30/08/2013 10:05	5,25	0	13,23	NoData	NoData	NoData	4,06	0	12,06
30/08/2013 10:10	4,98	0	13,24	NoData	NoData	NoData	5,07	0	12,06
30/08/2013 10:15	4,83	0	13,19	NoData	NoData	NoData	4,77	0	12,08
30/08/2013 10:20	5,01	0	13,09	NoData	NoData	NoData	6,21	2	12,09
30/08/2013 10:25	4,61	0	13,01	NoData	NoData	NoData	3,07	0	12,1
30/08/2013 10:30	4,56	0	12,98	NoData	NoData	NoData	3,26	0	12,1
30/08/2013 10:35	4,56	0	12,96	NoData	NoData	NoData	3,49	0	12,11
30/08/2013 10:40	4,71	0	12,95	NoData	NoData	NoData	3,76	0	12,1
30/08/2013 10:45	4,43	0	12,94	NoData	NoData	NoData	3,63	0	12,11
30/08/2013 10:50	4,59	0	12,94	NoData	NoData	NoData	2,68	0	12,1
30/08/2013 10:55	4,83	0	12,92	NoData	NoData	NoData	3,3	0	12,1
30/08/2013 11:00	5,93	0	12,89	NoData	NoData	NoData	2,6	0	12,09
30/08/2013 11:05	5,41	0	12,88	NoData	NoData	NoData	2,43	0	12,09
30/08/2013 11:10	4,51	0	12,87	NoData	NoData	NoData	2,14	0	12,07
30/08/2013 11:15	4,94	0	12,87	NoData	NoData	NoData	1,85	0	12,07

30/08/2013 11:20	5,48	0	12,89	NoData	NoData	NoData	2,07	0	12,05
30/08/2013 11:25	5,3	0	12,87	NoData	NoData	NoData	2,85	0	12,04
30/08/2013 11:30	4,85	0	12,94	NoData	NoData	NoData	3,02	0	12,02
30/08/2013 11:35	4,59	0	13,16	NoData	NoData	NoData	2,91	0	12,01
30/08/2013 11:40	4,79	0	13,29	NoData	NoData	NoData	2,24	0	11,99
30/08/2013 11:45	4,78	0	13,32	NoData	NoData	NoData	2,35	0	11,97
30/08/2013 11:50	5,1	0	13,34	NoData	NoData	NoData	2,4	0	11,94
30/08/2013 11:55	4,89	0	13,35	NoData	NoData	NoData	2,39	0	11,92
30/08/2013 12:00	4,66	0	13,37	NoData	NoData	NoData	2,56	0	11,89
30/08/2013 12:05	4,68	0	13,39	NoData	NoData	NoData	2,35	0	11,86
30/08/2013 12:10	4,75	0	13,41	NoData	NoData	NoData	2,38	0	11,84
30/08/2013 12:15	4,7	0	13,42	NoData	NoData	NoData	2,37	0	11,82
30/08/2013 12:20	4,52	0	13,45	NoData	NoData	NoData	2,2	0	11,81
30/08/2013 12:25	4,52	0	13,46	NoData	NoData	NoData	2,13	0	11,8
30/08/2013 12:30	4,49	0	13,49	NoData	NoData	NoData	2,1	0	11,79
30/08/2013 12:35	4,59	0	13,51	NoData	NoData	NoData	2,06	0	11,79
30/08/2013 12:40	4,71	0	13,53	NoData	NoData	NoData	1,91	0	11,78
30/08/2013 12:45	4,53	0	13,55	NoData	NoData	NoData	2,19	0	11,77
30/08/2013 12:50	4,53	0	13,58	NoData	NoData	NoData	2,12	0	11,77
30/08/2013 12:55	4,52	0	13,6	NoData	NoData	NoData	2,02	0	11,76
30/08/2013 13:00	4,54	0	13,63	NoData	NoData	NoData	2,13	0	11,76
30/08/2013 13:05	4,51	0	13,66	NoData	NoData	NoData	2,01	0	11,75
30/08/2013 13:10	4,6	0	13,69	NoData	NoData	NoData	2	0	11,74
30/08/2013 13:15	4,71	0	13,72	NoData	NoData	NoData	2	0	11,74
30/08/2013 13:20	5,27	0	13,76	NoData	NoData	NoData	1,87	0	11,73
30/08/2013 13:25	4,92	0	13,79	NoData	NoData	NoData	2,06	0	11,73
30/08/2013 13:30	4,96	0	13,84	NoData	NoData	NoData	2,01	0	11,73
30/08/2013 13:35	4,96	0	13,87	NoData	NoData	NoData	2,42	0	11,73
30/08/2013 13:40	5,09	0	13,92	NoData	NoData	NoData	2,22	0	11,72
30/08/2013 13:45	5,02	0	13,95	NoData	NoData	NoData	2,08	0	11,72
30/08/2013 13:50	5,18	0	13,96	NoData	NoData	NoData	2,81	0	11,72
30/08/2013 13:55	5,17	0	13,96	NoData	NoData	NoData	2,43	0	11,71
30/08/2013 14:00	5,33	0	13,96	NoData	NoData	NoData	2,18	0	11,71
30/08/2013 14:05	5,48	0	13,98	NoData	NoData	NoData	2,31	0	11,7
30/08/2013 14:10	5,46	0	14	NoData	NoData	NoData	2,16	0	11,7
30/08/2013 14:15	5,6	0	13,53	NoData	NoData	NoData	2,61	0	11,7
30/08/2013 14:20	5,65	0	13,25	NoData	NoData	NoData	2,75	0	11,69
30/08/2013 14:25	5,82	0	13,24	NoData	NoData	NoData	2,7	0	11,69
30/08/2013 14:30	5,87	0	13,24	NoData	NoData	NoData	2,82	0	11,69
30/08/2013 14:35	5,75	0	13,24	NoData	NoData	NoData	2,98	0	11,69
30/08/2013 14:40	5,7	0	13,24	NoData	NoData	NoData	2,92	0	11,68
30/08/2013 14:45	5,7	0	13,24	NoData	NoData	NoData	2,56	0	11,68
30/08/2013 14:50	5,8	0	13,24	NoData	NoData	NoData	3,02	0	11,68
30/08/2013 14:55	5,6	0	13,24	NoData	NoData	NoData	2,8	0	11,67
30/08/2013 15:00	5,57	0	13,24	NoData	NoData	NoData	2,69	0	11,67
30/08/2013 15:05	5,52	0	13,24	NoData	NoData	NoData	2,67	0	11,67
30/08/2013 15:10	5,57	0	13,24	NoData	NoData	NoData	2,63	0	11,66
30/08/2013 15:15	5,56	0	13,24	NoData	NoData	NoData	2,84	0	11,66
30/08/2013 15:20	5,35	0	13,24	NoData	NoData	NoData	2,86	0	11,65
30/08/2013 15:25	5,3	0	13,24	NoData	NoData	NoData	2,59	0	11,65
30/08/2013 15:30	5,4	0	13,24	NoData	NoData	NoData	3,01	0	11,65
30/08/2013 15:35	5,57	0	13,24	NoData	NoData	NoData	2,96	0	11,64
30/08/2013 15:40	5,49	0	13,24	NoData	NoData	NoData	3,65	0	11,64
30/08/2013 15:45	5,7	0	13,2	NoData	NoData	NoData	3,04	0	11,64
30/08/2013 15:50	6,06	0	13,18	NoData	NoData	NoData	3,04	0	11,63
30/08/2013 15:55	6,29	0	13,16	NoData	NoData	NoData	3,47	0	11,63
30/08/2013 16:00	6,36	0	13,15	NoData	NoData	NoData	3,34	0	11,63
30/08/2013 16:05	6,46	0	13,11	NoData	NoData	NoData	3,56	0	11,62
30/08/2013 16:10	6,64	0	13,07	NoData	NoData	NoData	3,85	0	11,62
30/08/2013 16:15	6,56	0	13,05	NoData	NoData	NoData	4,02	0	11,62
30/08/2013 16:20	6,34	0	13,05	NoData	NoData	NoData	3,7	0	11,61
30/08/2013 16:25	6,26	0	13,04	NoData	NoData	NoData	3,36	0	11,61
30/08/2013 16:30	6,5	0	13,03	NoData	NoData	NoData	3,56	0	11,61
30/08/2013 16:35	6,46	0	13,02	NoData	NoData	NoData	4,09	0	11,61
30/08/2013 16:40	6,58	0	13,02	NoData	NoData	NoData	3,98	0	11,61
30/08/2013 16:45	6,78	0	13,01	NoData	NoData	NoData	3,91	0	11,6
30/08/2013 16:50	6,71	0	13,01	NoData	NoData	NoData	3,76	0	11,59

30/08/2013 16:55	6,68	0	13	NoData	NoData	NoData	3,77	0	11,58
30/08/2013 17:00	6,82	0	13,01	NoData	NoData	NoData	3,75	0	11,58
30/08/2013 17:05	6,69	0	13	NoData	NoData	NoData	4,09	0	11,57
30/08/2013 17:10	7,17	0	13	NoData	NoData	NoData	4,2	0	11,57
30/08/2013 17:15	7,15	0	12,99	NoData	NoData	NoData	4,26	0	11,56
30/08/2013 17:20	7,17	0	12,99	NoData	NoData	NoData	4,39	0	11,56
30/08/2013 17:25	7,31	0	12,98	NoData	NoData	NoData	4,3	0	11,55
30/08/2013 17:30	7,49	0	12,97	NoData	NoData	NoData	4,09	0	11,54
30/08/2013 17:35	7,58	0	12,96	NoData	NoData	NoData	4,21	0	11,54
30/08/2013 17:40	7,39	0	12,96	NoData	NoData	NoData	4,28	0	11,53
30/08/2013 17:45	7,19	0	12,94	NoData	NoData	NoData	4,49	0	11,53
30/08/2013 17:50	7	0	12,94	NoData	NoData	NoData	4,16	0	11,52
30/08/2013 17:55	7,22	0	12,92	NoData	NoData	NoData	4,22	0	11,51
30/08/2013 18:00	7,13	0	12,91	NoData	NoData	NoData	4,09	0	11,5
30/08/2013 18:05	7,1	0	12,91	NoData	NoData	NoData	4,25	0	11,5
30/08/2013 18:10	7,21	0	12,91	NoData	NoData	NoData	3,92	0	11,49
30/08/2013 18:15	7,35	0	12,9	NoData	NoData	NoData	4,19	0	11,49
30/08/2013 18:20	7,34	0	12,9	NoData	NoData	NoData	4,47	0	11,48
30/08/2013 18:25	7,39	0	12,89	NoData	NoData	NoData	4,4	0	11,47
30/08/2013 18:30	7,19	0	12,89	NoData	NoData	NoData	4,4	0	11,46
30/08/2013 18:35	7,23	0	12,89	NoData	NoData	NoData	4,24	0	11,44
30/08/2013 18:40	7,26	0	12,89	NoData	NoData	NoData	4,51	0	11,42
30/08/2013 18:45	7,91	0	12,88	NoData	NoData	NoData	5,27	0	11,38
30/08/2013 18:50	8,27	0	12,88	NoData	NoData	NoData	6,33	0	10,15
30/08/2013 18:55	7,84	0	12,87	NoData	NoData	NoData	6,45	0	9,34
30/08/2013 19:00	8,1	0	12,87	NoData	NoData	NoData	6,11	0	9,39
30/08/2013 19:05	8,26	0	12,87	NoData	NoData	NoData	6,22	0	9,4
30/08/2013 19:10	8,23	0	12,87	NoData	NoData	NoData	6,31	0	9,41
30/08/2013 19:15	7,88	0	12,86	NoData	NoData	NoData	5,91	0	9,42
30/08/2013 19:20	7,59	0	12,86	NoData	NoData	NoData	5,8	0	9,42
30/08/2013 19:25	7,72	0	12,86	NoData	NoData	NoData	5,69	0	9,42
30/08/2013 19:30	7,95	0	12,86	NoData	NoData	NoData	5,84	0	9,42
30/08/2013 19:35	7,81	0	12,85	NoData	NoData	NoData	5,95	0	9,42
30/08/2013 19:40	7,51	0	12,85	NoData	NoData	NoData	5,63	0	9,42
30/08/2013 19:45	7,42	0	12,85	NoData	NoData	NoData	5,48	0	9,42
30/08/2013 19:50	7,22	0	12,85	NoData	NoData	NoData	5,53	0	9,42
30/08/2013 19:55	7,28	0	12,84	NoData	NoData	NoData	5,34	0	9,42
30/08/2013 20:00	7,58	0	12,84	NoData	NoData	NoData	5,4	0	9,42
30/08/2013 20:05	7,35	0	12,84	NoData	NoData	NoData	5,9	0	9,42
30/08/2013 20:10	7,51	0	12,83	NoData	NoData	NoData	5,98	0	9,42
30/08/2013 20:15	7,74	0	12,83	NoData	NoData	NoData	5,91	0	9,42
30/08/2013 20:20	7,94	0	12,83	NoData	NoData	NoData	5,87	0	9,42
30/08/2013 20:25	8,28	0	12,83	NoData	NoData	NoData	6,07	0	9,42
30/08/2013 20:30	8,07	0	12,82	NoData	NoData	NoData	6,06	0	9,42
30/08/2013 20:35	8,13	0	12,82	NoData	NoData	NoData	5,87	0	9,42
30/08/2013 20:40	7,77	0	12,82	NoData	NoData	NoData	5,39	0	9,41
30/08/2013 20:45	7,84	0	12,82	NoData	NoData	NoData	5,49	0	9,41
30/08/2013 20:50	7,6	0	12,81	NoData	NoData	NoData	5,52	0	9,41
30/08/2013 20:55	7,88	0	12,81	NoData	NoData	NoData	5,46	0	9,41
30/08/2013 21:00	7,46	0	12,81	NoData	NoData	NoData	5,31	0	9,41
30/08/2013 21:05	7,45	0	12,81	NoData	NoData	NoData	5,25	0	9,41
30/08/2013 21:10	7,27	0	12,8	NoData	NoData	NoData	5,5	0	9,41
30/08/2013 21:15	7,35	0	12,8	NoData	NoData	NoData	5,4	0	9,41
30/08/2013 21:20	7,42	0	12,8	NoData	NoData	NoData	5,52	0	9,4
30/08/2013 21:25	7,51	0	12,8	NoData	NoData	NoData	5,36	0	9,4
30/08/2013 21:30	7,57	0	12,79	NoData	NoData	NoData	5,39	0	9,4
30/08/2013 21:35	7,23	0	12,79	NoData	NoData	NoData	5,32	0	9,4
30/08/2013 21:40	7,74	0	12,79	NoData	NoData	NoData	5,28	0	9,4
30/08/2013 21:45	7,5	0	12,79	NoData	NoData	NoData	5,18	0	9,4
30/08/2013 21:50	7,28	0	12,79	NoData	NoData	NoData	5,29	0	9,4
30/08/2013 21:55	7,11	0	12,79	NoData	NoData	NoData	5,56	0	9,39
30/08/2013 22:00	7,1	0	12,79	NoData	NoData	NoData	5,13	0	9,39
30/08/2013 22:05	7,35	0	12,79	NoData	NoData	NoData	5,11	0	9,39
30/08/2013 22:10	7,18	0	12,79	NoData	NoData	NoData	5,16	0	9,39
30/08/2013 22:15	6,89	0	12,79	NoData	NoData	NoData	5,15	0	9,39
30/08/2013 22:20	6,73	0	12,78	NoData	NoData	NoData	5	0	9,39
30/08/2013 22:25	6,67	0	12,78	NoData	NoData	NoData	4,88	0	9,39

30/08/2013 22:30	6,55	0	12,78	NoData	NoData	NoData	4,94	0	9,39
30/08/2013 22:35	7,02	0	12,78	NoData	NoData	NoData	4,66	0	9,38
30/08/2013 22:40	6,47	0	12,78	NoData	NoData	NoData	4,94	0	9,38
30/08/2013 22:45	6,47	0	12,78	NoData	NoData	NoData	5,24	0	9,38
30/08/2013 22:50	6,76	0	12,77	NoData	NoData	NoData	4,77	0	9,38
30/08/2013 22:55	7	0	12,77	NoData	NoData	NoData	4,95	0	9,38
30/08/2013 23:00	7,18	0	12,77	NoData	NoData	NoData	5,23	0	9,38
30/08/2013 23:05	7,36	0	12,77	NoData	NoData	NoData	5,29	0	9,38
30/08/2013 23:10	6,82	0	12,77	NoData	NoData	NoData	4,94	0	9,38
30/08/2013 23:15	7,03	0	12,76	NoData	NoData	NoData	4,63	0	9,38
30/08/2013 23:20	6,7	0	12,76	NoData	NoData	NoData	4,37	0	9,37
30/08/2013 23:25	6,93	0	12,76	NoData	NoData	NoData	4,6	0	9,37
30/08/2013 23:30	6,73	0	12,76	NoData	NoData	NoData	4,93	0	9,37
30/08/2013 23:35	6,76	0	12,76	NoData	NoData	NoData	5,02	0	9,37
30/08/2013 23:40	6,51	0	12,75	NoData	NoData	NoData	5,36	0	9,37
30/08/2013 23:45	7,44	0	12,75	NoData	NoData	NoData	5,3	0	9,37
30/08/2013 23:50	7,27	0	12,75	NoData	NoData	NoData	4,72	0	9,37
30/08/2013 23:55	7,78	0	12,75	NoData	NoData	NoData	4,39	0	9,37
31/08/2013 0:00	8,43	0	12,73	NoData	NoData	NoData	4,1	0	9,37
31/08/2013 0:05	7,91	0	12,73	NoData	NoData	NoData	4,68	0	9,36
31/08/2013 0:10	7,93	0	12,73	NoData	NoData	NoData	4,54	0	9,36
31/08/2013 0:15	7,76	0	12,73	NoData	NoData	NoData	4,44	0	9,36
31/08/2013 0:20	8,01	0	12,72	NoData	NoData	NoData	4,52	0	9,36
31/08/2013 0:25	7,58	0	12,73	NoData	NoData	NoData	4,61	0	9,36
31/08/2013 0:30	7,02	0	12,72	NoData	NoData	NoData	4,69	0	9,36
31/08/2013 0:35	6,83	0	12,72	NoData	NoData	NoData	4,41	0	9,36
31/08/2013 0:40	6,9	0	12,72	NoData	NoData	NoData	4,65	0	9,36
31/08/2013 0:45	6,61	0	12,72	NoData	NoData	NoData	4,62	0	9,35
31/08/2013 0:50	6,66	0	12,71	NoData	NoData	NoData	4,32	0	9,35
31/08/2013 0:55	6,6	0	12,71	NoData	NoData	NoData	4,18	0	9,35
31/08/2013 1:00	6,26	0	12,71	NoData	NoData	NoData	3,88	0	9,35
31/08/2013 1:05	5,86	0	12,71	NoData	NoData	NoData	3,88	0	9,35
31/08/2013 1:10	6,12	0	12,7	NoData	NoData	NoData	3,89	0	9,35
31/08/2013 1:15	6,16	0	12,7	NoData	NoData	NoData	3,84	0	9,35
31/08/2013 1:20	6,44	0	12,7	NoData	NoData	NoData	4	0	9,35
31/08/2013 1:25	6,58	0	12,7	NoData	NoData	NoData	3,96	0	9,34
31/08/2013 1:30	6,73	0	12,69	NoData	NoData	NoData	3,7	0	9,34
31/08/2013 1:35	6,73	0	12,69	NoData	NoData	NoData	3,52	0	9,34
31/08/2013 1:40	6,84	0	12,69	NoData	NoData	NoData	3,5	0	9,34
31/08/2013 1:45	6,73	0	12,69	NoData	NoData	NoData	3,56	0	9,34
31/08/2013 1:50	6,59	0	12,68	NoData	NoData	NoData	3,75	0	9,34
31/08/2013 1:55	6,81	0	12,69	NoData	NoData	NoData	4,04	0	9,34
31/08/2013 2:00	6,36	0	12,68	NoData	NoData	NoData	4,1	0	9,34
31/08/2013 2:05	5,76	0	12,68	NoData	NoData	NoData	4,07	0	9,33
31/08/2013 2:10	5,67	0	12,68	NoData	NoData	NoData	4,07	0	9,33
31/08/2013 2:15	5,68	0	12,68	NoData	NoData	NoData	3,6	0	9,33
31/08/2013 2:20	5,62	0	12,67	NoData	NoData	NoData	3,43	0	9,33
31/08/2013 2:25	5,27	0	12,67	NoData	NoData	NoData	3,17	0	9,33
31/08/2013 2:30	5,46	0	12,67	NoData	NoData	NoData	3,08	0	9,33
31/08/2013 2:35	5,63	0	12,66	NoData	NoData	NoData	3,03	0	9,33
31/08/2013 2:40	5,56	0	12,66	NoData	NoData	NoData	3,23	0	9,33
31/08/2013 2:45	5,56	0	12,66	NoData	NoData	NoData	3,23	0	9,33
31/08/2013 2:50	5,71	0	12,66	NoData	NoData	NoData	3,46	0	9,32
31/08/2013 2:55	5,79	0	12,66	NoData	NoData	NoData	3,62	0	9,32
31/08/2013 3:00	5,73	0	12,65	NoData	NoData	NoData	3,49	0	9,32
31/08/2013 3:05	5,42	0	12,65	NoData	NoData	NoData	3,37	0	9,32
31/08/2013 3:10	5,66	0	12,65	NoData	NoData	NoData	3,28	0	9,32
31/08/2013 3:15	5,49	0	12,65	NoData	NoData	NoData	3,21	0	9,32
31/08/2013 3:20	5,37	0	12,64	NoData	NoData	NoData	3,37	0	9,32
31/08/2013 3:25	5,15	0	12,64	NoData	NoData	NoData	3,56	0	9,32
31/08/2013 3:30	5,19	0	12,64	NoData	NoData	NoData	4,17	0	9,31
31/08/2013 3:35	5,24	0	12,64	NoData	NoData	NoData	3,76	0	9,31
31/08/2013 3:40	6,05	0	12,63	NoData	NoData	NoData	3,65	0	9,31
31/08/2013 3:45	6,22	0	12,63	NoData	NoData	NoData	4,03	0	9,31
31/08/2013 3:50	6,26	0	12,63	NoData	NoData	NoData	4,08	0	9,31
31/08/2013 3:55	6,82	0	12,63	NoData	NoData	NoData	4,44	0	9,31
31/08/2013 4:00	5,83	0	12,62	NoData	NoData	NoData	4,3	0	9,31

31/08/2013 4:05	5,86	0	12,62	NoData	NoData	NoData	4,51	0	9,31
31/08/2013 4:10	5,49	0	12,62	NoData	NoData	NoData	4,08	0	9,3
31/08/2013 4:15	5,62	0	12,62	NoData	NoData	NoData	3,92	0	9,3
31/08/2013 4:20	5,35	0	12,61	NoData	NoData	NoData	3,69	0	9,3
31/08/2013 4:25	5,64	0	12,61	NoData	NoData	NoData	3,41	0	9,3
31/08/2013 4:30	5,25	0	12,61	NoData	NoData	NoData	3,2	0	9,3
31/08/2013 4:35	5,49	0	12,61	NoData	NoData	NoData	3,09	0	9,3
31/08/2013 4:40	5,66	0	12,6	NoData	NoData	NoData	3,48	0	9,3
31/08/2013 4:45	5,49	0	12,6	NoData	NoData	NoData	3,12	0	9,3
31/08/2013 4:50	5,22	0	12,6	NoData	NoData	NoData	3,21	0	9,29
31/08/2013 4:55	5,32	0	12,6	NoData	NoData	NoData	3,09	0	9,29
31/08/2013 5:00	5,52	0	12,59	NoData	NoData	NoData	3,12	0	9,29
31/08/2013 5:05	5,08	0	12,59	NoData	NoData	NoData	3,34	0	9,29
31/08/2013 5:10	4,59	0	12,59	NoData	NoData	NoData	3,09	0	9,29
31/08/2013 5:15	4,7	0	12,59	NoData	NoData	NoData	3,19	0	9,29
31/08/2013 5:20	4,88	0	12,58	NoData	NoData	NoData	3,2	0	9,28
31/08/2013 5:25	4,84	0	12,58	NoData	NoData	NoData	3,08	0	9,28
31/08/2013 5:30	4,78	0	12,58	NoData	NoData	NoData	3	0	9,28
31/08/2013 5:35	4,67	0	12,58	NoData	NoData	NoData	3,19	0	9,28
31/08/2013 5:40	4,54	0	12,57	NoData	NoData	NoData	3,05	0	9,28
31/08/2013 5:45	4,58	0	12,57	NoData	NoData	NoData	2,97	0	9,28
31/08/2013 5:50	4,8	0	12,57	NoData	NoData	NoData	2,73	0	9,28
31/08/2013 5:55	4,86	0	12,57	NoData	NoData	NoData	2,96	0	9,27
31/08/2013 6:00	4,88	0	12,57	NoData	NoData	NoData	3,75	0	9,27
31/08/2013 6:05	4,73	0	12,57	NoData	NoData	NoData	3,41	0	9,27
31/08/2013 6:10	4,89	0	12,57	NoData	NoData	NoData	3,43	0	9,27
31/08/2013 6:15	4,79	0	12,57	NoData	NoData	NoData	2,78	0	9,27
31/08/2013 6:20	4,8	0	12,57	NoData	NoData	NoData	2,92	0	9,27
31/08/2013 6:25	4,65	0	12,57	NoData	NoData	NoData	2,83	0	9,27
31/08/2013 6:30	4,87	0	12,57	NoData	NoData	NoData	2,76	0	9,27
31/08/2013 6:35	4,94	0	12,57	NoData	NoData	NoData	2,87	0	9,27
31/08/2013 6:40	4,62	0	12,57	NoData	NoData	NoData	2,75	0	9,28
31/08/2013 6:45	4,77	0	12,57	NoData	NoData	NoData	2,6	0	9,28
31/08/2013 6:50	4,99	0	12,57	NoData	NoData	NoData	2,34	0	9,28
31/08/2013 6:55	5,18	0	12,57	NoData	NoData	NoData	2,56	0	9,28
31/08/2013 7:00	5,07	0	12,57	NoData	NoData	NoData	2,58	0	9,29
31/08/2013 7:05	5,11	0	12,57	NoData	NoData	NoData	3,18	0	9,3
31/08/2013 7:10	5,55	0	12,57	NoData	NoData	NoData	3,13	0	9,3
31/08/2013 7:15	5,02	0	12,57	NoData	NoData	NoData	2,23	0	9,31
31/08/2013 7:20	5,03	0	12,57	NoData	NoData	NoData	2,3	0	9,34
31/08/2013 7:25	5,6	0	12,58	NoData	NoData	NoData	2,1	0	9,4
31/08/2013 7:30	6,48	0	12,57	NoData	NoData	NoData	2,29	0	9,5
31/08/2013 7:35	6,82	0	12,58	NoData	NoData	NoData	2,34	0	9,57
31/08/2013 7:40	6,09	0	12,57	NoData	NoData	NoData	2	0	9,67
31/08/2013 7:45	6,49	0	12,58	NoData	NoData	NoData	2,16	0	9,8
31/08/2013 7:50	6,42	0	12,58	NoData	NoData	NoData	2,14	0	10,03
31/08/2013 7:55	5,43	0	12,58	NoData	NoData	NoData	2,45	0	10,27
31/08/2013 8:00	5,76	0	12,58	NoData	NoData	NoData	2,45	0	10,62
31/08/2013 8:05	6,36	0	12,57	NoData	NoData	NoData	2,58	0	10,96
31/08/2013 8:10	5,1	0	12,58	NoData	NoData	NoData	1,99	0	11,19
31/08/2013 8:15	4,7	0	12,58	NoData	NoData	NoData	1,76	0	11,49
31/08/2013 8:20	5,06	0	12,6	NoData	NoData	NoData	1,46	0	11,59
31/08/2013 8:25	4,87	0	12,61	NoData	NoData	NoData	2,68	0	11,64
31/08/2013 8:30	4,68	0	12,63	NoData	NoData	NoData	2,2	0	10,93
31/08/2013 8:35	5,48	0	12,64	NoData	NoData	NoData	2,75	0	10,89
31/08/2013 8:40	5,23	0	12,66	NoData	NoData	NoData	2,98	0	11,07
31/08/2013 8:45	5,39	0	12,68	NoData	NoData	NoData	2,79	0	10,74
31/08/2013 8:50	5,14	0	12,72	NoData	NoData	NoData	3,29	0	10,93
31/08/2013 8:55	5,11	0	12,75	0,25	0	12,47	3,84	0	10,99
31/08/2013 9:00	4,96	0	12,79	0,27	0	12,5	5,04	0	10,86
31/08/2013 9:05	5	0	12,83	0,25	0	12,5	5,52	0	10,88
31/08/2013 9:10	6,39	0	12,87	0,28	0	12,51	5,44	0	10,77
31/08/2013 9:15	5,49	0	12,9	0,27	0	12,5	8,97	0	11,06
31/08/2013 9:20	5,19	0	12,96	0,28	0	12,51	6,91	0	10,83
31/08/2013 9:25	5,12	0	13,01	0,27	0	12,51	5,87	0	11,49
31/08/2013 9:30	5,19	0	13,05	0,29	0	12,51	5,57	0	11,84
31/08/2013 9:35	5,54	0	13,09	0,27	0	12,51	5,76	0	11,91

31/08/2013 9:40	5,41	0	13,13	0,29	0	12,52	5,7	0	11,95
31/08/2013 9:45	5,66	0	13,16	0,28	0	12,53	4,18	0	11,97
31/08/2013 9:50	6,36	0	13,19	0,3	0	12,53	4,36	0	11,99
31/08/2013 9:55	5,22	0	13,2	0,26	0	12,53	3,04	0	12
31/08/2013 10:00	5,43	0	13,22	0,3	0	12,54	2,7	0	12,02
31/08/2013 10:05	6,02	0	13,23	0,28	0	12,54	2,72	0	12,02
31/08/2013 10:10	5,73	0	13,23	0,3	0	12,55	4,59	0	12,04
31/08/2013 10:15	7,42	0	13,16	0,29	0	12,55	3,99	0	12,05
31/08/2013 10:20	5,26	0	13,06	0,31	0	12,56	2,77	0	12,06
31/08/2013 10:25	5,36	0	13	0,26	0	12,37	2,75	0	12,06
31/08/2013 10:30	6,13	0	12,97	0,29	0	12,21	3,31	0	12,07
31/08/2013 10:35	6,61	0	12,95	0,25	0	12,16	6,11	0	12,07
31/08/2013 10:40	6,28	0	12,95	0,29	0	12,14	3,16	0	12,07
31/08/2013 10:45	6,06	0	12,94	0,27	0	12,14	2,67	0	12,07
31/08/2013 10:50	5,91	0	12,93	0,3	0	12,13	4,36	0	12,07
31/08/2013 10:55	5,33	0	12,92	0,28	0	12,11	6,43	2	12,06
31/08/2013 11:00	5,47	0	12,89	0,28	0	12,11	2,6	0	12,05
31/08/2013 11:05	5,74	0	12,88	0,26	0	12,11	3,16	0	12,04
31/08/2013 11:10	5,83	0	12,87	0,27	0	12,11	2,98	0	12,03
31/08/2013 11:15	5,94	0	12,87	0,24	0	12,1	3	0	12,02
31/08/2013 11:20	5,93	0	12,9	0,32	0	12,11	3,1	0	12,01
31/08/2013 11:25	5,78	0	12,88	0,29	0	12,09	3,25	0	12
31/08/2013 11:30	5,8	0	12,99	0,34	0	12,09	3,51	0	12
31/08/2013 11:35	5,9	0	13,2	0,32	0	12,09	3,38	0	11,98
31/08/2013 11:40	5,67	0	13,3	0,34	0	12,09	3,84	0	11,97
31/08/2013 11:45	6,04	0	13,32	0,32	0	12,1	3,68	0	11,94
31/08/2013 11:50	5,55	0	13,34	0,34	0	12,1	3,82	0	11,92
31/08/2013 11:55	5,25	0	13,35	0,32	0	12,1	3,27	0	11,89
31/08/2013 12:00	5,15	0	13,37	0,33	0	12,11	3,75	0	11,86
31/08/2013 12:05	5,13	0	13,38	0,33	0	12,18	3,31	0	11,83
31/08/2013 12:10	5,74	0	13,41	0,35	0	12,24	3,14	0	11,81
31/08/2013 12:15	5,33	0	13,42	0,31	0	12,19	3,08	0	11,79
31/08/2013 12:20	5,18	0	13,44	0,35	0	12,15	3,23	0	11,78
31/08/2013 12:25	5,24	0	13,46	0,32	0	12,13	2,86	0	11,77
31/08/2013 12:30	5,24	0	13,49	0,35	0	12,12	2,85	0	11,77
31/08/2013 12:35	5	0	13,5	0,33	0	12,09	2,58	0	11,76
31/08/2013 12:40	5,05	0	13,53	0,33	0	12,09	2,92	0	11,76
31/08/2013 12:45	5,26	0	13,55	0,32	0	12,08	2,71	0	11,75
31/08/2013 12:50	5,22	0	13,58	0,36	0	12,08	2,83	0	11,74
31/08/2013 12:55	5,14	0	13,61	0,38	0	12,07	2,65	0	11,73
31/08/2013 13:00	5,08	0	13,63	0,44	0	12,08	2,77	0	11,73
31/08/2013 13:05	5,19	0	13,66	0,42	0	12,07	2,65	0	11,73
31/08/2013 13:10	5,28	0	13,69	0,47	0	12,08	2,65	0	11,72
31/08/2013 13:15	5,18	0	13,72	0,44	0	12,07	2,49	0	11,72
31/08/2013 13:20	5,4	0	13,76	0,46	0	12,07	2,84	0	11,72
31/08/2013 13:25	5,25	0	13,79	0,43	0	12,06	2,44	0	11,71
31/08/2013 13:30	5,16	0	13,83	0,47	0	12,07	2,6	0	11,7
31/08/2013 13:35	5,11	0	13,87	0,43	0	12,06	2,32	0	11,69
31/08/2013 13:40	5,04	0	13,92	0,47	0	12,06	2,48	0	11,69
31/08/2013 13:45	5,37	0	13,95	0,43	0	12,06	2,46	0	11,69
31/08/2013 13:50	4,91	0	13,96	0,45	0	12,06	2,48	0	11,68
31/08/2013 13:55	5,25	0	13,96	0,41	0	12,05	2,33	0	11,68
31/08/2013 14:00	5,23	0	13,96	0,44	0	12,05	2,44	0	11,67
31/08/2013 14:05	5,41	0	13,96	0,43	0	12,05	2,7	0	11,67
31/08/2013 14:10	5,69	0	13,96	0,45	0	12,05	2,65	0	11,67
31/08/2013 14:15	5,73	0	13,61	0,42	0	12,05	2,57	0	11,66
31/08/2013 14:20	5,73	0	13,21	0,45	0	12,05	2,9	0	11,66
31/08/2013 14:25	5,47	0	13,2	0,43	0	12,04	2,88	0	11,65
31/08/2013 14:30	5,59	0	13,21	0,45	0	12,04	2,85	0	11,65
31/08/2013 14:35	5,84	0	13,2	0,41	0	12,04	2,99	0	11,65
31/08/2013 14:40	5,96	0	13,21	0,46	0	12,04	3,33	0	11,64
31/08/2013 14:45	5,81	0	13,2	0,42	0	12,04	3,2	0	11,64
31/08/2013 14:50	6	0	13,21	0,47	0	12,04	3,01	0	11,64
31/08/2013 14:55	5,78	0	13,2	0,46	0	12,04	3,31	0	11,63
31/08/2013 15:00	6,05	0	13,21	0,34	0	12,02	3,37	0	11,63
31/08/2013 15:05	5,79	0	13,2	0,37	0	12,03	3,38	0	11,63
31/08/2013 15:10	5,91	0	13,21	0,35	0	12,02	3,2	0	11,62

31/08/2013 15:15	6,45	0	13,23	0,36	0	12,02	2,68	0	11,62
31/08/2013 15:20	6,27	0	13,21	0,35	0	12,02	3,89	0	11,62
31/08/2013 15:25	6,57	0	13,2	0,36	0	12,02	3,6	0	11,61
31/08/2013 15:30	6,39	0	13,2	0,36	0	12,02	3,59	0	11,61
31/08/2013 15:35	6,6	0	13,2	0,37	0	12,02	3,05	0	11,6
31/08/2013 15:40	6,88	0	13,22	0,34	0	12,02	3,8	0	11,6
31/08/2013 15:45	7,21	0	13,21	0,38	0	12,02	3,81	0	11,6
31/08/2013 15:50	7	0	13,18	0,34	0	12,01	4,02	0	11,59
31/08/2013 15:55	6,4	0	13,16	0,35	0	12,01	4,43	0	11,59
31/08/2013 16:00	6,6	0	13,14	0,31	0	12,01	3,06	0	11,59
31/08/2013 16:05	6,47	0	13,09	0,34	0	12,01	3,53	0	11,59
31/08/2013 16:10	6,33	0	13,04	0,32	0	12,01	3,54	0	11,58
31/08/2013 16:15	6,36	0	13,03	0,31	0	12,01	3,38	0	11,58
31/08/2013 16:20	6,44	0	13,03	0,32	0	12,01	3,58	0	11,58
31/08/2013 16:25	6,28	0	13,02	0,34	0	12,01	3,59	0	11,57
31/08/2013 16:30	6,26	0	13,02	0,33	0	12	3,73	0	11,57
31/08/2013 16:35	6,75	0	13,01	0,34	0	12	3,56	0	11,57
31/08/2013 16:40	6,63	0	13	0,32	0	12	3,64	0	11,57
31/08/2013 16:45	6,61	0	12,99	0,33	0	12	3,76	0	11,56
31/08/2013 16:50	6,4	0	13	0,32	0	12	3,95	0	11,56
31/08/2013 16:55	6,82	0	12,99	0,37	0	12	3,78	0	11,55
31/08/2013 17:00	6,87	0	12,99	0,27	0	11,99	4,2	0	11,54
31/08/2013 17:05	7,13	0	12,98	0,33	0	11,99	4,53	0	11,53
31/08/2013 17:10	7,49	0	12,98	0,31	0	11,99	4,51	0	11,53
31/08/2013 17:15	8,08	0	12,98	0,33	0	11,99	5,26	0	11,52
31/08/2013 17:20	7,45	0	12,97	0,3	0	11,99	5,23	0	11,52
31/08/2013 17:25	7,5	0	12,96	0,28	0	11,98	5,05	0	11,51
31/08/2013 17:30	7,71	0	12,96	0,28	0	11,98	4,73	0	11,5
31/08/2013 17:35	7,42	0	12,95	0,31	0	11,98	4,83	0	11,5
31/08/2013 17:40	7,14	0	12,94	0,29	0	11,97	4,55	0	11,49
31/08/2013 17:45	7,21	0	12,93	0,31	0	11,97	4,48	0	11,49
31/08/2013 17:50	6,94	0	12,92	0,27	0	11,97	4,17	0	11,47
31/08/2013 17:55	6,85	0	12,92	0,3	0	11,97	4,27	0	11,47
31/08/2013 18:00	6,99	0	12,91	0,27	0	11,96	4,05	0	11,46
31/08/2013 18:05	6,73	0	12,9	0,28	0	11,96	3,99	0	11,45
31/08/2013 18:10	6,97	0	12,9	0,25	0	11,96	3,81	0	11,43
31/08/2013 18:15	7,31	0	12,9	0,27	0	11,96	4,65	0	10,93
31/08/2013 18:20	7,3	0	12,9	0,26	0	11,95	5,57	0	9,35
31/08/2013 18:25	7,08	0	12,89	0,26	0	11,95	5,33	0	9,39
31/08/2013 18:30	7,43	0	12,89	0,24	0	11,95	5,26	0	9,4
31/08/2013 18:35	7,23	0	12,88	0,27	0	11,94	5,22	0	9,41
31/08/2013 18:40	6,98	0	12,88	0,24	0	11,94	4,99	0	9,41
31/08/2013 18:45	6,85	0	12,88	0,28	0	11,94	4,89	0	9,42
31/08/2013 18:50	6,61	0	12,88	0,24	0	11,94	4,85	0	9,42
31/08/2013 18:55	6,95	0	12,87	0,27	0	11,94	4,94	0	9,42
31/08/2013 19:00	6,86	0	12,87	0,22	0	11,93	4,78	0	9,42
31/08/2013 19:05	6,82	0	12,86	0,25	0	11,93	4,71	0	9,42
31/08/2013 19:10	6,55	0	12,86	0,24	0	11,93	4,84	0	9,42
31/08/2013 19:15	6,57	0	12,86	0,26	0	11,93	4,53	0	9,42
31/08/2013 19:20	6,68	0	12,86	0,24	0	11,92	4,6	0	9,42
31/08/2013 19:25	6,82	0	12,85	0,27	0	11,92	4,71	0	9,41
31/08/2013 19:30	6,69	0	12,85	0,26	0	11,92	4,51	0	9,41
31/08/2013 19:35	6,97	0	12,85	0,27	0	11,92	4,88	0	9,41
31/08/2013 19:40	6,66	0	12,85	0,23	0	11,91	4,68	0	9,41
31/08/2013 19:45	6,63	0	12,84	0,26	0	11,91	4,4	0	9,41
31/08/2013 19:50	6,64	0	12,84	0,25	0	11,91	4,59	0	9,41
31/08/2013 19:55	6,79	0	12,84	0,28	0	11,91	4,64	0	9,41
31/08/2013 20:00	6,66	0	12,84	0,24	0	11,91	5,01	0	9,41
31/08/2013 20:05	7,21	0	12,83	0,27	0	11,91	5,34	0	9,4
31/08/2013 20:10	7,45	0	12,83	0,22	0	11,9	5,93	0	9,4
31/08/2013 20:15	7,44	0	12,83	0,27	0	11,9	6,18	0	9,4
31/08/2013 20:20	8,81	0	12,82	0,24	0	11,9	6,43	0	9,4
31/08/2013 20:25	7,48	0	12,82	0,28	0	11,9	7,49	0	9,4
31/08/2013 20:30	8,22	0	12,82	0,25	0	11,89	7,1	0	9,4
31/08/2013 20:35	8,19	0	12,82	0,26	0	11,9	6,62	0	9,39
31/08/2013 20:40	7,59	0	12,82	0,24	0	11,89	6,31	0	9,39
31/08/2013 20:45	8,21	0	12,81	0,25	0	11,89	6,29	0	9,39

31/08/2013 20:50	8,81	0	12,81	0,23	0	11,89	6,22	0	9,39
31/08/2013 20:55	9,55	0	12,81	0,25	0	11,89	6,31	0	9,39
31/08/2013 21:00	9,62	0	12,81	0,25	0	11,88	6,27	0	9,39
31/08/2013 21:05	9,86	0	12,8	0,23	0	11,88	5,96	0	9,38
31/08/2013 21:10	9,8	0	12,8	0,23	0	11,88	5,88	0	9,38
31/08/2013 21:15	9,25	0	12,8	0,25	0	11,88	6,15	0	9,38
31/08/2013 21:20	9,1	0	12,8	0,22	0	11,87	6,73	0	9,38
31/08/2013 21:25	8,74	0	12,79	0,24	0	11,87	6,81	0	9,38
31/08/2013 21:30	8,04	0	12,79	0,23	0	11,87	6,79	0	9,37
31/08/2013 21:35	7,81	0	12,79	0,24	0	11,87	6,88	0	9,37
31/08/2013 21:40	8,08	0	12,79	0,23	0	11,87	6,3	0	9,37
31/08/2013 21:45	8,73	0	12,78	0,24	0	11,87	7,1	0	9,37
31/08/2013 21:50	8,28	0	12,78	0,22	0	11,86	7,29	0	9,37
31/08/2013 21:55	8,77	0	12,78	0,24	0	11,86	7,62	0	9,36
31/08/2013 22:00	8,91	0	12,78	0,21	0	11,86	7,8	0	9,36
31/08/2013 22:05	8,98	0	12,78	0,24	0	11,86	7,5	0	9,36
31/08/2013 22:10	8,17	0	12,77	0,22	0	11,86	7,01	0	9,36
31/08/2013 22:15	8,23	0	12,77	0,25	0	11,86	7,33	0	9,36
31/08/2013 22:20	8,63	0	12,77	0,22	0	11,85	8,23	0	9,36
31/08/2013 22:25	7,98	0	12,77	0,24	0	11,85	8,17	0	9,35
31/08/2013 22:30	9,12	0	12,76	0,22	0	11,85	7,26	0	9,35
31/08/2013 22:35	9,27	0	12,76	0,24	0	11,85	6,55	0	9,35
31/08/2013 22:40	7,6	0	12,76	0,23	0	11,85	6,1	0	9,35
31/08/2013 22:45	7,59	0	12,76	0,24	0	11,85	7,45	0	9,35
31/08/2013 22:50	7,51	0	12,76	0,23	0	11,84	8,14	0	9,34
31/08/2013 22:55	7,61	0	12,76	0,23	0	11,84	8,04	0	9,34
31/08/2013 23:00	7,68	0	12,75	0,22	0	11,84	8,06	0	9,34
31/08/2013 23:05	8,19	0	12,75	0,24	0	11,84	7,4	0	9,34
31/08/2013 23:10	8,04	0	12,75	0,23	0	11,84	6,99	0	9,34
31/08/2013 23:15	7,86	0	12,75	0,25	0	11,84	5,67	0	9,33
31/08/2013 23:20	8,17	0	12,74	0,23	0	11,83	5,25	0	9,33
31/08/2013 23:25	8,08	0	12,74	0,24	0	11,83	5,06	0	9,33
31/08/2013 23:30	8,59	0	12,74	0,23	0	11,83	4,5	0	9,33
31/08/2013 23:35	8,51	0	12,74	0,23	0	11,83	4,01	0	9,33
31/08/2013 23:40	8,43	0	12,73	0,24	0	11,83	3,89	0	9,33
31/08/2013 23:45	8,08	0	12,74	0,25	0	11,83	3,88	0	9,32
31/08/2013 23:50	8,16	0	12,73	0,25	0	11,82	4,28	0	9,32
31/08/2013 23:55	8,2	0	12,73	0,25	0	11,82	3,78	0	9,32
01/09/2013 0:00	9,87	0	12,73	0,23	0	11,82	4,33	0	9,32
01/09/2013 0:05	10,06	0	12,73	0,25	0	11,82	4,72	0	9,32
01/09/2013 0:10	7,55	0	12,72	0,23	0	11,82	4,17	0	9,31
01/09/2013 0:15	6,84	0	12,72	0,24	0	11,82	4,14	0	9,31
01/09/2013 0:20	9,13	0	12,72	0,24	0	11,81	3,77	0	9,31
01/09/2013 0:25	9,07	0	12,72	0,23	0	11,81	3,66	0	9,31
01/09/2013 0:30	9,88	0	12,71	0,24	0	11,81	3,86	0	9,31
01/09/2013 0:35	9,91	0	12,71	0,25	0	11,81	4,23	0	9,31
01/09/2013 0:40	7,12	0	12,71	0,23	0	11,81	4,68	0	9,31
01/09/2013 0:45	6,34	0	12,71	0,22	0	11,81	4,2	0	9,3
01/09/2013 0:50	6,45	0	12,7	0,23	0	11,8	4,07	0	9,3
01/09/2013 0:55	6,06	0	12,7	0,24	0	11,8	4,22	0	9,3
01/09/2013 1:00	5,84	0	12,7	0,26	0	11,8	4,11	0	9,3
01/09/2013 1:05	6,09	0	12,7	0,17	0	11,79	3,8	0	9,3
01/09/2013 1:10	6,46	0	12,69	0,21	0	11,79	3,59	0	9,3
01/09/2013 1:15	6,67	0	12,7	0,21	0	11,79	2,74	0	9,29
01/09/2013 1:20	7,12	0	12,69	0,25	0	11,8	2,19	0	9,29
01/09/2013 1:25	7,63	0	12,69	0,2	0	11,79	2,17	0	9,29
01/09/2013 1:30	7,37	0	12,69	0,23	0	11,79	2,34	0	9,29
01/09/2013 1:35	7,09	0	12,69	0,22	0	11,79	2,49	0	9,29
01/09/2013 1:40	6,97	0	12,68	0,24	0	11,79	2,73	0	9,29
01/09/2013 1:45	7,73	0	12,68	0,21	0	11,78	3,06	0	9,29
01/09/2013 1:50	8,14	0	12,68	0,23	0	11,78	3,49	0	9,28
01/09/2013 1:55	7,89	0	12,68	0,21	0	11,78	3,73	0	9,28
01/09/2013 2:00	7,67	0	12,67	0,23	0	11,78	4,28	0	9,28
01/09/2013 2:05	7,24	0	12,67	0,2	0	11,78	4,46	0	9,28
01/09/2013 2:10	6,9	0	12,67	0,23	0	11,78	3,85	0	9,28
01/09/2013 2:15	6,7	0	12,66	0,21	0	11,77	3,44	0	9,27
01/09/2013 2:20	6,35	0	12,66	0,23	0	11,77	3,67	0	9,27

01/09/2013 2:25	5,8	0	12,66	0,22	0	11,77	3,96	0	9,27
01/09/2013 2:30	5,81	0	12,66	0,21	0	11,77	4,01	0	9,27
01/09/2013 2:35	5,32	0	12,66	0,22	0	11,77	3,43	0	9,27
01/09/2013 2:40	4,99	0	12,65	0,22	0	11,77	2,92	0	9,27
01/09/2013 2:45	4,67	0	12,65	0,23	0	11,76	2,93	0	9,26
01/09/2013 2:50	4,71	0	12,65	0,23	0	11,76	2,83	0	9,26
01/09/2013 2:55	4,75	0	12,65	0,2	0	11,76	2,54	0	9,26
01/09/2013 3:00	4,66	0	12,64	0,27	0	11,76	2,28	0	9,26
01/09/2013 3:05	4,69	0	12,64	0,16	0	11,75	2,58	0	9,26
01/09/2013 3:10	4,66	0	12,64	0,22	0	11,76	2,45	0	9,26
01/09/2013 3:15	4,87	0	12,64	0,2	0	11,75	2,63	0	9,26
01/09/2013 3:20	4,77	0	12,63	0,23	0	11,75	2,51	0	9,25
01/09/2013 3:25	5,34	0	12,63	0,21	0	11,75	2,94	0	9,25
01/09/2013 3:30	5,1	0	12,63	0,23	0	11,75	3,14	0	9,25
01/09/2013 3:35	5	0	12,63	0,2	0	11,75	3,07	0	9,25
01/09/2013 3:40	4,86	0	12,62	0,21	0	11,75	3,22	0	9,25
01/09/2013 3:45	5,19	0	12,62	0,19	0	11,74	3,7	0	9,25
01/09/2013 3:50	5,02	0	12,62	0,22	0	11,74	3,31	0	9,25
01/09/2013 3:55	5,12	0	12,62	0,2	0	11,74	3,03	0	9,24
01/09/2013 4:00	5,16	0	12,61	0,21	0	11,74	3,36	0	9,24
01/09/2013 4:05	5,2	0	12,61	0,2	0	11,73	3,13	0	9,24
01/09/2013 4:10	5,22	0	12,61	0,21	0	11,73	2,63	0	9,24
01/09/2013 4:15	4,71	0	12,61	0,2	0	11,73	2,94	0	9,24
01/09/2013 4:20	4,6	0	12,6	0,22	0	11,73	2,84	0	9,24
01/09/2013 4:25	4,79	0	12,6	0,2	0	11,73	2,85	0	9,23
01/09/2013 4:30	5,19	0	12,6	0,22	0	11,73	2,63	0	9,23
01/09/2013 4:35	4,72	0	12,6	0,19	0	11,72	2,76	0	9,23
01/09/2013 4:40	4,85	0	12,6	0,22	0	11,73	2,6	0	9,23
01/09/2013 4:45	4,97	0	12,59	0,19	0	11,72	2,8	0	9,23
01/09/2013 4:50	4,82	0	12,59	0,22	0	11,72	2,84	0	9,23
01/09/2013 4:55	5,02	0	12,59	0,2	0	11,72	2,96	0	9,22
01/09/2013 5:00	4,67	0	12,59	0,22	0	11,72	3,57	0	9,22
01/09/2013 5:05	4,94	0	12,58	0,18	0	11,71	3,5	0	9,22
01/09/2013 5:10	4,9	0	12,58	0,21	0	11,71	3,2	0	9,22
01/09/2013 5:15	4,81	0	12,58	0,2	0	11,71	3,19	0	9,22
01/09/2013 5:20	5,05	0	12,58	0,21	0	11,71	3,53	0	9,21
01/09/2013 5:25	5,16	0	12,58	0,19	0	11,7	2,84	0	9,21
01/09/2013 5:30	5,11	0	12,57	0,21	0	11,71	2,9	0	9,21
01/09/2013 5:35	4,92	0	12,57	0,2	0	11,7	2,78	0	9,21
01/09/2013 5:40	5,34	0	12,57	0,22	0	11,7	2,53	0	9,21
01/09/2013 5:45	5,35	0	12,57	0,19	0	11,7	2,55	0	9,21
01/09/2013 5:50	5,9	0	12,56	0,21	0	11,7	2,6	0	9,2
01/09/2013 5:55	5,86	0	12,56	0,19	0	11,69	2,81	0	9,2
01/09/2013 6:00	5,54	0	12,56	0,21	0	11,69	3,24	0	9,2
01/09/2013 6:05	5,92	0	12,56	0,18	0	11,69	3,71	0	9,2
01/09/2013 6:10	5,7	0	12,56	0,24	0	11,69	3,74	0	9,2
01/09/2013 6:15	5,8	0	12,55	0,2	0	11,69	4,26	0	9,19
01/09/2013 6:20	6,26	0	12,55	0,22	0	11,69	4,06	0	9,19
01/09/2013 6:25	6,8	0	12,55	0,17	0	11,68	4,3	0	9,19
01/09/2013 6:30	6,33	0	12,55	0,22	0	11,68	4,73	0	9,19
01/09/2013 6:35	5,39	0	12,55	0,18	0	11,68	4,24	0	9,2
01/09/2013 6:40	5,2	0	12,55	0,2	0	11,68	3,65	0	9,2
01/09/2013 6:45	4,95	0	12,55	0,18	0	11,68	3,74	0	9,2
01/09/2013 6:50	4,96	0	12,55	0,21	0	11,68	3,58	0	9,2
01/09/2013 6:55	6	0	12,55	0,18	0	11,67	3,66	0	9,21
01/09/2013 7:00	6,55	0	12,55	0,2	0	11,68	4,22	0	9,22
01/09/2013 7:05	6,66	0	12,55	0,18	0	11,67	4,97	0	9,22
01/09/2013 7:10	6,07	0	12,55	0,2	0	11,67	4,61	0	9,22
01/09/2013 7:15	5,84	0	12,55	0,19	0	11,67	4,71	0	9,23
01/09/2013 7:20	5,14	0	12,56	0,2	0	11,68	4,35	0	9,25
01/09/2013 7:25	5,86	0	12,55	0,19	0	11,68	4,78	0	9,27
01/09/2013 7:30	5,71	0	12,56	0,21	0	11,69	4,54	0	9,3
01/09/2013 7:35	6,2	0	12,56	0,18	0	11,68	3,71	0	9,39
01/09/2013 7:40	6,54	0	12,56	0,2	0	11,69	3,73	0	9,47
01/09/2013 7:45	6,14	0	12,56	0,2	0	11,69	3,35	0	9,51
01/09/2013 7:50	5,67	0	12,56	0,2	0	11,69	3,94	0	9,58
01/09/2013 7:55	5,59	0	12,56	0,17	0	11,69	3,58	0	9,63

01/09/2013 8:00	5,61	0	12,56	0,22	0	11,69	3,05	0	9,76
01/09/2013 8:05	5,12	0	12,56	0,19	0	11,69	3,56	0	10,1
01/09/2013 8:10	6,45	0	12,58	0,22	0	11,7	3,65	0	10,58
01/09/2013 8:15	6,6	0	12,57	0,18	0	11,7	3,21	0	10,96
01/09/2013 8:20	7,47	0	12,58	0,23	0	11,71	2,98	0	11,18
01/09/2013 8:25	7,38	0	12,59	0,2	0	11,71	2,35	0	10,75
01/09/2013 8:30	7,73	0	12,61	0,24	0	11,73	3,44	0	10,45
01/09/2013 8:35	7,75	0	12,62	0,2	0	11,76	4,32	0	10,44
01/09/2013 8:40	7,09	0	12,65	0,25	0	11,8	5,05	0	10,4
01/09/2013 8:45	7,62	0	12,66	0,22	0	11,85	4,6	0	10,42
01/09/2013 8:50	7,8	0	12,7	0,24	0	11,91	4,82	0	10,4
01/09/2013 8:55	8,09	0	12,72	0,24	0	12,03	5,77	0	10,45
01/09/2013 9:00	7,36	0	12,76	0,27	0	12,1	6,2	0	10,35
01/09/2013 9:05	6,96	0	12,78	0,28	0	12,13	6,26	0	10,45
01/09/2013 9:10	6,7	0	12,83	0,23	0	12,15	5,73	0	10,44
01/09/2013 9:15	6,66	0	12,86	0,27	0	12,17	3,91	0	10,41
01/09/2013 9:20	6,9	0	12,9	0,24	0	12,17	3,93	0	10,81
01/09/2013 9:25	6,67	0	12,95	0,27	0	12,18	3,57	0	11,59
01/09/2013 9:30	6,64	0	13	0,25	0	12,19	3,29	0	11,81
01/09/2013 9:35	6,21	0	13,04	0,28	0	12,2	3,29	0	11,89
01/09/2013 9:40	6,47	0	13,08	0,26	0	12,2	3,85	0	11,93
01/09/2013 9:45	7,16	0	13,1	0,29	0	12,21	3,93	0	11,96
01/09/2013 9:50	7	0	13,14	0,26	0	12,22	4,39	0	11,98
01/09/2013 9:55	7,1	0	13,16	0,3	0	12,23	6,12	0	11,99
01/09/2013 10:00	6,53	0	13,17	0,28	0	12,24	5,21	0	12
01/09/2013 10:05	7,34	0	13,18	0,32	0	12,25	4,92	0	12,01
01/09/2013 10:10	6,93	0	13,17	0,29	0	12,25	6,57	0	12,02
01/09/2013 10:15	7,22	0	13,09	0,32	0	12,26	5,04	0	12,03
01/09/2013 10:20	8,54	0	13,01	0,3	0	12,24	5,19	0	12,04
01/09/2013 10:25	7,91	0	12,96	0,32	0	12,07	5,46	0	12,04
01/09/2013 10:30	8,25	0	12,94	0,3	0	12,01	6,43	0	12,04
01/09/2013 10:35	7,7	0	12,93	0,31	0	11,99	6,15	0	12,04
01/09/2013 10:40	7,41	0	12,92	0,28	0	11,98	5,89	0	12,04
01/09/2013 10:45	7,75	0	12,91	0,31	0	11,98	5,42	0	12,04
01/09/2013 10:50	7,25	0	12,91	0,3	0	11,97	5,45	0	12,03
01/09/2013 10:55	7,34	0	12,89	0,32	0	11,96	5,54	0	12,02
01/09/2013 11:00	6,97	0	12,87	0,29	0	11,95	4,89	0	11,99
01/09/2013 11:05	6,47	0	12,85	0,33	0	11,96	5,44	0	12
01/09/2013 11:10	6,42	0	12,85	0,33	0	11,95	5,08	0	12
01/09/2013 11:15	6,57	0	12,86	0,31	0	11,95	4,83	0	11,99
01/09/2013 11:20	6,39	0	12,89	0,34	0	11,95	4,71	0	11,98
01/09/2013 11:25	5,74	0	12,88	0,3	0	11,94	4,95	0	11,96
01/09/2013 11:30	5,67	0	13,01	0,33	0	11,94	4,55	0	11,94
01/09/2013 11:35	5,83	0	13,18	0,32	0	11,94	4,34	0	11,93
01/09/2013 11:40	5,38	0	13,24	0,35	0	11,94	4,49	0	11,91
01/09/2013 11:45	5,31	0	13,26	0,33	0	11,95	3,74	0	11,88
01/09/2013 11:50	5,57	0	13,28	0,36	0	11,95	4,25	0	11,86
01/09/2013 11:55	5,47	0	13,29	0,33	0	11,95	3,51	0	11,83
01/09/2013 12:00	5,61	0	13,3	0,36	0	11,96	3,98	0	11,81
01/09/2013 12:05	5,53	0	13,32	0,33	0	12,03	3,75	0	11,78
01/09/2013 12:10	5,31	0	13,33	0,36	0	12,03	4,09	0	11,76
01/09/2013 12:15	5,32	0	13,35	0,33	0	12,01	4,21	0	11,74
01/09/2013 12:20	5,71	0	13,36	0,36	0	11,99	3,92	0	11,73
01/09/2013 12:25	5,55	0	13,38	0,34	0	11,97	3,94	0	11,72
01/09/2013 12:30	5,65	0	13,39	0,37	0	11,96	3,86	0	11,71
01/09/2013 12:35	6,11	0	13,41	0,35	0	11,94	3,87	0	11,71
01/09/2013 12:40	6,48	0	13,42	0,38	0	11,94	3,97	0	11,7
01/09/2013 12:45	6,04	0	13,43	0,33	0	11,93	3,42	0	11,69
01/09/2013 12:50	6,51	0	13,45	0,38	0	11,93	3,8	0	11,69
01/09/2013 12:55	6,57	0	13,46	0,36	0	11,92	3,75	0	11,68
01/09/2013 13:00	7,33	0	13,48	0,38	0	11,92	3,6	0	11,68
01/09/2013 13:05	6,81	0	13,5	0,38	0	11,92	3,62	0	11,67
01/09/2013 13:10	6,1	0	13,52	0,27	0	11,9	3,74	0	11,67
01/09/2013 13:15	6,04	0	13,53	0,32	0	11,91	3,52	0	11,66
01/09/2013 13:20	5,97	0	13,55	0,27	0	11,9	3,01	0	11,66
01/09/2013 13:25	5,57	0	13,57	0,34	0	11,91	3,38	0	11,66
01/09/2013 13:30	6,08	0	13,6	0,35	0	11,91	3,56	0	11,65

01/09/2013 13:35	6,09	0	13,54	0,38	0	11,91	3,71	0	11,65
01/09/2013 13:40	5,91	0	13,59	0,34	0	11,92	3,34	0	11,66
01/09/2013 13:45	6,1	0	13,58	0,35	0	11,95	3,47	0	11,67
01/09/2013 13:50	6,04	0	13,48	0,34	0	11,96	3,12	0	11,68
01/09/2013 13:55	6,18	0	13,4	0,38	0	11,98	3,14	0	11,69
01/09/2013 14:00	6,3	0	13,46	0,35	0	11,99	3	0	11,69
01/09/2013 14:05	5,81	0	13,51	0,36	0	11,99	3,33	0	11,69
01/09/2013 14:10	5,85	0	13,63	0,34	0	11,99	3,04	0	11,68
01/09/2013 14:15	5,72	0	13,42	0,37	0	11,99	3,01	0	11,68
01/09/2013 14:20	5,72	0	13,46	0,37	0	11,99	3,19	0	11,68
01/09/2013 14:25	5,71	0	13,6	0,38	0	11,99	3,33	0	11,67
01/09/2013 14:30	5,76	0	13,51	0,34	0	11,99	3,65	0	11,67
01/09/2013 14:35	5,79	0	13,7	0,37	0	11,99	3,33	0	11,67
01/09/2013 14:40	5,66	0	13,25	0,36	0	11,99	3,46	0	11,67
01/09/2013 14:45	5,83	0	13,16	0,38	0	11,99	3,5	0	11,68
01/09/2013 14:50	5,83	0	13,16	0,34	0	11,99	3,19	0	11,67
01/09/2013 14:55	6,25	0	13,16	0,36	0	12	3,42	0	11,67
01/09/2013 15:00	5,99	0	13,16	0,35	0	11,99	3,59	0	11,66
01/09/2013 15:05	6,08	0	13,16	0,39	0	11,99	3,19	0	11,66
01/09/2013 15:10	6,08	0	13,19	0,34	0	11,98	3,23	0	11,65
01/09/2013 15:15	6,08	0	13,18	0,36	0	11,98	3,58	0	11,65
01/09/2013 15:20	6,16	0	13,19	0,35	0	11,97	3,49	0	11,65
01/09/2013 15:25	6,63	0	13,19	0,38	0	11,97	3,88	0	11,65
01/09/2013 15:30	6,64	0	13,17	0,35	0	11,97	3,83	0	11,64
01/09/2013 15:35	6,61	0	13,15	0,37	0	11,97	4,02	0	11,64
01/09/2013 15:40	6,67	0	13,17	0,36	0	11,96	4,11	0	11,64
01/09/2013 15:45	6,58	0	13,13	0,35	0	11,95	4,15	0	11,64
01/09/2013 15:50	6,49	0	13,11	0,34	0	11,95	4,03	0	11,63
01/09/2013 15:55	6,59	0	13,11	0,37	0	11,95	4,3	0	11,63
01/09/2013 16:00	6,7	0	13,12	0,33	0	11,94	4,11	0	11,63
01/09/2013 16:05	6,75	0	13,09	0,34	0	11,94	4,35	0	11,63
01/09/2013 16:10	6,44	0	13,08	0,32	0	11,93	4,24	0	11,62
01/09/2013 16:15	6,45	0	13,07	0,36	0	11,93	4,1	0	11,62
01/09/2013 16:20	6,63	0	13,08	0,32	0	11,92	3,86	0	11,61
01/09/2013 16:25	6,62	0	13,1	0,35	0	11,92	3,97	0	11,61
01/09/2013 16:30	6,68	0	13,09	0,32	0	11,92	4,44	0	11,61
01/09/2013 16:35	6,83	0	13,1	0,34	0	11,92	4,28	0	11,61
01/09/2013 16:40	6,79	0	13,08	0,32	0	11,91	4,2	0	11,6
01/09/2013 16:45	6,79	0	13,05	0,34	0	11,91	4,11	0	11,6
01/09/2013 16:50	6,98	0	13,01	0,31	0	11,9	4,28	0	11,59
01/09/2013 16:55	7,18	0	13	0,34	0	11,89	4,38	0	11,58
01/09/2013 17:00	7,45	0	13	0,32	0	11,89	4,34	0	11,57
01/09/2013 17:05	7,05	0	12,99	0,33	0	11,89	4,18	0	11,57
01/09/2013 17:10	7,53	0	12,98	0,35	0	11,88	3,99	0	11,57
01/09/2013 17:15	7,55	0	12,97	0,41	0	11,89	4,31	0	11,56
01/09/2013 17:20	7,3	0	12,96	0,38	0	11,88	4,09	0	11,56
01/09/2013 17:25	7,13	0	12,96	0,41	0	11,88	4,09	0	11,55
01/09/2013 17:30	6,96	0	12,95	0,39	0	11,88	4,33	0	11,54
01/09/2013 17:35	7,27	0	12,94	0,41	0	11,87	4,43	0	11,54
01/09/2013 17:40	7,01	0	12,93	0,38	0	11,87	4,42	0	11,53
01/09/2013 17:45	7,1	0	12,93	0,41	0	11,87	4,22	0	11,53
01/09/2013 17:50	7,56	0	12,92	0,39	0	11,86	4,36	0	11,52
01/09/2013 17:55	7,37	0	12,91	0,4	0	11,86	4,31	0	11,51
01/09/2013 18:00	7,37	0	12,91	0,37	0	11,85	4,32	0	11,51
01/09/2013 18:05	7,25	0	12,91	0,4	0	11,85	4,35	0	11,5
01/09/2013 18:10	8,83	0	12,9	0,37	0	11,85	4,4	0	11,49
01/09/2013 18:15	10,37	0	12,9	0,38	0	11,85	4,73	0	11,49
01/09/2013 18:20	9,73	0	12,89	0,35	0	11,84	4,71	0	11,48
01/09/2013 18:25	8,29	0	12,89	0,38	0	11,84	4,01	0	11,48
01/09/2013 18:30	7,67	0	12,89	0,35	0	11,84	3,85	0	11,46
01/09/2013 18:35	7,65	0	12,89	0,38	0	11,84	4,07	0	11,46
01/09/2013 18:40	7,16	0	12,88	0,34	0	11,83	3,76	0	11,45
01/09/2013 18:45	6,95	0	12,88	0,37	0	11,83	4,11	0	11,44
01/09/2013 18:50	6,87	0	12,88	0,35	0	11,83	4,82	0	11,41
01/09/2013 18:55	6,8	0	12,88	0,37	0	11,83	5,47	0	10,3
01/09/2013 19:00	6,82	0	12,87	0,35	0	11,82	5,38	0	9,36
01/09/2013 19:05	7,13	0	12,87	0,37	0	11,82	5,75	0	9,4

01/09/2013 19:10	7,11	0	12,87	0,29	0	11,81	5,55	0	9,41
01/09/2013 19:15	8,34	0	12,86	0,26	0	11,81	6,49	0	9,41
01/09/2013 19:20	12,56	0	12,86	0,23	0	11,8	6,72	0	9,42
01/09/2013 19:25	14,92	0	12,86	0,26	0	11,8	9,39	0	9,42
01/09/2013 19:30	13,92	0	12,85	0,23	0	11,8	10,83	0	9,42
01/09/2013 19:35	12,24	0	12,85	0,26	0	11,8	12,23	0	9,42
01/09/2013 19:40	9,52	0	12,85	0,24	0	11,79	12,23	0	9,42
01/09/2013 19:45	8,77	0	12,85	0,23	0	11,79	11,98	0	9,42
01/09/2013 19:50	9,71	0	12,84	0,22	0	11,78	9,51	0	9,42
01/09/2013 19:55	11,06	0	12,84	0,26	0	11,79	9,76	0	9,42
01/09/2013 20:00	10,15	0	12,84	0,22	0	11,78	10,08	0	9,42
01/09/2013 20:05	9,82	0	12,84	0,26	0	11,78	8,81	0	9,42
01/09/2013 20:10	10,92	0	12,83	0,23	0	11,78	9,05	0	9,42
01/09/2013 20:15	10,94	0	12,83	0,25	0	11,77	8,93	0	9,41
01/09/2013 20:20	10,95	0	12,81	0,23	0	11,77	9,18	0	9,41
01/09/2013 20:25	10,6	0	12,82	0,25	0	11,77	9,09	0	9,41
01/09/2013 20:30	9,6	0	12,81	0,2	0	11,76	8,17	0	9,41
01/09/2013 20:35	9,42	0	12,81	0,21	0	11,76	7,84	0	9,41
01/09/2013 20:40	11,87	0	12,81	0,17	0	11,76	7,82	0	9,41
01/09/2013 20:45	12,31	0	12,81	0,22	0	11,76	8,55	0	9,41
01/09/2013 20:50	12,68	0	12,8	0,2	0	11,75	9,39	0	9,4
01/09/2013 20:55	11,66	0	12,8	0,25	0	11,75	9,57	0	9,4
01/09/2013 21:00	9,58	0	12,8	0,23	0	11,75	9,73	0	9,4
01/09/2013 21:05	9,58	0	12,8	0,25	0	11,75	8,45	0	9,4
01/09/2013 21:10	9,12	0	12,79	0,26	0	11,75	7,3	0	9,4
01/09/2013 21:15	8,09	0	12,79	0,24	0	11,74	7,62	0	9,39
01/09/2013 21:20	7,17	0	12,79	0,23	0	11,74	7,75	0	9,39
01/09/2013 21:25	7,38	0	12,79	0,24	0	11,74	6,83	0	9,39
01/09/2013 21:30	6,68	0	12,78	0,22	0	11,73	6,87	0	9,39
01/09/2013 21:35	7,12	0	12,79	0,25	0	11,73	6,78	0	9,39
01/09/2013 21:40	7,28	0	12,78	0,22	0	11,73	6,28	0	9,38
01/09/2013 21:45	7,79	0	12,78	0,25	0	11,73	6,22	0	9,38
01/09/2013 21:50	7,87	0	12,78	0,22	0	11,72	6,55	0	9,38
01/09/2013 21:55	9	0	12,78	0,25	0	11,72	6,38	0	9,38
01/09/2013 22:00	8,5	0	12,77	0,23	0	11,72	7,15	0	9,37
01/09/2013 22:05	7,98	0	12,77	0,26	0	11,72	7,65	0	9,37
01/09/2013 22:10	9,62	0	12,77	0,2	0	11,71	7,8	0	9,37
01/09/2013 22:15	10,18	0	12,77	0,17	0	11,71	7,88	0	9,37
01/09/2013 22:20	10,75	0	12,76	0,11	0	11,7	7,67	0	9,37
01/09/2013 22:25	10,42	0	12,76	0,24	0	11,71	7,91	0	9,36
01/09/2013 22:30	10,38	0	12,76	0,18	0	11,7	7,37	0	9,36
01/09/2013 22:35	9,12	0	12,76	0,15	0	11,69	7,22	0	9,36
01/09/2013 22:40	8,37	0	12,75	0,08	0	11,68	6,9	0	9,36
01/09/2013 22:45	8,82	0	12,75	0,12	0	11,69	7,26	0	9,36
01/09/2013 22:50	8,79	0	12,75	0,2	0	11,69	7,17	0	9,35
01/09/2013 22:55	8,92	0	12,75	0,09	0	11,68	6,79	0	9,35
01/09/2013 23:00	8,95	0	12,75	0,14	0	11,68	6,4	0	9,35
01/09/2013 23:05	8,96	0	12,75	0,16	0	11,68	6,22	0	9,35
01/09/2013 23:10	8,86	0	12,74	0,21	0	11,68	6,11	0	9,35
01/09/2013 23:15	9,36	0	12,74	0,18	0	11,68	6,33	0	9,34
01/09/2013 23:20	9,61	0	12,74	0,22	0	11,68	5,97	0	9,34
01/09/2013 23:25	9,4	0	12,74	0,2	0	11,68	6,25	0	9,34
01/09/2013 23:30	9,1	0	12,73	0,18	0	11,68	6,46	0	9,34
01/09/2013 23:35	8,61	0	12,73	0,2	0	11,67	6,24	0	9,34
01/09/2013 23:40	7,82	0	12,73	0,22	0	11,67	5,88	0	9,34
01/09/2013 23:45	7,9	0	12,73	0,2	0	11,67	5,6	0	9,33
01/09/2013 23:50	7,46	0	12,73	0,25	0	11,67	5,41	0	9,33
01/09/2013 23:55	7,17	0	12,73	0,21	0	11,67	5,17	0	9,33
02/09/2013 0:00	7,21	0	12,72	0,22	0	11,67	5,26	0	9,33
02/09/2013 0:05	7,69	0	12,72	0,21	0	11,66	5,43	0	9,33
02/09/2013 0:10	7,05	0	12,72	0,23	0	11,66	5,33	0	9,32
02/09/2013 0:15	7,12	0	12,72	0,21	0	11,66	5,24	0	9,32
02/09/2013 0:20	7,29	0	12,71	0,24	0	11,66	5,53	0	9,32
02/09/2013 0:25	7,02	0	12,71	0,22	0	11,66	5,15	0	9,32
02/09/2013 0:30	7,03	0	12,71	0,24	0	11,66	5,27	0	9,32
02/09/2013 0:35	7,38	0	12,71	0,21	0	11,65	5,09	0	9,31
02/09/2013 0:40	7,3	0	12,7	0,24	0	11,65	5,5	0	9,31

02/09/2013 0:45	7,01	0	12,7	0,22	0	11,65	5,51	0	9,31
02/09/2013 0:50	7,35	0	12,7	0,23	0	11,65	5,6	0	9,31
02/09/2013 0:55	7,48	0	12,7	0,21	0	11,64	5,63	0	9,31
02/09/2013 1:00	7,34	0	12,7	0,24	0	11,64	5,55	0	9,3
02/09/2013 1:05	7,84	0	12,7	0,21	0	11,64	5,85	0	9,3
02/09/2013 1:10	7,81	0	12,69	0,27	0	11,64	6,07	0	9,3
02/09/2013 1:15	7,76	0	12,69	0,09	0	11,62	6,22	0	9,3
02/09/2013 1:20	7,79	0	12,69	0,22	0	11,63	6,48	0	9,3
02/09/2013 1:25	7,97	0	12,69	0,2	0	11,63	6,43	0	9,29
02/09/2013 1:30	7,88	0	12,68	0,24	0	11,63	6,33	0	9,29
02/09/2013 1:35	7,51	0	12,68	0,18	0	11,63	6,22	0	9,29
02/09/2013 1:40	7,56	0	12,68	0,13	0	11,62	6,23	0	9,29
02/09/2013 1:45	7,44	0	12,68	0,19	0	11,62	6,17	0	9,28
02/09/2013 1:50	7,51	0	12,67	0,16	0	11,62	6,06	0	9,28
02/09/2013 1:55	7,71	0	12,67	0,2	0	11,62	5,76	0	9,28
02/09/2013 2:00	8,21	0	12,67	0,24	0	11,62	5,66	0	9,28
02/09/2013 2:05	8,27	0	12,67	0,22	0	11,62	5,65	0	9,28
02/09/2013 2:10	8,14	0	12,67	0,22	0	11,61	5,26	0	9,27
02/09/2013 2:15	7,91	0	12,67	0,11	0	11,6	5,28	0	9,27
02/09/2013 2:20	8,15	0	12,66	0,11	0	11,6	5,18	0	9,27
02/09/2013 2:25	8,24	0	12,66	0,11	0	11,6	5,28	0	9,27
02/09/2013 2:30	8,23	0	12,65	0,17	0	11,6	5,27	0	9,27
02/09/2013 2:35	8,38	0	12,65	0,16	0	11,6	5,41	0	9,26
02/09/2013 2:40	8,16	0	12,65	0,22	0	11,6	5,25	0	9,26
02/09/2013 2:45	8,28	0	12,65	0,2	0	11,6	5,32	0	9,26
02/09/2013 2:50	7,92	0	12,65	0,23	0	11,6	5,27	0	9,26
02/09/2013 2:55	7,61	0	12,64	0,21	0	11,6	5,24	0	9,25
02/09/2013 3:00	7,74	0	12,64	0,21	0	11,59	5,08	0	9,25
02/09/2013 3:05	7,89	0	12,64	0,21	0	11,59	4,93	0	9,25
02/09/2013 3:10	7,66	0	12,64	0,23	0	11,59	4,78	0	9,25
02/09/2013 3:15	7,72	0	12,64	0,17	0	11,58	5,03	0	9,25
02/09/2013 3:20	7,63	0	12,63	0,11	0	11,57	4,69	0	9,24
02/09/2013 3:25	7,36	0	12,63	0,19	0	11,58	4,53	0	9,24
02/09/2013 3:30	7,31	0	12,63	0,18	0	11,58	4,34	0	9,24
02/09/2013 3:35	7,78	0	12,62	0,07	0	11,56	4,51	0	9,24
02/09/2013 3:40	7,62	0	12,62	-0,01	0	11,55	4,39	0	9,24
02/09/2013 3:45	7,56	0	12,62	-0,02	0	11,55	4,49	0	9,23
02/09/2013 3:50	8	0	12,62	-0,02	0	11,54	4,43	0	9,23
02/09/2013 3:55	7,73	0	12,62	-0,01	0	11,54	4,55	0	9,23
02/09/2013 4:00	8,14	0	12,61	-0,01	0	11,54	4,75	0	9,23
02/09/2013 4:05	7,82	0	12,61	-0,03	0	11,54	4,65	0	9,23
02/09/2013 4:10	7,96	0	12,61	0	0	11,53	4,38	0	9,22
02/09/2013 4:15	7,71	0	12,61	0,01	0	11,53	4,67	0	9,22
02/09/2013 4:20	7,59	0	12,61	0,1	0	11,54	4,68	0	9,22
02/09/2013 4:25	7,91	0	12,6	0,16	0	11,55	4,52	0	9,22
02/09/2013 4:30	7,81	0	12,6	0,16	0	11,55	4,68	0	9,21
02/09/2013 4:35	7,79	0	12,59	0,14	0	11,54	4,65	0	9,21
02/09/2013 4:40	7,37	0	12,59	0,15	0	11,54	4,69	0	9,21
02/09/2013 4:45	7,25	0	12,59	0,12	0	11,53	4,84	0	9,21
02/09/2013 4:50	7,21	0	12,59	0,12	0	11,53	4,68	0	9,21
02/09/2013 4:55	7,54	0	12,59	0,12	0	11,53	4,25	0	9,21
02/09/2013 5:00	6,8	0	12,59	0,12	0	11,53	3,73	0	9,2
02/09/2013 5:05	6,76	0	12,58	0,02	0	11,51	3,85	0	9,2
02/09/2013 5:10	6,01	0	12,58	0,16	0	11,53	3,37	0	9,2
02/09/2013 5:15	5,63	0	12,58	0,14	0	11,52	3,39	0	9,2
02/09/2013 5:20	5,28	0	12,58	0,19	0	11,53	3,21	0	9,19
02/09/2013 5:25	5,34	0	12,57	0,16	0	11,52	3,22	0	9,19
02/09/2013 5:30	5,33	0	12,57	0,2	0	11,53	2,98	0	9,19
02/09/2013 5:35	5,72	0	12,57	0,18	0	11,52	2,86	0	9,19
02/09/2013 5:40	5,23	0	12,57	0,21	0	11,52	3,05	0	9,19
02/09/2013 5:45	5,24	0	12,56	0,19	0	11,52	2,72	0	9,18
02/09/2013 5:50	5,46	0	12,56	0,21	0	11,52	2,88	0	9,18
02/09/2013 5:55	5,15	0	12,56	0,18	0	11,51	2,86	0	9,18
02/09/2013 6:00	4,89	0	12,56	0,2	0	11,51	2,82	0	9,18
02/09/2013 6:05	4,99	0	12,55	0,18	0	11,51	2,79	0	9,18
02/09/2013 6:10	4,99	0	12,56	0,21	0	11,51	2,78	0	9,17
02/09/2013 6:15	5,01	0	12,55	0,18	0	11,5	2,82	0	9,17

02/09/2013 6:20	4,89	0	12,55	0,21	0	11,5	2,67	0	9,17
02/09/2013 6:25	4,86	0	12,54	0,18	0	11,5	2,82	0	9,17
02/09/2013 6:30	5,06	0	12,55	0,21	0	11,5	2,79	0	9,17
02/09/2013 6:35	4,97	0	12,55	0,19	0	11,5	2,52	0	9,18
02/09/2013 6:40	4,86	0	12,55	0,21	0	11,5	2,5	0	9,18
02/09/2013 6:45	4,83	0	12,53	0,18	0	11,49	2,52	0	9,18
02/09/2013 6:50	4,99	0	12,52	0,22	0	11,5	2,47	0	9,19
02/09/2013 6:55	5,35	0	12,52	0,18	0	11,49	2,49	0	9,19
02/09/2013 7:00	5,07	0	12,52	0,21	0	11,5	2,46	0	9,2
02/09/2013 7:05	5,32	0	12,54	0,18	0	11,49	2,55	0	9,21
02/09/2013 7:10	5,15	0	12,54	0,21	0	11,49	2,65	0	9,21
02/09/2013 7:15	5,41	0	12,54	0,19	0	11,49	2,65	0	9,22
02/09/2013 7:20	5,1	0	12,55	0,14	0	11,49	3,02	0	9,23
02/09/2013 7:25	5,04	0	12,55	0,15	0	11,5	3,56	0	9,25
02/09/2013 7:30	8,3	0	12,55	0,17	0	11,51	3,67	0	9,28
02/09/2013 7:35	7,34	0	12,55	0,13	0	11,5	4,44	0	9,36
02/09/2013 7:40	6,14	0	12,53	-0,01	0	11,47	4,73	0	9,45
02/09/2013 7:45	7,35	0	12,55	0,16	0	11,5	4,84	0	9,47
02/09/2013 7:50	7,11	0	12,56	0,2	0	11,51	5,36	0	9,5
02/09/2013 7:55	6,49	0	12,55	0,18	0	11,51	5,99	0	9,52
02/09/2013 8:00	6,93	0	12,54	-0,01	0	11,48	6,58	0	9,54
02/09/2013 8:05	6,46	0	12,54	0	0	11,48	6,37	0	9,6
02/09/2013 8:10	6	0	12,54	-0,01	0	11,48	7,59	0	9,69
02/09/2013 8:15	6,38	0	12,54	0	0	11,49	6,73	0	9,96
02/09/2013 8:20	6,8	0	12,55	-0,01	0	11,49	6,55	0	10,55
02/09/2013 8:25	7	0	12,57	0,01	0	11,5	6,06	0	10,36
02/09/2013 8:30	8,13	0	12,57	0,01	0	11,51	6,32	0	10,07
02/09/2013 8:35	7,91	0	12,58	0,01	0	11,54	7,17	0	9,96
02/09/2013 8:40	9,31	0	12,59	0,02	0	11,61	5,77	0	9,94
02/09/2013 8:45	10,11	0	12,61	0,03	0	11,67	5,86	0	9,9
02/09/2013 8:50	10,99	0	12,63	0,04	0	11,76	5,88	0	9,89
02/09/2013 8:55	12,58	0	12,66	0,14	0	11,9	6,34	0	9,92
02/09/2013 9:00	14,06	0	12,71	0,28	0	11,98	6,51	0	9,87
02/09/2013 9:05	13,07	0	12,74	0,27	0	12,01	9,68	0	9,93
02/09/2013 9:10	13,78	0	12,76	0,14	0	12,01	6,27	0	9,9
02/09/2013 9:15	12,76	0	12,81	0,35	0	12,04	5,7	0	9,98
02/09/2013 9:20	11,37	0	12,84	0,2	0	12,03	5,46	0	10,65
02/09/2013 9:25	10,46	0	12,89	0,26	0	12,05	4,95	0	11,52
02/09/2013 9:30	10,46	0	12,93	0,2	0	12,05	5,61	0	11,73
02/09/2013 9:35	11,2	0	12,99	0,33	0	12,07	4,93	0	11,81
02/09/2013 9:40	9,75	0	13,03	0,3	0	12,08	6,5	0	11,87
02/09/2013 9:45	9,73	0	13,05	0,21	0	12,07	3,19	0	11,89
02/09/2013 9:50	10,22	0	13,08	0,2	0	12,08	3,3	0	11,92
02/09/2013 9:55	9,11	0	13,12	0,28	0	12,09	2,99	0	11,93
02/09/2013 10:00	10,02	0	13,13	0,3	0	12,1	3,36	0	11,95
02/09/2013 10:05	10,2	0	13,14	0,25	0	12,11	8,14	2	11,96
02/09/2013 10:10	9,67	0	13,12	0,23	0	12,11	3,12	0	11,98
02/09/2013 10:15	9,9	0	13,02	0,13	0	12,1	6,52	2	11,98
02/09/2013 10:20	9,43	0	12,94	0,13	0	12,02	3,36	0	12,01
02/09/2013 10:25	9,57	0	12,91	0,1	0	11,87	4,93	0	12,01
02/09/2013 10:30	9,81	0	12,88	0,1	0	11,83	4,99	0	12,02
02/09/2013 10:35	9	0	12,87	0,11	0	11,81	5,4	0	12,02
02/09/2013 10:40	8,42	0	12,86	0,1	0	11,8	6,69	0	12,02
02/09/2013 10:45	8,6	0	12,85	0,11	0	11,8	5,52	0	12
02/09/2013 10:50	7,97	0	12,84	0,12	0	11,79	6,13	0	12,01
02/09/2013 10:55	7,87	0	12,83	0,11	0	11,78	6,09	0	12
02/09/2013 11:00	7,75	0	12,81	0,12	0	11,77	6,39	0	12
02/09/2013 11:05	7,59	0	12,79	0,13	0	11,78	6,53	0	11,99
02/09/2013 11:10	7,32	0	12,78	0,13	0	11,77	5,79	0	11,98
02/09/2013 11:15	7,08	0	12,81	0,21	0	11,78	4,66	0	11,97
02/09/2013 11:20	7,21	0	12,82	0,15	0	11,77	4,55	0	11,96
02/09/2013 11:25	7,31	0	12,83	-0,02	0	11,76	5,32	0	11,94
02/09/2013 11:30	7,07	0	12,98	12,27	2	11,73	4,61	0	11,93
02/09/2013 11:35	6,73	0	13,14	18,47	0	11,71	4,01	0	11,91
02/09/2013 11:40	6,79	0	13,2	20,57	2	11,71	4,57	0	11,9
02/09/2013 11:45	6,96	0	13,22	20,63	0	11,72	4,21	0	11,87
02/09/2013 11:50	6,53	0	13,24	17,75	0	11,71	4,43	0	11,85

02/09/2013 11:55	6,9	0	13,25	17,62	0	11,71	4,51	0	11,82
02/09/2013 12:00	6,81	0	13,26	17,48	2	11,7	4,42	0	11,79
02/09/2013 12:05	7,04	0	13,27	16,79	0	11,7	4,4	0	11,76
02/09/2013 12:10	6,93	0	13,29	15,71	0	11,69	4,68	0	11,74
02/09/2013 12:15	6,79	0	13,3	17,37	0	11,69	4,65	0	11,72
02/09/2013 12:20	6,91	0	13,31	18,75	0	11,69	4,75	0	11,71
02/09/2013 12:25	7,47	0	13,32	18	0	11,68	4,39	0	11,7
02/09/2013 12:30	7,96	0	13,33	NoData	NoData	NoData	4,47	0	11,7
02/09/2013 12:35	7,06	0	13,34	16,99	0	11,81	4,85	0	11,69
02/09/2013 12:40	7,45	0	13,36	17,53	0	11,99	4,38	0	11,69
02/09/2013 12:45	6,94	0	13,37	17,97	0	12,06	4,51	0	11,68
02/09/2013 12:50	6,9	0	13,39	16,88	0	12,09	3,88	0	11,67
02/09/2013 12:55	7,08	0	13,4	16,83	0	12,1	4,28	0	11,66
02/09/2013 13:00	7,08	0	13,41	22,56	2	12,09	4,86	0	11,66
02/09/2013 13:05	7,25	0	13,43	15,01	0	12,11	3,88	0	11,66
02/09/2013 13:10	6,9	0	13,44	14,97	0	12,11	4,59	0	11,65
02/09/2013 13:15	7,05	0	13,45	15,42	0	12,11	4,88	0	11,65
02/09/2013 13:20	7,76	0	13,47	18,28	0	12,11	4,84	0	11,65
02/09/2013 13:25	10,18	0	13,48	19,06	0	12,11	4,59	0	11,64
02/09/2013 13:30	8,91	0	13,49	16,31	0	12,11	4,58	0	11,64
02/09/2013 13:35	7,39	0	13,51	15,84	0	12,12	4,98	0	11,64
02/09/2013 13:40	7,69	0	13,52	17,38	0	12,12	5,45	0	11,64
02/09/2013 13:45	7,74	0	13,53	16,52	0	12,12	4,63	0	11,63
02/09/2013 13:50	8,2	0	13,55	15,06	0	12,12	4,69	0	11,63
02/09/2013 13:55	8,15	0	13,56	15,3	0	12,12	5,06	0	11,63
02/09/2013 14:00	8,59	0	13,58	15,97	0	12,11	5,57	0	11,63
02/09/2013 14:05	8,54	0	13,6	15,53	0	12,11	5,61	0	11,62
02/09/2013 14:10	8,58	0	13,61	15,74	0	12,12	5,58	0	11,62
02/09/2013 14:15	8,63	0	13,63	16,2	0	12,12	5,6	0	11,61
02/09/2013 14:20	NoData	NoData	NoData	18,42	0	12,11	5,78	0	11,61
02/09/2013 14:25	NoData	NoData	NoData	15,58	0	12,1	6,08	0	11,61
02/09/2013 14:30	8,53	0	13,68	16,28	0	12,1	6,3	0	11,61
02/09/2013 14:35	8,46	0	13,7	16,72	0	12,1	6,4	0	11,6
02/09/2013 14:40	8,54	0	13,7	17,73	0	12,1	5,94	0	11,6
02/09/2013 14:45	8,88	0	13,71	16,13	0	12,1	5,79	0	11,6
02/09/2013 14:50	9,31	0	13,71	16,91	0	12,09	6,02	0	11,6
02/09/2013 14:55	8,89	0	13,72	18,08	0	12,08	5,97	0	11,59
02/09/2013 15:00	8,92	0	13,72	17,91	0	12,07	6,43	0	11,59
02/09/2013 15:05	9,05	0	13,72	18,71	2	12,07	6,39	0	11,59
02/09/2013 15:10	9,97	0	13,71	28,73	2	11,94	6,09	0	11,59
02/09/2013 15:15	9,78	0	13,71	17,51	0	12,04	6,19	0	11,58
02/09/2013 15:20	9,85	0	13,7	16,95	0	12,03	6,58	0	11,58
02/09/2013 15:25	9,97	0	13,69	18,52	0	12,03	6,11	0	11,57
02/09/2013 15:30	9,41	0	13,67	17,24	0	12,02	4,89	0	11,56
02/09/2013 15:35	9,57	0	13,55	17,15	0	12,01	6,73	0	11,55
02/09/2013 15:40	10,61	0	13,38	17,07	0	12	6,17	0	11,54
02/09/2013 15:45	10,38	0	13,29	16,97	0	11,98	5,62	0	11,54
02/09/2013 15:50	10	0	13,23	18,81	0	11,95	5,63	0	11,53
02/09/2013 15:55	11,58	0	13,19	18,41	0	11,96	5,44	0	11,53
02/09/2013 16:00	11,55	0	13,16	16,61	0	11,95	5,3	0	11,52
02/09/2013 16:05	10,96	0	13,11	16,05	0	11,93	5,22	0	11,51
02/09/2013 16:10	10,67	0	13,08	15,81	0	11,92	NoData	NoData	NoData
02/09/2013 16:15	10,98	0	13,07	16,39	0	11,92	0,22	0	11,55
02/09/2013 16:20	10,7	0	13,06	16,88	0	11,9	0,27	0	11,61
02/09/2013 16:25	11,09	0	13,05	19,41	0	11,89	0,2	0	11,62
02/09/2013 16:30	10,49	0	13,02	18,11	0	11,88	0,25	0	11,62
02/09/2013 16:35	11,12	0	13,01	17,19	0	11,88	0,24	0	11,62
02/09/2013 16:40	10,07	0	13,01	18,47	0	11,88	-0,09	0	11,63
02/09/2013 16:45	9,97	0	13,01	18,98	0	11,88	-0,64	0	11,6
02/09/2013 16:50	10,3	0	13,01	18,68	0	11,87	-0,64	0	11,59
02/09/2013 16:55	9,63	0	13	20,64	0	11,87	5,2	0	11,56
02/09/2013 17:00	10,85	0	12,99	19,62	0	11,86	6,05	0	11,56
02/09/2013 17:05	10,43	0	12,99	18,6	0	11,86	5,14	0	11,53
02/09/2013 17:10	10,5	0	12,99	20,18	0	11,85	8,12	0	11,52
02/09/2013 17:15	10,36	0	12,98	18,63	0	11,85	10,28	0	11,51
02/09/2013 17:20	11,05	0	12,97	20,24	0	11,84	9,5	0	11,51
02/09/2013 17:25	11,8	0	12,97	20,89	0	11,84	9,69	0	11,5

02/09/2013 17:30	12,24	0	12,96	22,73	0	11,84	9,23	0	11,5
02/09/2013 17:35	12,3	0	12,95	20,1	0	11,83	9,67	0	11,49
02/09/2013 17:40	NoData	NoData	NoData	20,4	0	11,83	11,21	0	11,49
02/09/2013 17:45	13,01	0	12,94	20,24	0	11,83	10,87	0	11,48
02/09/2013 17:50	13,52	0	12,93	19,05	0	11,82	10,42	0	11,47
02/09/2013 17:55	12,74	0	12,92	19,04	0	11,82	10,72	0	11,46
02/09/2013 18:00	11,77	0	12,92	18,92	0	11,81	10,23	0	11,45
02/09/2013 18:05	11,89	0	12,91	19,76	0	11,81	9,82	0	11,44
02/09/2013 18:10	11,45	0	12,91	20,58	0	11,8	9,47	0	11,42
02/09/2013 18:15	11,72	0	12,91	19,48	0	11,8	8,62	0	10,76
02/09/2013 18:20	11,45	0	12,9	19,11	0	11,8	NoData	NoData	NoData
02/09/2013 18:25	11,77	0	12,9	18,35	0	11,79	NoData	NoData	NoData
02/09/2013 18:30	11,51	0	12,89	18,02	0	11,79	NoData	NoData	NoData
02/09/2013 18:35	NoData	NoData	NoData	18,23	0	11,79	NoData	NoData	NoData
02/09/2013 18:40	NoData	NoData	NoData	18,16	0	11,77	NoData	NoData	NoData
02/09/2013 18:45	NoData	NoData	NoData	18,39	0	11,77	NoData	NoData	NoData
02/09/2013 18:50	NoData	NoData	NoData	18,48	0	11,76	NoData	NoData	NoData
02/09/2013 18:55	NoData	NoData	NoData	19,3	0	11,76	NoData	NoData	NoData
02/09/2013 19:00	12,64	0	12,87	19,37	0	11,76	NoData	NoData	NoData
02/09/2013 19:05	13,69	0	12,87	19,23	0	11,76	NoData	NoData	NoData
02/09/2013 19:10	15,52	0	12,87	19,07	0	11,75	NoData	NoData	NoData
02/09/2013 19:15	NoData	NoData	NoData	19,2	0	11,74	NoData	NoData	NoData
02/09/2013 19:20	14,89	0	12,86	17,75	0	11,74	NoData	NoData	NoData
02/09/2013 19:25	14,88	0	12,86	17,26	0	11,74	NoData	NoData	NoData
02/09/2013 19:30	14,98	0	12,86	17,26	0	11,74	NoData	NoData	NoData
02/09/2013 19:35	14,77	0	12,86	17	0	11,74	NoData	NoData	NoData
02/09/2013 19:40	13,4	0	12,85	16,78	0	11,73	NoData	NoData	NoData
02/09/2013 19:45	12,45	0	12,85	16,66	0	11,72	NoData	NoData	NoData
02/09/2013 19:50	12,43	0	12,84	16,34	0	11,71	NoData	NoData	NoData
02/09/2013 19:55	12,62	0	12,85	15,85	0	11,72	NoData	NoData	NoData
02/09/2013 20:00	12,81	0	12,83	15,79	0	11,71	NoData	NoData	NoData
02/09/2013 20:05	NoData	NoData	NoData	15,75	0	11,71	NoData	NoData	NoData
02/09/2013 20:10	12,75	0	12,84	15,75	0	11,71	NoData	NoData	NoData
02/09/2013 20:15	12,21	0	12,84	15,71	0	11,71	NoData	NoData	NoData
02/09/2013 20:20	11,79	0	12,83	16	0	11,71	NoData	NoData	NoData
02/09/2013 20:25	12,08	0	12,83	16,1	0	11,7	NoData	NoData	NoData
02/09/2013 20:30	12,29	0	12,82	15,91	0	11,7	NoData	NoData	NoData
02/09/2013 20:35	13,28	0	12,82	15,81	0	11,7	NoData	NoData	NoData
02/09/2013 20:40	13,48	0	12,82	15,65	0	11,7	NoData	NoData	NoData
02/09/2013 20:45	13,37	0	12,82	15,94	0	11,7	NoData	NoData	NoData
02/09/2013 20:50	13,59	0	12,82	15,94	0	11,69	NoData	NoData	NoData
02/09/2013 20:55	13,71	0	12,82	15,76	0	11,7	NoData	NoData	NoData
02/09/2013 21:00	NoData	NoData	NoData	15,75	0	11,69	NoData	NoData	NoData
02/09/2013 21:05	NoData	NoData	NoData	15,61	0	11,69	NoData	NoData	NoData
02/09/2013 21:10	14,97	0	12,81	15,5	0	11,68	NoData	NoData	NoData
02/09/2013 21:15	15,13	0	12,81	14,99	0	11,68	NoData	NoData	NoData
02/09/2013 21:20	14,77	0	12,8	14,99	0	11,68	NoData	NoData	NoData
02/09/2013 21:25	15,76	0	12,8	14,43	0	11,68	NoData	NoData	NoData
02/09/2013 21:30	14,67	0	12,8	14,64	0	11,67	NoData	NoData	NoData
02/09/2013 21:35	13,65	0	12,8	14,13	0	11,67	NoData	NoData	NoData
02/09/2013 21:40	13,4	0	12,8	13,91	0	11,67	NoData	NoData	NoData
02/09/2013 21:45	NoData	NoData	NoData	13,76	0	11,67	NoData	NoData	NoData
02/09/2013 21:50	12,27	0	12,79	14,12	0	11,66	NoData	NoData	NoData
02/09/2013 21:55	12,6	0	12,79	14,04	0	11,66	NoData	NoData	NoData
02/09/2013 22:00	12,82	0	12,79	14,09	0	11,66	NoData	NoData	NoData
02/09/2013 22:05	NoData	NoData	NoData	14,21	0	11,66	NoData	NoData	NoData
02/09/2013 22:10	13,84	0	12,78	13,94	0	11,65	NoData	NoData	NoData
02/09/2013 22:15	12,28	0	12,78	14,03	0	11,65	NoData	NoData	NoData
02/09/2013 22:20	11,92	0	12,78	14,11	0	11,65	NoData	NoData	NoData
02/09/2013 22:25	12,27	0	12,78	14,22	0	11,64	NoData	NoData	NoData
02/09/2013 22:30	13,31	0	12,78	14,6	0	11,64	NoData	NoData	NoData
02/09/2013 22:35	13,23	0	12,78	15	0	11,64	NoData	NoData	NoData
02/09/2013 22:40	NoData	NoData	NoData	14,94	0	11,63	NoData	NoData	NoData
02/09/2013 22:45	NoData	NoData	NoData	16,19	0	11,62	NoData	NoData	NoData
02/09/2013 22:50	13,29	0	12,77	17,99	0	11,62	NoData	NoData	NoData
02/09/2013 22:55	13,5	0	12,77	15,46	0	11,62	NoData	NoData	NoData
02/09/2013 23:00	12,76	0	12,77	14,41	0	11,61	NoData	NoData	NoData

02/09/2013 23:05	12,25	0	12,77	14,26	0	11,61	NoData	NoData	NoData
02/09/2013 23:10	13,18	0	12,76	14,13	0	11,6	NoData	NoData	NoData
02/09/2013 23:15	13,63	0	12,76	14,23	0	11,6	NoData	NoData	NoData
02/09/2013 23:20	12,65	0	12,76	14,64	0	11,6	NoData	NoData	NoData
02/09/2013 23:25	11,61	0	12,76	14,1	0	11,59	NoData	NoData	NoData
02/09/2013 23:30	12,41	0	12,76	13,39	0	11,59	NoData	NoData	NoData
02/09/2013 23:35	12,25	0	12,75	13,33	0	11,59	NoData	NoData	NoData
02/09/2013 23:40	11,51	0	12,75	13,41	0	11,58	NoData	NoData	NoData
02/09/2013 23:45	10,94	0	12,75	13,6	0	11,58	NoData	NoData	NoData
02/09/2013 23:50	11,12	0	12,75	13,8	0	11,58	NoData	NoData	NoData
02/09/2013 23:55	12,23	0	12,75	13,66	0	11,57	NoData	NoData	NoData
03/09/2013 0:00	13,76	0	12,75	13,84	0	11,57	NoData	NoData	NoData
03/09/2013 0:05	14,12	0	12,75	13,78	0	11,57	NoData	NoData	NoData
03/09/2013 0:10	13,88	0	12,74	13,93	0	11,56	NoData	NoData	NoData
03/09/2013 0:15	13,93	0	12,74	13,74	0	11,56	NoData	NoData	NoData
03/09/2013 0:20	11,7	0	12,74	13,93	0	11,56	NoData	NoData	NoData
03/09/2013 0:25	11,15	0	12,74	13,82	0	11,55	NoData	NoData	NoData
03/09/2013 0:30	11,8	0	12,74	13,57	0	11,55	NoData	NoData	NoData
03/09/2013 0:35	11,57	0	12,73	13,64	0	11,55	NoData	NoData	NoData
03/09/2013 0:40	12,37	0	12,73	13,81	0	11,54	NoData	NoData	NoData
03/09/2013 0:45	13,96	0	12,73	13,97	0	11,54	NoData	NoData	NoData
03/09/2013 0:50	12,89	0	12,73	13,58	0	11,54	NoData	NoData	NoData
03/09/2013 0:55	12,03	0	12,72	13,41	0	11,53	NoData	NoData	NoData
03/09/2013 1:00	13,37	0	12,71	13,72	0	11,52	NoData	NoData	NoData
03/09/2013 1:05	12,74	0	12,71	13,54	0	11,52	NoData	NoData	NoData
03/09/2013 1:10	11,36	0	12,71	13,51	0	11,51	NoData	NoData	NoData
03/09/2013 1:15	12,04	0	12,69	13,21	0	11,5	NoData	NoData	NoData
03/09/2013 1:20	12,61	0	12,69	13,06	0	11,49	NoData	NoData	NoData
03/09/2013 1:25	12,97	0	12,69	13,02	0	11,49	NoData	NoData	NoData
03/09/2013 1:30	12,43	0	12,69	12,96	0	11,48	NoData	NoData	NoData
03/09/2013 1:35	11,24	0	12,68	12,98	0	11,48	NoData	NoData	NoData
03/09/2013 1:40	11,09	0	12,68	12,89	0	11,48	NoData	NoData	NoData
03/09/2013 1:45	10,64	0	12,68	12,92	0	11,47	NoData	NoData	NoData
03/09/2013 1:50	10,77	0	12,68	12,95	0	11,47	NoData	NoData	NoData
03/09/2013 1:55	11,22	0	12,68	12,84	0	11,46	NoData	NoData	NoData
03/09/2013 2:00	10,73	0	12,67	12,84	0	11,46	NoData	NoData	NoData
03/09/2013 2:05	11,73	0	12,67	12,94	0	11,46	NoData	NoData	NoData
03/09/2013 2:10	12,25	0	12,67	12,83	0	11,45	NoData	NoData	NoData
03/09/2013 2:15	12,86	0	12,67	13,02	0	11,45	NoData	NoData	NoData
03/09/2013 2:20	14,41	0	12,66	13,3	0	11,44	NoData	NoData	NoData
03/09/2013 2:25	13,94	0	12,66	13,14	0	11,44	NoData	NoData	NoData
03/09/2013 2:30	13,29	0	12,67	12,93	0	11,44	NoData	NoData	NoData
03/09/2013 2:35	12,39	0	12,66	12,88	0	11,43	NoData	NoData	NoData
03/09/2013 2:40	12,85	0	12,66	12,98	0	11,43	NoData	NoData	NoData
03/09/2013 2:45	13,56	0	12,65	12,95	0	11,44	NoData	NoData	NoData
03/09/2013 2:50	12,56	0	12,65	13,14	0	11,45	NoData	NoData	NoData
03/09/2013 2:55	12,42	0	12,67	13	0	11,44	NoData	NoData	NoData
03/09/2013 3:00	13,16	0	12,68	12,99	0	11,44	NoData	NoData	NoData
03/09/2013 3:05	13,74	0	12,68	13,07	0	11,43	NoData	NoData	NoData
03/09/2013 3:10	13,28	0	12,68	12,81	0	11,43	NoData	NoData	NoData
03/09/2013 3:15	12,31	0	12,67	12,68	0	11,43	NoData	NoData	NoData
03/09/2013 3:20	12,57	0	12,67	12,63	0	11,42	NoData	NoData	NoData
03/09/2013 3:25	12,99	0	12,67	12,79	0	11,42	NoData	NoData	NoData
03/09/2013 3:30	12,54	0	12,67	12,88	0	11,42	NoData	NoData	NoData
03/09/2013 3:35	11,71	0	12,66	12,62	0	11,41	NoData	NoData	NoData
03/09/2013 3:40	10,26	0	12,66	12,65	0	11,41	NoData	NoData	NoData
03/09/2013 3:45	8,9	0	12,66	12,74	0	11,4	NoData	NoData	NoData
03/09/2013 3:50	NoData	NoData	NoData	12,68	0	11,4	NoData	NoData	NoData
03/09/2013 3:55	8,7	0	12,65	12,57	0	11,39	NoData	NoData	NoData
03/09/2013 4:00	9,81	0	12,65	12,79	0	11,39	NoData	NoData	NoData
03/09/2013 4:05	10,78	0	12,65	12,53	0	11,38	NoData	NoData	NoData
03/09/2013 4:10	10,23	0	12,65	12,75	0	11,38	NoData	NoData	NoData
03/09/2013 4:15	9,39	0	12,65	12,73	0	11,37	NoData	NoData	NoData
03/09/2013 4:20	8,94	0	12,65	12,7	0	11,37	NoData	NoData	NoData
03/09/2013 4:25	8,71	0	12,64	12,56	0	11,36	NoData	NoData	NoData
03/09/2013 4:30	8,41	0	12,64	12,55	0	11,36	NoData	NoData	NoData
03/09/2013 4:35	7,47	0	12,63	12,52	0	11,34	NoData	NoData	NoData

03/09/2013 4:40	7,05	0	12,63	12,56	0	11,35	NoData	NoData	NoData
03/09/2013 4:45	7,06	0	12,62	12,67	0	11,34	NoData	NoData	NoData
03/09/2013 4:50	7,13	0	12,62	12,57	0	11,33	NoData	NoData	NoData
03/09/2013 4:55	NoData	NoData	NoData	12,52	0	11,32	NoData	NoData	NoData
03/09/2013 5:00	7,12	0	12,62	12,68	0	11,32	NoData	NoData	NoData
03/09/2013 5:05	NoData	NoData	NoData	12,67	0	11,31	NoData	NoData	NoData
03/09/2013 5:10	7,04	0	12,62	12,77	0	11,31	NoData	NoData	NoData
03/09/2013 5:15	7,4	0	12,61	12,69	0	11,29	NoData	NoData	NoData
03/09/2013 5:20	7,75	0	12,61	13,32	0	11,29	NoData	NoData	NoData
03/09/2013 5:25	NoData	NoData	NoData	13,71	0	11,28	NoData	NoData	NoData
03/09/2013 5:30	7,18	0	12,61	13,73	0	11,27	NoData	NoData	NoData
03/09/2013 5:35	7,24	0	12,6	13,11	0	11,26	NoData	NoData	NoData
03/09/2013 5:40	8,07	0	12,6	12,91	0	11,25	NoData	NoData	NoData
03/09/2013 5:45	7,67	0	12,6	12,85	0	11,23	NoData	NoData	NoData
03/09/2013 5:50	7,25	0	12,6	13,08	0	11,22	NoData	NoData	NoData
03/09/2013 5:55	7,2	0	12,6	13,15	0	11,2	NoData	NoData	NoData
03/09/2013 6:00	7,22	0	12,6	13,52	0	11,19	NoData	NoData	NoData
03/09/2013 6:05	7,08	0	12,59	13,89	0	11,17	NoData	NoData	NoData
03/09/2013 6:10	7,21	0	12,59	13,36	0	11,15	NoData	NoData	NoData
03/09/2013 6:15	7,14	0	12,59	13,04	0	11,1	NoData	NoData	NoData
03/09/2013 6:20	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:25	7,76	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:30	7,58	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:35	7,71	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:40	6,89	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:45	7,54	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:50	7,23	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 6:55	7,07	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:00	7,11	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:05	7,62	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:10	8,19	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:15	7,15	0	12,58	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:20	7,33	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:25	7,75	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:30	6,9	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:35	11,43	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:40	8,07	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:45	7,17	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:50	7,04	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 7:55	7,96	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:00	8,33	0	12,59	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:05	7,98	0	12,6	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:10	7,52	0	12,6	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:15	7,42	0	12,6	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:20	7,75	0	12,61	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:25	7,66	0	12,62	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:30	7,17	0	12,63	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:35	7,16	0	12,64	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:40	7,56	0	12,66	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:45	7,85	0	12,67	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:50	8,94	0	12,69	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 8:55	8,74	0	12,71	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:00	10,29	0	12,74	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:05	10,39	0	12,76	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:10	9,31	0	12,79	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:15	9,31	0	12,82	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:20	9,23	0	12,85	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:25	9,16	0	12,89	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:30	8,76	0	12,93	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:35	8,66	0	12,97	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:40	NoData	NoData	NoData	0,35	0	12,26	NoData	NoData	NoData
03/09/2013 9:45	8,09	0	13,04	NoData	NoData	NoData	NoData	NoData	NoData
03/09/2013 9:50	10,07	0	13,07	0,37	0	12,25	NoData	NoData	NoData
03/09/2013 9:55	8,46	0	13,1	179,36	0	12,24	NoData	NoData	NoData
03/09/2013 10:00	8,18	0	13,11	250,68	0	12,26	NoData	NoData	NoData
03/09/2013 10:05	9,1	0	13,12	15,47	2	12,27	NoData	NoData	NoData
03/09/2013 10:10	9,34	0	13,09	14,08	0	12,28	NoData	NoData	NoData

03/09/2013 10:15	9,36	0	13,01	13,65	0	12,3	NoData	NoData	NoData
03/09/2013 10:20	9,01	0	12,95	13,81	0	12,3	NoData	NoData	NoData
03/09/2013 10:25	10,6	0	12,93	14,5	0	12,31	NoData	NoData	NoData
03/09/2013 10:30	11,69	0	12,91	15,25	0	12,32	NoData	NoData	NoData
03/09/2013 10:35	10,85	0	12,91	14,89	0	12,33	NoData	NoData	NoData
03/09/2013 10:40	9,95	0	12,9	15,08	0	12,33	NoData	NoData	NoData
03/09/2013 10:45	8,73	0	12,88	14,56	0	12,33	NoData	NoData	NoData
03/09/2013 10:50	10,52	2	12,86	14,07	0	12,34	NoData	NoData	NoData
03/09/2013 10:55	1,53	0	12,87	13,88	0	12,35	NoData	NoData	NoData
03/09/2013 11:00	-0,43	0	12,86	13,92	0	12,35	NoData	NoData	NoData
03/09/2013 11:05	-0,43	0	12,84	13,96	0	12,36	NoData	NoData	NoData
03/09/2013 11:10	-0,45	0	12,84	13,64	0	12,36	NoData	NoData	NoData
03/09/2013 11:15	-0,44	0	12,87	12,55	0	12,37	3,16	0	12,31
03/09/2013 11:20	-0,43	0	12,88	10,86	0	12,38	7,47	0	12,31
03/09/2013 11:25	-0,44	0	12,92	8,34	0	12,38	6,41	0	12,32
03/09/2013 11:30	-0,43	0	13,07	5,15	0	12,38	7,08	0	12,32
03/09/2013 11:35	-0,44	0	13,17	2,93	0	12,38	6,79	0	12,33
03/09/2013 11:40	-0,43	0	13,2	1,34	0	12,39	7,38	0	12,32
03/09/2013 11:45	-0,42	0	13,22	-0,28	0	12,4	7,53	0	12,35
03/09/2013 11:50	-0,41	0	13,23	-0,54	0	12,4	7,82	0	12,35
03/09/2013 11:55	-0,42	0	13,24	-0,51	0	12,41	7,98	0	12,36
03/09/2013 12:00	-0,42	0	13,26	-0,49	0	12,41	7,35	0	12,37
03/09/2013 12:05	-0,41	0	13,27	-0,53	0	12,42	6,95	0	12,37
03/09/2013 12:10	-0,43	0	13,28	-0,54	0	12,42	7,03	0	12,38
03/09/2013 12:15	-0,41	0	13,3	-0,54	0	12,43	6,42	0	12,39
03/09/2013 12:20	-0,41	0	13,31	-0,54	0	12,43	6,01	0	12,39
03/09/2013 12:25	-0,41	0	13,33	-0,55	0	12,43	5,87	0	12,4
03/09/2013 12:30	-0,41	0	13,34	-0,53	0	12,43	5,61	0	12,4
03/09/2013 12:35	-0,39	0	13,36	-0,54	0	12,44	5,86	0	12,41
03/09/2013 12:40	-0,43	0	13,37	-0,5	0	12,44	5,5	0	12,41
03/09/2013 12:45	-0,41	0	13,38	-0,54	0	12,45	5,3	0	12,42
03/09/2013 12:50	-0,44	0	13,4	-0,54	0	12,45	5,82	0	12,42
03/09/2013 12:55	-0,4	0	13,42	-0,54	0	12,45	5,27	0	12,43
03/09/2013 13:00	-0,43	0	13,43	-0,56	0	12,45	5,4	0	12,43
03/09/2013 13:05	-0,43	0	13,45	-0,54	0	12,46	5,19	0	12,44
03/09/2013 13:10	-0,44	0	13,46	-0,54	0	12,46	5,14	0	12,44
03/09/2013 13:15	-0,41	0	13,48	-0,53	0	12,46	5,28	0	12,45
03/09/2013 13:20	-0,43	0	13,5	-0,54	0	12,46	5,23	0	12,45
03/09/2013 13:25	-0,41	0	13,52	-0,54	0	12,47	5,34	0	12,45
03/09/2013 13:30	-0,41	0	13,54	-0,54	0	12,46	5,62	0	12,46
03/09/2013 13:35	-0,41	0	13,56	0,78	0	12,47	5,83	0	12,46
03/09/2013 13:40	-0,41	0	13,58	1,28	0	12,46	5,99	0	12,46
03/09/2013 13:45	-0,39	0	13,61	2,48	0	12,47	5,45	0	12,47
03/09/2013 13:50	-0,4	0	13,63	2,9	0	12,46	5,39	0	12,46
03/09/2013 13:55	-0,4	0	13,66	7,33	0	12,46	5,75	0	12,47
03/09/2013 14:00	-0,42	0	13,68	5,86	0	12,46	5,84	0	12,47
03/09/2013 14:05	-0,4	0	13,71	7,2	0	12,46	5,59	0	12,47
03/09/2013 14:10	-0,41	0	13,73	10,8	0	12,46	5,48	0	12,47
03/09/2013 14:15	-0,38	0	13,76	13,85	0	12,46	5,39	0	12,47
03/09/2013 14:20	-0,41	0	13,78	11,53	0	12,45	6,01	0	12,47
03/09/2013 14:25	-0,4	0	13,79	10,54	0	12,45	6,57	0	12,47
03/09/2013 14:30	-0,41	0	13,79	12,2	0	12,44	6,38	0	12,47
03/09/2013 14:35	-0,39	0	13,79	13,76	0	12,44	6,06	0	12,47
03/09/2013 14:40	-0,42	0	13,79	15,6	0	12,43	6,5	0	12,47
03/09/2013 14:45	-0,4	0	13,79	15,14	0	12,43	6,95	0	12,47
03/09/2013 14:50	-0,41	0	13,68	15,12	0	12,42	7,31	0	12,46
03/09/2013 14:55	-0,42	0	13,19	15,8	0	12,41	7,26	0	12,46
03/09/2013 15:00	-0,43	0	13,08	15,16	0	12,41	7,06	0	12,46
03/09/2013 15:05	-0,41	0	13,05	17	0	12,4	7,26	0	12,46
03/09/2013 15:10	-0,42	0	13,03	16,2	0	12,38	7,34	0	12,45
03/09/2013 15:15	-0,42	0	13,03	18,85	0	12,37	7,76	0	12,45
03/09/2013 15:20	-0,43	0	13,03	17,61	0	12,36	7,79	0	12,44
03/09/2013 15:25	-0,41	0	13,03	16,88	0	12,35	7,65	0	12,44
03/09/2013 15:30	-0,42	0	13,03	17,25	0	12,33	7,88	0	12,43
03/09/2013 15:35	-0,42	0	13,03	20,17	0	12,32	7,66	0	12,43
03/09/2013 15:40	-0,43	0	13,03	22,02	0	12,3	7,66	0	12,42
03/09/2013 15:45	-0,44	0	13,03	20,91	0	12,28	7,99	0	12,41

03/09/2013 15:50	-0,43	0	13,03	19,15	0	12,25	8,29	0	12,4
03/09/2013 15:55	-0,42	0	13,03	24,02	0	12,23	8,33	0	12,39
03/09/2013 16:00	-0,41	0	13,03	21,37	0	12,21	8,08	0	12,38
03/09/2013 16:05	-0,41	0	13,02	21,97	0	12,2	8,38	0	12,37
03/09/2013 16:10	-0,4	0	13	19,48	0	12,18	10,81	2	12,35
03/09/2013 16:15	-0,42	0	13	18,16	0	12,17	8,67	0	12,34
03/09/2013 16:20	-0,41	0	12,99	18,84	0	12,15	8,8	0	12,33
03/09/2013 16:25	-0,41	0	12,99	19,24	0	12,15	12,45	2	12,3
03/09/2013 16:30	-0,44	0	12,98	18,8	0	12,13	8,07	0	12,3
03/09/2013 16:35	-0,41	0	12,98	20,66	2	12,12	7,78	0	12,29
03/09/2013 16:40	-0,22	0	12,98	19,65	0	12,12	7,65	0	12,28
03/09/2013 16:45	0,81	0	12,98	20,2	0	12,12	7,79	0	12,27
03/09/2013 16:50	3,17	0	12,98	21,15	2	12,1	7,27	0	12,25
03/09/2013 16:55	4,38	0	12,98	19,74	0	12,11	7,46	0	12,24
03/09/2013 17:00	6,24	0	12,97	21,81	0	12,1	7,55	0	12,23
03/09/2013 17:05	7,71	0	12,98	20,66	0	12,1	8,13	0	12,21
03/09/2013 17:10	8,84	0	12,97	20,54	0	12,09	7,16	0	12,2
03/09/2013 17:15	9,32	0	12,97	21,14	0	12,09	7,43	0	12,2
03/09/2013 17:20	9,88	0	12,96	19,74	0	12,09	7,28	0	12,19
03/09/2013 17:25	9,59	0	12,96	24,85	2	12,08	7,21	0	12,18
03/09/2013 17:30	10,09	0	12,95	22,54	0	12,08	6,75	0	12,18
03/09/2013 17:35	9,79	0	12,94	19,71	0	12,08	6,93	0	12,17
03/09/2013 17:40	9,85	0	12,93	19,59	0	12,07	6,61	0	12,17
03/09/2013 17:45	9,63	0	12,93	21,94	2	12,07	6,95	0	12,16
03/09/2013 17:50	9,58	0	12,92	25,64	2	12,04	6,86	0	12,16
03/09/2013 17:55	9,79	0	12,92	25,03	2	12,03	6,95	0	12,15
03/09/2013 18:00	9,48	0	12,91	20,44	0	12,06	7,31	0	12,15
03/09/2013 18:05	9,54	0	12,91	23,13	2	12,05	7,36	0	12,14
03/09/2013 18:10	9,95	0	12,9	22,81	0	12,05	7,36	0	12,14
03/09/2013 18:15	10,43	0	12,9	23,57	0	12,05	7,3	0	12,14
03/09/2013 18:20	10,22	0	12,9	22,95	0	12,04	7,63	0	12,13
03/09/2013 18:25	10,55	0	12,9	20,85	0	12,04	7,98	0	12,13
03/09/2013 18:30	10,92	0	12,89	20,03	0	12,04	8,14	0	12,12
03/09/2013 18:35	10,91	0	12,89	19,5	0	12,04	9,03	0	12,12
03/09/2013 18:40	11,41	0	12,88	20,37	0	12,03	8,63	0	12,11
03/09/2013 18:45	11,72	0	12,87	22,47	0	12,03	9,38	0	12,11
03/09/2013 18:50	13,36	0	12,87	21,3	0	12,03	9,97	0	12,11
03/09/2013 18:55	15,16	0	12,87	20,64	0	12,03	10,82	0	12,1
03/09/2013 19:00	15,72	0	12,86	20,86	0	12,02	11,72	0	12,1
03/09/2013 19:05	16,2	0	12,86	21,96	0	12,02	11,75	0	12,1
03/09/2013 19:10	16,01	0	12,86	19,63	0	12,02	12,04	0	12,09
03/09/2013 19:15	15,99	0	12,86	16,62	0	12,02	11,93	0	12,09
03/09/2013 19:20	16,52	0	12,85	15,26	0	12,01	11,92	0	12,08
03/09/2013 19:25	16,4	0	12,85	14,87	0	12,01	11,86	0	12,08
03/09/2013 19:30	15,63	0	12,85	14,92	0	12,01	11,71	0	12,08
03/09/2013 19:35	15,61	0	12,85	14,95	0	12,01	12,03	0	12,08
03/09/2013 19:40	15,24	0	12,84	14,8	0	12	11,85	0	12,07
03/09/2013 19:45	14,66	0	12,84	14,65	0	12	11,61	0	12,07
03/09/2013 19:50	15,04	0	12,84	14,81	0	12	12,06	0	12,07
03/09/2013 19:55	15,51	0	12,84	14,71	0	11,99	12,6	0	12,07
03/09/2013 20:00	15,52	0	12,83	14,98	0	12	12,65	0	12,06
03/09/2013 20:05	15,46	0	12,83	15,04	0	11,99	12,22	0	12,06
03/09/2013 20:10	14,74	0	12,83	15,1	0	11,99	11,43	0	12,06
03/09/2013 20:15	15,13	0	12,82	14,92	0	11,99	11,83	0	12,05
03/09/2013 20:20	13,89	0	12,82	15,07	0	11,99	11,71	0	12,05
03/09/2013 20:25	14	0	12,82	15,04	0	11,98	12	0	12,05
03/09/2013 20:30	14,42	0	12,82	15,14	0	11,98	11,65	0	12,04
03/09/2013 20:35	14,75	0	12,82	15,15	0	11,98	11,67	0	12,04
03/09/2013 20:40	14,28	0	12,81	15,26	0	11,98	11,79	0	12,04
03/09/2013 20:45	14,3	0	12,81	15,15	0	11,97	11,95	0	12,04
03/09/2013 20:50	14,24	0	12,81	14,91	0	11,97	11,53	0	12,03
03/09/2013 20:55	14,19	0	12,81	15,57	0	11,97	11,91	0	12,03
03/09/2013 21:00	13,9	0	12,8	15,47	0	11,97	11,64	0	12,03
03/09/2013 21:05	14,11	0	12,8	15,54	0	11,96	11,92	0	12,03
03/09/2013 21:10	13,71	0	12,8	15,62	0	11,96	12,06	0	12,02
03/09/2013 21:15	14,2	0	12,8	15,51	0	11,96	11,1	0	12,02
03/09/2013 21:20	13,83	0	12,79	17,11	0	11,96	10,67	0	12,02

03/09/2013 21:25	13,33	0	12,79	17,71	0	11,96	10,9	0	12,02
03/09/2013 21:30	12,89	0	12,79	17,11	0	11,95	11,28	0	12,02
03/09/2013 21:35	12,47	0	12,79	17,51	0	11,95	11,35	0	12,01
03/09/2013 21:40	13,02	0	12,79	18,65	0	11,95	11,14	0	12,01
03/09/2013 21:45	12,78	0	12,79	18,45	0	11,95	11,25	0	12,01
03/09/2013 21:50	12,93	0	12,78	17,41	0	11,95	11,11	0	12,01
03/09/2013 21:55	12,92	0	12,78	17,05	0	11,94	10,56	0	12
03/09/2013 22:00	12,55	0	12,78	16,81	0	11,94	10,62	0	12
03/09/2013 22:05	12,49	0	12,78	17,26	0	11,94	9,88	0	12
03/09/2013 22:10	12,38	0	12,77	17,63	0	11,94	9,81	0	12
03/09/2013 22:15	11,75	0	12,77	18,92	0	11,93	9,85	0	11,99
03/09/2013 22:20	12,07	0	12,77	20,09	0	11,93	9,18	0	11,99
03/09/2013 22:25	11,87	0	12,77	19,69	0	11,93	9,62	0	11,99
03/09/2013 22:30	11,37	0	12,77	18,23	0	11,93	9,74	0	11,99
03/09/2013 22:35	11,91	0	12,77	18,34	0	11,92	8,78	0	11,99
03/09/2013 22:40	12	0	12,76	19,28	0	11,92	9,1	0	11,99
03/09/2013 22:45	11,82	0	12,76	19,3	0	11,92	8,04	0	11,98
03/09/2013 22:50	11,82	0	12,76	17,38	0	11,92	8,69	0	11,98
03/09/2013 22:55	11,4	0	12,76	16,62	0	11,91	9,02	0	11,98
03/09/2013 23:00	11,49	0	12,75	16,01	0	11,91	8,46	0	11,98
03/09/2013 23:05	10,97	0	12,75	15,76	0	11,91	8,54	0	11,97
03/09/2013 23:10	10,58	0	12,75	15,87	0	11,91	8,02	0	11,97
03/09/2013 23:15	10,04	0	12,75	16,02	0	11,91	8,22	0	11,97
03/09/2013 23:20	10,54	0	12,75	15,87	0	11,9	7,61	0	11,97
03/09/2013 23:25	10,67	0	12,75	14,78	0	11,9	7,85	0	11,96
03/09/2013 23:30	10,85	0	12,74	14,72	0	11,9	7,29	0	11,96
03/09/2013 23:35	10,89	0	12,74	13,62	0	11,89	7,66	0	11,96
03/09/2013 23:40	11,06	0	12,74	12,98	0	11,9	7,08	0	11,96
03/09/2013 23:45	10,87	0	12,74	12,88	0	11,89	7,05	0	11,96
03/09/2013 23:50	10,96	0	12,74	12,85	0	11,89	6,73	0	11,96
03/09/2013 23:55	10,77	0	12,74	12,99	0	11,89	8,35	0	11,95
04/09/2013 0:00	10,59	0	12,73	13,54	0	11,89	7,77	0	11,95
04/09/2013 0:05	10,22	0	12,73	13,54	0	11,88	7,2	0	11,95
04/09/2013 0:10	10,49	0	12,73	13,25	0	11,88	7,14	0	11,95
04/09/2013 0:15	10,38	0	12,73	13,24	0	11,88	7,56	0	11,95
04/09/2013 0:20	10,76	0	12,72	13,39	0	11,88	8,51	0	11,94
04/09/2013 0:25	10,97	0	12,72	13,49	0	11,87	9,18	0	11,94
04/09/2013 0:30	11,04	0	12,72	13,41	0	11,87	8,61	0	11,94
04/09/2013 0:35	11,3	0	12,72	12,9	0	11,87	7,89	0	11,94
04/09/2013 0:40	11,98	0	12,72	12,28	0	11,87	9,75	0	11,94
04/09/2013 0:45	12,1	0	12,71	12,23	0	11,87	8,07	0	11,93
04/09/2013 0:50	12,46	0	12,71	12,12	0	11,87	6,81	0	11,93
04/09/2013 0:55	12,73	0	12,71	12	0	11,86	6,18	0	11,93
04/09/2013 1:00	13,05	0	12,71	12,06	0	11,86	7,37	0	11,93
04/09/2013 1:05	12,5	0	12,71	12,16	0	11,86	9,88	0	11,92
04/09/2013 1:10	12,49	0	12,71	12,26	0	11,86	8,29	0	11,93
04/09/2013 1:15	12,35	0	12,7	12,26	0	11,85	6,56	0	11,92
04/09/2013 1:20	11,52	0	12,7	12,26	0	11,85	8,95	0	11,92
04/09/2013 1:25	12,1	0	12,7	12,23	0	11,85	8,06	0	11,92
04/09/2013 1:30	11,99	0	12,7	12,37	0	11,85	6,89	0	11,91
04/09/2013 1:35	11,77	0	12,69	12,42	0	11,85	6,76	0	11,91
04/09/2013 1:40	12,64	0	12,7	12,34	0	11,85	7,99	0	11,91
04/09/2013 1:45	13,29	0	12,69	12,6	0	11,84	10,14	0	11,91
04/09/2013 1:50	13,41	0	12,69	12,4	0	11,85	9,8	0	11,91
04/09/2013 1:55	12,59	0	12,69	12,97	0	11,84	9,6	0	11,9
04/09/2013 2:00	14,01	0	12,69	13,27	0	11,84	8,36	0	11,9
04/09/2013 2:05	12,57	0	12,68	13,21	0	11,84	6,61	0	11,9
04/09/2013 2:10	13,36	0	12,68	12,71	0	11,84	6,1	0	11,9
04/09/2013 2:15	11,32	0	12,68	12,58	0	11,84	5,04	0	11,9
04/09/2013 2:20	9	0	12,68	12,05	0	11,84	4,99	0	11,89
04/09/2013 2:25	7,45	0	12,68	12,08	0	11,83	4,88	0	11,89
04/09/2013 2:30	6,56	0	12,67	12,1	0	11,83	4,95	0	11,89
04/09/2013 2:35	6,75	0	12,67	12,32	0	11,83	5,15	0	11,89
04/09/2013 2:40	7,76	0	12,67	12,31	0	11,83	4,78	0	11,89
04/09/2013 2:45	8,23	0	12,66	12,19	0	11,83	4,77	0	11,88
04/09/2013 2:50	7,17	0	12,67	12,24	0	11,83	4,49	0	11,88
04/09/2013 2:55	6,86	0	12,66	12,07	0	11,82	4,54	0	11,88

04/09/2013 3:00	7,47	0	12,66	12,18	0	11,82	4,57	0	11,88
04/09/2013 3:05	7,72	0	12,66	12,06	0	11,82	4,85	0	11,87
04/09/2013 3:10	7,49	0	12,66	12,08	0	11,82	6,43	0	11,87
04/09/2013 3:15	7,06	0	12,65	12,2	0	11,82	6,49	0	11,87
04/09/2013 3:20	7,01	0	12,65	12,11	0	11,82	6,21	0	11,87
04/09/2013 3:25	6,54	0	12,65	12,17	0	11,81	4,33	0	11,86
04/09/2013 3:30	6,51	0	12,65	12,27	0	11,82	3,56	0	11,86
04/09/2013 3:35	6,54	0	12,65	12,25	0	11,81	3,59	0	11,86
04/09/2013 3:40	6,24	0	12,65	12,36	0	11,81	3,84	0	11,86
04/09/2013 3:45	6,32	0	12,64	12,44	0	11,81	3,73	0	11,86
04/09/2013 3:50	6,16	0	12,64	12,26	0	11,81	4,01	0	11,86
04/09/2013 3:55	6,28	0	12,64	12,26	0	11,8	3,62	0	11,85
04/09/2013 4:00	6,61	0	12,64	12,21	0	11,8	3,5	0	11,85
04/09/2013 4:05	6,34	0	12,63	12,23	0	11,8	3,58	0	11,85
04/09/2013 4:10	6,4	0	12,63	12,22	0	11,8	3,45	0	11,85
04/09/2013 4:15	6,55	0	12,63	12,18	0	11,8	3,44	0	11,84
04/09/2013 4:20	6,39	0	12,63	12,23	0	11,79	3,56	0	11,84
04/09/2013 4:25	5,97	0	12,62	12,19	0	11,79	3,32	0	11,84
04/09/2013 4:30	6,27	0	12,62	12,13	0	11,79	3,41	0	11,84
04/09/2013 4:35	6,86	0	12,62	12,04	0	11,79	3,28	0	11,83
04/09/2013 4:40	6,27	0	12,62	12,04	0	11,79	3,31	0	11,83
04/09/2013 4:45	6,46	0	12,62	11,94	0	11,79	3,21	0	11,83
04/09/2013 4:50	6,89	0	12,62	11,95	0	11,78	3,94	0	11,83
04/09/2013 4:55	6,63	0	12,62	12,03	0	11,78	3,13	0	11,82
04/09/2013 5:00	6,5	0	12,62	11,97	0	11,78	3,3	0	11,82
04/09/2013 5:05	6,12	0	12,62	12,06	0	11,78	3,19	0	11,82
04/09/2013 5:10	5,78	0	12,62	11,86	0	11,78	3,76	0	11,82
04/09/2013 5:15	5,75	0	12,61	12,09	0	11,77	3,7	0	11,81
04/09/2013 5:20	5,76	0	12,62	11,89	0	11,77	3,34	0	11,81
04/09/2013 5:25	5,91	0	12,61	11,95	0	11,77	4,92	0	11,81
04/09/2013 5:30	6,02	0	12,61	12,06	0	11,77	5,86	0	11,81
04/09/2013 5:35	6,28	0	12,61	12,11	0	11,76	3,71	0	11,8
04/09/2013 5:40	6,31	0	12,61	11,94	0	11,76	3,35	0	11,8
04/09/2013 5:45	6,49	0	12,6	12,02	0	11,76	3,6	0	11,8
04/09/2013 5:50	7,06	0	12,61	11,93	0	11,76	3,49	0	11,8
04/09/2013 5:55	7,42	0	12,6	12,09	0	11,76	4,9	0	11,79
04/09/2013 6:00	7,36	0	12,6	12,25	0	11,76	5,68	0	11,79
04/09/2013 6:05	6,9	0	12,6	12,15	0	11,76	5,06	0	11,79
04/09/2013 6:10	6,96	0	12,6	12,31	0	11,76	6,39	0	11,79
04/09/2013 6:15	6,66	0	12,6	12,39	0	11,76	6,31	0	11,78
04/09/2013 6:20	6,64	0	12,6	12,25	0	11,76	5,99	0	11,78
04/09/2013 6:25	7,13	0	12,59	12,23	0	11,76	5,8	0	11,78
04/09/2013 6:30	7,79	0	12,6	12,55	0	11,76	6,58	0	11,79
04/09/2013 6:35	7,92	0	12,6	12,5	0	11,76	5,36	0	11,79
04/09/2013 6:40	8,21	0	12,6	12,36	0	11,76	4,95	0	11,8
04/09/2013 6:45	12,53	0	12,59	12,6	0	11,76	5,8	0	11,8
04/09/2013 6:50	19,85	0	12,59	12,56	0	11,76	5,56	0	11,8
04/09/2013 6:55	18,42	0	12,59	12,77	0	11,76	5,1	0	11,82
04/09/2013 7:00	14,59	0	12,59	12,57	0	11,76	4,54	0	11,82
04/09/2013 7:05	7,16	0	12,59	12,32	0	11,77	5,24	0	11,83
04/09/2013 7:10	6,48	0	12,6	12,2	0	11,77	6,98	0	11,88
04/09/2013 7:15	6,79	0	12,6	12,1	0	11,86	6,37	0	11,91
04/09/2013 7:20	7,29	0	12,59	12,28	0	11,91	4,84	0	11,93
04/09/2013 7:25	7,45	0	12,59	12,44	0	11,92	5,18	0	11,9
04/09/2013 7:30	7,36	0	12,59	12,16	0	11,98	7,01	0	11,92
04/09/2013 7:35	7,59	0	12,6	12,13	0	12,04	6,17	0	11,96
04/09/2013 7:40	6,91	0	12,6	12,28	0	12,06	5,99	0	11,99
04/09/2013 7:45	6,83	0	12,6	12,33	0	12,12	5,46	0	12,01
04/09/2013 7:50	7,21	0	12,6	12,49	0	12,14	5,5	0	12,03
04/09/2013 7:55	6,95	0	12,6	12,45	0	12,12	5,25	0	12,04
04/09/2013 8:00	6,89	0	12,61	12,5	0	12,15	5,59	0	12,05
04/09/2013 8:05	6,93	0	12,61	12,73	0	12,18	4,98	0	12,1
04/09/2013 8:10	6,74	0	12,61	12,65	0	12,18	4,59	0	12,12
04/09/2013 8:15	6,95	0	12,62	12,65	0	12,2	4,97	0	12,14
04/09/2013 8:20	7,5	0	12,63	12,84	0	12,21	4,35	0	12,17
04/09/2013 8:25	8,13	0	12,63	12,64	0	12,18	4,36	0	12,17
04/09/2013 8:30	7,82	0	12,64	12,72	0	12,19	4,93	0	12,18

04/09/2013 8:35	7,73	0	12,66	12,85	0	12,2	4,43	0	12,2
04/09/2013 8:40	7,6	0	12,68	12,88	0	12,24	4,59	0	12,22
04/09/2013 8:45	7,39	0	12,7	12,99	0	12,25	5,26	0	12,24
04/09/2013 8:50	7,67	0	12,69	12,92	0	12,26	5,3	0	12,22
04/09/2013 8:55	8,55	0	12,73	13,14	0	12,28	4,59	0	12,26
04/09/2013 9:00	7,64	0	12,75	13,03	0	12,28	4,4	0	12,27
04/09/2013 9:05	7,04	0	12,78	13,16	0	12,3	4,76	0	12,28
04/09/2013 9:10	6,72	0	12,82	13,22	0	12,27	7,43	0	12,3
04/09/2013 9:15	7,64	0	12,83	13,23	0	12,28	7,23	0	12,28
04/09/2013 9:20	NoData	NoData	NoData	13,04	0	12,3	6	0	12,29
04/09/2013 9:25	7,33	0	12,9	13,39	0	12,32	5,05	0	12,3
04/09/2013 9:30	6,85	0	12,93	13,45	0	12,34	5,07	0	12,3
04/09/2013 9:35	7,08	0	12,98	13,7	0	12,36	6,33	0	12,32
04/09/2013 9:40	7,36	0	13,03	13,89	0	12,36	5,74	0	12,36
04/09/2013 9:45	7,4	0	13,05	14,37	0	12,35	6,36	0	12,35
04/09/2013 9:50	7,19	0	13,05	13,77	0	12,39	7,71	0	12,34
04/09/2013 9:55	7,77	0	13,11	13,93	0	12,43	6,46	0	12,37
04/09/2013 10:00	7,68	0	13,14	13,77	0	12,44	6,6	0	12,41
04/09/2013 10:05	8,25	0	13,15	13,98	0	12,46	9,17	0	12,42
04/09/2013 10:10	9,17	0	13,09	13,83	0	12,44	7,97	0	12,42
04/09/2013 10:15	10,02	0	13,02	13,93	0	12,45	6,37	0	12,42
04/09/2013 10:20	9,25	0	12,98	14,04	0	12,5	6,4	0	12,43
04/09/2013 10:25	8,95	0	12,96	14,14	0	12,52	7,56	0	12,47
04/09/2013 10:30	3,7	0	12,96	14,34	0	12,46	6,14	0	12,47
04/09/2013 10:35	-0,13	0	12,95	14,31	0	12,47	6,28	0	12,38
04/09/2013 10:40	-0,38	0	12,94	14,45	0	12,55	5,66	0	12,49
04/09/2013 10:45	-0,22	0	12,94	14,29	0	12,57	6,14	0	12,51
04/09/2013 10:50	-0,4	0	12,95	13,21	0	12,5	6,09	0	12,52
04/09/2013 10:55	-0,44	0	12,96	9,6	0	12,41	8,14	0	12,41
04/09/2013 11:00	-0,45	0	12,95	10,22	0	12,57	6,07	0	12,47
04/09/2013 11:05	-0,44	0	12,93	9,29	0	12,58	5,86	0	12,54
04/09/2013 11:10	-0,42	0	12,92	5,49	0	12,52	5,96	0	12,49
04/09/2013 11:15	-0,41	0	12,95	4,42	0	12,61	6,23	0	12,51
04/09/2013 11:20	-0,43	0	12,95	1,72	0	12,61	NoData	NoData	NoData
04/09/2013 11:25	-0,43	0	13,01	0	0	12,61	NoData	NoData	NoData
04/09/2013 11:30	-0,44	0	13,14	-0,5	0	12,61	NoData	NoData	NoData
04/09/2013 11:35	-0,43	0	13,21	-0,51	0	12,62	NoData	NoData	NoData
04/09/2013 11:40	-0,44	0	13,23	-0,51	0	12,63	5,71	0	12,6
04/09/2013 11:45	-0,42	0	13,24	-0,5	0	12,57	5,66	0	12,61
04/09/2013 11:50	-0,43	0	13,21	-0,51	0	12,6	5,39	0	12,57
04/09/2013 11:55	-0,43	0	13,28	-0,51	0	12,64	5,91	0	12,63
04/09/2013 12:00	-0,42	0	13,17	-0,52	0	12,56	6,02	0	12,5
04/09/2013 12:05	-0,42	0	13,29	-0,5	0	12,64	8,07	0	12,62
04/09/2013 12:10	-0,43	0	13,23	-0,51	0	12,51	8,84	0	12,58
04/09/2013 12:15	-0,42	0	13,26	-0,5	0	12,67	9,21	0	12,56
04/09/2013 12:20	-0,43	0	13,33	-0,5	0	12,65	8,65	0	12,66
04/09/2013 12:25	-0,42	0	13,35	-0,5	0	12,67	7,92	0	12,65
04/09/2013 12:30	-0,43	0	13,37	NoData	NoData	NoData	7,86	0	12,67
04/09/2013 12:35	-0,42	0	13,31	-0,51	0	12,58	7,84	0	12,62
04/09/2013 12:40	-0,42	0	13,35	-0,51	0	12,63	7,48	0	12,6
04/09/2013 12:45	-0,4	0	13,35	-0,5	0	12,6	7,23	0	12,64
04/09/2013 12:50	-0,43	0	13,35	-0,51	0	12,68	7,32	0	12,61
04/09/2013 12:55	-0,43	0	13,44	-0,51	0	12,68	6,68	0	12,7
04/09/2013 13:00	-0,43	0	13,45	-0,51	0	12,67	6,75	0	12,69
04/09/2013 13:05	-0,43	0	13,47	-0,5	0	12,68	6,58	0	12,7
04/09/2013 13:10	-0,45	0	13,48	-0,5	0	12,68	6,47	0	12,69
04/09/2013 13:15	-0,42	0	13,5	-0,5	0	12,68	6,27	0	12,71
04/09/2013 13:20	-0,42	0	13,51	-0,5	0	12,68	6,47	0	12,7
04/09/2013 13:25	-0,41	0	13,54	-0,5	0	12,68	6,53	0	12,71
04/09/2013 13:30	-0,43	0	13,55	-0,5	0	12,68	6,86	0	12,71
04/09/2013 13:35	-0,43	0	13,58	-0,5	0	12,68	6,41	0	12,72
04/09/2013 13:40	NoData	NoData	NoData	-0,51	0	12,68	6,33	0	12,71
04/09/2013 13:45	-0,41	0	13,63	-0,49	0	12,69	6,17	0	12,72
04/09/2013 13:50	-0,42	0	13,65	-0,51	0	12,68	6,11	0	12,72
04/09/2013 13:55	-0,41	0	13,68	-0,49	0	12,68	6,12	0	12,72
04/09/2013 14:00	-0,42	0	13,7	NoData	NoData	NoData	5,95	0	12,72
04/09/2013 14:05	-0,42	0	13,74	-0,54	0	12,66	6,81	0	12,72

04/09/2013 14:10	-0,39	0	13,7	-0,52	0	12,61	6,1	0	12,71
04/09/2013 14:15	-0,4	0	13,63	-0,53	0	12,63	5,99	0	12,68
04/09/2013 14:20	-0,4	0	13,69	-0,52	0	12,67	6,44	0	12,67
04/09/2013 14:25	-0,39	0	13,75	-0,55	0	12,67	6,26	0	12,74
04/09/2013 14:30	-0,4	0	13,7	-0,53	0	12,62	6,14	0	12,7
04/09/2013 14:35	-0,41	0	13,64	-0,54	0	12,65	6,27	0	12,69
04/09/2013 14:40	-0,43	0	13,16	-0,52	0	12,65	5,96	0	12,72
04/09/2013 14:45	-0,42	0	13,07	-0,54	0	12,64	6,14	0	12,72
04/09/2013 14:50	-0,44	0	13,04	-0,51	0	12,63	6,27	0	12,71
04/09/2013 14:55	-0,43	0	13,03	-0,53	0	12,62	6,31	0	12,71
04/09/2013 15:00	-0,42	0	13,01	-0,52	0	12,6	5,95	0	12,7
04/09/2013 15:05	-0,43	0	13,01	-0,54	0	12,52	5,91	0	12,67
04/09/2013 15:10	-0,42	0	13	-0,52	0	12,6	5,81	0	12,65
04/09/2013 15:15	-0,43	0	12,99	-0,53	0	12,6	5,74	0	12,71
04/09/2013 15:20	-0,43	0	12,98	NoData	NoData	NoData	5,81	0	12,7
04/09/2013 15:25	-0,43	0	12,98	NoData	NoData	NoData	6,18	0	12,64
04/09/2013 15:30	-0,43	0	12,97	-0,53	0	12,55	6,11	0	12,67
04/09/2013 15:35	-0,42	0	12,97	-0,53	0	12,53	5,9	0	12,68
04/09/2013 15:40	-0,44	0	12,96	-0,53	0	12,51	6,06	0	12,66
04/09/2013 15:45	NoData	NoData	NoData	-0,55	0	12,47	6,4	0	12,65
04/09/2013 15:50	-0,43	0	12,99	-0,53	0	12,45	6,83	0	12,64
04/09/2013 15:55	-0,4	0	12,99	-0,53	0	12,4	7,21	0	12,63
04/09/2013 16:00	-0,42	0	12,99	-0,53	0	12,37	7,31	0	12,56
04/09/2013 16:05	-0,43	0	12,99	-0,53	0	12,37	7,41	0	12,59
04/09/2013 16:10	-0,42	0	12,98	1,79	0	12,36	6,89	0	12,59
04/09/2013 16:15	-0,43	0	12,98	3,51	0	12,34	6,89	0	12,57
04/09/2013 16:20	NoData	NoData	NoData	3,02	0	12,33	6,86	0	12,56
04/09/2013 16:25	NoData	NoData	NoData	4,09	0	12,32	8,06	0	12,55
04/09/2013 16:30	-0,41	0	12,96	5,82	0	12,31	7,79	0	12,53
04/09/2013 16:35	-0,42	0	12,95	11,08	0	12,3	6,71	0	12,51
04/09/2013 16:40	-0,43	0	12,95	11,79	0	12,3	7,51	0	12,49
04/09/2013 16:45	-0,42	0	12,95	15,97	0	12,29	7,33	0	12,48
04/09/2013 16:50	-0,44	0	12,94	15,23	0	12,29	7,23	0	12,46
04/09/2013 16:55	-0,44	0	12,94	19,9	0	12,28	7,49	0	12,45
04/09/2013 17:00	-0,42	0	12,94	19,71	0	12,28	8,04	0	12,43
04/09/2013 17:05	-0,28	0	12,94	34,4	2	12,17	9,99	0	12,41
04/09/2013 17:10	1,31	0	12,94	24,84	2	12,26	9,36	0	12,4
04/09/2013 17:15	3,91	0	12,93	23,43	0	12,26	6,15	0	12,39
04/09/2013 17:20	5,64	0	12,92	25,66	2	12,26	6,18	0	12,38
04/09/2013 17:25	7,62	0	12,91	22,89	0	12,26	6,65	0	12,38
04/09/2013 17:30	8,08	0	12,91	26,92	2	12,22	6,7	0	12,37
04/09/2013 17:35	8,62	0	12,9	23,94	2	12,24	7,01	0	12,36
04/09/2013 17:40	8,81	0	12,9	20,1	0	12,25	6,96	0	12,36
04/09/2013 17:45	9,11	0	12,89	20,03	0	12,24	6,45	0	12,35
04/09/2013 17:50	9,26	0	12,88	22,97	0	12,24	6,41	0	12,34
04/09/2013 17:55	8,99	0	12,88	20,61	0	12,23	6,4	0	12,34
04/09/2013 18:00	8,86	0	12,88	20,1	0	12,23	6,37	0	12,34
04/09/2013 18:05	8,52	0	12,87	19,94	0	12,22	6,28	0	12,33
04/09/2013 18:10	8,59	0	12,87	20,3	0	12,23	5,93	0	12,33
04/09/2013 18:15	8,62	0	12,87	21,93	0	12,22	5,98	0	12,32
04/09/2013 18:20	8,89	0	12,87	20,91	0	12,22	5,89	0	12,32
04/09/2013 18:25	9,04	0	12,86	26,19	2	12,2	5,77	0	12,32
04/09/2013 18:30	8,8	0	12,86	23,17	2	12,21	5,95	0	12,31
04/09/2013 18:35	8,96	0	12,85	21,94	2	12,21	6,55	0	12,31
04/09/2013 18:40	9,33	0	12,85	22,25	0	12,21	6,2	0	12,31
04/09/2013 18:45	9,46	0	12,85	21,84	0	12,2	6,08	0	12,3
04/09/2013 18:50	10,26	0	12,85	21,01	0	12,2	5,98	0	12,3
04/09/2013 18:55	10,72	0	12,84	20,61	0	12,2	6,27	0	12,3
04/09/2013 19:00	11,16	0	12,84	23,33	0	12,2	6,76	0	12,29
04/09/2013 19:05	11	0	12,84	22,37	0	12,19	7,44	0	12,29
04/09/2013 19:10	10,56	0	12,84	22,86	0	12,19	7,31	0	12,29
04/09/2013 19:15	10,43	0	12,83	23,4	0	12,19	7,38	0	12,28
04/09/2013 19:20	11,38	0	12,83	23,76	0	12,18	7,95	0	12,28
04/09/2013 19:25	12,59	0	12,83	23,38	0	12,18	7,65	0	12,28
04/09/2013 19:30	12,93	0	12,83	22,99	0	12,18	8,35	0	12,27
04/09/2013 19:35	12,07	0	12,82	22,36	0	12,18	8,32	0	12,27
04/09/2013 19:40	12	0	12,82	22,27	0	12,17	8,67	0	12,27

04/09/2013 19:45	12,14	0	12,82	22,25	0	12,17	8,01	0	12,27
04/09/2013 19:50	12,37	0	12,81	22,96	0	12,17	7,32	0	12,26
04/09/2013 19:55	13,03	0	12,81	23,59	0	12,16	8,45	0	12,26
04/09/2013 20:00	13,03	0	12,81	24,07	2	12,16	8,52	0	12,26
04/09/2013 20:05	13,28	0	12,8	25,04	0	12,16	8,64	0	12,26
04/09/2013 20:10	12,56	0	12,8	25,45	2	12,16	8,71	0	12,25
04/09/2013 20:15	11,17	0	12,8	25,27	0	12,16	8,15	0	12,25
04/09/2013 20:20	10,23	0	12,8	24,15	2	12,15	7,8	0	12,25
04/09/2013 20:25	9,54	0	12,8	23,58	0	12,15	7,05	0	12,25
04/09/2013 20:30	9,46	0	12,8	21,85	0	12,15	6,95	0	12,24
04/09/2013 20:35	9,42	0	12,79	20,45	0	12,15	6,95	0	12,24
04/09/2013 20:40	9,51	0	12,79	19,81	0	12,14	6,99	0	12,24
04/09/2013 20:45	9,26	0	12,79	19,62	0	12,14	6,93	0	12,24
04/09/2013 20:50	9,29	0	12,79	19,82	0	12,14	6,82	0	12,23
04/09/2013 20:55	9,28	0	12,78	19,33	0	12,14	6,79	0	12,23
04/09/2013 21:00	9,47	0	12,78	19,92	0	12,14	6,81	0	12,23
04/09/2013 21:05	9,59	0	12,78	20,41	0	12,13	6,39	0	12,23
04/09/2013 21:10	10,17	0	12,78	20,9	0	12,13	6,4	0	12,22
04/09/2013 21:15	10,29	0	12,77	20,5	0	12,13	6,15	0	12,22
04/09/2013 21:20	11,06	0	12,77	20,11	0	12,13	6,78	0	12,22
04/09/2013 21:25	10,63	0	12,77	18,68	0	12,12	6,41	0	12,22
04/09/2013 21:30	10,52	0	12,77	19,77	0	12,12	6,23	0	12,22
04/09/2013 21:35	10,25	0	12,77	19,92	0	12,12	7,16	0	12,21
04/09/2013 21:40	10,4	0	12,77	20,24	0	12,12	7,05	0	12,21
04/09/2013 21:45	10,73	0	12,76	19,63	0	12,12	6,35	0	12,21
04/09/2013 21:50	NoData	NoData	NoData	17,48	0	12,11	6,64	0	12,21
04/09/2013 21:55	11,07	0	12,76	16,87	0	12,11	6,27	0	12,2
04/09/2013 22:00	9,99	0	12,76	16,88	0	12,11	6,04	0	12,2
04/09/2013 22:05	10,1	0	12,75	18,06	0	12,11	6,06	0	12,2
04/09/2013 22:10	9,97	0	12,75	18,44	0	12,11	8,05	0	12,2
04/09/2013 22:15	10,01	0	12,75	17,54	0	12,1	8,04	0	12,19
04/09/2013 22:20	9,5	0	12,75	16,32	0	12,1	8,1	0	12,19
04/09/2013 22:25	9,32	0	12,74	16,5	0	12,1	7,77	0	12,19
04/09/2013 22:30	9,68	0	12,74	17,67	0	12,1	7,66	0	12,19
04/09/2013 22:35	10,14	0	12,74	18,01	0	12,09	7,75	0	12,18
04/09/2013 22:40	8,81	0	12,74	19,38	0	12,09	8,09	0	12,18
04/09/2013 22:45	NoData	NoData	NoData	18,43	0	12,09	7,92	0	12,18
04/09/2013 22:50	8,24	0	12,74	17,22	0	12,09	7,89	0	12,18
04/09/2013 22:55	8,85	0	12,73	15,76	0	12,08	8,19	0	12,17
04/09/2013 23:00	10,2	0	12,73	15,54	0	12,08	8,53	0	12,17
04/09/2013 23:05	11,95	0	12,73	16,22	0	12,08	8,18	0	12,17
04/09/2013 23:10	NoData	NoData	NoData	16,51	0	12,08	7,65	0	12,17
04/09/2013 23:15	10,87	0	12,72	16,14	0	12,08	6,97	0	12,16
04/09/2013 23:20	10,04	0	12,72	15,14	0	12,07	7,38	0	12,16
04/09/2013 23:25	10,22	0	12,72	14,68	0	12,07	7,59	0	12,16
04/09/2013 23:30	10,08	0	12,72	14,73	0	12,07	7,68	0	12,16
04/09/2013 23:35	9,49	0	12,71	14,3	0	12,07	7,98	0	12,15
04/09/2013 23:40	NoData	NoData	NoData	14,39	0	12,07	8,09	0	12,15
04/09/2013 23:45	NoData	NoData	NoData	14,37	0	12,06	7,65	0	12,15
04/09/2013 23:50	9,45	0	12,71	14,44	0	12,06	7,4	0	12,15
04/09/2013 23:55	9,7	0	12,71	13,31	0	12,06	7,43	0	12,14
05/09/2013 0:00	9,23	0	12,71	13,02	0	12,06	7,23	0	12,15
05/09/2013 0:05	8,61	0	12,7	13,32	0	12,05	7,05	0	12,14
05/09/2013 0:10	8,4	0	12,7	13,6	0	12,05	6,66	0	12,14
05/09/2013 0:15	8,52	0	12,7	13,37	0	12,05	6,3	0	12,13
05/09/2013 0:20	8,21	0	12,7	13,44	0	12,05	6,41	0	12,14
05/09/2013 0:25	8,36	0	12,69	13,78	0	12,05	6,45	0	12,13
05/09/2013 0:30	NoData	NoData	NoData	13,69	0	12,05	6,18	0	12,13
05/09/2013 0:35	9,3	0	12,69	13,96	0	12,05	6,15	0	12,13
05/09/2013 0:40	9,21	0	12,69	13,93	0	12,05	6,24	0	12,13
05/09/2013 0:45	8,82	0	12,69	14,18	0	12,05	6,33	0	12,12
05/09/2013 0:50	8,72	0	12,69	14,18	0	12,05	6,38	0	12,12
05/09/2013 0:55	8,41	0	12,68	14,16	0	12,04	6,03	0	12,12
05/09/2013 1:00	9,3	0	12,68	14,42	0	12,04	5,26	0	12,12
05/09/2013 1:05	8,21	0	12,68	14,38	0	12,04	4,75	0	12,11
05/09/2013 1:10	6,62	0	12,68	14,16	0	12,04	4,51	0	12,11
05/09/2013 1:15	6,52	0	12,68	14,06	0	12,04	4,51	0	12,11

05/09/2013 1:20	6,66	0	12,68	13,79	0	12,04	4,48	0	12,11
05/09/2013 1:25	6,38	0	12,67	13,71	0	12,03	4,26	0	12,1
05/09/2013 1:30	6,09	0	12,67	13,91	0	12,03	4,23	0	12,1
05/09/2013 1:35	6,32	0	12,67	13,94	0	12,03	4,18	0	12,1
05/09/2013 1:40	6,57	0	12,67	13,99	0	12,03	4,45	0	12,11
05/09/2013 1:45	6,76	0	12,67	14,24	0	12,03	4,13	0	12,11
05/09/2013 1:50	6,5	0	12,66	13,98	0	12,03	4,08	0	12,11
05/09/2013 1:55	6,51	0	12,66	13,98	0	12,03	4,01	0	12,1
05/09/2013 2:00	6,24	0	12,66	14,06	0	12,02	4,19	0	12,1
05/09/2013 2:05	6,17	0	12,66	14,44	0	12,02	4,24	0	12,1
05/09/2013 2:10	6,22	0	12,66	14,73	0	12,02	3,96	0	12,1
05/09/2013 2:15	6,22	0	12,65	14,08	0	12,02	4	0	12,09
05/09/2013 2:20	6,22	0	12,65	13,53	0	12,02	3,9	0	12,09
05/09/2013 2:25	6,5	0	12,65	13,16	0	12,01	4,12	0	12,09
05/09/2013 2:30	6,74	0	12,65	12,72	0	12,01	4,1	0	12,09
05/09/2013 2:35	6,57	0	12,64	12,9	0	12,01	4,25	0	12,08
05/09/2013 2:40	6,54	0	12,64	12,42	0	12,01	4,34	0	12,09
05/09/2013 2:45	NoData	NoData	NoData	12,27	0	12,01	4,53	0	12,08
05/09/2013 2:50	7,14	0	12,64	11,99	0	12,01	4,35	0	12,08
05/09/2013 2:55	7,09	0	12,64	12,07	0	12	4,28	0	12,08
05/09/2013 3:00	7,28	0	12,63	12,24	0	12	4,34	0	12,08
05/09/2013 3:05	7,07	0	12,63	12,56	0	12	4,53	0	12,07
05/09/2013 3:10	7,68	0	12,63	12,55	0	12	4,03	0	12,08
05/09/2013 3:15	6,6	0	12,63	13,46	0	12	4,27	0	12,07
05/09/2013 3:20	6,59	0	12,63	13,29	0	12	4,74	0	12,07
05/09/2013 3:25	7,04	0	12,62	13,66	0	11,99	4,45	0	12,07
05/09/2013 3:30	7,11	0	12,62	13,61	0	11,99	4,33	0	12,07
05/09/2013 3:35	7,37	0	12,62	13,82	0	11,99	3,88	0	12,06
05/09/2013 3:40	7,17	0	12,62	13,9	0	11,99	3,7	0	12,05
05/09/2013 3:45	7	0	12,61	13,95	0	11,99	3,85	0	12,05
05/09/2013 3:50	7,58	0	12,61	14,09	0	11,98	3,99	0	12,05
05/09/2013 3:55	8,07	0	12,61	14,18	0	11,98	4,2	0	12,05
05/09/2013 4:00	7,78	0	12,61	14,49	0	11,98	4,47	0	12,05
05/09/2013 4:05	7,53	0	12,61	14,59	0	11,98	4,77	0	12,04
05/09/2013 4:10	7,65	0	12,61	14,45	0	11,98	5,08	0	12,04
05/09/2013 4:15	NoData	NoData	NoData	14,51	0	11,98	4,88	0	12,04
05/09/2013 4:20	7,8	0	12,6	14,35	0	11,97	5,23	0	12,04
05/09/2013 4:25	NoData	NoData	NoData	14,56	0	11,98	4,92	0	12,03
05/09/2013 4:30	7,99	0	12,6	14,13	0	11,97	5,33	0	12,04
05/09/2013 4:35	8,13	0	12,59	14,18	0	11,97	5,11	0	12,03
05/09/2013 4:40	8,03	0	12,6	14,2	0	11,97	4,83	0	12,03
05/09/2013 4:45	7,84	0	12,59	14,22	0	11,97	4,79	0	12,03
05/09/2013 4:50	7,58	0	12,59	14,36	0	11,96	4,62	0	12,03
05/09/2013 4:55	7,32	0	12,59	14,4	0	11,96	4,49	0	12,02
05/09/2013 5:00	NoData	NoData	NoData	14,02	0	11,96	4,46	0	12,02
05/09/2013 5:05	7,2	0	12,58	14,01	0	11,96	4,52	0	12,02
05/09/2013 5:10	7,17	0	12,58	13,77	0	11,96	4,66	0	12,02
05/09/2013 5:15	7,05	0	12,58	13,16	0	11,96	4,65	0	12,02
05/09/2013 5:20	7,13	0	12,58	13,12	0	11,95	5,15	0	12,02
05/09/2013 5:25	7,12	0	12,58	13,11	0	11,95	4,74	0	12,01
05/09/2013 5:30	7,11	0	12,58	13,11	0	11,95	4,36	0	12,01
05/09/2013 5:35	6,94	0	12,58	12,75	0	11,95	4,37	0	12,01
05/09/2013 5:40	6,93	0	12,57	12,97	0	11,94	4,52	0	12,01
05/09/2013 5:45	7,1	0	12,57	12,68	0	11,94	4,15	0	12
05/09/2013 5:50	NoData	NoData	NoData	12,83	0	11,94	4,04	0	12,01
05/09/2013 5:55	7	0	12,57	12,75	0	11,94	4,04	0	12
05/09/2013 6:00	6,97	0	12,57	12,59	0	11,94	5,14	0	12
05/09/2013 6:05	7,23	0	12,57	12,87	0	11,94	4,94	0	12
05/09/2013 6:10	7,72	0	12,57	12,98	0	11,93	4,35	0	12
05/09/2013 6:15	NoData	NoData	NoData	12,98	0	11,93	4,07	0	11,99
05/09/2013 6:20	7,31	0	12,56	12,77	0	11,93	3,8	0	11,99
05/09/2013 6:25	7,24	0	12,56	12,97	0	11,93	3,75	0	11,99
05/09/2013 6:30	6,97	0	12,56	12,94	0	11,93	3,72	0	12
05/09/2013 6:35	6,91	0	12,56	12,9	0	11,93	3,69	0	12
05/09/2013 6:40	6,95	0	12,56	13,01	0	11,93	3,69	0	12,01
05/09/2013 6:45	6,88	0	12,56	12,78	0	11,93	3,91	0	12,02
05/09/2013 6:50	7,27	0	12,56	12,83	0	11,93	3,62	0	12,03

05/09/2013 6:55	7,31	0	12,57	12,84	0	11,93	3,59	0	12,04
05/09/2013 7:00	7,11	0	12,56	12,69	0	11,93	3,46	0	12,06
05/09/2013 7:05	7,08	0	12,57	12,92	0	11,93	3,38	0	12,08
05/09/2013 7:10	9,87	0	12,57	12,84	0	11,92	3,76	0	12,11
05/09/2013 7:15	7,28	0	12,57	12,76	0	12,03	3,86	0	12,13
05/09/2013 7:20	7,62	0	12,57	12,68	0	12,12	3,94	0	12,15
05/09/2013 7:25	8,2	0	12,57	12,99	0	12,18	3,95	0	12,17
05/09/2013 7:30	8,09	0	12,57	12,74	0	12,23	3,85	0	12,2
05/09/2013 7:35	7,99	0	12,57	12,65	0	12,28	4,28	0	12,23
05/09/2013 7:40	8,27	0	12,57	12,91	0	12,31	4,38	0	12,25
05/09/2013 7:45	8,19	0	12,58	13,09	0	12,34	4,37	0	12,28
05/09/2013 7:50	7,58	0	12,57	13,09	0	12,36	5,24	0	12,31
05/09/2013 7:55	7,92	0	12,58	12,83	0	12,38	4,32	0	12,35
05/09/2013 8:00	9,42	0	12,58	12,84	0	12,39	4,54	0	12,37
05/09/2013 8:05	10	0	12,58	12,77	0	12,4	5,28	0	12,4
05/09/2013 8:10	9,26	0	12,58	13,08	0	12,41	4,56	0	12,42
05/09/2013 8:15	7,52	0	12,58	13,46	0	12,43	4,9	0	12,44
05/09/2013 8:20	7,9	0	12,59	13,98	0	12,44	4,92	0	12,46
05/09/2013 8:25	7,66	0	12,59	14,18	0	12,45	5,34	0	12,48
05/09/2013 8:30	NoData	NoData	NoData	14,16	0	12,47	5,16	0	12,5
05/09/2013 8:35	NoData	NoData	NoData	13,92	0	12,48	6,01	0	12,51
05/09/2013 8:40	8,11	0	12,63	13,83	0	12,49	5,77	0	12,52
05/09/2013 8:45	8,97	0	12,65	13,9	0	12,51	5,85	0	12,54
05/09/2013 8:50	9,78	0	12,66	14,41	0	12,52	5,54	0	12,55
05/09/2013 8:55	8,59	0	12,69	14,28	0	12,53	5,85	0	12,56
05/09/2013 9:00	8,68	0	12,71	14,15	0	12,54	5,57	0	12,57
05/09/2013 9:05	8,61	0	12,76	14,32	0	12,56	5,72	0	12,58
05/09/2013 9:10	8,32	0	12,78	14,19	0	12,57	6,47	0	12,59
05/09/2013 9:15	8,55	0	12,83	14,22	0	12,59	7,94	0	12,61
05/09/2013 9:20	10,93	0	12,87	15,66	0	12,6	6,43	0	12,62
05/09/2013 9:25	11	0	12,91	15,83	0	12,62	5,72	0	12,63
05/09/2013 9:30	10,29	0	12,95	16,49	0	12,63	6,83	0	12,64
05/09/2013 9:35	8,67	0	13	15,92	0	12,65	6,13	0	12,66
05/09/2013 9:40	8,85	0	13,04	15,78	0	12,66	5,98	0	12,67
05/09/2013 9:45	8,62	0	13,07	14,92	0	12,68	5,93	0	12,68
05/09/2013 9:50	8,43	0	13,1	15,05	0	12,69	6,39	0	12,69
05/09/2013 9:55	8,49	0	13,13	14,53	0	12,71	5,95	0	12,71
05/09/2013 10:00	8,19	0	13,15	14,42	0	12,72	6,21	0	12,72
05/09/2013 10:05	8,6	0	13,15	14,28	0	12,74	6,54	0	12,73
05/09/2013 10:10	8,43	0	13,07	14,97	0	12,74	6,99	0	12,75
05/09/2013 10:15	8,46	0	13	15,52	0	12,75	8,07	0	12,76
05/09/2013 10:20	9,22	0	12,96	15,67	0	12,76	7,53	0	12,77
05/09/2013 10:25	9,26	0	12,94	15,64	0	12,78	6,52	0	12,78
05/09/2013 10:30	8,38	0	12,93	15,24	0	12,79	7,48	0	12,79
05/09/2013 10:35	8,54	0	12,93	15,31	0	12,8	7,44	0	12,8
05/09/2013 10:40	8,41	0	12,92	15,51	0	12,81	6,62	0	12,81
05/09/2013 10:45	8,48	0	12,91	15,34	0	12,82	6,21	0	12,83
05/09/2013 10:50	9,08	0	12,91	14,74	0	12,83	6,18	0	12,84
05/09/2013 10:55	8,25	0	12,91	15,01	0	12,84	6,01	0	12,85
05/09/2013 11:00	8,61	0	12,89	14,94	0	12,84	6,02	0	12,86
05/09/2013 11:05	8,97	0	12,87	15,14	0	12,85	6,85	0	12,87
05/09/2013 11:10	9,31	0	12,88	15,51	0	12,86	7,2	0	12,88
05/09/2013 11:15	8,49	0	12,9	NoData	NoData	NoData	7,32	0	12,89
05/09/2013 11:20	8,74	0	12,92	16,45	0	12,87	6,97	0	12,89
05/09/2013 11:25	8,64	0	13,02	16,05	0	12,88	7,09	0	12,9
05/09/2013 11:30	NoData	NoData	NoData	16,35	0	12,88	7,19	0	12,91
05/09/2013 11:35	9,61	0	13,22	16,13	0	12,89	7,23	0	12,92
05/09/2013 11:40	9,15	0	13,24	16,97	0	12,89	7,74	0	12,92
05/09/2013 11:45	8,87	0	13,25	16,85	0	12,9	8,06	0	12,93
05/09/2013 11:50	NoData	NoData	NoData	16,94	0	12,9	7,71	0	12,93
05/09/2013 11:55	NoData	NoData	NoData	17,71	0	12,91	7,87	0	12,94
05/09/2013 12:00	6,96	0	13,29	17,11	0	12,91	7,06	0	12,95
05/09/2013 12:05	5,86	0	13,31	16,55	0	12,92	6,29	0	12,96
05/09/2013 12:10	3,95	0	13,32	NoData	NoData	NoData	6,13	0	12,96
05/09/2013 12:15	2,93	0	13,33	NoData	NoData	NoData	6,16	0	12,97
05/09/2013 12:20	1,76	0	13,35	15,34	0	12,93	5,7	0	12,97
05/09/2013 12:25	0,19	0	13,36	15,02	0	12,93	5,85	0	12,98

05/09/2013 12:30	0,64	0	13,38	14,37	0	12,94	5,29	0	12,98
05/09/2013 12:35	-0,34	0	13,39	13,96	0	12,94	5,38	0	12,99
05/09/2013 12:40	-0,43	0	13,41	14,47	0	12,94	5,66	0	12,99
05/09/2013 12:45	-0,44	0	13,43	14,3	0	12,94	5,41	0	13
05/09/2013 12:50	-0,43	0	13,44	14,13	0	12,95	5,29	0	13
05/09/2013 12:55	-0,43	0	13,46	14,31	0	12,95	6,95	0	13,01
05/09/2013 13:00	NoData	NoData	NoData	13,81	0	12,95	5,89	0	13,01
05/09/2013 13:05	-0,43	0	13,49	13,83	0	12,95	5,63	0	13,02
05/09/2013 13:10	-0,42	0	13,51	NoData	NoData	NoData	5,72	0	13,02
05/09/2013 13:15	-0,4	0	13,53	13,76	0	12,95	5,66	0	13,02
05/09/2013 13:20	-0,42	0	13,55	13,7	0	12,95	5,64	0	13,02
05/09/2013 13:25	-0,43	0	13,57	13,47	0	12,95	5,57	0	13,03
05/09/2013 13:30	NoData	NoData	NoData	13,64	0	12,95	5,75	0	13,03
05/09/2013 13:35	-0,42	0	13,62	13,81	0	12,95	5,45	0	13,03
05/09/2013 13:40	-0,41	0	13,64	14,04	0	12,95	5,47	0	13,03
05/09/2013 13:45	-0,41	0	13,67	13,59	0	12,94	5,5	0	13,03
05/09/2013 13:50	-0,43	0	13,69	14,04	0	12,95	5,51	0	13,03
05/09/2013 13:55	-0,42	0	13,72	13,79	0	12,94	5,47	0	13,04
05/09/2013 14:00	-0,4	0	13,74	14	0	12,94	5,86	0	13,03
05/09/2013 14:05	-0,42	0	13,77	13,81	0	12,93	6,07	0	13,04
05/09/2013 14:10	-0,4	0	13,78	14,16	0	12,93	5,72	0	13,03
05/09/2013 14:15	NoData	NoData	NoData	13,99	0	12,92	5,89	0	13,04
05/09/2013 14:20	-0,41	0	13,79	14,33	0	12,92	5,66	0	13,03
05/09/2013 14:25	-0,39	0	13,79	14,4	0	12,92	5,87	0	13,03
05/09/2013 14:30	NoData	NoData	NoData	14,17	0	12,91	6,01	0	13,03
05/09/2013 14:35	-0,4	0	13,79	14,2	0	12,9	6,27	0	13,03
05/09/2013 14:40	-0,42	0	13,36	14,33	0	12,9	6,1	0	13,02
05/09/2013 14:45	-0,41	0	13,1	14,64	0	12,89	6,45	0	13,02
05/09/2013 14:50	-0,44	0	13,06	14,73	0	12,89	5,97	0	13,01
05/09/2013 14:55	-0,41	0	13,04	14,28	0	12,88	5,96	0	13,01
05/09/2013 15:00	-0,42	0	13,02	14,82	0	12,87	6,19	0	13,01
05/09/2013 15:05	-0,43	0	13,01	14,39	0	12,86	6,11	0	13
05/09/2013 15:10	-0,43	0	13	14,6	0	12,85	6	0	13
05/09/2013 15:15	NoData	NoData	NoData	14,48	0	12,83	6,02	0	12,99
05/09/2013 15:20	-0,43	0	13,03	14,55	0	12,82	6,27	0	12,98
05/09/2013 15:25	-0,42	0	13,03	14,43	0	12,8	6,05	0	12,98
05/09/2013 15:30	-0,43	0	13,03	14,59	0	12,78	6,18	0	12,97
05/09/2013 15:35	-0,41	0	13,03	14,13	0	12,76	6,25	0	12,96
05/09/2013 15:40	-0,43	0	13,03	14,24	0	12,73	6,41	0	12,95
05/09/2013 15:45	-0,44	0	13,03	22,07	2	12,66	6,47	0	12,94
05/09/2013 15:50	-0,44	0	13,03	16,56	0	12,64	6,49	0	12,93
05/09/2013 15:55	-0,44	0	13,03	15,65	0	12,62	6,65	0	12,92
05/09/2013 16:00	-0,44	0	13,03	14,6	0	12,59	6,82	0	12,9
05/09/2013 16:05	-0,41	0	13,01	16,96	0	12,56	6,44	0	12,89
05/09/2013 16:10	-0,41	0	12,99	22,12	2	12,52	6,53	0	12,87
05/09/2013 16:15	-0,42	0	12,99	18,49	0	12,52	6,37	0	12,86
05/09/2013 16:20	-0,43	0	12,98	15,6	0	12,51	6,51	0	12,84
05/09/2013 16:25	-0,43	0	12,98	16,02	0	12,5	6,58	0	12,81
05/09/2013 16:30	-0,42	0	12,97	14,89	0	12,5	NoData	NoData	NoData
05/09/2013 16:35	0,1	0	12,97	15,6	0	12,49	7,07	0	12,77
05/09/2013 16:40	2,42	0	12,96	16,7	0	12,48	7,27	0	12,73
05/09/2013 16:45	5,2	0	12,96	20,12	2	12,47	NoData	NoData	NoData
05/09/2013 16:50	7,71	0	12,96	19,21	0	12,48	9,17	0	12,69
05/09/2013 16:55	NoData	NoData	NoData	19,37	0	12,47	9,7	0	12,67
05/09/2013 17:00	NoData	NoData	NoData	17,93	0	12,47	9,26	0	12,65
05/09/2013 17:05	10,92	0	12,96	22,13	2	12,44	9,38	0	12,63
05/09/2013 17:10	11,29	0	12,95	17,47	0	12,46	8,89	0	12,61
05/09/2013 17:15	11,15	0	12,94	17,9	0	12,46	8,99	0	12,61
05/09/2013 17:20	10,91	0	12,93	18,96	0	12,46	8,84	0	12,6
05/09/2013 17:25	11,02	0	12,93	17,99	0	12,45	9,01	0	12,59
05/09/2013 17:30	10,73	0	12,92	17,91	0	12,45	9,73	0	12,59
05/09/2013 17:35	10,78	0	12,91	17,39	0	12,45	9,48	0	12,58
05/09/2013 17:40	NoData	NoData	NoData	17,63	0	12,44	9,61	0	12,58
05/09/2013 17:45	11,05	0	12,9	20,22	0	12,44	9,41	0	12,56
05/09/2013 17:50	11,06	0	12,89	22,6	2	12,43	9,52	0	12,56
05/09/2013 17:55	11,36	0	12,89	19,39	0	12,43	9,4	0	12,55
05/09/2013 18:00	11,6	0	12,88	18,06	0	12,43	9,59	0	12,55

05/09/2013 18:05	11,2	0	12,88	18,7	0	12,42	9,44	0	12,54
05/09/2013 18:10	10,88	0	12,88	19,04	0	12,42	9,44	0	12,54
05/09/2013 18:15	10,87	0	12,87	18,52	0	12,42	9,46	0	12,54
05/09/2013 18:20	10,85	0	12,87	19,69	0	12,42	9,12	0	12,53
05/09/2013 18:25	10,8	0	12,86	20,13	0	12,41	8,88	0	12,53
05/09/2013 18:30	10,62	0	12,86	20,4	0	12,41	8,81	0	12,53
05/09/2013 18:35	10,5	0	12,86	21,42	0	12,4	8,88	0	12,52
05/09/2013 18:40	10,47	0	12,86	19,98	0	12,4	8,64	0	12,52
05/09/2013 18:45	10,31	0	12,85	17,71	0	12,4	8,61	0	12,51
05/09/2013 18:50	10,32	0	12,85	17,6	0	12,4	8,71	0	12,51
05/09/2013 18:55	10,12	0	12,85	16,77	0	12,39	8,43	0	12,5
05/09/2013 19:00	10,02	0	12,85	17,69	0	12,39	8,7	0	12,51
05/09/2013 19:05	9,91	0	12,84	17,54	0	12,39	8,79	0	12,5
05/09/2013 19:10	9,93	0	12,84	19,12	0	12,39	8,89	0	12,5
05/09/2013 19:15	9,96	0	12,84	18,78	0	12,38	8,91	0	12,5
05/09/2013 19:20	9,91	0	12,83	17,14	0	12,38	8,7	0	12,5
05/09/2013 19:25	9,61	0	12,83	16,88	0	12,38	8,86	0	12,49
05/09/2013 19:30	9,7	0	12,83	17,04	0	12,38	8,81	0	12,49
05/09/2013 19:35	9,76	0	12,82	17,39	0	12,37	9,43	0	12,48
05/09/2013 19:40	9,74	0	12,82	16,69	0	12,37	9,34	0	12,48
05/09/2013 19:45	9,93	0	12,82	15,64	0	12,37	9,35	0	12,48
05/09/2013 19:50	10,06	0	12,82	15,85	0	12,37	9,5	0	12,48
05/09/2013 19:55	9,82	0	12,81	15,28	0	12,36	9,52	0	12,47
05/09/2013 20:00	10,04	0	12,81	15,24	0	12,36	9,27	0	12,47
05/09/2013 20:05	10,07	0	12,81	15,19	0	12,36	9,44	0	12,47
05/09/2013 20:10	10,19	0	12,81	15,08	0	12,36	9,26	0	12,46
05/09/2013 20:15	9,68	0	12,8	14,65	0	12,35	9,11	0	12,46
05/09/2013 20:20	9,44	0	12,8	14,48	0	12,35	8,8	0	12,46
05/09/2013 20:25	9,33	0	12,8	14,4	0	12,35	8,52	0	12,45
05/09/2013 20:30	9,6	0	12,8	14,45	0	12,35	8,68	0	12,46
05/09/2013 20:35	9,82	0	12,8	13,95	0	12,34	8,71	0	12,45
05/09/2013 20:40	9,5	0	12,8	14,08	0	12,34	8,32	0	12,45
05/09/2013 20:45	9,58	0	12,79	13,85	0	12,34	8,21	0	12,45
05/09/2013 20:50	9,77	0	12,79	14,78	0	12,34	8,08	0	12,45
05/09/2013 20:55	NoData	NoData	NoData	15,2	0	12,34	8,16	0	12,44
05/09/2013 21:00	NoData	NoData	NoData	14,92	0	12,33	9,47	0	12,44
05/09/2013 21:05	15,02	0	12,78	14,45	0	12,33	12,78	0	12,44
05/09/2013 21:10	13,82	0	12,78	14,09	0	12,33	12,93	0	12,43
05/09/2013 21:15	12,78	0	12,78	13,71	0	12,33	10,3	0	12,43
05/09/2013 21:20	13,1	0	12,78	13,38	0	12,32	9,79	0	12,43
05/09/2013 21:25	12,63	0	12,77	13,13	0	12,32	9,52	0	12,43
05/09/2013 21:30	11,3	0	12,78	13,25	0	12,32	10,5	0	12,43
05/09/2013 21:35	11,95	0	12,77	13,02	0	12,32	11,19	0	12,42
05/09/2013 21:40	11,86	0	12,77	13	0	12,32	11,41	0	12,42
05/09/2013 21:45	10,23	0	12,77	12,99	0	12,32	10,08	0	12,42
05/09/2013 21:50	9,88	0	12,77	13,13	0	12,31	8,47	0	12,42
05/09/2013 21:55	10,47	0	12,76	12,94	0	12,31	7,7	0	12,41
05/09/2013 22:00	10,67	0	12,76	12,81	0	12,31	7,43	0	12,41
05/09/2013 22:05	10,66	0	12,76	12,8	0	12,31	7,51	0	12,41
05/09/2013 22:10	11,14	0	12,76	12,69	0	12,3	7,82	0	12,41
05/09/2013 22:15	10,78	0	12,76	12,54	0	12,3	7,59	0	12,4
05/09/2013 22:20	10,28	0	12,75	12,7	0	12,3	7,36	0	12,4
05/09/2013 22:25	11,25	0	12,75	12,44	0	12,3	6,92	0	12,4
05/09/2013 22:30	10,23	0	12,75	12,3	0	12,3	7,17	0	12,4
05/09/2013 22:35	9,71	0	12,75	12,59	0	12,29	6,88	0	12,39
05/09/2013 22:40	9,37	0	12,75	12,28	0	12,29	6,91	0	12,39
05/09/2013 22:45	9,15	0	12,74	12,13	0	12,29	7	0	12,39
05/09/2013 22:50	9,24	0	12,75	12,15	0	12,29	6,84	0	12,39
05/09/2013 22:55	9,16	0	12,74	NoData	NoData	NoData	6,77	0	12,38
05/09/2013 23:00	9,23	0	12,74	12,37	0	12,28	6,74	0	12,38
05/09/2013 23:05	9,36	0	12,73	12,16	0	12,28	6,6	0	12,38
05/09/2013 23:10	9,19	0	12,74	12,34	0	12,28	6,4	0	12,38
05/09/2013 23:15	9,35	0	12,73	12,61	0	12,28	6,28	0	12,37
05/09/2013 23:20	8,66	0	12,73	12,4	0	12,28	6,01	0	12,38
05/09/2013 23:25	8,98	0	12,73	12,31	0	12,27	5,91	0	12,37
05/09/2013 23:30	8,63	0	12,73	12,19	0	12,27	5,78	0	12,37
05/09/2013 23:35	8,11	0	12,73	12,61	0	12,27	5,8	0	12,37

05/09/2013 23:40	8,3	0	12,73	12,11	0	12,27	5,98	0	12,37
05/09/2013 23:45	7,87	0	12,72	12,36	0	12,27	6,12	0	12,37
05/09/2013 23:50	7,84	0	12,72	12,39	0	12,27	5,96	0	12,37
05/09/2013 23:55	8,11	0	12,72	12,23	0	12,26	5,94	0	12,36
06/09/2013 0:00	NoData	NoData	NoData	12,86	0	12,26	6,08	0	12,36
06/09/2013 0:05	7,74	0	12,71	12,95	0	12,26	5,95	0	12,36
06/09/2013 0:10	7,64	0	12,71	13,79	0	12,26	6,49	0	12,36
06/09/2013 0:15	7,67	0	12,71	12,68	0	12,26	6,23	0	12,36
06/09/2013 0:20	7,52	0	12,71	11,83	0	12,25	6,29	0	12,36
06/09/2013 0:25	7,4	0	12,71	11,49	0	12,25	5,94	0	12,35
06/09/2013 0:30	7,26	0	12,71	11,15	0	12,25	6,42	0	12,35
06/09/2013 0:35	7,18	0	12,7	10,86	0	12,25	6,38	0	12,35
06/09/2013 0:40	7,3	0	12,7	11,11	0	12,24	6,24	0	12,35
06/09/2013 0:45	7,2	0	12,7	11,24	0	12,24	6,76	0	12,34
06/09/2013 0:50	7,7	0	12,7	11,1	0	12,24	7,64	0	12,34
06/09/2013 0:55	9,04	0	12,69	10,96	0	12,24	7,67	0	12,34
06/09/2013 1:00	8,75	0	12,69	11,31	0	12,24	7,12	0	12,34
06/09/2013 1:05	9,42	0	12,7	12,08	0	12,24	6,97	0	12,34
06/09/2013 1:10	8,9	0	12,7	12,71	0	12,23	7,1	0	12,33
06/09/2013 1:15	8,4	0	12,7	11,77	0	12,23	6,9	0	12,33
06/09/2013 1:20	7,98	0	12,7	12,19	0	12,23	6,97	0	12,33
06/09/2013 1:25	7,07	0	12,7	12,33	0	12,23	6,98	0	12,33
06/09/2013 1:30	6,62	0	12,69	11,99	0	12,23	6,86	0	12,33
06/09/2013 1:35	6,3	0	12,69	11,48	0	12,23	6,6	0	12,33
06/09/2013 1:40	7,91	0	12,69	11,12	0	12,22	6,64	0	12,33
06/09/2013 1:45	8,42	0	12,69	11,27	0	12,22	6,35	0	12,32
06/09/2013 1:50	6,93	0	12,68	11,45	0	12,22	6,5	0	12,32
06/09/2013 1:55	7,35	0	12,68	11,43	0	12,22	6,34	0	12,32
06/09/2013 2:00	8,1	0	12,68	11,28	0	12,21	6,35	0	12,32
06/09/2013 2:05	6,66	0	12,68	11,03	0	12,21	6,32	0	12,31
06/09/2013 2:10	7,04	0	12,68	11,94	0	12,21	6,03	0	12,31
06/09/2013 2:15	7,06	0	12,67	11,5	0	12,21	6,27	0	12,31
06/09/2013 2:20	7,63	0	12,67	10,22	0	12,2	6,76	0	12,31
06/09/2013 2:25	7,66	0	12,67	10,27	0	12,21	6,25	0	12,31
06/09/2013 2:30	7,58	0	12,67	11,64	0	12,2	6,21	0	12,3
06/09/2013 2:35	7,7	0	12,67	11,4	0	12,2	5,75	0	12,3
06/09/2013 2:40	6,77	0	12,66	11,66	0	12,2	5,92	0	12,3
06/09/2013 2:45	6,39	0	12,67	12,15	0	12,2	5,54	0	12,3
06/09/2013 2:50	6,65	0	12,66	13,03	0	12,19	5,44	0	12,3
06/09/2013 2:55	6,51	0	12,66	11,51	0	12,19	5,51	0	12,3
06/09/2013 3:00	NoData	NoData	NoData	11,54	0	12,19	5,58	0	12,29
06/09/2013 3:05	6,69	0	12,65	12,49	0	12,19	4,83	0	12,29
06/09/2013 3:10	6,67	0	12,65	11,9	0	12,18	5,1	0	12,29
06/09/2013 3:15	6,03	0	12,65	13,14	0	12,18	5,31	0	12,29
06/09/2013 3:20	6,38	0	12,65	12,28	0	12,18	5,12	0	12,29
06/09/2013 3:25	6,83	0	12,65	12,3	0	12,18	4,9	0	12,28
06/09/2013 3:30	7,13	0	12,64	11,5	0	12,18	5,18	0	12,28
06/09/2013 3:35	9,12	0	12,64	10,86	0	12,18	5,62	0	12,28
06/09/2013 3:40	7,86	0	12,64	11,52	0	12,17	5,2	0	12,28
06/09/2013 3:45	7,66	0	12,64	11,45	0	12,17	5,66	0	12,27
06/09/2013 3:50	7,18	0	12,64	11,21	0	12,17	5,91	0	12,27
06/09/2013 3:55	6,99	0	12,63	12,67	0	12,17	5,27	0	12,27
06/09/2013 4:00	7,69	0	12,63	12,29	0	12,17	5,99	0	12,27
06/09/2013 4:05	5,62	0	12,63	10,93	0	12,16	4,68	0	12,27
06/09/2013 4:10	6,39	0	12,63	10,61	0	12,16	5,56	0	12,26
06/09/2013 4:15	7,77	0	12,63	10,91	0	12,16	5,32	0	12,26
06/09/2013 4:20	8,15	0	12,62	14,36	0	12,16	5	0	12,26
06/09/2013 4:25	6,03	0	12,62	17,89	0	12,16	4,66	0	12,26
06/09/2013 4:30	5,11	0	12,62	17,47	0	12,15	4,83	0	12,26
06/09/2013 4:35	5,08	0	12,62	13	0	12,15	4,34	0	12,25
06/09/2013 4:40	5,08	0	12,61	11,47	0	12,15	4,63	0	12,25
06/09/2013 4:45	5,45	0	12,61	9,93	0	12,15	4,59	0	12,25
06/09/2013 4:50	5,37	0	12,61	8,35	0	12,15	4,45	0	12,25
06/09/2013 4:55	5,69	0	12,61	7,73	0	12,15	4,29	0	12,25
06/09/2013 5:00	5,55	0	12,6	7,99	0	12,14	4,32	0	12,25
06/09/2013 5:05	7,12	0	12,61	7,98	0	12,14	4,57	0	12,24
06/09/2013 5:10	6,98	0	12,59	8,22	0	12,14	4,47	0	12,24

06/09/2013 5:15	7,45	0	12,59	8,2	0	12,14	5,79	0	12,24
06/09/2013 5:20	6,09	0	12,58	8,22	0	12,14	5,04	0	12,24
06/09/2013 5:25	5,8	0	12,59	8,08	0	12,14	4,67	0	12,24
06/09/2013 5:30	5,7	0	12,58	8,1	0	12,13	4,25	0	12,24
06/09/2013 5:35	5,91	0	12,58	8,43	0	12,14	4,34	0	12,23
06/09/2013 5:40	6,44	0	12,58	8,98	0	12,13	4,18	0	12,23
06/09/2013 5:45	5,4	0	12,58	8,67	0	12,13	4,23	0	12,23
06/09/2013 5:50	5,93	0	12,57	8,38	0	12,13	4,67	0	12,23
06/09/2013 5:55	6,62	0	12,57	8,24	0	12,13	5,54	0	12,23
06/09/2013 6:00	6,41	0	12,57	8,26	0	12,13	7,21	0	12,22
06/09/2013 6:05	5,94	0	12,57	8,41	0	12,13	9,44	0	12,22
06/09/2013 6:10	5,62	0	12,57	8,28	0	12,12	9,63	0	12,22
06/09/2013 6:15	7,45	0	12,57	8,18	0	12,12	8	0	12,22
06/09/2013 6:20	9,91	0	12,56	8,25	0	12,12	8,19	0	12,22
06/09/2013 6:25	10,63	0	12,56	8,43	0	12,12	9,41	0	12,22
06/09/2013 6:30	10,24	0	12,56	8,55	0	12,12	9,21	0	12,22
06/09/2013 6:35	10,31	0	12,56	8,32	0	12,12	8,34	0	12,22
06/09/2013 6:40	11,02	0	12,56	9,24	0	12,12	10,04	0	12,21
06/09/2013 6:45	8,49	0	12,56	11,04	0	12,12	15,08	0	12,22
06/09/2013 6:50	5,43	0	12,56	13,61	0	12,12	12,09	0	12,21
06/09/2013 6:55	8,12	0	12,57	14,27	0	12,12	11,99	0	12,23
06/09/2013 7:00	9,39	0	12,57	14,88	0	12,13	10,4	0	12,23
06/09/2013 7:05	12,7	0	12,57	14,65	0	12,13	9,41	0	12,22
06/09/2013 7:10	12,24	0	12,57	NoData	NoData	NoData	NoData	NoData	NoData
06/09/2013 7:15	11,16	0	12,57	NoData	NoData	NoData	NoData	NoData	NoData
06/09/2013 7:20	9,01	0	12,57	13,3	0	12,2	NoData	NoData	NoData
06/09/2013 7:25	7,91	0	12,58	12,64	0	12,33	NoData	NoData	NoData
06/09/2013 7:30	8,26	0	12,57	11,83	0	12,35	NoData	NoData	NoData
06/09/2013 7:35	7,27	0	12,57	12,12	0	12,41	NoData	NoData	NoData
06/09/2013 7:40	7,55	0	12,58	11,21	0	12,53	NoData	NoData	NoData
06/09/2013 7:45	7,25	0	12,58	10,84	0	12,57	NoData	NoData	NoData
06/09/2013 7:50	7,02	0	12,57	10,83	0	12,6	NoData	NoData	NoData
06/09/2013 7:55	7,88	0	12,58	10,98	0	12,63	NoData	NoData	NoData
06/09/2013 8:00	7,29	0	12,58	11,19	0	12,65	NoData	NoData	NoData
06/09/2013 8:05	7,57	0	12,58	11,33	0	12,66	NoData	NoData	NoData
06/09/2013 8:10	7,76	0	12,58	11,54	0	12,67	NoData	NoData	NoData
06/09/2013 8:15	8,72	0	12,58	11,77	0	12,69	NoData	NoData	NoData
06/09/2013 8:20	8,32	0	12,58	12,05	0	12,7	NoData	NoData	NoData
06/09/2013 8:25	8,71	0	12,59	12,37	0	12,71	NoData	NoData	NoData
06/09/2013 8:30	8,82	0	12,59	12,93	0	12,73	NoData	NoData	NoData
06/09/2013 8:35	9,68	0	12,61	13,4	0	12,74	NoData	NoData	NoData
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06/09/2013 8:50	10,6	0	12,66	14,84	0	12,78	NoData	NoData	NoData
06/09/2013 8:55	11,15	0	12,68	14,76	0	12,8	NoData	NoData	NoData
06/09/2013 9:00	10,82	0	12,7	15,19	0	12,82	NoData	NoData	NoData
06/09/2013 9:05	11,23	0	12,74	15,83	0	12,83	NoData	NoData	NoData
06/09/2013 9:10	10,79	0	12,77	16,14	0	12,85	NoData	NoData	NoData
06/09/2013 9:15	11,6	0	12,82	16,99	0	12,86	NoData	NoData	NoData
06/09/2013 9:20	11,47	0	12,86	17,04	0	12,87	NoData	NoData	NoData
06/09/2013 9:25	11,87	0	12,9	16,98	0	12,89	NoData	NoData	NoData
06/09/2013 9:30	12,12	0	12,96	16,48	0	12,91	NoData	NoData	NoData
06/09/2013 9:35	12	0	13,01	16,3	0	12,92	NoData	NoData	NoData
06/09/2013 9:40	11,7	0	13,05	16,36	0	12,94	NoData	NoData	NoData
06/09/2013 9:45	11,77	0	13,09	16,19	0	12,95	NoData	NoData	NoData
06/09/2013 9:50	11,19	0	13,12	16,33	0	12,97	NoData	NoData	NoData
06/09/2013 9:55	12,96	2	13,15	16,59	0	12,98	NoData	NoData	NoData
06/09/2013 10:00	11,93	0	13,18	16,92	0	13	NoData	NoData	NoData
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06/09/2013 10:15	12,06	0	12,99	17,33	0	13,04	NoData	NoData	NoData
06/09/2013 10:20	11,91	0	12,95	17	0	13,06	NoData	NoData	NoData
06/09/2013 10:25	13	0	12,94	17,26	0	13,07	NoData	NoData	NoData
06/09/2013 10:30	12,24	0	12,93	17,41	0	13,09	NoData	NoData	NoData
06/09/2013 10:35	12,67	0	12,92	17,45	0	13,1	NoData	NoData	NoData
06/09/2013 10:40	12,17	0	12,91	17,79	0	13,12	NoData	NoData	NoData
06/09/2013 10:45	11,5	0	12,91	17,25	0	13,13	NoData	NoData	NoData

06/09/2013 10:50	12,06	0	12,9	17,29	0	13,14	NoData	NoData	NoData
06/09/2013 10:55	12,39	0	12,91	17,24	0	13,15	NoData	NoData	NoData
06/09/2013 11:00	11,57	0	12,9	17,92	0	13,16	NoData	NoData	NoData
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06/09/2013 11:10	10,81	0	12,89	17,93	0	13,18	NoData	NoData	NoData
06/09/2013 11:15	11,2	0	12,92	17,82	0	13,19	NoData	NoData	NoData
06/09/2013 11:20	10,21	0	12,94	17,62	0	13,2	NoData	NoData	NoData
06/09/2013 11:25	10,56	0	13,08	17,59	0	13,2	NoData	NoData	NoData
06/09/2013 11:30	10,55	0	13,22	17,51	0	13,21	NoData	NoData	NoData
06/09/2013 11:35	10,14	0	13,26	17,8	0	13,22	NoData	NoData	NoData
06/09/2013 11:40	10,14	0	13,28	17,59	0	13,22	NoData	NoData	NoData
06/09/2013 11:45	10,47	0	13,29	17,71	0	13,23	NoData	NoData	NoData
06/09/2013 11:50	10,41	0	13,31	17,23	0	13,24	NoData	NoData	NoData
06/09/2013 11:55	10,12	0	13,32	17,04	0	13,24	NoData	NoData	NoData
06/09/2013 12:00	10,35	0	13,34	16,82	0	13,25	NoData	NoData	NoData
06/09/2013 12:05	9,99	0	13,36	16,73	0	13,25	NoData	NoData	NoData
06/09/2013 12:10	10,37	0	13,37	16,66	0	13,25	NoData	NoData	NoData
06/09/2013 12:15	10,28	0	13,39	17,04	0	13,25	NoData	NoData	NoData
06/09/2013 12:20	10,38	0	13,4	17,17	0	13,26	NoData	NoData	NoData
06/09/2013 12:25	10,34	0	13,42	17,21	0	13,25	NoData	NoData	NoData
06/09/2013 12:30	10,12	0	13,44	17,32	0	13,26	NoData	NoData	NoData
06/09/2013 12:35	10,53	0	13,45	17,33	0	13,26	NoData	NoData	NoData
06/09/2013 12:40	10,26	0	13,47	17,49	0	13,27	NoData	NoData	NoData
06/09/2013 12:45	10,31	0	13,49	17,36	0	13,26	NoData	NoData	NoData
06/09/2013 12:50	10,19	0	13,51	17,41	0	13,27	NoData	NoData	NoData
06/09/2013 12:55	10,05	0	13,53	17,12	0	13,26	NoData	NoData	NoData
06/09/2013 13:00	9,81	0	13,56	16,78	0	13,27	NoData	NoData	NoData
06/09/2013 13:05	NoData	NoData	NoData	16,7	0	13,27	NoData	NoData	NoData
06/09/2013 13:10	9,85	0	13,6	16,52	0	13,27	NoData	NoData	NoData
06/09/2013 13:15	10,21	0	13,63	16,36	0	13,27	NoData	NoData	NoData
06/09/2013 13:20	9,86	0	13,65	16,26	0	13,27	NoData	NoData	NoData
06/09/2013 13:25	9,69	0	13,68	16,45	0	13,26	NoData	NoData	NoData
06/09/2013 13:30	9,84	0	13,71	16,19	0	13,26	NoData	NoData	NoData
06/09/2013 13:35	9,92	0	13,74	16,27	0	13,26	NoData	NoData	NoData
06/09/2013 13:40	9,7	0	13,77	16,44	0	13,26	NoData	NoData	NoData
06/09/2013 13:45	9,61	0	13,81	16,83	0	13,25	NoData	NoData	NoData
06/09/2013 13:50	9,55	0	13,83	17	0	13,25	NoData	NoData	NoData
06/09/2013 13:55	9,67	0	13,87	16,26	0	13,25	NoData	NoData	NoData
06/09/2013 14:00	9,66	0	13,87	16,15	0	13,25	NoData	NoData	NoData
06/09/2013 14:05	9,46	0	13,87	16,26	0	13,24	NoData	NoData	NoData
06/09/2013 14:10	9,37	0	13,88	16,46	0	13,24	NoData	NoData	NoData
06/09/2013 14:15	9,43	0	13,88	16,36	0	13,22	NoData	NoData	NoData
06/09/2013 14:20	9,24	0	13,87	16,68	0	13,22	NoData	NoData	NoData
06/09/2013 14:25	9,08	0	13,52	16,71	0	13,21	NoData	NoData	NoData
06/09/2013 14:30	9,14	0	13,12	16,32	0	13,2	NoData	NoData	NoData
06/09/2013 14:35	9,31	0	13,07	16,32	0	13,19	NoData	NoData	NoData
06/09/2013 14:40	9,65	0	13,07	15,72	0	13,18	NoData	NoData	NoData
06/09/2013 14:45	9,78	0	13,07	15,46	0	13,17	NoData	NoData	NoData
06/09/2013 14:50	9,81	0	13,07	14,96	0	13,16	NoData	NoData	NoData
06/09/2013 14:55	10,19	0	13,07	15,19	0	13,15	NoData	NoData	NoData
06/09/2013 15:00	9,89	0	13,07	15,88	0	13,14	NoData	NoData	NoData
06/09/2013 15:05	9,88	0	13,07	15,97	0	13,12	NoData	NoData	NoData
06/09/2013 15:10	9,91	0	13,08	15,34	0	13,1	NoData	NoData	NoData
06/09/2013 15:15	9,83	0	13,07	15,83	0	13,08	NoData	NoData	NoData
06/09/2013 15:20	9,87	0	13,07	16,65	0	13,06	NoData	NoData	NoData
06/09/2013 15:25	9,66	0	13,07	17,06	0	13,04	NoData	NoData	NoData
06/09/2013 15:30	10,03	0	13,07	16,91	0	13,02	NoData	NoData	NoData
06/09/2013 15:35	10,17	0	13,07	15,95	0	12,99	NoData	NoData	NoData
06/09/2013 15:40	10,29	0	13,07	15,26	0	12,97	NoData	NoData	NoData
06/09/2013 15:45	10,46	0	13,07	15,33	0	12,93	NoData	NoData	NoData
06/09/2013 15:50	10,53	0	13,09	15,93	0	12,89	NoData	NoData	NoData
06/09/2013 15:55	10,71	0	13,09	15,41	0	12,85	NoData	NoData	NoData
06/09/2013 16:00	10,28	0	13,08	15,39	0	12,82	NoData	NoData	NoData
06/09/2013 16:05	10,97	0	13,03	16,83	0	12,78	NoData	NoData	NoData
06/09/2013 16:10	11,97	0	13,01	18,81	0	12,76	NoData	NoData	NoData
06/09/2013 16:15	12,69	0	13	18,78	0	12,73	NoData	NoData	NoData
06/09/2013 16:20	13,26	0	13	17,77	0	12,72	NoData	NoData	NoData

06/09/2013 16:25	13,16	0	12,99	15,57	0	12,71	NoData	NoData	NoData
06/09/2013 16:30	12,81	0	12,99	20,49	2	12,7	NoData	NoData	NoData
06/09/2013 16:35	12,38	0	12,98	19,71	0	12,69	NoData	NoData	NoData
06/09/2013 16:40	12,48	0	12,98	19,43	0	12,69	NoData	NoData	NoData
06/09/2013 16:45	12,74	0	12,97	20,43	0	12,69	NoData	NoData	NoData
06/09/2013 16:50	12,7	0	12,97	19,36	0	12,68	NoData	NoData	NoData
06/09/2013 16:55	12,92	0	12,98	21,82	0	12,68	NoData	NoData	NoData
06/09/2013 17:00	12,66	0	12,98	19,09	0	12,68	NoData	NoData	NoData
06/09/2013 17:05	12,83	0	12,97	18,82	2	12,67	NoData	NoData	NoData
06/09/2013 17:10	13,21	0	12,96	19,71	2	12,67	NoData	NoData	NoData
06/09/2013 17:15	13,05	0	12,95	18,35	0	12,67	NoData	NoData	NoData
06/09/2013 17:20	13,07	0	12,94	23,4	2	12,64	NoData	NoData	NoData
06/09/2013 17:25	12,84	0	12,93	18,91	0	12,66	NoData	NoData	NoData
06/09/2013 17:30	13,04	0	12,93	18,63	0	12,66	NoData	NoData	NoData
06/09/2013 17:35	13,14	0	12,92	19,26	0	12,65	NoData	NoData	NoData
06/09/2013 17:40	13,18	0	12,92	20,21	0	12,65	NoData	NoData	NoData
06/09/2013 17:45	13,72	0	12,91	18,68	0	12,65	NoData	NoData	NoData
06/09/2013 17:50	13,73	0	12,9	20,08	0	12,64	NoData	NoData	NoData
06/09/2013 17:55	13,71	0	12,9	20,23	0	12,64	NoData	NoData	NoData
06/09/2013 18:00	13,89	0	12,89	19,36	0	12,64	NoData	NoData	NoData
06/09/2013 18:05	14,4	0	12,89	19,41	0	12,63	NoData	NoData	NoData
06/09/2013 18:10	14,56	0	12,88	19,7	0	12,63	NoData	NoData	NoData
06/09/2013 18:15	14,38	0	12,88	19,17	0	12,63	NoData	NoData	NoData
06/09/2013 18:20	13,81	0	12,88	19,08	0	12,62	NoData	NoData	NoData
06/09/2013 18:25	14,31	0	12,87	19,26	0	12,62	NoData	NoData	NoData
06/09/2013 18:30	14,54	0	12,87	19,05	0	12,62	NoData	NoData	NoData
06/09/2013 18:35	14,26	0	12,87	19	0	12,61	NoData	NoData	NoData
06/09/2013 18:40	13,67	0	12,87	18,76	0	12,61	NoData	NoData	NoData
06/09/2013 18:45	13,78	0	12,86	18,29	0	12,61	NoData	NoData	NoData
06/09/2013 18:50	13,99	0	12,86	17,96	0	12,61	NoData	NoData	NoData
06/09/2013 18:55	13,68	0	12,85	18,09	0	12,6	NoData	NoData	NoData
06/09/2013 19:00	13,97	0	12,85	18	0	12,6	NoData	NoData	NoData
06/09/2013 19:05	14,03	0	12,85	17,59	0	12,6	NoData	NoData	NoData
06/09/2013 19:10	13,88	0	12,85	17,75	0	12,59	NoData	NoData	NoData
06/09/2013 19:15	13,71	0	12,84	17,22	0	12,59	NoData	NoData	NoData
06/09/2013 19:20	13,63	0	12,84	17,16	0	12,59	NoData	NoData	NoData
06/09/2013 19:25	13,3	0	12,84	17,23	0	12,58	NoData	NoData	NoData
06/09/2013 19:30	13,48	0	12,84	17,35	0	12,58	NoData	NoData	NoData
06/09/2013 19:35	13,35	0	12,83	17,53	0	12,58	NoData	NoData	NoData
06/09/2013 19:40	13,29	0	12,83	17,02	0	12,58	NoData	NoData	NoData
06/09/2013 19:45	12,91	0	12,82	16,78	0	12,57	NoData	NoData	NoData
06/09/2013 19:50	12,53	0	12,83	16,67	0	12,57	NoData	NoData	NoData
06/09/2013 19:55	12,1	0	12,82	16,47	0	12,57	NoData	NoData	NoData
06/09/2013 20:00	12,33	0	12,82	16,6	0	12,57	NoData	NoData	NoData
06/09/2013 20:05	12,81	0	12,81	16,37	0	12,56	NoData	NoData	NoData
06/09/2013 20:10	13,05	0	12,81	15,74	0	12,56	NoData	NoData	NoData
06/09/2013 20:15	13,42	0	12,81	15,72	0	12,56	NoData	NoData	NoData
06/09/2013 20:20	12,39	0	12,81	15,7	0	12,55	NoData	NoData	NoData
06/09/2013 20:25	11,66	0	12,81	15,61	0	12,55	NoData	NoData	NoData
06/09/2013 20:30	11,5	0	12,81	15,61	0	12,55	NoData	NoData	NoData
06/09/2013 20:35	11,37	0	12,8	15,59	0	12,55	NoData	NoData	NoData
06/09/2013 20:40	11,35	0	12,8	15,46	0	12,55	NoData	NoData	NoData
06/09/2013 20:45	11,11	0	12,8	15,14	0	12,54	NoData	NoData	NoData
06/09/2013 20:50	11,09	0	12,8	15,11	0	12,54	NoData	NoData	NoData
06/09/2013 20:55	11,03	0	12,79	14,99	0	12,54	NoData	NoData	NoData
06/09/2013 21:00	11,06	0	12,79	15,23	0	12,54	NoData	NoData	NoData
06/09/2013 21:05	11,21	0	12,79	14,69	0	12,53	NoData	NoData	NoData
06/09/2013 21:10	10,96	0	12,79	14,44	0	12,53	NoData	NoData	NoData
06/09/2013 21:15	10,91	0	12,78	14,61	0	12,53	NoData	NoData	NoData
06/09/2013 21:20	11	0	12,78	14,15	0	12,53	NoData	NoData	NoData
06/09/2013 21:25	10,78	0	12,78	13,82	0	12,52	NoData	NoData	NoData
06/09/2013 21:30	11,84	0	12,78	13,78	0	12,52	NoData	NoData	NoData
06/09/2013 21:35	12,01	0	12,77	13,48	0	12,52	NoData	NoData	NoData
06/09/2013 21:40	10,53	0	12,77	12,85	0	12,52	NoData	NoData	NoData
06/09/2013 21:45	9,81	0	12,77	12,87	0	12,52	NoData	NoData	NoData
06/09/2013 21:50	10,09	0	12,77	12,98	0	12,51	NoData	NoData	NoData
06/09/2013 21:55	10,17	0	12,77	13,41	0	12,51	NoData	NoData	NoData

06/09/2013 22:00	9,7	0	12,77	13,49	0	12,51	NoData	NoData	NoData
06/09/2013 22:05	9,5	0	12,76	13,56	0	12,51	NoData	NoData	NoData
06/09/2013 22:10	9,03	0	12,76	15,17	0	12,51	NoData	NoData	NoData
06/09/2013 22:15	9,51	0	12,76	16,98	0	12,5	NoData	NoData	NoData
06/09/2013 22:20	9,96	0	12,76	16,26	0	12,5	NoData	NoData	NoData
06/09/2013 22:25	10,18	0	12,76	15,96	0	12,5	NoData	NoData	NoData
06/09/2013 22:30	10,57	0	12,76	16,05	0	12,49	NoData	NoData	NoData
06/09/2013 22:35	10,51	0	12,75	16,03	0	12,49	NoData	NoData	NoData
06/09/2013 22:40	10,72	0	12,75	13,95	0	12,49	NoData	NoData	NoData
06/09/2013 22:45	10,38	0	12,75	13,06	0	12,49	NoData	NoData	NoData
06/09/2013 22:50	10,19	0	12,75	12,93	0	12,49	NoData	NoData	NoData
06/09/2013 22:55	11,97	0	12,75	13,41	0	12,49	NoData	NoData	NoData
06/09/2013 23:00	12,65	0	12,74	13,49	0	12,48	NoData	NoData	NoData
06/09/2013 23:05	11,95	0	12,74	13,6	0	12,48	NoData	NoData	NoData
06/09/2013 23:10	11,78	0	12,74	13,63	0	12,48	NoData	NoData	NoData
06/09/2013 23:15	11,51	0	12,74	13,86	0	12,48	NoData	NoData	NoData
06/09/2013 23:20	11,74	0	12,73	13,35	0	12,47	NoData	NoData	NoData
06/09/2013 23:25	11,47	0	12,73	13,26	0	12,47	NoData	NoData	NoData
06/09/2013 23:30	11,49	0	12,73	13,58	0	12,47	NoData	NoData	NoData
06/09/2013 23:35	11,95	0	12,73	14,25	0	12,47	NoData	NoData	NoData
06/09/2013 23:40	12,28	0	12,73	14,15	0	12,47	NoData	NoData	NoData
06/09/2013 23:45	12,21	0	12,73	13,31	0	12,47	NoData	NoData	NoData
06/09/2013 23:50	11,82	0	12,73	13,41	0	12,46	NoData	NoData	NoData
06/09/2013 23:55	11,93	0	12,72	13,74	0	12,46	NoData	NoData	NoData
07/09/2013 0:00	12,86	0	12,72	13,44	0	12,46	NoData	NoData	NoData
07/09/2013 0:05	13,1	0	12,72	14,3	0	12,46	NoData	NoData	NoData
07/09/2013 0:10	12,94	0	12,72	13,67	0	12,46	NoData	NoData	NoData
07/09/2013 0:15	12,35	0	12,71	14,2	0	12,46	NoData	NoData	NoData
07/09/2013 0:20	10,99	0	12,71	13,47	0	12,45	NoData	NoData	NoData
07/09/2013 0:25	10,74	0	12,71	13,82	0	12,45	NoData	NoData	NoData
07/09/2013 0:30	10,58	0	12,71	13,65	0	12,45	NoData	NoData	NoData
07/09/2013 0:35	10,56	0	12,71	14,13	0	12,45	NoData	NoData	NoData
07/09/2013 0:40	10,6	0	12,71	14,16	0	12,44	NoData	NoData	NoData
07/09/2013 0:45	10,59	0	12,7	13,43	0	12,45	NoData	NoData	NoData
07/09/2013 0:50	10,39	0	12,7	13,36	0	12,44	NoData	NoData	NoData
07/09/2013 0:55	10,2	0	12,7	14,36	0	12,44	NoData	NoData	NoData
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07/09/2013 1:05	10,45	0	12,7	13,69	0	12,44	NoData	NoData	NoData
07/09/2013 1:10	10,73	0	12,69	13,11	0	12,43	NoData	NoData	NoData
07/09/2013 1:15	10,53	0	12,69	14,05	0	12,43	NoData	NoData	NoData
07/09/2013 1:20	9,87	0	12,69	13,83	0	12,43	NoData	NoData	NoData
07/09/2013 1:25	9,49	0	12,69	14,31	0	12,43	NoData	NoData	NoData
07/09/2013 1:30	9,77	0	12,69	14,51	0	12,42	NoData	NoData	NoData
07/09/2013 1:35	10,22	0	12,69	14,33	0	12,42	NoData	NoData	NoData
07/09/2013 1:40	9,95	0	12,68	12,98	0	12,42	NoData	NoData	NoData
07/09/2013 1:45	9,89	0	12,68	12,21	0	12,42	NoData	NoData	NoData
07/09/2013 1:50	9,77	0	12,68	11,49	0	12,42	NoData	NoData	NoData
07/09/2013 1:55	9,41	0	12,68	11,11	0	12,42	NoData	NoData	NoData
07/09/2013 2:00	10,48	0	12,67	9,53	0	12,41	NoData	NoData	NoData
07/09/2013 2:05	10,4	0	12,67	9,55	0	12,42	NoData	NoData	NoData
07/09/2013 2:10	9,14	0	12,67	9,63	0	12,41	NoData	NoData	NoData
07/09/2013 2:15	9,07	0	12,67	9,5	0	12,41	NoData	NoData	NoData
07/09/2013 2:20	10,38	0	12,66	9,9	0	12,41	NoData	NoData	NoData
07/09/2013 2:25	10,05	0	12,66	9,77	0	12,41	NoData	NoData	NoData
07/09/2013 2:30	8,92	0	12,66	9,77	0	12,4	NoData	NoData	NoData
07/09/2013 2:35	8,28	0	12,66	10,03	0	12,4	NoData	NoData	NoData
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07/09/2013 2:45	8,3	0	12,66	10,53	0	12,4	NoData	NoData	NoData
07/09/2013 2:50	8,29	0	12,65	10,66	0	12,4	NoData	NoData	NoData
07/09/2013 2:55	8,23	0	12,65	10,8	0	12,4	NoData	NoData	NoData
07/09/2013 3:00	8,38	0	12,65	10,86	0	12,39	NoData	NoData	NoData
07/09/2013 3:05	8,41	0	12,65	10,41	0	12,39	NoData	NoData	NoData
07/09/2013 3:10	8,16	0	12,64	10,34	0	12,39	NoData	NoData	NoData
07/09/2013 3:15	8,41	0	12,64	10,43	0	12,39	NoData	NoData	NoData
07/09/2013 3:20	8,53	0	12,64	10,65	0	12,39	NoData	NoData	NoData
07/09/2013 3:25	8,44	0	12,64	10,53	0	12,39	NoData	NoData	NoData
07/09/2013 3:30	7,87	0	12,63	10,37	0	12,38	NoData	NoData	NoData

07/09/2013 3:35	8,34	0	12,63	10,24	0	12,38	NoData	NoData	NoData
07/09/2013 3:40	8,38	0	12,63	10,25	0	12,38	NoData	NoData	NoData
07/09/2013 3:45	8,24	0	12,63	10,12	0	12,38	NoData	NoData	NoData
07/09/2013 3:50	7,95	0	12,62	10,52	0	12,38	NoData	NoData	NoData
07/09/2013 3:55	7,97	0	12,62	11,01	0	12,37	NoData	NoData	NoData
07/09/2013 4:00	7,91	0	12,62	10,94	0	12,37	NoData	NoData	NoData
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07/09/2013 4:10	8,8	0	12,61	10,38	0	12,37	NoData	NoData	NoData
07/09/2013 4:15	9,41	0	12,61	10,51	0	12,37	NoData	NoData	NoData
07/09/2013 4:20	9,11	0	12,61	10,52	0	12,36	NoData	NoData	NoData
07/09/2013 4:25	8,97	0	12,61	10,35	0	12,36	NoData	NoData	NoData
07/09/2013 4:30	8,88	0	12,6	10,33	0	12,36	NoData	NoData	NoData
07/09/2013 4:35	8,68	0	12,6	10,47	0	12,36	NoData	NoData	NoData
07/09/2013 4:40	8,67	0	12,6	10,11	0	12,35	NoData	NoData	NoData
07/09/2013 4:45	8,89	0	12,6	10,42	0	12,36	NoData	NoData	NoData
07/09/2013 4:50	8,88	0	12,59	10,47	0	12,35	NoData	NoData	NoData
07/09/2013 4:55	8,2	0	12,59	10,45	0	12,35	NoData	NoData	NoData
07/09/2013 5:00	8,47	0	12,59	9,93	0	12,35	NoData	NoData	NoData
07/09/2013 5:05	9,64	0	12,59	9,69	0	12,35	NoData	NoData	NoData
07/09/2013 5:10	9,28	0	12,58	9,74	0	12,34	NoData	NoData	NoData
07/09/2013 5:15	9,33	0	12,58	9,99	0	12,34	NoData	NoData	NoData
07/09/2013 5:20	9,16	0	12,58	9,69	0	12,34	NoData	NoData	NoData
07/09/2013 5:25	9,57	0	12,59	9,49	0	12,34	NoData	NoData	NoData
07/09/2013 5:30	10,95	0	12,58	9,55	0	12,34	NoData	NoData	NoData
07/09/2013 5:35	10,47	0	12,58	9,76	0	12,34	NoData	NoData	NoData
07/09/2013 5:40	10,51	0	12,58	9,54	0	12,33	NoData	NoData	NoData
07/09/2013 5:45	10,05	0	12,58	9,54	0	12,33	NoData	NoData	NoData
07/09/2013 5:50	9,85	0	12,57	9,54	0	12,33	NoData	NoData	NoData
07/09/2013 5:55	9,3	0	12,57	9,41	0	12,33	NoData	NoData	NoData
07/09/2013 6:00	8,8	0	12,57	9,22	0	12,33	NoData	NoData	NoData
07/09/2013 6:05	8,75	0	12,57	9,51	0	12,33	NoData	NoData	NoData
07/09/2013 6:10	8,25	0	12,57	9,51	0	12,32	NoData	NoData	NoData
07/09/2013 6:15	7,96	0	12,57	9,68	0	12,32	NoData	NoData	NoData
07/09/2013 6:20	7,32	0	12,56	9,48	0	12,32	NoData	NoData	NoData
07/09/2013 6:25	7,11	0	12,57	9,8	0	12,32	NoData	NoData	NoData
07/09/2013 6:30	7,25	0	12,56	9,42	0	12,32	NoData	NoData	NoData
07/09/2013 6:35	6,89	0	12,57	9,44	0	12,31	NoData	NoData	NoData
07/09/2013 6:40	6,49	0	12,56	9,32	0	12,32	NoData	NoData	NoData
07/09/2013 6:45	6,36	0	12,57	9,34	0	12,32	NoData	NoData	NoData
07/09/2013 6:50	6,1	0	12,56	9,37	0	12,32	NoData	NoData	NoData
07/09/2013 6:55	5,68	0	12,57	9,29	0	12,32	NoData	NoData	NoData
07/09/2013 7:00	5,42	0	12,57	9,27	0	12,33	NoData	NoData	NoData
07/09/2013 7:05	5,5	0	12,57	9,09	0	12,34	NoData	NoData	NoData
07/09/2013 7:10	5,7	0	12,57	8,93	0	12,36	NoData	NoData	NoData
07/09/2013 7:15	5,76	0	12,58	8,61	0	12,42	NoData	NoData	NoData
07/09/2013 7:20	5,83	0	12,57	8,18	0	12,5	NoData	NoData	NoData
07/09/2013 7:25	6,07	0	12,56	7,93	0	12,63	NoData	NoData	NoData
07/09/2013 7:30	6,42	0	12,56	8,13	0	12,72	NoData	NoData	NoData
07/09/2013 7:35	7,01	0	12,56	8,54	0	12,77	NoData	NoData	NoData
07/09/2013 7:40	7,07	0	12,56	9,06	0	12,81	NoData	NoData	NoData
07/09/2013 7:45	7,25	0	12,57	9,44	0	12,84	NoData	NoData	NoData
07/09/2013 7:50	7,98	0	12,57	10,27	0	12,87	NoData	NoData	NoData
07/09/2013 7:55	8,13	0	12,56	10,28	0	12,88	NoData	NoData	NoData
07/09/2013 8:00	8,23	0	12,57	11,01	0	12,9	NoData	NoData	NoData
07/09/2013 8:05	8,75	0	12,57	11,71	0	12,91	NoData	NoData	NoData
07/09/2013 8:10	8,93	0	12,57	12,39	0	12,93	NoData	NoData	NoData
07/09/2013 8:15	9	0	12,57	12,74	0	12,94	NoData	NoData	NoData
07/09/2013 8:20	9,57	0	12,58	13,52	0	12,96	NoData	NoData	NoData
07/09/2013 8:25	10,65	0	12,59	13,75	0	12,98	NoData	NoData	NoData
07/09/2013 8:30	11,02	0	12,6	14,3	0	12,99	NoData	NoData	NoData
07/09/2013 8:35	11,58	0	12,61	14,42	0	13,01	NoData	NoData	NoData
07/09/2013 8:40	11,72	0	12,63	14,9	0	13,02	NoData	NoData	NoData
07/09/2013 8:45	11,98	0	12,64	15,6	0	13,04	NoData	NoData	NoData
07/09/2013 8:50	12,4	0	12,66	15,62	0	13,06	NoData	NoData	NoData
07/09/2013 8:55	12,52	0	12,67	16,49	0	13,07	NoData	NoData	NoData
07/09/2013 9:00	12,45	0	12,71	16,55	0	13,09	NoData	NoData	NoData
07/09/2013 9:05	12,87	0	12,74	16,91	0	13,11	NoData	NoData	NoData



07/09/2013 9:10	12,77	0	12,78	17,46	0	13,12	NoData	NoData	NoData
07/09/2013 9:15	13,65	0	12,82	17,66	0	13,14	NoData	NoData	NoData
07/09/2013 9:20	13,68	0	12,87	19,24	0	13,15	NoData	NoData	NoData
07/09/2013 9:25	13,99	0	12,91	20,24	0	13,17	NoData	NoData	NoData
07/09/2013 9:30	14,14	0	12,96	20,58	0	13,2	NoData	NoData	NoData
07/09/2013 9:35	13,98	0	13,01	20,71	0	13,22	NoData	NoData	NoData
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07/09/2013 9:50	14,3	0	13,12	21,18	0	13,29	NoData	NoData	NoData
07/09/2013 9:55	14,77	0	13,16	21,83	0	13,34	NoData	NoData	NoData
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07/09/2013 10:10	14,85	0	13,09	21,85	0	13,31	NoData	NoData	NoData
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07/09/2013 10:35	14,23	0	13,08	20,99	0	13,43	NoData	NoData	NoData
07/09/2013 10:40	14,36	0	13,06	21,37	0	13,43	NoData	NoData	NoData
07/09/2013 10:45	14,12	0	13,04	21,61	0	13,45	NoData	NoData	NoData
07/09/2013 10:50	14,39	0	13,02	22,22	0	13,39	NoData	NoData	NoData
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07/09/2013 11:15	16,2	0	12,99	23,67	0	13,54	NoData	NoData	NoData
07/09/2013 11:20	15,49	0	13,02	24,32	0	13,54	NoData	NoData	NoData
07/09/2013 11:25	14,51	0	13,17	22,09	0	13,55	NoData	NoData	NoData
07/09/2013 11:30	14,41	0	13,27	22,43	0	13,55	NoData	NoData	NoData
07/09/2013 11:35	14,4	0	13,29	24,64	2	13,51	NoData	NoData	NoData
07/09/2013 11:40	14,52	0	13,31	22,84	2	13,56	NoData	NoData	NoData
07/09/2013 11:45	14,29	0	13,32	22,59	0	13,57	NoData	NoData	NoData
07/09/2013 11:50	14,33	0	13,34	23,01	2	13,56	NoData	NoData	NoData
07/09/2013 11:55	14,72	0	13,35	22,14	0	13,57	NoData	NoData	NoData
07/09/2013 12:00	14,83	0	13,37	22,66	0	13,58	NoData	NoData	NoData
07/09/2013 12:05	14,81	0	13,38	23,28	0	13,57	NoData	NoData	NoData
07/09/2013 12:10	15,03	0	13,4	23,77	2	13,55	NoData	NoData	NoData
07/09/2013 12:15	15,33	0	13,42	23,21	2	13,53	NoData	NoData	NoData
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07/09/2013 12:35	15,51	0	13,5	23,43	2	13,54	NoData	NoData	NoData
07/09/2013 12:40	15,45	0	13,53	25,75	2	13,52	NoData	NoData	NoData
07/09/2013 12:45	15,19	0	13,55	23,95	0	13,58	NoData	NoData	NoData
07/09/2013 12:50	15,13	0	13,58	21,04	0	13,58	NoData	NoData	NoData
07/09/2013 12:55	14,69	0	13,6	22,8	0	13,58	NoData	NoData	NoData
07/09/2013 13:00	14,76	0	13,63	21,33	0	13,58	NoData	NoData	NoData
07/09/2013 13:05	14,58	0	13,66	22,53	2	13,56	NoData	NoData	NoData
07/09/2013 13:10	14,53	0	13,7	27,74	2	13,46	NoData	NoData	NoData
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07/09/2013 13:20	14,7	0	13,77	21,04	0	13,57	NoData	NoData	NoData
07/09/2013 13:25	13,87	0	13,8	21,51	0	13,56	NoData	NoData	NoData
07/09/2013 13:30	13,89	0	13,85	20,89	0	13,56	NoData	NoData	NoData
07/09/2013 13:35	14,01	0	13,89	21,18	0	13,56	NoData	NoData	NoData
07/09/2013 13:40	14	0	13,91	20,86	0	13,55	NoData	NoData	NoData
07/09/2013 13:45	14,25	0	13,91	21,43	0	13,54	NoData	NoData	NoData
07/09/2013 13:50	13,89	0	13,92	20,36	0	13,54	NoData	NoData	NoData
07/09/2013 13:55	14,01	0	13,92	21,37	0	13,54	NoData	NoData	NoData
07/09/2013 14:00	14,03	0	13,92	22,02	0	13,52	NoData	NoData	NoData
07/09/2013 14:05	13,83	0	13,82	21,25	0	13,52	NoData	NoData	NoData
07/09/2013 14:10	14,21	0	13,2	21,09	0	13,51	NoData	NoData	NoData
07/09/2013 14:15	14,03	0	13,16	20,51	0	13,5	NoData	NoData	NoData
07/09/2013 14:20	14,41	0	13,16	20,76	0	13,49	NoData	NoData	NoData
07/09/2013 14:25	14,39	0	13,16	21,27	0	13,48	NoData	NoData	NoData
07/09/2013 14:30	14,41	0	13,16	21,07	0	13,47	NoData	NoData	NoData
07/09/2013 14:35	14,98	0	13,17	21,65	0	13,46	NoData	NoData	NoData
07/09/2013 14:40	14,69	0	13,16	23,91	2	13,39	NoData	NoData	NoData

07/09/2013 14:45	14,9	0	13,16	21,65	0	13,43	NoData	NoData	NoData
07/09/2013 14:50	15,25	0	13,16	21,31	0	13,42	NoData	NoData	NoData
07/09/2013 14:55	14,93	0	13,16	22,97	0	13,41	NoData	NoData	NoData
07/09/2013 15:00	15,17	0	13,16	23,03	0	13,39	NoData	NoData	NoData
07/09/2013 15:05	15	0	13,16	21,77	0	13,37	NoData	NoData	NoData
07/09/2013 15:10	14,8	0	13,19	21,41	0	13,35	NoData	NoData	NoData
07/09/2013 15:15	14,86	0	13,2	21,47	0	13,33	NoData	NoData	NoData
07/09/2013 15:20	14,69	0	13,2	21,38	0	13,31	NoData	NoData	NoData
07/09/2013 15:25	14,75	0	13,2	21,93	0	13,28	NoData	NoData	NoData
07/09/2013 15:30	14,69	0	13,2	21,67	0	13,25	NoData	NoData	NoData
07/09/2013 15:35	14,78	0	13,2	22,04	0	13,22	NoData	NoData	NoData
07/09/2013 15:40	15,29	0	13,2	21,81	0	13,18	NoData	NoData	NoData
07/09/2013 15:45	15,73	0	13,2	21,84	0	13,14	NoData	NoData	NoData
07/09/2013 15:50	15,47	0	13,2	20,97	0	13,1	NoData	NoData	NoData
07/09/2013 15:55	16,19	0	13,17	20,67	0	13,05	NoData	NoData	NoData
07/09/2013 16:00	16,35	0	13,13	20,21	0	13	NoData	NoData	NoData
07/09/2013 16:05	14,83	0	13,06	18,88	0	12,96	NoData	NoData	NoData
07/09/2013 16:10	14,28	0	13,03	18,59	0	12,92	NoData	NoData	NoData
07/09/2013 16:15	13,68	0	13,03	19,42	0	12,9	NoData	NoData	NoData
07/09/2013 16:20	13,42	0	13,02	18,23	0	12,89	NoData	NoData	NoData
07/09/2013 16:25	13,16	0	13,01	20,01	0	12,87	NoData	NoData	NoData
07/09/2013 16:30	13,61	0	13	20,11	0	12,87	NoData	NoData	NoData
07/09/2013 16:35	13,47	0	12,99	20,6	0	12,86	NoData	NoData	NoData
07/09/2013 16:40	13,31	0	12,99	20,72	0	12,85	NoData	NoData	NoData
07/09/2013 16:45	13,1	0	12,99	21,24	0	12,85	NoData	NoData	NoData
07/09/2013 16:50	13,15	0	12,99	21,42	0	12,85	NoData	NoData	NoData
07/09/2013 16:55	12,91	0	13	22,37	0	12,84	NoData	NoData	NoData
07/09/2013 17:00	13,99	0	12,99	23,79	0	12,84	NoData	NoData	NoData
07/09/2013 17:05	12,66	0	12,98	22,71	0	12,84	NoData	NoData	NoData
07/09/2013 17:10	12,52	0	12,97	23,35	0	12,83	NoData	NoData	NoData
07/09/2013 17:15	13,5	0	12,96	23,47	0	12,83	NoData	NoData	NoData
07/09/2013 17:20	13,99	0	12,95	23,77	0	12,82	NoData	NoData	NoData
07/09/2013 17:25	14,37	0	12,95	25,23	0	12,82	NoData	NoData	NoData
07/09/2013 17:30	14,91	0	12,94	24,05	0	12,82	NoData	NoData	NoData
07/09/2013 17:35	14,9	0	12,93	23,23	0	12,81	NoData	NoData	NoData
07/09/2013 17:40	15,3	0	12,92	22,89	0	12,81	NoData	NoData	NoData
07/09/2013 17:45	15,42	0	12,92	23,54	0	12,8	NoData	NoData	NoData
07/09/2013 17:50	15,52	0	12,91	22,6	0	12,8	NoData	NoData	NoData
07/09/2013 17:55	15,72	0	12,91	22,14	0	12,79	NoData	NoData	NoData
07/09/2013 18:00	15,71	0	12,9	22,45	0	12,79	NoData	NoData	NoData
07/09/2013 18:05	16,16	0	12,89	22,14	0	12,79	NoData	NoData	NoData
07/09/2013 18:10	15,68	0	12,89	21,36	0	12,78	NoData	NoData	NoData
07/09/2013 18:15	16,43	0	12,89	20,93	0	12,78	NoData	NoData	NoData
07/09/2013 18:20	16,72	0	12,88	20,92	0	12,77	NoData	NoData	NoData
07/09/2013 18:25	16,5	0	12,88	20,9	0	12,77	NoData	NoData	NoData
07/09/2013 18:30	16,84	0	12,88	20,72	0	12,77	NoData	NoData	NoData
07/09/2013 18:35	16,81	0	12,87	20,7	0	12,77	NoData	NoData	NoData
07/09/2013 18:40	17,72	0	12,87	20,98	0	12,76	NoData	NoData	NoData
07/09/2013 18:45	17,08	0	12,87	21,02	0	12,76	NoData	NoData	NoData
07/09/2013 18:50	18,19	0	12,86	20,82	0	12,76	NoData	NoData	NoData
07/09/2013 18:55	17,91	0	12,86	21,24	0	12,75	NoData	NoData	NoData
07/09/2013 19:00	18,33	0	12,86	21,18	0	12,75	NoData	NoData	NoData
07/09/2013 19:05	18,54	0	12,86	21,37	0	12,75	NoData	NoData	NoData
07/09/2013 19:10	18,76	0	12,85	21,59	0	12,74	NoData	NoData	NoData
07/09/2013 19:15	19,31	0	12,85	21,39	0	12,74	NoData	NoData	NoData
07/09/2013 19:20	19,2	0	12,85	21,37	0	12,74	NoData	NoData	NoData
07/09/2013 19:25	18,65	0	12,84	21,91	0	12,74	NoData	NoData	NoData
07/09/2013 19:30	18,43	0	12,84	21,12	0	12,73	NoData	NoData	NoData
07/09/2013 19:35	17,82	0	12,84	20,85	0	12,73	NoData	NoData	NoData
07/09/2013 19:40	18,48	0	12,84	20,91	0	12,73	NoData	NoData	NoData
07/09/2013 19:45	18,5	0	12,83	20,83	0	12,73	NoData	NoData	NoData
07/09/2013 19:50	17,95	0	12,83	21,06	0	12,72	NoData	NoData	NoData
07/09/2013 19:55	17,49	0	12,83	21,03	0	12,72	NoData	NoData	NoData
07/09/2013 20:00	17,58	0	12,83	20,98	0	12,72	NoData	NoData	NoData
07/09/2013 20:05	17,5	0	12,82	21,01	0	12,72	NoData	NoData	NoData
07/09/2013 20:10	18,03	0	12,82	21,45	0	12,71	NoData	NoData	NoData
07/09/2013 20:15	17,6	0	12,82	21,18	0	12,71	NoData	NoData	NoData

07/09/2013 20:20	18	0	12,81	21,08	0	12,71	NoData	NoData	NoData
07/09/2013 20:25	17,61	0	12,81	21,2	0	12,71	NoData	NoData	NoData
07/09/2013 20:30	18,04	0	12,81	20,77	0	12,7	NoData	NoData	NoData
07/09/2013 20:35	18,2	0	12,81	20,84	0	12,7	NoData	NoData	NoData
07/09/2013 20:40	18,74	0	12,8	20,8	0	12,7	NoData	NoData	NoData
07/09/2013 20:45	18,88	0	12,8	20,9	0	12,7	NoData	NoData	NoData
07/09/2013 20:50	19,05	0	12,8	20,38	0	12,69	NoData	NoData	NoData
07/09/2013 20:55	18,37	0	12,8	20,67	0	12,69	NoData	NoData	NoData
07/09/2013 21:00	18,63	0	12,8	20,56	0	12,69	NoData	NoData	NoData
07/09/2013 21:05	18,57	0	12,79	20,65	0	12,69	NoData	NoData	NoData
07/09/2013 21:10	17,05	0	12,79	20,3	0	12,69	NoData	NoData	NoData
07/09/2013 21:15	17,95	0	12,79	20,32	0	12,68	NoData	NoData	NoData
07/09/2013 21:20	16,69	0	12,79	19,88	0	12,68	NoData	NoData	NoData
07/09/2013 21:25	16,65	0	12,79	19,56	0	12,68	NoData	NoData	NoData
07/09/2013 21:30	16,9	0	12,78	19,46	0	12,68	NoData	NoData	NoData
07/09/2013 21:35	16,59	0	12,78	19,14	0	12,67	NoData	NoData	NoData
07/09/2013 21:40	16,3	0	12,78	19,33	0	12,67	NoData	NoData	NoData
07/09/2013 21:45	15,97	0	12,77	18,57	0	12,67	NoData	NoData	NoData
07/09/2013 21:50	15,91	0	12,77	18,61	0	12,67	NoData	NoData	NoData
07/09/2013 21:55	15,44	0	12,77	18,51	0	12,67	NoData	NoData	NoData
07/09/2013 22:00	14,29	0	12,77	18,24	0	12,66	NoData	NoData	NoData
07/09/2013 22:05	13,93	0	12,77	18,04	0	12,66	NoData	NoData	NoData
07/09/2013 22:10	13,89	0	12,76	17,77	0	12,66	NoData	NoData	NoData
07/09/2013 22:15	14,57	0	12,76	17,96	0	12,66	NoData	NoData	NoData
07/09/2013 22:20	15,5	0	12,76	20,04	0	12,66	NoData	NoData	NoData
07/09/2013 22:25	15,59	0	12,76	20,37	0	12,65	NoData	NoData	NoData
07/09/2013 22:30	15,25	0	12,76	20,85	0	12,65	NoData	NoData	NoData
07/09/2013 22:35	15,52	0	12,75	19,71	0	12,65	NoData	NoData	NoData
07/09/2013 22:40	14,72	0	12,75	18,14	0	12,65	NoData	NoData	NoData
07/09/2013 22:45	14,85	0	12,75	18,02	0	12,64	NoData	NoData	NoData
07/09/2013 22:50	14,45	0	12,75	16,75	0	12,64	NoData	NoData	NoData
07/09/2013 22:55	14,71	0	12,75	16,28	0	12,64	NoData	NoData	NoData
07/09/2013 23:00	14,57	0	12,75	16,3	0	12,64	NoData	NoData	NoData
07/09/2013 23:05	14,91	0	12,74	16,69	0	12,63	NoData	NoData	NoData
07/09/2013 23:10	15,47	0	12,74	16,8	0	12,64	NoData	NoData	NoData
07/09/2013 23:15	15,94	0	12,74	16,57	0	12,63	NoData	NoData	NoData
07/09/2013 23:20	15,12	0	12,74	16,44	0	12,63	NoData	NoData	NoData
07/09/2013 23:25	14,81	0	12,74	16,58	0	12,63	NoData	NoData	NoData
07/09/2013 23:30	14,33	0	12,73	16,46	0	12,63	NoData	NoData	NoData
07/09/2013 23:35	14,61	0	12,73	16,64	0	12,62	NoData	NoData	NoData
07/09/2013 23:40	14,3	0	12,73	16,62	0	12,62	NoData	NoData	NoData
07/09/2013 23:45	14,27	0	12,73	16,42	0	12,62	NoData	NoData	NoData
07/09/2013 23:50	14,14	0	12,72	16,61	0	12,62	NoData	NoData	NoData
07/09/2013 23:55	14,81	0	12,72	16,21	0	12,62	NoData	NoData	NoData
08/09/2013 0:00	14,07	0	12,72	16,57	0	12,62	NoData	NoData	NoData
08/09/2013 0:05	13,46	0	12,71	16,37	0	12,61	NoData	NoData	NoData
08/09/2013 0:10	13,15	0	12,71	16,34	0	12,61	NoData	NoData	NoData
08/09/2013 0:15	13,02	0	12,71	16,31	0	12,61	NoData	NoData	NoData
08/09/2013 0:20	13,42	0	12,71	16,67	0	12,61	NoData	NoData	NoData
08/09/2013 0:25	12,76	0	12,71	16,41	0	12,61	NoData	NoData	NoData
08/09/2013 0:30	11,7	0	12,7	16,45	0	12,61	NoData	NoData	NoData
08/09/2013 0:35	11,44	0	12,68	16,55	0	12,6	NoData	NoData	NoData
08/09/2013 0:40	12,55	0	12,68	16,43	0	12,6	NoData	NoData	NoData
08/09/2013 0:45	12,99	0	12,68	16,65	0	12,6	NoData	NoData	NoData
08/09/2013 0:50	12,52	0	12,68	16,56	0	12,6	NoData	NoData	NoData
08/09/2013 0:55	12,53	0	12,67	16,62	0	12,6	NoData	NoData	NoData
08/09/2013 1:00	12,55	0	12,67	16,74	0	12,59	NoData	NoData	NoData
08/09/2013 1:05	13,08	0	12,67	16,4	0	12,59	NoData	NoData	NoData
08/09/2013 1:10	13,18	0	12,67	16,35	0	12,59	NoData	NoData	NoData
08/09/2013 1:15	13,8	0	12,66	16,77	0	12,59	NoData	NoData	NoData
08/09/2013 1:20	13,39	0	12,66	16,98	0	12,58	NoData	NoData	NoData
08/09/2013 1:25	13,6	0	12,66	16,84	0	12,59	NoData	NoData	NoData
08/09/2013 1:30	12,92	0	12,66	17,58	0	12,58	NoData	NoData	NoData
08/09/2013 1:35	12,9	0	12,65	16,63	0	12,58	NoData	NoData	NoData
08/09/2013 1:40	12,1	0	12,66	15,82	0	12,58	NoData	NoData	NoData
08/09/2013 1:45	12,08	0	12,67	16,18	0	12,58	NoData	NoData	NoData
08/09/2013 1:50	12,23	0	12,67	15,89	0	12,57	NoData	NoData	NoData

08/09/2013 1:55	12,44	0	12,67	15,88	0	12,57	NoData	NoData	NoData
08/09/2013 2:00	12,26	0	12,66	15,88	0	12,57	NoData	NoData	NoData
08/09/2013 2:05	12,27	0	12,67	15,33	0	12,57	NoData	NoData	NoData
08/09/2013 2:10	11,96	0	12,66	15,24	0	12,56	NoData	NoData	NoData
08/09/2013 2:15	12,12	0	12,66	15,18	0	12,56	NoData	NoData	NoData
08/09/2013 2:20	11,92	0	12,66	15,13	0	12,56	NoData	NoData	NoData
08/09/2013 2:25	11,25	0	12,66	14,96	0	12,56	NoData	NoData	NoData
08/09/2013 2:30	11,57	0	12,66	15,08	0	12,56	NoData	NoData	NoData
08/09/2013 2:35	11,63	0	12,66	15,17	0	12,56	NoData	NoData	NoData
08/09/2013 2:40	11,55	0	12,66	14,86	0	12,55	NoData	NoData	NoData
08/09/2013 2:45	12,28	0	12,65	15,13	0	12,55	NoData	NoData	NoData
08/09/2013 2:50	12,25	0	12,66	15,08	0	12,55	NoData	NoData	NoData
08/09/2013 2:55	12,52	0	12,65	14,96	0	12,55	NoData	NoData	NoData
08/09/2013 3:00	13,07	0	12,65	14,94	0	12,55	NoData	NoData	NoData
08/09/2013 3:05	14,52	0	12,65	14,87	0	12,55	NoData	NoData	NoData
08/09/2013 3:10	12,29	0	12,65	14,81	0	12,54	NoData	NoData	NoData
08/09/2013 3:15	11,02	0	12,64	14,94	0	12,54	NoData	NoData	NoData
08/09/2013 3:20	11,11	0	12,64	14,55	0	12,54	NoData	NoData	NoData
08/09/2013 3:25	12,11	0	12,63	14,46	0	12,54	NoData	NoData	NoData
08/09/2013 3:30	12,18	0	12,63	14,64	0	12,53	NoData	NoData	NoData
08/09/2013 3:35	10,83	0	12,63	14,62	0	12,53	NoData	NoData	NoData
08/09/2013 3:40	11,01	0	12,63	14,56	0	12,53	NoData	NoData	NoData
08/09/2013 3:45	10,81	0	12,62	14,4	0	12,53	NoData	NoData	NoData
08/09/2013 3:50	10,81	0	12,62	14,31	0	12,52	NoData	NoData	NoData
08/09/2013 3:55	11,11	0	12,62	14,96	0	12,53	NoData	NoData	NoData
08/09/2013 4:00	11,87	0	12,62	16,78	0	12,52	NoData	NoData	NoData
08/09/2013 4:05	11,5	0	12,61	17,16	0	12,52	NoData	NoData	NoData
08/09/2013 4:10	12,39	0	12,61	14,26	0	12,51	NoData	NoData	NoData
08/09/2013 4:15	13,11	0	12,6	13,91	0	12,51	NoData	NoData	NoData
08/09/2013 4:20	14,08	0	12,6	14,12	0	12,51	NoData	NoData	NoData
08/09/2013 4:25	13,3	0	12,59	13,58	0	12,5	NoData	NoData	NoData
08/09/2013 4:30	12,83	0	12,59	13,57	0	12,51	NoData	NoData	NoData
08/09/2013 4:35	12,34	0	12,58	19,71	2	12,46	NoData	NoData	NoData
08/09/2013 4:40	11,64	0	12,58	30,94	2	12,37	NoData	NoData	NoData
08/09/2013 4:45	10,4	0	12,58	30,63	2	12,37	NoData	NoData	NoData
08/09/2013 4:50	11,23	0	12,58	21,11	0	12,5	NoData	NoData	NoData
08/09/2013 4:55	12,51	0	12,57	20,41	0	12,5	NoData	NoData	NoData
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08/09/2013 5:05	12,33	0	12,57	13,34	0	12,49	NoData	NoData	NoData
08/09/2013 5:10	12,26	0	12,57	13,25	0	12,49	NoData	NoData	NoData
08/09/2013 5:15	11,78	0	12,56	13,4	0	12,49	NoData	NoData	NoData
08/09/2013 5:20	11,39	0	12,56	13,54	0	12,48	NoData	NoData	NoData
08/09/2013 5:25	11,23	0	12,56	13,49	0	12,48	NoData	NoData	NoData
08/09/2013 5:30	11,98	0	12,56	15,47	0	12,48	NoData	NoData	NoData
08/09/2013 5:35	10,75	0	12,55	15,68	0	12,48	NoData	NoData	NoData
08/09/2013 5:40	9,94	0	12,55	16,65	0	12,47	NoData	NoData	NoData
08/09/2013 5:45	10,06	0	12,55	16,89	0	12,48	NoData	NoData	NoData
08/09/2013 5:50	10,92	0	12,55	16,9	0	12,47	NoData	NoData	NoData
08/09/2013 5:55	10,4	0	12,54	14,62	0	12,47	NoData	NoData	NoData
08/09/2013 6:00	10,88	0	12,54	13,48	0	12,47	NoData	NoData	NoData
08/09/2013 6:05	11,46	0	12,54	13,28	0	12,47	NoData	NoData	NoData
08/09/2013 6:10	10,85	0	12,54	12,82	0	12,46	NoData	NoData	NoData
08/09/2013 6:15	10,41	0	12,53	12,73	0	12,46	NoData	NoData	NoData
08/09/2013 6:20	11,79	0	12,53	12,1	0	12,46	NoData	NoData	NoData
08/09/2013 6:25	10,91	0	12,53	13,64	0	12,46	NoData	NoData	NoData
08/09/2013 6:30	11,06	0	12,53	17,25	0	12,46	NoData	NoData	NoData
08/09/2013 6:35	9,83	0	12,53	15,47	0	12,46	NoData	NoData	NoData
08/09/2013 6:40	9,38	0	12,53	12,69	0	12,46	NoData	NoData	NoData
08/09/2013 6:45	8,9	0	12,53	11,75	0	12,46	NoData	NoData	NoData
08/09/2013 6:50	10,84	0	12,53	12,02	0	12,46	NoData	NoData	NoData
08/09/2013 6:55	12,05	0	12,53	11,97	0	12,46	NoData	NoData	NoData
08/09/2013 7:00	12,14	0	12,54	12,61	0	12,46	NoData	NoData	NoData
08/09/2013 7:05	10,14	0	12,53	12,89	0	12,46	NoData	NoData	NoData
08/09/2013 7:10	10	0	12,54	12,56	0	12,46	NoData	NoData	NoData
08/09/2013 7:15	9,87	0	12,54	11,91	0	12,69	NoData	NoData	NoData
08/09/2013 7:20	10,89	0	12,54	11,61	0	12,89	NoData	NoData	NoData
08/09/2013 7:25	11,16	0	12,54	11,13	0	12,98	NoData	NoData	NoData

08/09/2013 7:30	11,16	0	12,54	12,01	0	13,04	NoData	NoData	NoData
08/09/2013 7:35	11,47	0	12,54	12,58	0	13,09	NoData	NoData	NoData
08/09/2013 7:40	12,4	0	12,55	15,53	0	13,12	NoData	NoData	NoData
08/09/2013 7:45	13,55	0	12,55	14,17	0	13,14	NoData	NoData	NoData
08/09/2013 7:50	14,22	0	12,55	13,62	0	13,16	NoData	NoData	NoData
08/09/2013 7:55	14,06	0	12,55	14,4	0	13,17	NoData	NoData	NoData
08/09/2013 8:00	12,93	0	12,56	15,84	2	13,18	NoData	NoData	NoData
Minimum	-0,45	0	12,31	-0,56	0	11,1	-0,64	0	9,17
MinDate	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum	23,54	2	14,13	272,48	2	13,95	31,13	2	13,29
MaxDate	#####	#####	#####	#####	#####	#####	#####	#####	#####
Avg	8,65	0	12,89	12,58	0	12,2	6,17	0	11,62
Num	4754	4754	4754	4070	4070	4070	4023	4023	4023
Data[%]	99	99	99	84	84	84	83	83	83
STD	3,4	0,1	0,3	10,9	0,3	0,5	2,5	0,1	1,1



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ATTACHMENT 11

Water inventory for Dust suppression

Condition Material	56,00			56,00	20	Condition Material				0,00	20					0,00	20					0,00	20					0,00				
				0,00		Dust Suppresion	72,00					0,00							0,00													0,00
Cut To Fill Area 3	56,00			56,00	21	Cut to fill area 3				0,00	21					0,00	21					0,00	21					0,00				
Condition Material	42,00			42,00		Condition Material	29,00					29,00	Condition Material						0,00	Dust Suppresion	87,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	70,00			70,00	22	Cut to fill area 3				0,00	22					0,00	22					0,00	22					0,00				
Condition Material	56,00			56,00		Condition Material	29,00					29,00	Condition Material						0,00	Dust Suppresion	87,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	70,00			70,00	23	Cut to fill area 3				0,00	23					0,00	23					0,00	23					0,00				
Condition Material		102,00		102,00		Condition Material	44,00					44,00	Condition Material						0,00	Dust Suppresion	73,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3		51,00		51,00	24	Cut to fill area 3				0,00	24					0,00	24					0,00	24					0,00				
Condition Material		51,00		51,00		Condition Material	14,00					14,00	Condition Material						0,00	Dust Suppresion	73,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	70,00			70,00	25	Cut to fill area 3				0,00	25					0,00	25					0,00	25					0,00				
Condition Material	84,00			84,00		Condition Material						0,00	Condition Material						0,00	Dust Suppresion	29,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	98,00			98,00	26	Cut to fill area 3				0,00	26					0,00	26					0,00	26					0,00				
Condition Material	70,00			70,00		Condition Material	29,00					29,00	Condition Material						0,00	Dust Suppresion	73,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	112,00			112,00	27	Cut to fill area 3				0,00	27					0,00	27					0,00	27					0,00				
Condition Material	70,00			70,00		Condition Material	44,00					44,00	Condition Material						0,00	Dust Suppresion	58,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill	126,00			126,00	28	Cut to fill area 3				0,00	28					0,00	28					0,00	28					0,00				
Condition Mterial	70,00			70,00		Condition Material	44,00					44,00	Condition Material						0,00	Dust Suppresion	87,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	98,00			98,00	29	Cut to fill area 3				0,00	29					0,00	29					0,00	29					0,00				
Condition Material	85,00			85,00		Condition Material	29,00					29,00	Condition Material						0,00	Dust Suppresion	73,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	126,00			126,00	30	Cut to fill area 3				0,00	30					0,00	30					0,00	30					0,00				
Condition Material	85,00			85,00		Condition Material	29,00					29,00	Condition Material						0,00	Dust Suppresion	102,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00
Cut To Fill Area 3	98,00			98,00	31	Cut to fill area 3				0,00	31					0,00	31					0,00	31					0,00				
Condition Material	70,00			70,00		Condition Material						29,00	Condition Material						0,00	Dust Suppresion	87,00					0,00	Dust Suppresion					0,00
				0,00								0,00							0,00							0,00						0,00

	1		1					1			1					1		1			1		1			1				
			1		1					1				1				1			1		1			1				
1		1				1	1			1			1			1			1		1			1		1				
1	1	1				1	1			1			1			1		1		1		1		1		1				
									1																					
7		7		6		7		5		6		6		5		5		2		5		4		6		5		7		6

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ATTACHMENT 12



Air quality monitoring equipment at site boundary.

Table 1: Air Quality Monitoring Equipment located at Site Boundary.

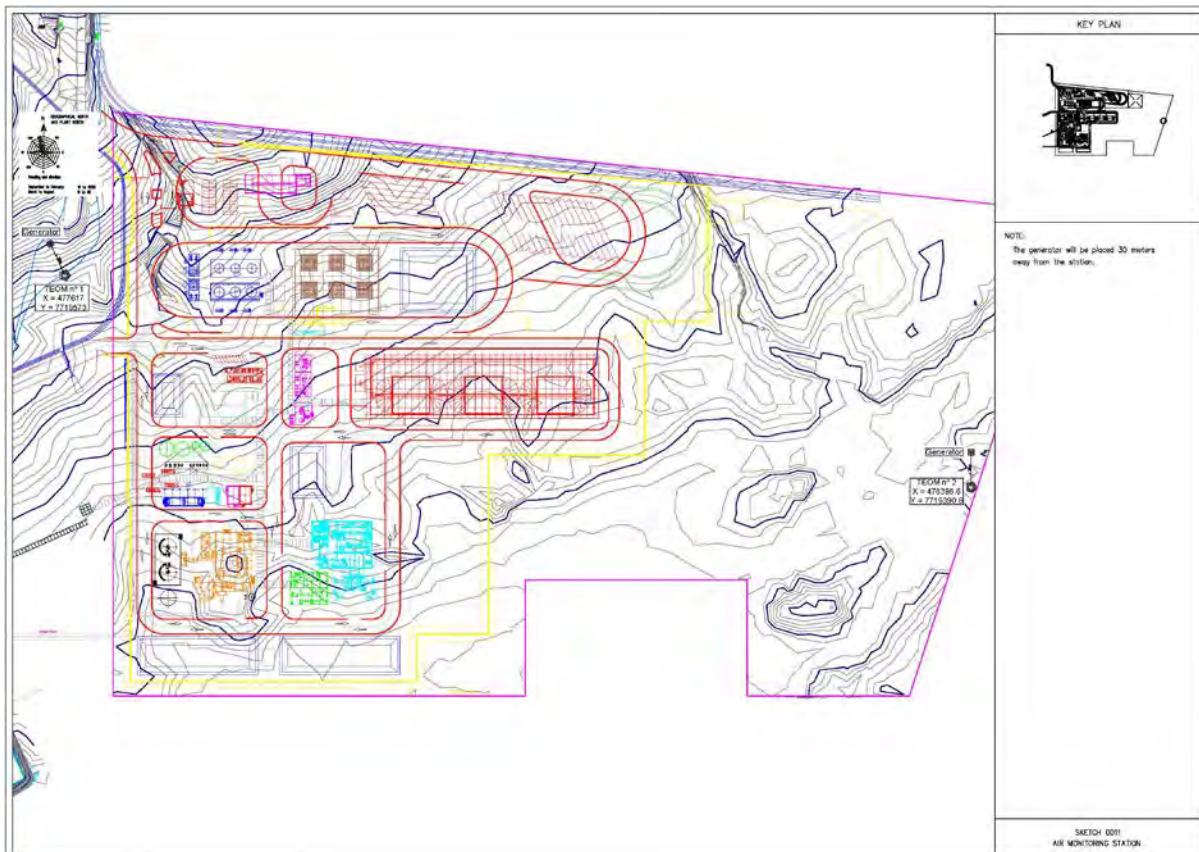
Type of Monitoring	Monitoring Location	Monitoring Frequency	Monitoring Equipment	Trigger Threshold for Additional Mitigation
<i>Construction Compliance Monitoring (During Construction for a Period of 31 months)</i>				
PM ₁₀ ambient concentration	E1 - Eastern site boundary	Continuous	One TEOM (AS 3580.9.8:2008)	The trigger level is proposed to be set at three levels (Alert Level, Remedial Action Level and Extreme Action Level) to be protective of the overall 24-hour average PM ₁₀ criterion (50 µg/m ³).
	W1 – Western site boundary	Continuous	One TEOM (AS 3580.9.8:2008)	
Dust deposition	E1 - Eastern site boundary	Monthly	One Deposition gauge (AS 3580.10.1: 2003)	Total of 4 g/m ² /month, with no more than 2 g/m ² /month above baseline levels. Baseline levels are defined through baseline monitoring (detailed in OAQMP).
	W1 – Western site boundary	Monthly	One Deposition gauge (AS 3580.10.1: 2003)	
<i>Weather Monitoring (Continuous During Construction Compliance Monitoring)</i>				
Wind speed and direction	W1 – Western site boundary	Continuous	Anemometer	
Temperature		Continuous	Temperature sensor	
Rainfall rate		Monthly	Tipping rain gauge	

Table 2: Coordinates of monitoring locations at Site Boundary.

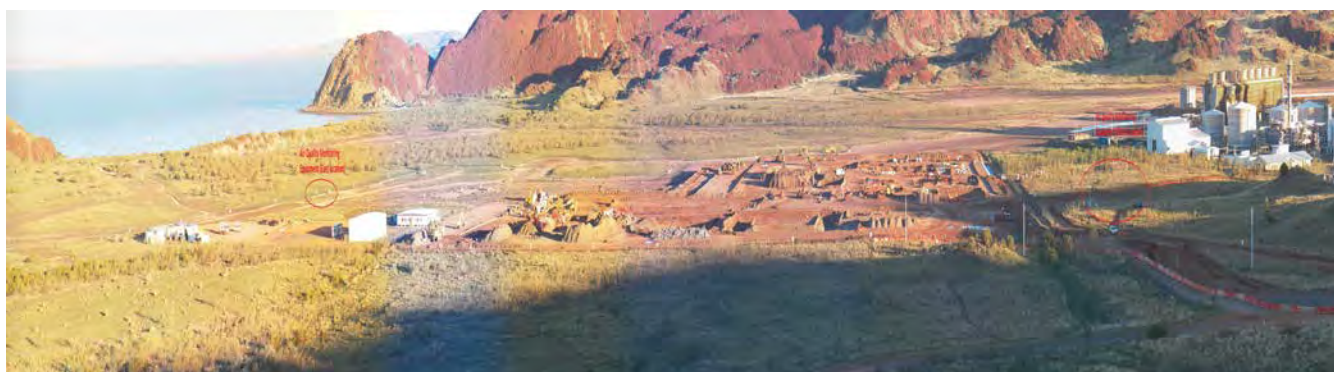
Monitoring location	North	East
W1 – Western site boundary	7719573	4776617
E1 - Eastern site boundary	7719390.6	478398.6



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Sketch with location of Air Quality Monitoring Equipment



Panoramic view with Air Quality Monitoring Equipment allocated



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Picture 1: E1 - Eastern site boundary.



Picture 2: E1 - Eastern site boundary.



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Picture 3: E1 - Eastern site boundary.



Picture 4: W1 - Western site boundary.



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Picture 5: W1 - Western site boundary.





Picture 6: W1 - Western site boundary.



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Picture 7: W1 - Western site boundary.



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ATTACHMENT 13

Air quality monitoring equipment at Rock Art sites.

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ATTACHMENT 14

WEED MAPPING REPORT





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ABBREVIATIONS

CEMP:	Construction Environmental Management Plan.
CWTH:	Commonwealth.
DEC:	Department of Environment and Conservation.
DRF:	Declared Rare Flora.
EPA:	Environmental Protection Authority.
EPBC:	Environment Protection and Biodiversity Conservation Act 1999.
TAN:	Technical Ammonium Nitrate.
TEC:	Threatened Ecological Communities.
TRSA:	Técnicas Reunidas S.A.
WA:	Western Australia.

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1. GENERAL INFORMATION

Técnicas Reunidas (TR) understands the importance of protecting the unique biota of the Burrup Peninsular. A Construction Environmental Management Plan (CEMP) has been established to address the potential environmental issues associated with the construction of the TAN Burrup Project (the project) and to make sure that they are compliant with the appropriate environmental legislation.

This report has been prepared as a record of the occurrence and distribution of weed species in the TAN Burrup Project area. During May 2013 the remnant vegetation on the site was traversed and species of vegetation identified as invasive were recorded and mapped.

1.1. LEGISLATION

Flora and weeds are governed under Commonwealth (Cwth) and Western Australian State (WA) legislation. Table 1 outlines the legislation relating to each aspect of the work required under the Construction Environment Management Plan: Attachment 10, (Técnicas Reunidas 2012).



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Table 1: Relevant Legislation

Legislation	Application
FLORA	
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Assesses the conservation significance of fauna and flora species and forms the framework for significant species protection at the Commonwealth level. Provides for the protection of matters of National Environmental Significance.
<i>Environmental Protection Act 1986</i> (WA)	State environmental impact assessment and Ministerial approval process.
WEEDS	
<i>Biological Control Act 1985</i> (CWTH)	Under which a weed may be declared a target for biological control, or a weed control agent may be identified.
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Protection on environmental matters of national significance. The EPBC Act also regulates the import and export of plants.
<i>The Quarantine Act 1908</i> (CWTH)	Enables the Australian Quarantine and Inspection Service to physically prevent the introduction of weeds through the inspection of incoming luggage, cargo, mail, animals and plants and their products. It also provides inspection and certification for a range of exports.
<i>Biological Control Act 1985</i> (CWTH)	Under which a weed may be declared a target for biological control, or a weed control agent may be identified.
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Protection on environmental matters of national significance. The EPBC Act also regulates the import and export of plants.

2. **BACKGROUND INFORMATION**



2.1. **VEGETATION MAPPING**

Vegetation in the TAN Burrup survey area has previously been mapped by Outback Ecology in April 2009. Of the vegetation types previously mapped in the survey area Coastal Flats, and Saline Inlet and Supratidal Flats are the vegetation types associated with the areas of remnant vegetation (Outback 2009).

2.2. **PREVIOUSLY RECORDED WEED SPECIES**

Three species of flora, *Cenchrus ciliaris* (Buffel Grass), *Aerva javanica* (Kapok Bush), and *Vachellia farnesiana*, have previously been recorded within the project area.

Buffel Grass was side spread throughout the project area and still occurs within the uncleared vegetation within the project area. The native vegetation that has been cleared can be found in. The *Vachellia farnesiana* was recorded in the north-western section of the project area. This area has now been cleared and it is likely that this species has been removed from site. The area from which the Kapok Bush was recorded is unknown.

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2.3. POTENTIALLY OCCURRING WEED SPECIES

None of the introduced flora species recorded in the project area are listed as Declared Weeds under the *Agricultural and Related Resource Protection Act 1976*. However, they are listed under the *Environmental Weed Strategy for Western Australia* (DEC, 1993), as having a ‘High’ rating.

3. WEED DISTRIBUTION

On the 25th and 26th of May the TAN Burrup Project Area was traversed and the weed species were mapped. Of the three species identified as occurring in the project area prior to clearing, only two, *Cenchrus ciliaris* (Buffel Grass) and *Aerva javanica* (Kapok Bush) in Image 1 and 2 respectively, were encountered during the survey. The occurrence of weed species in the remnant vegetation on the TAN Burrup Project have been mapped in Figure 1: Weed Map.



Image 1: Buffel Grass (*Cenchrus ciliaris*) with some clumps of Sppinifex (*Triodia sp.*)



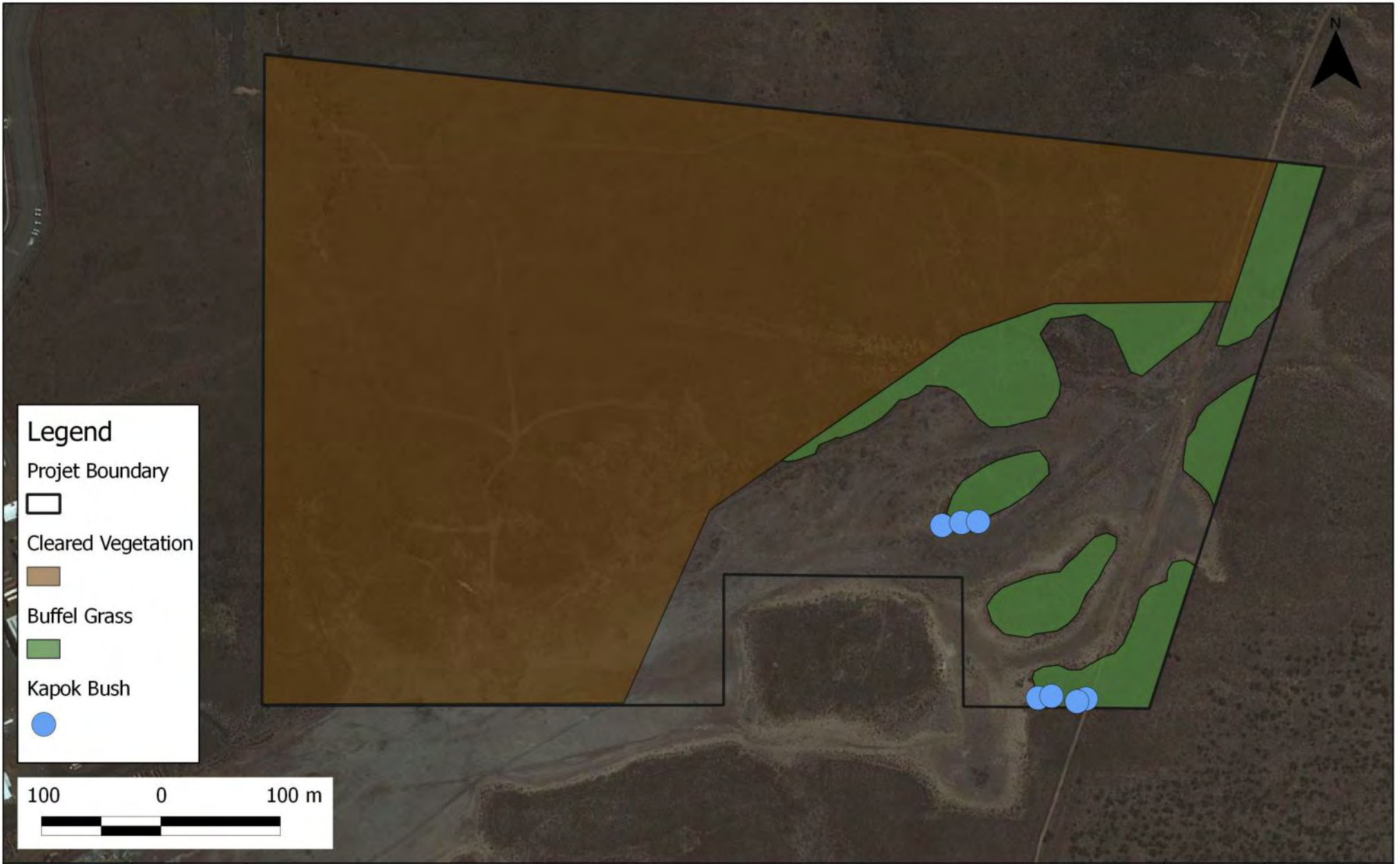





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Image 2: Kabok Bush (*Aerva javanica*)



	Drawn: Mike Brown	TAN Burrup Project	2080	
		Weed Map		
		FIGURE No: 01	REV 00	

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4. DISSCUSSION

Buffel Grass is wide spread throughout the remnant vegetation on the site. Its occurrence is restricted to the sandy areas which support the vegetation previously mapped as Coastal Flats (Ecologia 2009). Little penetration of Buffel Grass occurs into the areas mapped as Saline Inlet and Supratidal Flats, as these areas are more saline. Buffel Grass was also identified as being widespread throughout the Coastal Flats vegetation type outside of the project boundary.

Kapok Bush was identified as occurring in two areas of high disturbance. These areas were along fence lines and in areas of soil disturbance due to vehicle movement.

Due to Buffel Grass being widespread outside of the project area, control of this species in the remnant vegetation is unachievable. This is mainly due to the dispersal of this species' seeds being by wind. However, as the Kapok occurs only in isolated clumps the management of this species within the TAN Burrup Project Area is a lot more feasible. Spraying of individuals can occur and will remove this species from within the project area.

Continued vigilance in the monitoring of equipment for weeds as it is brought onto site will further help stop weed species being introduced to the site and minimise their spread.

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5. REFERENCES

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ATTACHMENT 15

Vehicle/Plant & Mobile Equipment Access Form. Vehicle Hygiene and Weed inspection Form.

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VEHICLE/PLANT & MOBILE EQUIPMENT ACCESS FORM

COMPANY:	DATE:
VEHICLE/ MACHINE MAKE:	ASSET N°:
MACHINE TYPE:	REGO:

HYGIENE INSPECTION:	Yes	N/A
WEED AND SEED CERTIFICATION ATTACHED?	<input type="checkbox"/>	<input type="checkbox"/>

PLANT AND EQUIPMENT INSPECTION	Yes	N/A
Side and Headlights (high and low beam) working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Tail and Brake Lights working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Reversing Lights and warning device working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Indicators working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Horn working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle Brakes working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Park Brake working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Seat Belts in good repair and working correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Wipers serviceable?	<input type="checkbox"/>	<input type="checkbox"/>
Tyres (including spare) correctly inflated and sufficient tread?	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle Panels, windows and mirrors clean and free of damage?	<input type="checkbox"/>	<input type="checkbox"/>
Fire Extinguisher secure, serviceable and correctly tagged?	<input type="checkbox"/>	<input type="checkbox"/>
Deluge system ~ serviceable and correctly tagged?	<input type="checkbox"/>	<input type="checkbox"/>
First Aid Kit fully stocked?	<input type="checkbox"/>	<input type="checkbox"/>
Windscreen washer reservoir correct level?	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle Jack, wheel brace and associated tools correct?	<input type="checkbox"/>	<input type="checkbox"/>
Operator Service manual in the vehicle?	<input type="checkbox"/>	<input type="checkbox"/>
Battery isolation functions correctly?	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle cabin free of tools and litter?	<input type="checkbox"/>	<input type="checkbox"/>
High lights fitted and functioning?	<input type="checkbox"/>	<input type="checkbox"/>
Flashing beacon clean, good repair and working?	<input type="checkbox"/>	<input type="checkbox"/>
2-way radio fitted in the LV and functioning	<input type="checkbox"/>	<input type="checkbox"/>
Slew warning device	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulic systems - hose secured and free of leaks.	<input type="checkbox"/>	<input type="checkbox"/>
Attachments - blades and buckets secure.	<input type="checkbox"/>	<input type="checkbox"/>
Attachments - forks, booms, work boxes ~ load chart and SWL marked.	<input type="checkbox"/>	<input type="checkbox"/>
Positive lockout on quick hitch couplings.	<input type="checkbox"/>	<input type="checkbox"/>

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VEHICLE/PLANT & MOBILE EQUIPMENT ACCESS FORM

PLANT AND EQUIPMENT INSPECTION	YES	N/A
All controls functional and labelled.	<input type="checkbox"/>	<input type="checkbox"/>
Emergency labels clear and clean.	<input type="checkbox"/>	<input type="checkbox"/>
ROPS / FOPS structure sound and appropriate.	<input type="checkbox"/>	<input type="checkbox"/>
Clearance warning signs in articulation areas	<input type="checkbox"/>	<input type="checkbox"/>
All engine and attachment rotating / moving parts guarded.	<input type="checkbox"/>	<input type="checkbox"/>
Access ladders and service platforms serviceable	<input type="checkbox"/>	<input type="checkbox"/>
Hand rail fitted – fall protection during prestart check and maintenance	<input type="checkbox"/>	<input type="checkbox"/>

PLANT/EQUIPMENT INSPECTION BY

Name: _____ Signature: _____

Contractor HSE Representative Approval: _____

Vehicle Hygiene and Weed Inspection Form

SECTION 1 – VEHICLE AND COMPANY DETAILS

Person wanting to bring vehicle/equipment to site	Vehicle Description	
	Name (of person requesting inspection):	Company/Position:
	Proposed date to commence using equipment:	Date:
	Vehicle Type and Registration:	Equipment Owner:
	Previous Location/Details of known weeds:	Current Location:
	Project Work Area:	

SECTION 2 - INSPECTION



	Inspection Checklist	Yes	No	Comments
HSE Manager or Delegate	Is the exterior free of soil or mud?			
	Is the exterior free of vegetative debris (twigs, leaves, seeds etc)?			
	Has the vehicle been high pressured cleaned or disinfected prior to arrival on-site?			
	Is the exterior free of animals and insects?			
	Are there any oil leaks on hoses or hydraulic joins?			
	Is the interior free from soil, dust and dirt?			
	Is the interior free of vegetative debris (twigs, leaves, seeds etc)?			
	Is the interior free of animals and insects?			

SECTION 3 – FURTHER ACTION REQUIRED PRIOR APPROVAL

	Action	Responsibility	Action Completed
HSE Manager or Delegate			

SECTION 4 - APPROVAL

Completion of this section renders the vehicle/equipment suitable for use on the site.		
HSE Manager or Delegate	Name – HSE Manager or delegate:	Name – Company Rep:
	Company:	Contractor:
	Signature:	Signature:
	Date:	Date:

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ATTACHMENT 16

Licenses 15 and 17. Training certificates.



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Government of Western Australia
Department of Environment and Conservation

Your ref:
Our ref: Mr D Stefoni
Enquiries: (08) 9219 9833
Phone: (08) 9423 2242
Fax:
Email: danny.stefoni@dec.wa.gov.au

Mr MT Brown
PO Box 67
PINJARRA WA 6208

Re: Licence to Relocate Fauna.

Dear Sir,

Please find enclosed licence for the *CAPTURE AND RELOCATION OF FAUNA ASSOCIATED WITH VEGETATION CLEARING AND CONSTRUCTION OPERATIONS (INCLUDING TRENCHES, EXCAVATIONS, BUILDINGS, EQUIPMENT AND OTHER INFRASTRUCTURE) FOR TECNICAS REUNIDAS, AS REQUIRED UNDER THE PROJECT APPROVAL CONDITIONS. FAUNA WILL BE CAUGHT MANUALLY OR WITH ELLIOTT TRAPS AND RELEASED INTO NEARBY SUITABLE HABITAT, IN ACCORDANCE WITH DEC STANDARD OPERATING PROCEDURES (SOPS) FOR FAUNA AND APPROPRIATE FAUNA HANDLING COURSES* as applied on the 7 February, 2013.

Please ensure that all the licence conditions are complied with, including the forwarding of a return at the end of the licence period as advised below:


(1) RETURNS

Reg.15 licence applicants are to note and fulfil the following condition associated with this licence.

'Within one month of the expiration of this licence (or at such other time or times as the Director General may determine) the holder shall furnish to the Director General a return setting out in full detail the number of each species of fauna taken during the currency of the licence, the localities where the species was/were taken and the method of handling of such fauna and disposal of specimens. A copy of any paper or report resulting from this research should be lodged in due course with the Director General. In the case of consultants, a list of the fauna handled, the localities involved and a copy of the interpretive data prepared should be lodged.'

If you have any queries please contact Mr Danny Stefoni on 9219 9833.

Yours sincerely,


for Keiran McNamara
DIRECTOR GENERAL

19 February, 2013

Nature Protection Branch: 17 Dick Perry Avenue, Technology Park, Kensington
Phone: (08) 9334 0292 Fax: (08) 9334 0295
Postal Address: Locked Bag 104, Bentley Delivery Centre, Western Australia 6983
www.dec.wa.gov.au
wa.gov.au

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Department of
Environment and
Conservation

Our environment, our future

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Enquiries: 17 DICK PERRY AVE. KENSINGTON, WESTERN AUSTRALIA
Telephone: 08 9334 0333
Facsimile: 08 9334 0242


Correspondence: Locked Bag 30
Bentley Delivery Centre WA 6983

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DATE OF ISSUE 19/02/2013
VALID FROM 19/02/2013
DATE OF EXPIRY 18/02/2014

RESIDENTIAL ADDRESS: 13 DILLEY COURT
SOUTH YUNDERUP 6208

LICENSEE: MR MT BROWN
ADDRESS: PO BOX 67
PINJARRA WA 6208


LICENSING OFFICER

(MICHAEL TRAVIS)



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DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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WILDLIFE CONSERVATION ACT 1950
REGULATION 15

LICENCE TO TAKE FAUNA FOR EDUCATIONAL OR PUBLIC PURPOSES

THE UNDERMENTIONED PERSON MAY TAKE, FOR THE PURPOSES SPECIFIED,
THE SPECIES OF FAUNA LISTED BELOW, SUBJECT TO THE CONDITIONS
ENDORSED ON AND ATTACHED TO THIS LICENCE.



DIRECTOR GENERAL

CONDITIONS

- 1 THE LICENSEE SHALL COMPLY WITH THE PROVISIONS OF THE WILDLIFE CONSERVATION ACT AND REGULATIONS AND ANY NOTICES IN FORCE UNDER THIS ACT AND REGULATIONS.
2 UNLESS SPECIFICALLY AUTHORISED IN THE CONDITIONS OF THIS LICENCE OR OTHERWISE IN WRITING BY THE DIRECTOR GENERAL, SPECIES OF FAUNA DECLARED AS LIKELY TO BECOME EXTINCT, RARE OR OTHERWISE IN NEED OF SPECIAL PROTECTION SHALL NOT BE CAPTURED OR OTHERWISE TAKEN.
3 NO ENTRY OR COLLECTION OF FAUNA TO BE UNDERTAKEN ON ANY PRIVATE PROPERTY OR PASTORAL LEASE WITHOUT THE CONSENT IN WRITING OF THE OWNER OR OCCUPIER, OR FROM ANY ABORIGINAL RESERVE WITHOUT THE WRITTEN APPROVAL OF THE DEPARTMENT OF INDIGENOUS AFFAIRS.
4 NO FAUNA SHALL BE TAKEN FROM ANY NATURE RESERVE, WILDLIFE SANCTUARY, NATIONAL PARK, MARINE PARK, TIMBER RESERVE OR STATE FOREST WITHOUT PRIOR WRITTEN APPROVAL OF THE DIRECTOR GENERAL. NO FAUNA SHALL BE TAKEN FROM ANY OTHER PUBLIC LAND WITHOUT THE WRITTEN APPROVAL OF THE GOVERNMENT AUTHORITY MANAGING THAT LAND.
5 NO FAUNA OR THEIR PROGENY SHALL BE RELEASED IN ANY AREA WHERE IT DOES NOT NATURALLY OCCUR, NOR BE HANDED OVER TO ANY OTHER PERSON OR AUTHORITY UNLESS APPROVED BY THE DIRECTOR GENERAL, NOR SHALL THE REMAINS OF SUCH FAUNA BE DISPOSED OF IN SUCH MANNER AS TO CONFUSE THE NATURAL OR PRESENT DAY DISTRIBUTION OF THE SPECIES.
6 THIS LICENCE AND THE WRITTEN PERMISSION REFERRED TO AT CONDITIONS 3 & 4 MUST BE CARRIED BY THE LICENSEE OR AUTHORISED AGENT AT ALL TIMES FOR THE PURPOSE OF PROVING THEIR AUTHORITY TO TAKE FAUNA WHEN QUESTIONED AS TO THEIR RIGHT TO DO SO BY A WILDLIFE OFFICER, ANY OTHER STATE OR LOCAL GOVERNMENT EMPLOYEE OR ANY MEMBER OF THE PUBLIC.
7 FURTHER CONDITIONS (IF APPLICABLE) ARE ATTACHED.

PURPOSE

CAPTURE AND RELOCATION OF FAUNA ASSOCIATED WITH VEGETATION CLEARING AND CONSTRUCTION OPERATIONS (INCLUDING TRENCHES, EXCAVATIONS, BUILDINGS, EQUIPMENT AND OTHER INFRASTRUCTURE) FOR TECNICAS REUNIDAS, AS REQUIRED UNDER THE PROJECT APPROVAL CONDITIONS. FAUNA WILL BE CAUGHT MANUALLY OR WITH ELLIOTT TRAPS AND RELEASED INTO NEARBY SUITABLE HABITAT, IN ACCORDANCE WITH DEC STANDARD OPERATING PROCEDURES (SOPS) FOR FAUNA AND APPROPRIATE FAUNA HANDLING COURSES.

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**WILDLIFE CONSERVATION ACT 1950
WILDLIFE CONSERVATION REGULATIONS**

Regulation 15:- Licence to Take/Capture Fauna For Educational or Public Purposes

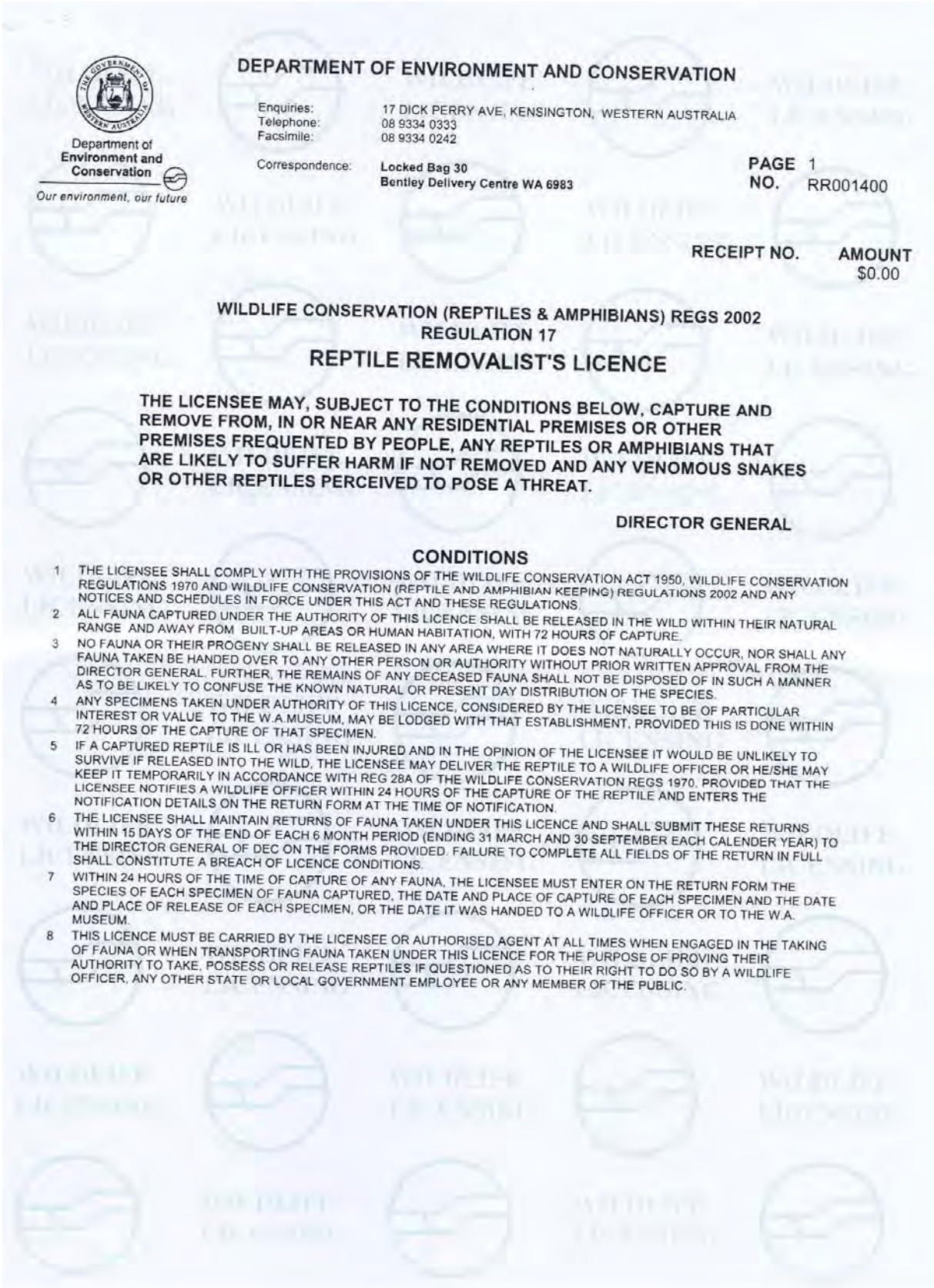
FURTHER CONDITIONS (OF LICENCE NUMBER Tf006088)

1. The licensee shall ensure that all due care is taken in the capture and handling of fauna to prevent injury or mortality resulting from that capture or handling. Where traps or other mechanical means or devices are used to capture fauna these shall be inspected at regular intervals throughout each day of their use.
2. At the conclusion of research all markers and signs erected by the licensee and all traps shall be removed, all pitfalls shall be refilled and the study area returned to the condition it was in prior to the research/capture program.
3. No collecting is to be undertaken in areas where it would impinge on pre-existing scientific research programs.
4. Any inadvertently captured specimens of fauna which is declared as likely to become extinct, rare or otherwise in need of special protection is to be released immediately at the point of capture. Where such a specimen is injured or deceased, the licensee shall contact Department of Environment and Conservation licensing staff at Kensington (08 9423 2434) for advice on disposal. Records are to be kept of any fauna so captured and details included in the report required under further condition 5 below.
5. Within one month of the expiration of this licence (or at such other time or times as the Director General may determine) the holder shall furnish to the Director General a return setting out in full detail the number of each species of fauna taken/captured during the currency of the licence, the localities where the species was/were taken/captured and the method of handling of such fauna and disposal of specimens. A copy of any paper or report resulting from this research should be lodged in due course with the Director General. In the case of consultants, a list of the fauna handled, the localities involved and a copy of the interpretive data prepared should be lodged.

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DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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Telephone: 08 9334 0333
Facsimile: 08 9334 0242

Correspondence: Locked Bag 30
Bentley Delivery Centre WA 6983

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**WILDLIFE CONSERVATION (REPTILES & AMPHIBIANS) REGS 2002
REGULATION 17**

REPTILE REMOVALIST'S LICENCE

THE LICENSEE MAY, SUBJECT TO THE CONDITIONS BELOW, CAPTURE AND REMOVE FROM, IN OR NEAR ANY RESIDENTIAL PREMISES OR OTHER PREMISES FREQUENTED BY PEOPLE, ANY REPTILES OR AMPHIBIANS THAT ARE LIKELY TO SUFFER HARM IF NOT REMOVED AND ANY VENOMOUS SNAKES OR OTHER REPTILES PERCEIVED TO POSE A THREAT.

DIRECTOR GENERAL

CONDITIONS



- 1 THE LICENSEE SHALL COMPLY WITH THE PROVISIONS OF THE WILDLIFE CONSERVATION ACT 1950, WILDLIFE CONSERVATION REGULATIONS 1970 AND WILDLIFE CONSERVATION (REPTILE AND AMPHIBIAN KEEPING) REGULATIONS 2002 AND ANY NOTICES AND SCHEDULES IN FORCE UNDER THIS ACT AND THESE REGULATIONS.
- 2 ALL FAUNA CAPTURED UNDER THE AUTHORITY OF THIS LICENCE SHALL BE RELEASED IN THE WILD WITHIN THEIR NATURAL RANGE AND AWAY FROM BUILT-UP AREAS OR HUMAN HABITATION, WITH 72 HOURS OF CAPTURE.
- 3 NO FAUNA OR THEIR PROGENY SHALL BE RELEASED IN ANY AREA WHERE IT DOES NOT NATURALLY OCCUR, NOR SHALL ANY FAUNA TAKEN BE HANDED OVER TO ANY OTHER PERSON OR AUTHORITY WITHOUT PRIOR WRITTEN APPROVAL FROM THE DIRECTOR GENERAL. FURTHER, THE REMAINS OF ANY DECEASED FAUNA SHALL NOT BE DISPOSED OF IN SUCH A MANNER AS TO BE LIKELY TO CONFUSE THE KNOWN NATURAL OR PRESENT DAY DISTRIBUTION OF THE SPECIES.
- 4 ANY SPECIMENS TAKEN UNDER AUTHORITY OF THIS LICENCE, CONSIDERED BY THE LICENSEE TO BE OF PARTICULAR INTEREST OR VALUE TO THE W.A.MUSEUM, MAY BE LODGED WITH THAT ESTABLISHMENT, PROVIDED THIS IS DONE WITHIN 72 HOURS OF THE CAPTURE OF THAT SPECIMEN.
- 5 IF A CAPTURED REPTILE IS ILL OR HAS BEEN INJURED AND IN THE OPINION OF THE LICENSEE IT WOULD BE UNLIKELY TO SURVIVE IF RELEASED INTO THE WILD, THE LICENSEE MAY DELIVER THE REPTILE TO A WILDLIFE OFFICER OR HE/SHE MAY KEEP IT TEMPORARILY IN ACCORDANCE WITH REG 26A OF THE WILDLIFE CONSERVATION REGS 1970. PROVIDED THAT THE LICENSEE NOTIFIES A WILDLIFE OFFICER WITHIN 24 HOURS OF THE CAPTURE OF THE REPTILE AND ENTERS THE NOTIFICATION DETAILS ON THE RETURN FORM AT THE TIME OF NOTIFICATION.
- 6 THE LICENSEE SHALL MAINTAIN RETURNS OF FAUNA TAKEN UNDER THIS LICENCE AND SHALL SUBMIT THESE RETURNS WITHIN 15 DAYS OF THE END OF EACH 6 MONTH PERIOD (ENDING 31 MARCH AND 30 SEPTEMBER EACH CALENDER YEAR) TO THE DIRECTOR GENERAL OF DEC ON THE FORMS PROVIDED. FAILURE TO COMPLETE ALL FIELDS OF THE RETURN IN FULL SHALL CONSTITUTE A BREACH OF LICENCE CONDITIONS.
- 7 WITHIN 24 HOURS OF THE TIME OF CAPTURE OF ANY FAUNA, THE LICENSEE MUST ENTER ON THE RETURN FORM THE SPECIES OF EACH SPECIMEN OF FAUNA CAPTURED, THE DATE AND PLACE OF CAPTURE OF EACH SPECIMEN AND THE DATE AND PLACE OF RELEASE OF EACH SPECIMEN, OR THE DATE IT WAS HANDED TO A WILDLIFE OFFICER OR TO THE W.A. MUSEUM.
- 8 THIS LICENCE MUST BE CARRIED BY THE LICENSEE OR AUTHORISED AGENT AT ALL TIMES WHEN ENGAGED IN THE TAKING OF FAUNA OR WHEN TRANSPORTING FAUNA TAKEN UNDER THIS LICENCE FOR THE PURPOSE OF PROVING THEIR AUTHORITY TO TAKE, POSSESS OR RELEASE REPTILES IF QUESTIONED AS TO THEIR RIGHT TO DO SO BY A WILDLIFE OFFICER, ANY OTHER STATE OR LOCAL GOVERNMENT EMPLOYEE OR ANY MEMBER OF THE PUBLIC.



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SNAKES Harmful & Harmless
9 Birch Place, Stoneville, Western Australia 6081

Ph (08) 9295 3007, Fax (08) 9295 3858, Email bush@iinet.net.au
ABN - 12 676 823 869

**Snake Awareness, Management and Safe Catching
Techniques Course Evaluation**

Date 03 April 2013

Company Yara Pilbara Fertilisers Pty Ltd – TR Group

Participant/Employee Angelo Tasca

The named participant has completed my Snake Awareness/Management Course and special element training in Safe Snake Catching Techniques and has been assessed as follows.


.....

.....

COMPETENT

.....

.....

Assessor  Brian Bush, Instructor

Note: *This is a subjective assessment based on the participant's application of the taught safe catching techniques to bag several highly defensive snakes. It may not always reflect suitability as a snakecatcher in every instance, i.e. inappropriate PPE.*

8396

Original certificate in water-soluble ink

<http://www.iinet.net.au/~bush/index.html>



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SNAKES Harmful & Harmless
9 Birch Place, Stoneville, Western Australia 6081

Ph (08) 9295 3007, Fax (08) 9295 3858, Email bush@inet.net.au
ABN - 12 676 823 869

**Snake Awareness, Management and Safe Catching
Techniques Course Evaluation**

Date 03 April 2013

Company Yara Pilbara Fertilisers Pty Ltd – TR Group

Participant/Employee David Garcia Bodego

The named participant has completed my Snake Awareness/Management Course and special element training in Safe Snake Catching Techniques and has been assessed as follows.


.....

.....

COMPETENT

.....

.....

Assessor  Brian Bush, Instructor

Note: *This is a subjective assessment based on the participant's application of the taught safe catching techniques to bag several highly defensive snakes. It may not always reflect suitability as a snakecatcher in every instance, i.e. inappropriate PPE.*

8397

Original certificate in water-soluble ink

<http://www.inet.net.au/~bush/index.html>



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SNAKES Harmful & Harmless
9 Birch Place, Stoneville, Western Australia 6081

Ph (08) 9295 3007, Fax (08) 9295 3858, Email bush@iinet.net.au
ABN - 12 676 823 869

**Snake Awareness, Management and Safe Catching
Techniques Course Evaluation**


Date 03 April 2013

Company Yara Pilbara Fertilisers Pty Ltd – TR HSE

Participant/Employee Maria del Mar Folgar Vallejo

The named participant has completed my Snake Awareness/Management Course and special element training in Safe Snake Catching Techniques and has been assessed as follows.

COMPETENT



Assessor  Brian Bush, Instructor

Note: *This is a subjective assessment based on the participant's application of the taught safe catching techniques to bag several highly defensive snakes. It may not always reflect suitability as a snakecatcher in every instance, i.e. inappropriate PPE.*

8398

Original certificate in water-soluble ink

<http://www.iinet.net.au/~bush/index.html>

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ATTACHMENT 17

Habitat Report





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ABBREVIATIONS

CEMP:	Construction Environmental Management Plan.
CTFMP:	Construction Terrestrial Fauna Management Plan.
CWTH:	Commonwealth.
DEC:	Department of Environment and Conservation.
EPA:	Environmental Protection Authority.
EPBC:	Environment Protection and Biodiversity Conservation Act 1999.
TAN:	Technical Ammonium Nitrate.
TRSA:	Tecnicas Reunidas S.A.
SEWPaC:	Australian Government Department of Sustainability, Environment, Water, Population and Communities.
WA:	Western Australia.

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1 GENERAL INFORMATION

Tecnicas Reunidas S.A. (TRSA) understands the importance of protecting the unique biota of the Burrup Peninsular. A Construction Environmental Management Plan (CEMP) has been established to address the potential environmental issues associated with the construction of the TAN Burrup Project (the project) and to make sure that they are compliant with the appropriate environmental legislation.



As part of TRSA's commitment to their Construction Environmental Management Plan, fauna considered to have the potential to suffer harm if not removed from the work site and any fauna that may be perceived to pose a threat to the safety of persons within the workplace, is to be removed to a suitable location. This report aims to identify the fauna habitats located within the immediate vicinity and the fauna groups that are likely to utilise these habitats.

1.1 LEGISLATION

Fauna is governed under Commonwealth (CWTH) and Western Australian State (WA) legislation. Table 1 outlines the legislation relating to each aspect of the work required under the Construction Terrestrial Fauna Management Plan (CTFMP), which is the attachment 8 of the Construction Environment Management Plan.

Table 1: Relevant Legislation



Legislation	Application
FAUNA	
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Assesses the conservation significance of fauna species and forms the framework for significant species protection at the Commonwealth level. Provides for the protection of matters of National Environmental Significance.
<i>Wildlife Conservation Act 1950</i> (WA)	Assesses the conservation significance of fauna species and forms the framework for significant species protection at the State level.
<i>Environmental Protection Act 1986</i> (WA)	State environmental impact assessment and Ministerial approval process.

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1.2 LICENSING

All native fauna and flora are protected by state law under the Wildlife Conservation Act 1950 and are administered by the Department of Environment and Conservation (DEC). To collect, relocate and interfere with native flora and fauna the appropriate licenses are needed from the DEC.

For the relocation of fauna a Regulation 15 License is necessary, which allows the holder to take fauna for education or public purposes (fauna relocation and/or education). The license number for TAN Burrup Project is TF006088. This license expires on 18/02/2014.

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2 FAUNA HABITATS

Five types of fauna habitat were identified within the vicinity of the TAN Burrup Project. These habitats are; Rock Piles, Grasslands, Intertidal, Supratidal, and Mangroves and have been mapped in Figure 1.





Drawn: Mike Brown
Author: Mike Brown

TAN Burrup Project
Habitat Map
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2.1 ROCK PILES

This habitat type consists of large basalt boulders. These boulder piles create a large number of crevices and cavities for native fauna to utilise for shelter. Common groups of animals that may be utilising this habitat type include: bats, small terrestrial mammals and reptile species. The Rock Pile habitat type is a unique habitat which occurs on the Burrup Peninsula and the areas surrounding Karratha.



Figure 1: Rock Pile Habitat Type



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2.2 GRASSLANDS

The Grassland habitat type is a common habitat found throughout the Pilbara regions. It is primarily made up of *Triodia sp.* of grasses which create an insulated microhabitat for fauna to utilise. This habitat type is used by small ground dwelling mammals, a variety of reptile species like skins and dragons, as well as food and foraging areas for birds and larger mammals.



Figure 2: Grasslands Habitat Type



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2.3 INTERTIDAL

The Intertidal habitat is the area which is intermittently inundated by water due to tidal variations. There is very little vegetation presents within this habitat type, with *Tecticornia sp.* often present on the margins of the habitat. Intertidal habitat is unique as it is often utilised by Migratory shorebirds which are protected under the *EPBC Act 1999*.



Figure 3: Intertidal Habitat Type



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2.4 SUPRATIDAL

The Supratidal habitat is the area directly above the high tide marks on the shoreline. This area is characterised by the *Tecticornia sp.* which occurs throughout the habitat. This habitat is marginally utilised by Migrator waders and shorebirds infringing from the Intertidal areas as well as some of the smaller skinks and larger mammals as they move about foraging for food.



Figure 4: Supratidal Habitat Type



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2.5 MANGROVE

The Mangrove is a unique habitat type that occupies the intertidal zones between the shoreline and ocean. They are characterised by the vegetation that consist of solely Mangrove species, which supports a unique diversity of animals. Mangrove provide a home for birds like the Collared Kingfisher and t he Little North-western Mastiff Bat, which predominantly use only Mangrove habitat. The intrinsic value of mangroves within the Pilbara are also recognised by the Environmental Protection Authority (EPA) in Western Australia, which has a Guidance Statement (EPA 2001) addressing the management of potential impacts on this habitat type.



Figure 5: Mangrove Habitat Type

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3 FAUNA SPECIES AND THERE HABITAT UTILISATION

3.1 AMPHIBIANS

Only two species of amphibian are likely to occur in the project area. These are the Sheep Frog and the Little Red Tree Frog. Both of these species prefer humid or moist locations in which they are protected from drying out. The amphibians and their associated habitats can be found listed in Table 2.

Table 2: Amphibian Habitat Utilisation

Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
HYLIDAE	<i>Cyclorana</i>	<i>maini</i>	Sheep Frog	✓	✓			
	<i>Litoria</i>	<i>rubella</i>	Little Red Tree Frog	✓	✓			

3.2 REPTILES

Fifty one species of reptile potentially occur within the general vicinity of the project area. All species listed utilise either the Rock Pile or Grassland habitat types.

Table 3 list the reptile species and their associated habitats. Identification between the different species of reptiles may be difficult at times and I quick identification of an individual by a more experienced person may not be practical. When there is doubt regarding the species of a reptile, relocation to areas that have several potential habitat types is desired.

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Table 3: Reptile Habitat Utilisation

Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
AGAMIDAE	<i>Ctenophorus</i>	<i>caudicinctus</i>		✓	✓			
	<i>Ctenophorus</i>	<i>isolepis</i>		✓	✓			
DIPODACTYLIDAE	<i>Crenadactylus</i>	<i>ocellatus</i>		✓	✓			
	<i>Diplodactylus</i>	<i>conspicillatus</i>	Fat-tailed Gecko	✓	✓			
	<i>Diplodactylus</i>	<i>galaxias</i>	Northern Pilbara Beak-faced Gecko	✓	✓			
	<i>Lucasium</i>	<i>stenodactylum</i>		✓	✓			
	<i>Oedura</i>	<i>marmorata</i>	Marbled Velvet Gecko	✓				
	<i>Strophurus</i>	<i>ciliaris</i>			✓			
	<i>Strophurus</i>	<i>elderi</i>			✓			
	<i>Strophurus</i>	<i>jeanae</i>			✓			
	<i>Strophurus</i>	<i>wellingtonae</i>			✓			
GEKKONIDAE	<i>Gehyra</i>	<i>pilbara</i>			✓			
	<i>Gehyra</i>	<i>punctata</i>		✓				
	<i>Gehyra</i>	<i>variegata</i>		✓	✓			
	<i>*Hemidactylus</i>	<i>frenatus</i>	Asian House Gecko					
	<i>Heteronotia</i>	<i>binoei</i>	Bynoe's Gecko	✓	✓			
PYGOPODIDAE	<i>Delma</i>	<i>pax</i>		✓	✓			
	<i>Delma</i>	<i>tincta</i>		✓	✓			

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Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
	<i>Lialis</i>	<i>burtonis</i>		✓	✓			
SCINCIDAE	<i>Carlia</i>	<i>triacantha</i>		✓	✓			
	<i>Cryptoblepharus</i>	<i>buchananii</i>		✓	✓			
	<i>Cryptoblepharus</i>	<i>ustulatus</i>		✓	✓			
	<i>Ctenotus</i>	<i>pantherinus</i>		✓	✓			
	<i>Ctenotus</i>	<i>rubicundus</i>		✓	✓			
	<i>Ctenotus</i>	<i>saxatilis</i>		✓	✓			
	<i>Ctenotus</i>	<i>serventyi</i>		✓	✓			
	<i>Cyclodomorphus</i>	<i>melanops</i>		✓	✓			
	<i>Egernia</i>	<i>pilbarensis</i>	Pilbara Skink	✓	✓			
	<i>Lerista</i>	<i>bipes</i>			✓			
	<i>Lerista</i>	<i>clara</i>			✓			
	<i>Lerista</i>	<i>jacksoni</i>			✓			
	<i>Lerista</i>	<i>muelleri</i>			✓			
	<i>Menetia</i>	<i>greyii</i>			✓			
	<i>Menetia</i>	<i>surda</i>			✓			
	<i>Morethia</i>	<i>ruficauda</i>		✓	✓			
	<i>Notoscincus</i>	<i>ornatus</i>		✓	✓			
VARANIDAE	<i>Varanus</i>	<i>eremius</i>	Pygmy Desert Monitor		✓			
	<i>Varanus</i>	<i>pilbarensis</i>	Pilbara Rock Monitor	✓				
TYPHLOPIDAE	<i>Ramphotyphlops</i>	<i>ammodytes</i>			✓			
	<i>Ramphotyphlops</i>	<i>australis</i>			✓			
	<i>Ramphotyphlops</i>	<i>grypus</i>			✓			

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Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
BOIDAE	<i>Antaresia</i>	<i>perthensis</i>	Pygmy Python	✓	✓			
	<i>Antaresia</i>	<i>stimsoni</i>		✓	✓			
	<i>Aspidites</i>	<i>melanocephalus</i>	Black-headed Python	✓	✓			
	<i>Liasis</i>	<i>olivaceus subsp. barroni</i>	Pilbara Olive Python	✓				
ELAPIDAE	<i>Acanthophis</i>	<i>wellsi</i>	Pilbara Death Adder		✓			
	<i>Demansia</i>	<i>rufescens</i>	Rufous Whipsnake		✓			
	<i>Furina</i>	<i>ornata</i>	Moon Snake		✓			
	<i>Pseudechis</i>	<i>australis</i>	Mulga Snake		✓			
	<i>Pseudonaja</i>	<i>mengdeni</i>	Western Brown Snake, Gwardar		✓			
	<i>Suta</i>	<i>punctata</i>	Spotted Snake	✓	✓			

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3.3 MAMMALS

Twenty species of mammal have the potential to occur within the project area. The majority of these species utilise the Grassland habitat, with some preferring the Rock Piles. The exception to this is the Western Little Free-tailed Bat, which roost exclusively within Mangrove habitat. Caution should be taken if any bat species is found on site do to zoonotic viruses. When handling, make sure that suitable Personnel Protective Equipment is used. These species should be taken to the Vet or the DEC as they are most likely injured. Mammal species and the habitats they are associated with can be found in

Table 4.

Table 4: Mammal Habitat Utilisation

Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
DASYURIDAE	<i>Dasykaluta</i>	<i>rosamondae</i>	Little Red Kaluta	✓	✓			
	<i>Dasyurus</i>	<i>hallucatus</i>	Northern Quoll	✓				
	<i>Ningau</i>	<i>timealeyi</i>	Pilbara Ningau		✓			
	<i>Pseudantechinus</i>	<i>roryi</i>	Rory's Pseudantechinus	✓				
	<i>Pseudantechinus</i>	<i>woolleyae</i>	Woolley's Pseudantechinus	✓				
MACROPODIDAE	<i>Macropus</i>	<i>robustus</i>	Euro	✓	✓			
	<i>Macropus</i>	<i>rufus</i>	Red Kangaroo		✓			
	<i>Petrogale</i>	<i>rothschildi</i>	Rothschild's Rock-wallaby	✓				
MEGADERMATIDAE	<i>Macroderma</i>	<i>gigas</i>	Ghost Bat	C	C	C	C	C

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Family	Genus	Species	Common Name	Rock Pile	Grassland	Intertidal	Supratidal	Mangroves
EMBALLONURIDAE	<i>Taphozous</i>	<i>georgianus</i>	Common Sheath-tail-bat	C	C	C	C	C
MOLOSSIDAE	<i>Mormopterus</i>	<i>loriae cobourgiana</i>	Western Little Free-tailed Bat	C	C	C	C	✓
MURIDAE	<i>Mus</i>	<i>musculus</i>	House Mouse	E	E	E	E	E
	<i>Pseudomys</i>	<i>chapmani</i>	Western Pebble-mound Mouse		✓			
	<i>Pseudomys</i>	<i>delicatulus</i>	Delicate Mouse		✓			
	<i>Pseudomys</i>	<i>hermannsburgensis</i>	Sandy Inland Mouse		✓			
	<i>Rattus</i>	<i>rattus</i>	Black Rat	E	E	E	E	E
	<i>Rattus</i>	<i>tunneyi</i>	Pale Field-rat		✓			
	<i>Zyomys</i>	<i>argurus</i>	Common Rock-rat	✓				
CANIDAE	<i>Vulpes</i>	<i>vulpes</i>	Red Fox	E	E	E	E	E
FELIDAE	<i>Felis</i>	<i>catus</i>	Cat	E	E	E	E	E



KEY: C = Contact a wildlife carer, DEC, or local vet. Precautions need to be taken when handling these species.

E = Introduced species, contact the local vet for euthanization.

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3.4 BIRDS

Eighty six species of birds have the potential to occur in the project area. As these species are highly mobile, it is unlikely that they will need to be relocated unless injured. The bird species also utilise the Intertidal, Supratidal and Mangrove habitat types more than the other animal groups and can be readily observed in these habitats. Any bird species caught or trapped within the project area should be taken to the appropriate authorities as it is likely that they are injured. Due to the small size of the project area and the highly mobile nature of birds, they have not been listed with their associated habitats. However, shore bird species considered to be Migratory under the EPBC Act 1999, utilise habitats like the Intertidal and Supratidal habitats. Mangrove habitat is used by a lesser extent by these birds, however it is used by some species that are only found in this habitat type.

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ATTACHMENT 18

Site Clearing Report





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ABBREVIATIONS

CEMP:	Construction Environmental Management Plan.
CTFMP:	Construction Terrestrial Fauna Management Plan.
CTVFMP:	Construction Terrestrial Vegetation and Flora Management Plan.
CWTH:	Commonwealth.
DEC:	Department of Environment and Conservation.
EPA:	Environmental Protection Authority.
EPBC:	Environment Protection and Biodiversity Conservation Act 1999.
HSE:	Health, Safety and Environment.
TAN:	Technical Ammonium Nitrate.
TRSA:	Tecnicas Reunidas S.A.
SEWPaC:	Australian Government Department of Sustainability, Environment, Water, Population and Communities.
TEC:	Threatened ecological communities.
WA:	Western Australia.
WDMP:	Weed Management Plan.

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1 GENERAL INFORMATION

Técnicas Reunidas S.A. (TRSA) understands the importance of protecting the unique biota of the Burrup Peninsular. A Construction Environmental Management Plan (CEMP) has been established to address the potential environmental issues associated with the construction of the TAN Burrup Project (the project) and to make sure that they are compliant with the appropriate environmental legislation.



This report has been prepared as an account of the fauna, flora and weeds recorded during the clearing process of the TAN Burrup Project. Clearing occurred during January 2013 with all fauna encountered recorded by HSE team present on site during this time.

1.1 LEGISLATION

Fauna, flora and weeds are governed under Commonwealth (CWTH) and Western Australian State (WA) legislation. Table 1 outlines the legislation relating to each aspect of the work required under the Construction Terrestrial Fauna Management Plan (CTFMP), Construction Terrestrial Vegetation and Flora Management Plan (CTVFMP), and Weed Management Plan (WDMP) are the attachments 8, 9 and 10 of CEMP.

Table 1: Relevant Legislation

Legislation	Application
FAUNA AND FLORA	
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Assesses the conservation significance of fauna and flora species and forms the framework for significant species protection at the Commonwealth level. Provides for the protection of matters of National Environmental Significance.
<i>Wildlife Conservation Act 1950</i> (WA)	Assesses the conservation significance of fauna species and forms the framework for significant species protection at the State level.
<i>Environmental Protection Act 1986</i> (WA)	State environmental impact assessment and Ministerial approval process.
WEEDS	
<i>Biological Control Act 1985</i> (CWTH)	Under which a weed may be declared a target for biological control, or a weed control agent may be identified.
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (CWTH)	Protection on environmental matters of national significance. The EPBC Act also regulates the import and export of plants.
<i>The Quarantine Act 1908</i> (CWTH)	Enables the Australian Quarantine and Inspection Service to physically prevent the introduction of weeds through the inspection of incoming luggage, cargo, mail, animals and plants and their products. It also provides inspection and certification for a range of exports.

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<i>Biological Control Act 1985 (CWTH)</i>	Under which a weed may be declared a target for biological control, or a weed control agent may be identified.
<i>Environment Protection and Biodiversity Conservation Act 1999 (CWTH)</i>	Protection on environmental matters of national significance. The EPBC Act also regulates the import and export of plants.

1.2 LICENSING

All native fauna and are protected by state law under the Wildlife Conservation Act 1950 and are administered by the Department of Environment and Conservation (DEC). To collect, relocate and interfere with native flora and fauna the appropriate licenses are needed from the DEC.

2 FAUNA

2.1 POTENTIALLY OCCURRING FAUNA

A search of the Department of Environment and Conservation's NatureMap Database, as well as literature of surveys previously undertaken on the Burrup, was performed. A list of these species and whether they have been recorded within the TAN Burrup Project Area can be found in Attachment 01: Potentially occurring fauna.

2.2 CONSERVATION SIGNIFICANT FAUNA SPECIES

All fauna that potentially occurs within the project area and are considered to be of Conservation Significance can be found within





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Table 2.

Table 2: Conservation Significant Fauna

Family	Genus	Species	Common Name	Conservation Code	Recorded
REPTILES					
BOIDAE	<i>Liasis</i>	<i>olivaceus subsp. barroni</i>	Pilbara Olive Python	T	
MAMMALS					
DASYURIDAE	<i>Dasyurus</i>	<i>hallucatus</i>	Northern Quoll	T	
MACROPODIDAE	<i>Macroderma</i>	<i>gigas</i>	Ghost Bat	P4	
MURIDAE	<i>Pseudomys</i>	<i>chapmani</i>	Western Pebble-mound Mouse	P4	
BIRDS					
ACCIPITRIDAE	<i>Haliaeetus</i>	<i>leucogaster</i>	White-bellied Sea-Eagle	IA	
FALCONIDAE	<i>Falco</i>	<i>peregrinus</i>	Peregrine Falcon	S	
SCOLOPACIDAE	<i>Limosa</i>	<i>lapponica</i>	Bar-tailed Godwit	IA	
		<i>Numenius</i>	<i>phaeopus</i>	Whimbrel	IA
	<i>Tringa</i>	<i>brevipes</i>	Grey-tailed Tattler	IA	
	<i>Tringa</i>	<i>nebularia</i>	Common Greenshank	IA	✓
	<i>Tringa</i>	<i>stagnatilis</i>	Marsh Sandpiper	IA	
	<i>Tringa</i>	<i>hypoleucos</i>	Common Sandpiper	IA	✓
	<i>Tringa</i>	<i>cinereus</i>	Terek Sandpiper	IA	
	<i>Arenaria</i>	<i>interpres</i>	Ruddy Turnstone	IA	
	<i>Calidris</i>	<i>alba</i>	Sanderling	IA	
	<i>Calidris</i>	<i>ferruginea</i>	Curlew Sandpiper	IA	
	<i>Calidris</i>	<i>ruficollis</i>	Red-necked Stint	IA	
	<i>Calidris</i>	<i>tenuirostris</i>	Great Knot	IA	
BURHINIDAE	<i>Burhinus</i>	<i>grallarius</i>	Bush Stone-curlew	P4	

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Family	Genus	Species	Common Name	Conservation Code	Recorded
CHARADRIIDAE	<i>Pluvialis</i>	<i>squatarola</i>	Grey Plover	IA	
	<i>Charadrius</i>	<i>leschenaultii</i>	Greater Sand Plover	IA	
LARIDAE	<i>Anous</i>	<i>stolidus</i>	Common Noddy	IA	
MEROPIIDAE	<i>Merops</i>	<i>ornatus</i>	Rainbow Bee-eater	IA	✓

Conservation Status

- T- Rare or likely to become extinct
- X- Presumed Extinct
- IA- Protected Under International Agreement
- S- Other Specially Protected Fauna
- P1- Priority 1
- P2- Priority 2
- P3- Priority 3
- P4- Priority 4
- P5- Priority 5

2.3 RECORDED SPECIES



Fauna recorded during the clearing process can be found in Table 3 This fauna was identified through photographs taken during the clearing process and from descriptions given by TAN Burrup personnel. Any animals where there was doubt regarding its identification, due to either poor photography or a non-specific description, have been omitted.

Table 3: Fauna Species Recorded During Clearing



Family	Genus	Species	Common Name	Conservation Code	Recorded
REPTILES					
AGAMIDAE	<i>Ctenophorus</i>	<i>caudicinctus</i>			✓
SCINCIDAE	<i>Ctenotus</i>	<i>saxatilis</i>			✓
ELAPIDAE	<i>Pseudonaja</i>	<i>mengdeni</i>	Western Brown Snake, Gwardar		✓
MAMMALS					
MACROPODIDAE	<i>Macropus</i>	<i>robustus</i>	Euro		✓
	<i>Macropus</i>	<i>Rufus</i>	Red Kangaroo		✓
BIRDS					
ACCIPITRIDAE	<i>Haliastur</i>	<i>indus</i>	Brahminy Kite		✓
FALCONIDAE	<i>Falco</i>	<i>cenchroides</i>	Australian Kestrel		✓
RECURVIROSTRIDAE	<i>Himantopus</i>	<i>himantopus</i>	Black-winged Stilt		✓
PSITTACIDAE	<i>Cacatua</i>	<i>sanguinea</i>	Little Corella		✓

Conservation Status

- T- Rare or likely to become extinct
- X- Presumed Extinct
- IA- Protected Under International Agreement
- S- Other Specially Protected Fauna
- P1- Priority 1
- P2- Priority 2

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P3- Priority 3
P4- Priority 4
P5- Priority 5

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3 FLORA AND WEEDS

3.1 POTENTIALLY OCCURRING FLORA

A review of previous surveys undertaken on the Burrup Peninsular and a search of the DEC's Threatened and Priority Flora Database (Naturemap 2013) identified 198 species of flora previously recorded. Of these previously recorded species, seven are listed as priority and for and introduced species. A full list of species can be found in Attachment 02: Potentially occurring Flora.



3.2 PREVIOUSLY RECORDED FLORA

No Declare Rare Flora, as defined under the *Wildlife Conservation Act 1950*, has previously been recorded on the Burrup Peninsular. Seven species are listed as Priority by the DEC. Six are Priority 3 – Poorly Known Taxa, and one Priority 4 – Rare, Near Threatened and other taxa in need of monitoring.

Table 4: Conservation Significant Flora

Genus	Species	Conservation Significance	Previously Recorded on Site
<i>Acacia</i>	<i>glaucocaesia</i>	P3	
<i>Eragrostis</i>	<i>surreyana</i>	P3	
<i>Rhynchosia</i>	<i>bungarensis</i>	P4	
<i>Schoenus</i>	<i>punctatus</i>	P3	
<i>Stackhousia</i>	<i>clementii</i>	P3	
<i>Terminalia</i>	<i>supranitifolia</i>	P3	
<i>Vigna</i>	<i>sp. rockpiles</i> (R. Butcher et al. RB 1400)	P3	

A review of past surveys for the Burrup Peninsular identifies *Terminalia supranitifolia* (P3) as having been recorded on a site adjacent to the project area by Astron (2001). This species has been recorded in rocky areas of basalt rocks. Habitat in which the species was previously recorded does not occur within this site.

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3.3 THREATENED ECOLOGICAL COMMUNITIES

The DEC database search listed no Threatened Ecological Communities (TEC) as occurring within the project area.

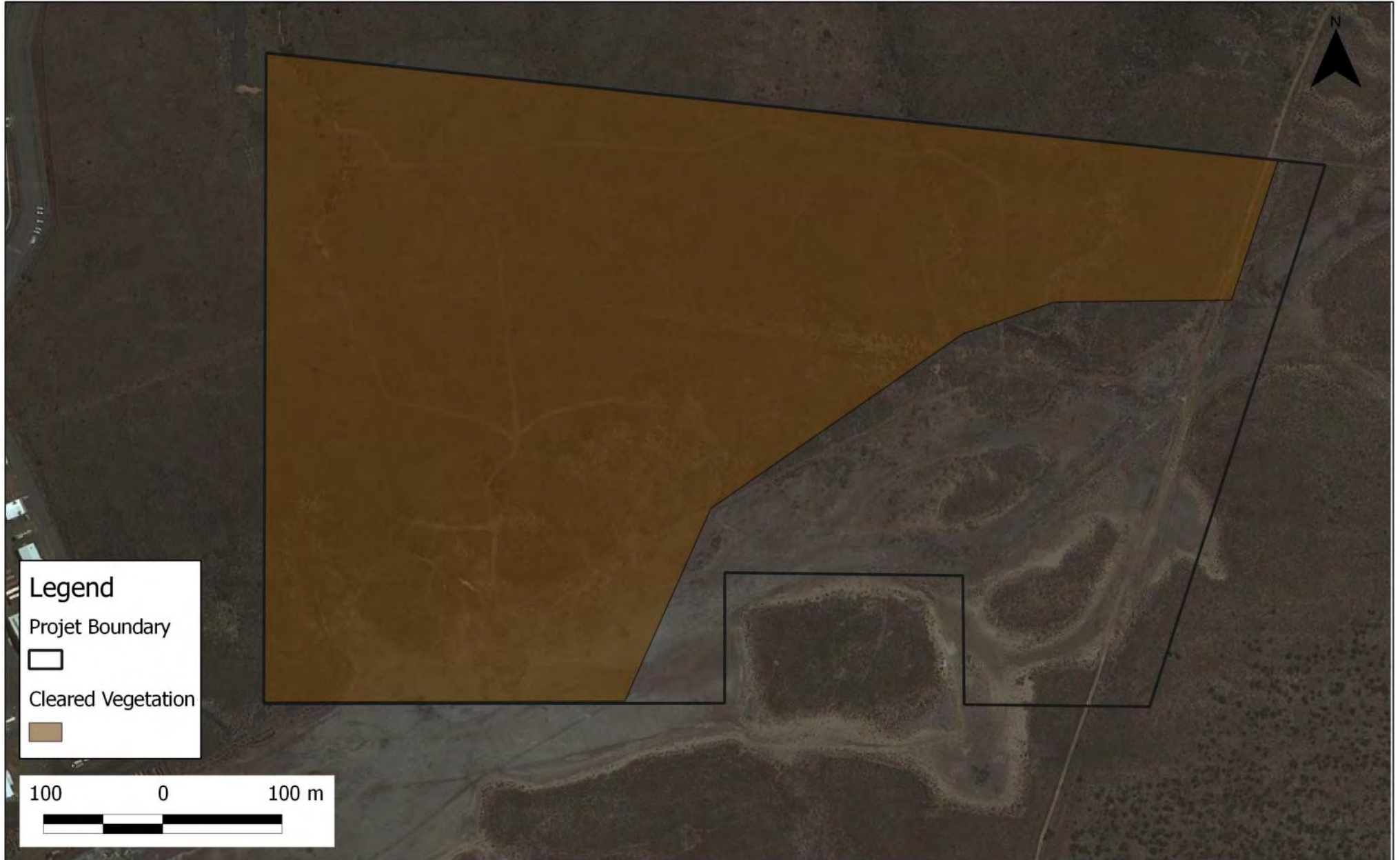
3.4 INTRODUCED FLORA SPECIES



Three species of flora, *Cenchrus ciliaris* (Buffel Grass), *Aerva javanica* (Kapok Bush), and *Vachellia farnesiana*, have previously been recorded within the project area.

Buffel Grass was side spread throughout the project area and still occurs within the uncleared vegetation within the project area. The *Vachellia farnesiana* was recorded in the north-western section of the project area. This area has now been cleared and it is likely that this species has been removed from site. The area from which the Kapok Bush was recorded is unknown.

3.5 POTENTIALLY OCCURRING WEED SPECIES

None of the introduced flora species recorded in the project area are listed as Declared Weeds under the *Agricultural and Related Resource Protection Act 1976*. However, they are listed under the *Environmental Weed Strategy for Western Australia* (DEC, 1993), as having a 'High' rating.



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ATTACHMENT 01: POTENTIALLY OCCURRING FAUNA

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ATTACHMENT 01A : Potentially Occurring Amphibians

Family	Genus	Species	Common Name	Conservation Code	Recorded
HYLIDAE	<i>Cyclorana</i>	<i>maini</i>	Sheep Frog		
	<i>Litoria</i>	<i>rubella</i>	Little Red Tree Frog		



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ATTACHMENT 01B: Potentially Occurring Reptiles

Family	Genus	Species	Common Name	Conservation Status	Recorded
AGAMIDAE	<i>Ctenophorus</i>	<i>caudicinctus</i>			✓
	<i>Ctenophorus</i>	<i>isolepis</i>			
DIPLODACTYLIDAE	<i>Crenadactylus</i>	<i>ocellatus</i>			
	<i>Diplodactylus</i>	<i>conspicillatus</i>	Fat-tailed Gecko		
	<i>Diplodactylus</i>	<i>galaxias</i>	Northern Pilbara Beak-faced Gecko		
	<i>Lucasium</i>	<i>stenodactylum</i>			
	<i>Oedura</i>	<i>marmorata</i>	Marbled Velvet Gecko		
	<i>Strophurus</i>	<i>ciliaris</i>			
	<i>Strophurus</i>	<i>elderi</i>			
	<i>Strophurus</i>	<i>jeanae</i>			
	<i>Strophurus</i>	<i>wellingtonae</i>			
GEKKONIDAE	<i>Gehyra</i>	<i>pilbara</i>			
	<i>Gehyra</i>	<i>punctata</i>			
	<i>Gehyra</i>	<i>variegata</i>			
	<i>Hemidactylus</i>	<i>frenatus</i>	Asian House Gecko		
	<i>Heteronotia</i>	<i>binoei</i>	Bynoe's Gecko		✓
PYGOPODIDAE	<i>Delma</i>	<i>pax</i>			
	<i>Delma</i>	<i>tincta</i>			
	<i>Lialis</i>	<i>burtonis</i>			
SCINCIDAE	<i>Carlia</i>	<i>triacantha</i>			
	<i>Cryptoblepharus</i>	<i>buchananii</i>			

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Family	Genus	Species	Common Name	Conservation Status	Recorded
	<i>Cryptoblepharus</i>	<i>ustulatus</i>			
	<i>Ctenotus</i>	<i>pantherinus</i>			
	<i>Ctenotus</i>	<i>rubicundus</i>			
	<i>Ctenotus</i>	<i>saxatilis</i>			✓
	<i>Ctenotus</i>	<i>serventyi</i>			
	<i>Cyclodomorphus</i>	<i>melanops</i>			
	<i>Egernia</i>	<i>pilbarensis</i>	Pilbara Skink		
	<i>Lerista</i>	<i>bipes</i>			
	<i>Lerista</i>	<i>clara</i>			
	<i>Lerista</i>	<i>jacksoni</i>			
	<i>Lerista</i>	<i>muelleri</i>			
	<i>Menetia</i>	<i>greyii</i>			
	<i>Menetia</i>	<i>surda</i>			
	<i>Morethia</i>	<i>ruficauda</i>			
	<i>Notoscincus</i>	<i>ornatus</i>			
VARANIDAE	<i>Varanus</i>	<i>eremius</i>	Pygmy Desert Monitor		
	<i>Varanus</i>	<i>pilbarensis</i>	Pilbara Rock Monitor		
TYPHLOPIDAE	<i>Ramphotyphlops</i>	<i>ammodytes</i>			
	<i>Ramphotyphlops</i>	<i>australis</i>			
	<i>Ramphotyphlops</i>	<i>grypus</i>			
BOIDAE	<i>Antaresia</i>	<i>perthensis</i>	Pygmy Python		
	<i>Antaresia</i>	<i>stimsoni</i>			
	<i>Aspidites</i>	<i>melanocephalus</i>	Black-headed Python		

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Family	Genus	Species	Common Name	Conservation Status	Recorded
	<i>Liasis</i>	<i>olivaceus subsp. barroni</i>	Pilbara Olive Python	T	
ELAPIDAE	<i>Acanthophis</i>	<i>wellsi</i>	Pilbara Death Adder		
	<i>Demansia</i>	<i>rufescens</i>	Rufous Whipsnake		
	<i>Furina</i>	<i>ornata</i>	Moon Snake		
	<i>Pseudechis</i>	<i>australis</i>	Mulga Snake		
	<i>Pseudonaja</i>	<i>mengdeni</i>	Western Brown Snake, Gwardar		✓
	<i>Suta</i>	<i>punctata</i>	Spotted Snake		

ATTACHMENT 01C: Potentially Occurring Mammal Species

Family	Genus	Species	Common Name	Conservation Status	Recorded
DASYURIDAE	<i>Dasykaluta</i>	<i>rosamondae</i>	Little Red Kaluta		
	<i>Dasyurus</i>	<i>hallucatus</i>	Northern Quoll	T	
	<i>Ningau</i>	<i>timealeyi</i>	Pilbara Ningau		
	<i>Pseudantechinus</i>	<i>roryi</i>	Rory's Pseudantechinus		
	<i>Pseudantechinus</i>	<i>woolleyae</i>	Woolley's Pseudantechinus		
MACROPODIDAE	<i>Macropus</i>	<i>robustus</i>	Euro		✓
	<i>Macropus</i>	<i>rufus</i>	Red Kangaroo		✓
	<i>Petrogale</i>	<i>rothschildi</i>	Rothschild's Rock-wallaby		
MEGADERMATIDAE	<i>Macroderma</i>	<i>gigas</i>	Ghost Bat	P4	
EMBALLONURIDAE	<i>Taphozous</i>	<i>georgianus</i>	Common Sheath-tail-bat		
MURIDAE	<i>Mus</i>	<i>musculus</i>	House Mouse		✓

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	<i>Pseudomys</i>	<i>chapmani</i>	Western Pebble-mound Mouse, Ngadji	P4	
	<i>Pseudomys</i>	<i>delicatulus</i>	Delicate Mouse		
	<i>Pseudomys</i>	<i>hermannsburgensis</i>	Sandy Inland Mouse		
	<i>Rattus</i>	<i>rattus</i>	Black Rat		
	<i>Rattus</i>	<i>tunneyi</i>	Pale Field-rat		
	<i>Zyzomys</i>	<i>argurus</i>	Common Rock-rat		
CANIDAE	<i>Vulpes</i>	<i>vulpes</i>	Red Fox		
FELIDAE	<i>Felis</i>	<i>catus</i>	Cat		



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ATTACHMENT 01D: Potentially Occurring Bird Species

Family	Genus	Species	Common Name	Conservation Significance	Recorded
PHALACROCORACIDAE	<i>Phalacrocorax</i>	<i>varius</i>	Pied Cormorant		
PELECANIDAE	<i>Pelecanus</i>	<i>conspicillatus</i>	Australian Pelican		
ARDEIDAE	<i>Ardea</i>	<i>garzetta</i>	Little Egret		✓
	<i>Ardea</i>	<i>novaeollandiae</i>	White-faced Heron		✓
	<i>Nycticorax</i>	<i>caledonicus</i>	Nankeen Night Heron		✓
ACCIPITRIDAE	<i>Pandion</i>	<i>haliaetus</i>	Osprey		✓
	<i>Milvus</i>	<i>migrans</i>	Black Kite		
	<i>Haliastur</i>	<i>sphenurus</i>	Whistling Kite		
	<i>Haliastur</i>	<i>indus</i>	Brahminy Kite		
	<i>Aquila</i>	<i>morphnoides</i>	Little Eagle		✓
	<i>Haliaeetus</i>	<i>leucogaster</i>	White-bellied Sea-Eagle	IA	
FALCONIDAE	<i>Falco</i>	<i>berigora</i>	Brown Falcon		
	<i>Falco</i>	<i>ceenchroides</i>	Australian Kestrel		
	<i>Falco</i>	<i>longipennis</i>	Australian Hobby		
	<i>Falco</i>	<i>peregrinus</i>	Peregrine Falcon	S	
RALLIDAE	<i>Gallirallus</i>	<i>philippensis</i>			
TURNICIDAE	<i>Turnix</i>	<i>velox</i>	Little Button-quail		
SCOLOPACIDAE	<i>Limosa</i>	<i>lapponica</i>	Bar-tailed Godwit	IA	
	<i>Numenius</i>	<i>phaeopus</i>	Whimbrel	IA	
	<i>Tringa</i>	<i>brevipes</i>	Grey-tailed Tattler	IA	
	<i>Tringa</i>	<i>nebularia</i>	Common Greenshank	IA	✓

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Family	Genus	Species	Common Name	Conservation Significance	Recorded
	<i>Tringa</i>	<i>stagnatilis</i>	Marsh Sandpiper	IA	
	<i>Tringa</i>	<i>hypoleucos</i>	Common Sandpiper	IA	✓
	<i>Tringa</i>	<i>cinereus</i>	Terek Sandpiper	IA	
	<i>Arenaria</i>	<i>interpres</i>	Ruddy Turnstone	IA	
	<i>Calidris</i>	<i>alba</i>	Sanderling	IA	
	<i>Calidris</i>	<i>ferruginea</i>	Curlew Sandpiper	IA	
	<i>Calidris</i>	<i>ruficollis</i>	Red-necked Stint	IA	
	<i>Calidris</i>	<i>tenuirostris</i>	Great Knot	IA	
BURHINIDAE	<i>Burhinus</i>	<i>grallarius</i>	Bush Stone-curlew	P4	
HAEMATOPODIDAE	<i>Haematopus</i>	<i>longirostris</i>	Pied Oystercatcher		
	<i>Haematopus</i>	<i>fuliginosus</i>	Sooty Oystercatcher		
RECURVIROSTRIDAE	<i>Himantopus</i>	<i>himantopus</i>	Black-winged Stilt		✓
CHARADRIIDAE	<i>Vanellus</i>	<i>tricolor</i>	Banded Lapwing		
	<i>Pluvialis</i>	<i>squatarola</i>	Grey Plover	IA	
	<i>Charadrius</i>	<i>ruficapillus</i>	Red-capped Plover		✓
	<i>Charadrius</i>	<i>leschenaultii</i>	Greater Sand Plover	IA	
LARIDAE	<i>Larus</i>	<i>novaehollandiae</i>	Silver Gull		✓
	<i>Sterna</i>	<i>caspia</i>	Caspian Tern		✓
	<i>Anous</i>	<i>stolidus</i>	Common Noddy	IA	
COLUMBIDAE	<i>Columba</i>	<i>livia</i>	Domestic Pigeon		
	<i>Ocyphaps</i>	<i>lophotes</i>	Crested Pigeon		
	<i>Phaps</i>	<i>chalcoptera</i>	Common Bronze-wing Pigeon		✓
	<i>Geophaps</i>	<i>plumifera</i>	Spinifex Pigeon		✓

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Family	Genus	Species	Common Name	Conservation Significance	Recorded
	<i>Geopelia</i>	<i>cuneata</i>	Diamond Dove		✓
	<i>Geopelia</i>	<i>humeralis</i>	Bar-shouldered Dove		
	<i>Geopelia</i>	<i>striata</i>	Peaceful Dove		
PSITTACIDAE	<i>Cacatua</i>	<i>sanguinea</i>	Little Corella		
	<i>Melopsittacus</i>	<i>undulatus</i>	Budgerigar		
CUCULIDAE	<i>Cuculus</i>	<i>pallidus</i>	Pallid Cuckoo		
CENTROPODIDAE	<i>Centropus</i>	<i>phasianinus</i>	Pheasant Coucal		
STRIGIDAE	<i>Ninox</i>	<i>novaeeseelandiae</i>	Boobook Owl		
PODARGIDAE	<i>Podargus</i>	<i>strigoides</i>			
	<i>Podargus</i>	<i>strigoides</i>	Tawny Frogmouth		
AEGOTHELIDAE	<i>Aegotheles</i>	<i>cristatus</i>	Australian Owlet-nightjar		
HALCYONIDAE	<i>Todiramphus</i>	<i>chloris</i>	Collared Kingfisher		
	<i>Todiramphus</i>	<i>sanctus</i>	Sacred Kingfisher		
MEROPIIDAE	<i>Merops</i>	<i>ornatus</i>	Rainbow Bee-eater	IA	✓
PITTIDAE	<i>Pitta</i>	<i>moluccensis</i>	Blue-winged Pitta		
MALURIDAE	<i>Malurus</i>	<i>leucopterus</i>	White-winged Fairy-wren		
	<i>Malurus</i>	<i>lamberti</i>	Variiegated Fairy-wren		✓
PARDALOTIDAE	<i>Pardalotus</i>	<i>striatus</i>	Striated Pardalote		
ACANTHIZIDAE	<i>Gerygone</i>	<i>tenebrosa</i>	Dusky Gerygone		
MELIPHAGIDAE	<i>Lichmera</i>	<i>indistincta</i>	ubsp. indistinct		
	<i>Lichmera</i>	<i>indistincta</i>	Brown Honeyeater		
	<i>Lichenostomus</i>	<i>penicillatus</i>	White-plumed Honeyeater		
	<i>Lichenostomus</i>	<i>virescens</i>	Singing Honeyeater		✓



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Family	Genus	Species	Common Name	Conservation Significance	Recorded
	<i>Manorina</i>	<i>flavigula</i>	Yellow-throated Miner		
	<i>Epthianura</i>	<i>tricolor</i>	Crimson Chat		
PACHYCEPHALIDAE	<i>Pachycephala</i>	<i>lanioides</i>	White-breasted Whistler		
	<i>Pachycephala</i>	<i>melanura</i>	ubsp. melanur		
DICRURIDAE	<i>Rhipidura</i>	<i>phasiana</i>	Mangrove Grey Fantail		
	<i>Rhipidura</i>	<i>leucophrys</i>	Willie Wagtail		
	<i>Grallina</i>	<i>cyanoleuca</i>	Magpie-lark		✓
CAMPEPHAGIDAE	<i>Coracina</i>	<i>novaeollandiae</i>	Black-faced Cuckoo-shrike		✓
ARTAMIDAE	<i>Artamus</i>	<i>minor</i>	Little Woodswallow		
	<i>Artamus</i>	<i>cinereus</i>	Black-faced Woodswallow		✓
	<i>Artamus</i>	<i>leucorhynchus</i>	White-breasted Woodswallow		
CRACTICIDAE	<i>Cracticus</i>	<i>nigrogularis</i>	Pied Butcherbird		
HIRUNDINIDAE	<i>Hirundo</i>	<i>neoxena</i>	Welcome Swallow		✓
ZOSTEROPIDAE	<i>Zosterops</i>	<i>luteus</i>	Yellow White-eye		
SYLVIIDAE	<i>Megalurus</i>	<i>timoriensis</i>	Tawny Grassbird		✓
PASSERIDAE	<i>Passer</i>	<i>montanus</i>	Eurasian Tree Sparrow		
	<i>Passer</i>	<i>domesticus</i>	House Sparrow		
ESTRILDIDAE	<i>Taeniopygia</i>	<i>guttata</i>	Zebra Finch		
	<i>Emblema</i>	<i>pictum</i>	Painted Finch		



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ATTACHMENT 02: POTENTIALLY OCCURRING FLORA

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ATTACHMENT 02: Potentially Occurring Flora

Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Abutilon</i>	<i>fraseri</i>	Lantern Bush		
<i>Abutilon</i>	<i>lepidum</i>			
<i>Acacia</i>	<i>ancistrocarpa</i>	Fitzroy Wattle		
<i>Acacia</i>	<i>arida</i>			
<i>Acacia</i>	<i>bivenosa</i>			
<i>Acacia</i>	<i>colei</i>			
<i>Acacia</i>	<i>coriacea</i>	Wirewood		
<i>Acacia</i>	<i>glaucocaesia</i>		P3	
<i>Acacia</i>	<i>gregorii</i>	Gregory's Wattle		
<i>Acacia</i>	<i>inaequilatera</i>	Baderi		
<i>Acacia</i>	<i>orthocarpa</i>	Needleleaf Wattle		
<i>Acacia</i>	<i>pyrifolia</i>			
<i>Acacia</i>	<i>pyrifolia</i>	Ranji Bush		
<i>Acacia</i>	<i>sphaerostachya</i>			
<i>Acacia</i>	<i>trachycarpa</i>	Minni Ritchi		
<i>Acacia</i>	<i>xiphophylla</i>			
<i>Acetabularia</i>	<i>calyculus</i>			
<i>Acetosa</i>	<i>vesicaria</i>			
<i>Adriana</i>	<i>tomentosa</i>			

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Aegialitis</i>	<i>annulata</i>	Club Mangrove		
<i>Aegiceras</i>	<i>corniculatum</i>	River Mangrove		
<i>Aerva</i>	<i>javanica</i>	Kapok Bush		
<i>Alectryon</i>	<i>oleifolius</i>			
<i>Alternanthera</i>	<i>nana</i>	Hairy Joyweed		
<i>Amaranthus</i>	<i>undulatus</i>			
<i>Ammannia</i>	<i>baccifera</i>			
<i>Angianthus</i>	<i>milnei</i>	Cone-spike Angianthus		
<i>Aristida</i>	<i>contorta</i>	Bunched Kerosene Grass		
<i>Aristida</i>	<i>latifolia</i>	Feathertop Wiregrass		
<i>Avicennia</i>	<i>marina</i>	White Mangrove		
<i>Boerhavia</i>	<i>coccinea</i>	Tar Vine		
<i>Boerhavia</i>	<i>gardneri</i>			
<i>Bonamia</i>	<i>media</i>			
<i>Bonamia</i>	<i>sp. Dampier</i> (A.A. Mitchell PRP 217)			
<i>Boodlea</i>	<i>composita</i>			
<i>Brachychiton</i>	<i>acuminatus</i>			
<i>Bridelia</i>	<i>tomentosa</i>			
<i>Bruguiera</i>	<i>exaristata</i>	Ribbed Mangrove		
<i>Cajanus</i>	<i>cinereus</i>			
<i>Cajanus</i>	<i>pubescens</i>			

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Capparis</i>	<i>spinosa var. nummularia</i>	Coastal Caper		
<i>Cassytha</i>	<i>capillaris</i>			
<i>Caulerpa</i>	<i>racemosa</i>			
<i>Caulerpa</i>	<i>sertularioides</i>			
<i>Ceriops</i>	<i>australis</i>			
<i>Cheilanthes</i>	<i>contigua</i>			
<i>Chrysopogon</i>	<i>fallax</i>	Golden Beard Grass		
<i>Cleome</i>	<i>viscosa</i>	Tickweed		
<i>Clerodendrum</i>	<i>tomentosum</i>			
<i>Codonocarpus</i>	<i>cotinifolius</i>	Native Poplar		
<i>Commelina</i>	<i>ensifolia</i>	Wandering Jew		
<i>Corchorus</i>	<i>elachocarpus</i>			
<i>Corchorus</i>	<i>incanus</i>			
<i>Corchorus</i>	<i>trilocularis</i>			
<i>Corchorus</i>	<i>walcottii</i>	Woolly Corchorus		
<i>Corymbia</i>	<i>hamersleyana</i>			
<i>Corymbia</i>	<i>opaca</i>			
<i>Crotalaria</i>	<i>cunninghamii</i>	Green Birdflower		
<i>Crotalaria</i>	<i>novae-hollandiae</i>	New Holland Rattlepod		
<i>Cucumis</i>	<i>maderaspatanus</i>			
<i>Cymbopogon</i>	<i>ambiguus</i>	Scentgrass		

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Cynanchum</i>	<i>floribundum</i>	Dumara Bush		
<i>Cyperus</i>	<i>bifax</i>	Downs Nutgrass		
<i>Cyperus</i>	<i>bulbosus</i>	Bush Onion		
<i>Cyperus</i>	<i>vaginatus</i>	Stiffleaf Sedge		
<i>Dactyloctenium</i>	<i>radulans</i>	Button Grass		
<i>Dichrostachys</i>	<i>spicata</i>	Pied Piper Bush		
<i>Dictyosphaeria</i>	<i>cavernosa</i>			
<i>Digitaria</i>	<i>ctenantha</i>	Comb Finger Grass		
<i>Dysphania</i>	<i>plantaginella</i>			
<i>Ehretia</i>	<i>saligna var. saligna</i>			
<i>Eleocharis</i>	<i>geniculata</i>			
<i>Enchylaena</i>	<i>tomentosa</i>	Barrier Saltbush		
<i>Enneapogon</i>	<i>caerulescens</i>	Limestone Grass		
<i>Enneapogon</i>	<i>lindleyanus</i>	Wiry Nineawn		
<i>Eragrostis</i>	<i>surreyana</i>		P3	
<i>Eremophila</i>	<i>longifolia</i>	Berrigan		
<i>Eriachne</i>	<i>obtusa</i>	Northern Wandarrie Grass		
<i>Eriachne</i>	<i>tenuiculmis</i>			
<i>Eucalyptus</i>	<i>prominens</i>			
<i>Eucalyptus</i>	<i>victrix</i>			
<i>Euphorbia</i>	<i>alsiniflora</i>	Namana		

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Euphorbia</i>	<i>australis</i>	Namana		
<i>Euphorbia</i>	<i>careyi</i>			
<i>Euphorbia</i>	<i>tannensis</i>	Desert Spurge		
<i>Evolvulus</i>	<i>alsinoides</i> var. <i>villosicalyx</i>			
<i>Ficus</i>	<i>aculeata</i> var. <i>indecora</i> Ranji			
<i>Ficus</i>	<i>brachypoda</i>			
<i>Ficus</i>	<i>virens</i>	Albayi		
<i>Fimbristylis</i>	<i>dichotoma</i>	Eight Day Grass		
<i>Flaveria</i>	<i>trinervia</i>	Speedy Weed		
<i>Flueggea</i>	<i>virosa</i> subsp. <i>melanthesoides</i>	Dogwood		
<i>Gomphrena</i>	<i>cunninghamii</i>			
<i>Goodenia</i>	<i>lamprosperma</i>			
<i>Goodenia</i>	<i>tenuiloba</i>			
<i>Grevillea</i>	<i>pyramidalis</i>			
<i>Hakea</i>	<i>lorea</i>			
<i>Halimeda</i>	<i>discoidea</i>			
<i>Halodule</i>	<i>uninervis</i>			
<i>Halophila</i>	<i>decipiens</i>			
<i>Helichrysum</i>	<i>luteoalbum</i>	Jersey Cudweed		
<i>Heliotropium</i>	<i>curassavicum</i>	Smooth Heliotrope		
<i>Heliotropium</i>	<i>tenuifolium</i>	Mamukata		

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Hibiscus</i>	<i>leptocladus</i>			
<i>Hibiscus</i>	<i>sturtii</i>	Sturt's Hibiscus		
<i>Hybanthus</i>	<i>aurantiacus</i>			
<i>Indigofera</i>	<i>colutea</i>	Sticky Indigo		
<i>Indigofera</i>	<i>linifolia</i>			
<i>Indigofera</i>	<i>monophylla</i>			
<i>Ipomoea</i>	<i>costata</i>	Rock Morning Glory		
<i>Ipomoea</i>	<i>muelleri</i>	Poison Morning Glory		
<i>Ipomoea</i>	<i>pes-caprae</i>			
<i>Jasminum</i>	<i>didymum</i>	Desert Jasmine		
<i>Lawrenca</i>	<i>viridigrisea</i>			
<i>Lepidium</i>	<i>pedicellosum</i>			
<i>Lepidium</i>	<i>pholidogynum</i>			
<i>Mollugo</i>	<i>molluginea</i>			
<i>Muellerolimon</i>	<i>salicorniaceum</i>			
<i>Myoporum</i>	<i>montanum</i>	Native Myrtle		
<i>Najas</i>	<i>tenuifolia</i>	Water Nymph		
<i>Neobassia</i>	<i>astrocarpa</i>			
<i>Panicum</i>	<i>decompositum</i>	Native Millet		
<i>Paspalidium</i>	<i>tabulatum</i>			
<i>Pittosporum</i>	<i>phillyreoides</i>	Weeping Pittosporum		

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Pluchea</i>	<i>dentex</i>			
<i>Pluchea</i>	<i>rubelliflora</i>			
<i>Pluchea</i>	<i>sp. B Kimberley Flora</i> (K.F. Kenneally 9526A)			
<i>Polycarpaea</i>	<i>longiflora</i>			
<i>Portulaca</i>	<i>conspicua</i>			
<i>Pterocaulon</i>	<i>sphacelatum</i> Apple Bush			
<i>Pterocaulon</i>	<i>sphaeranthoides</i>			
<i>Ptilotus</i>	<i>astrolasius</i>			
<i>Ptilotus</i>	<i>auriculifolius</i>			
<i>Ptilotus</i>	<i>gomphrenoides</i>			
<i>Ptilotus</i>	<i>polystachyus</i>	Prince of Wales Feather		
<i>Ptilotus</i>	<i>villosiflorus</i>			
<i>Rhagodia</i>	<i>eremaea</i>	Thorny Saltbush		
<i>Rhagodia</i>	<i>preissii</i>			
<i>Rhizophora</i>	<i>stylosa</i>	Spotted-leaved Red Mangrove		
<i>Rhodanthe</i>	<i>margarethae</i>			
<i>Rhynchosia</i>	<i>australis</i>	Rhynchosia		
<i>Rhynchosia</i>	<i>bungarensis</i>		P4	
<i>Rhynchosia</i>	<i>minima</i>	Rhynchosia		
<i>Scaevola</i>	<i>acacioides</i>			
<i>Scaevola</i>	<i>cunninghamii</i>			

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Scaevola</i>	<i>spinescens</i>	Currant Bush		
<i>Schoenoplectus</i>	<i>subulatus</i>			
<i>Schoenus</i>	<i>punctatus</i>		P3	
<i>Sclerolaena</i>	<i>uniflora</i>	Two-spined Saltbush		
<i>Senna</i>	<i>artemisioides</i>			
<i>Senna</i>	<i>glutinosa</i>			
<i>Senna</i>	<i>notabilis</i>			
<i>Sesbania</i>	<i>cannabina</i>	Sesbania Pea		
<i>Sida</i>	<i>cardiophylla</i>			
<i>Sida</i>	<i>fibulifera</i>	Silver Sida		
<i>Sida</i>	<i>sp. Pilbara</i> (A.A. Mitchell PRP 1543)			
<i>Solanum</i>	<i>horridum</i>			
<i>Solanum</i>	<i>lasiophyllum</i>	Flannel Bush		
<i>Solanum</i>	<i>phlomoides</i>			
<i>Solidago</i>	<i>canadensis</i>	Goldenrod		
<i>Spinifex</i>	<i>longifolius</i>	Beach Spinifex		
<i>Sporobolus</i>	<i>australasicus</i>	Fairy Grass		
<i>Stackhousia</i>	<i>clementii</i>		P3	
<i>Stemodia</i>	<i>grossa</i>	Marsh Stemodia		
<i>Stemodia</i>	<i>kingii</i>			
<i>Streptoglossa</i>	<i>decurrens</i>			

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Streptoglossa</i>	<i>liatroides</i>			
<i>Stylidium</i>	<i>fluminense</i>			
<i>Swainsona</i>	<i>formosa</i>			
<i>Swainsona</i>	<i>pterostylis</i>			
<i>Tecticornia</i>	<i>halocnemoides</i>	Shrubby Samphire		
<i>Tecticornia</i>	<i>indica</i>			
<i>Tecticornia</i>	<i>pterygosperma</i>			
<i>Tephrosia</i>	<i>clementii</i>			
<i>Tephrosia</i>	<i>leptoclada</i>			
<i>Tephrosia</i>	<i>rosea</i>	Flinders River Poison		
<i>Tephrosia</i>	<i>rosea var. clementii</i>			
<i>Tephrosia</i>	<i>sp. B Kimberley Flora (C.A. Gardner 7300)</i>			
<i>Tephrosia</i>	<i>sp. Pilbara (A.L. Payne PRP 1393)</i>			
<i>Tephrosia</i>	<i>supina</i>			
<i>Terminalia</i>	<i>canescens Joolal</i>			
<i>Terminalia</i>	<i>supranitifolia</i>		P3	
<i>Themeda</i>	<i>sp. Mt Barricade (M.E. Trudgen 2471)</i>			
<i>Themeda</i>	<i>triandra</i>			
<i>Tinospora</i>	<i>smilacina</i>	Snakevine		
<i>Trachymene</i>	<i>oleracea</i>			
<i>Trianthema</i>	<i>turgidifolia</i>			

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Genus	Species	Common Name	Conservation Significance	Previously Recorded on Site
<i>Tribulus</i>	<i>occidentalis</i>	Perennial Caltrop		
<i>Trichodesma</i>	<i>zeylanicum</i>	Camel Bush		
<i>Triodia</i>	<i>angusta</i>			
<i>Triodia</i>	<i>epactia</i>			
<i>Triodia</i>	<i>schinzii</i>			
<i>Triodia</i>	<i>wiseana</i>	Limestone Spinifex		
<i>Triumfetta</i>	<i>appendiculata</i>			
<i>Triumfetta</i>	<i>clementii</i>			
<i>Udotea</i>	<i>glaucescens</i>			
<i>Vigna</i>	<i>sp. rockpiles</i> (R. Butcher et al. RB 1400)		P3	
<i>Whiteochloa</i>	<i>airoides</i>			

* Introduced Species

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ATTACHMENT 03: PLATES



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Figure 1: *Ctenophorus caudicinctus*



Figure 2: Little Correle

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Figure 3: *Ctenotus* sp.



Figure 4: *Macropus rufus*





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Figure 5: *Varanus gouldii*

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ATTACHMENT 19

Fauna Shelters

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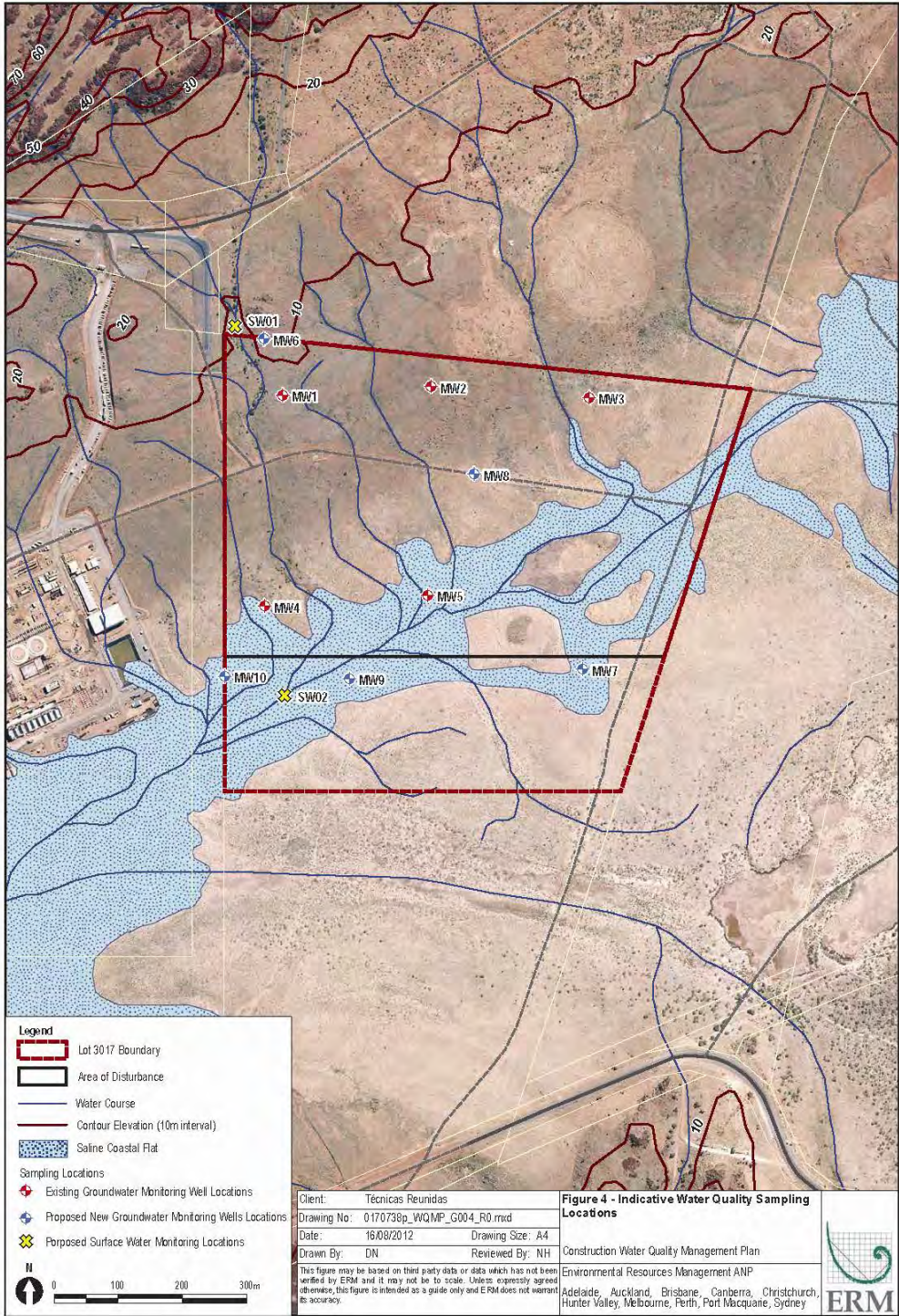
Example of Fauna Shelter





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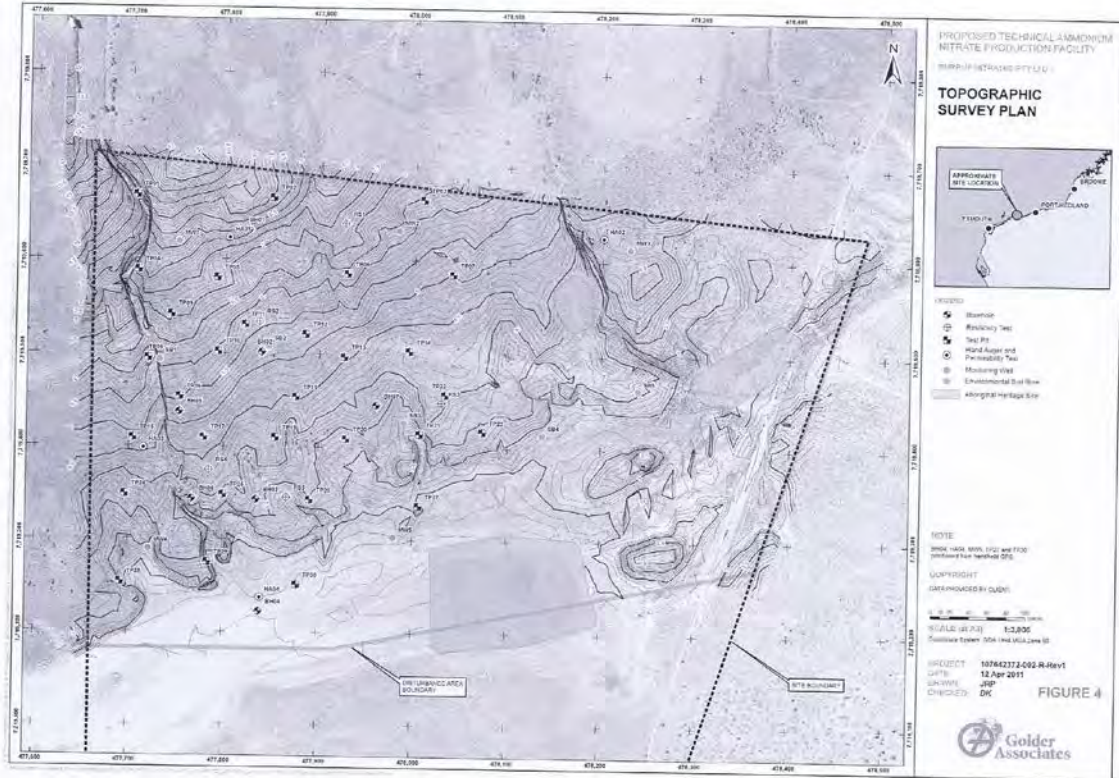
ATTACHMENT 20

Groundwater wells for baseline study.



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ATTACHMENT 21
Geotechnical Study carried out
by Golder Associates.





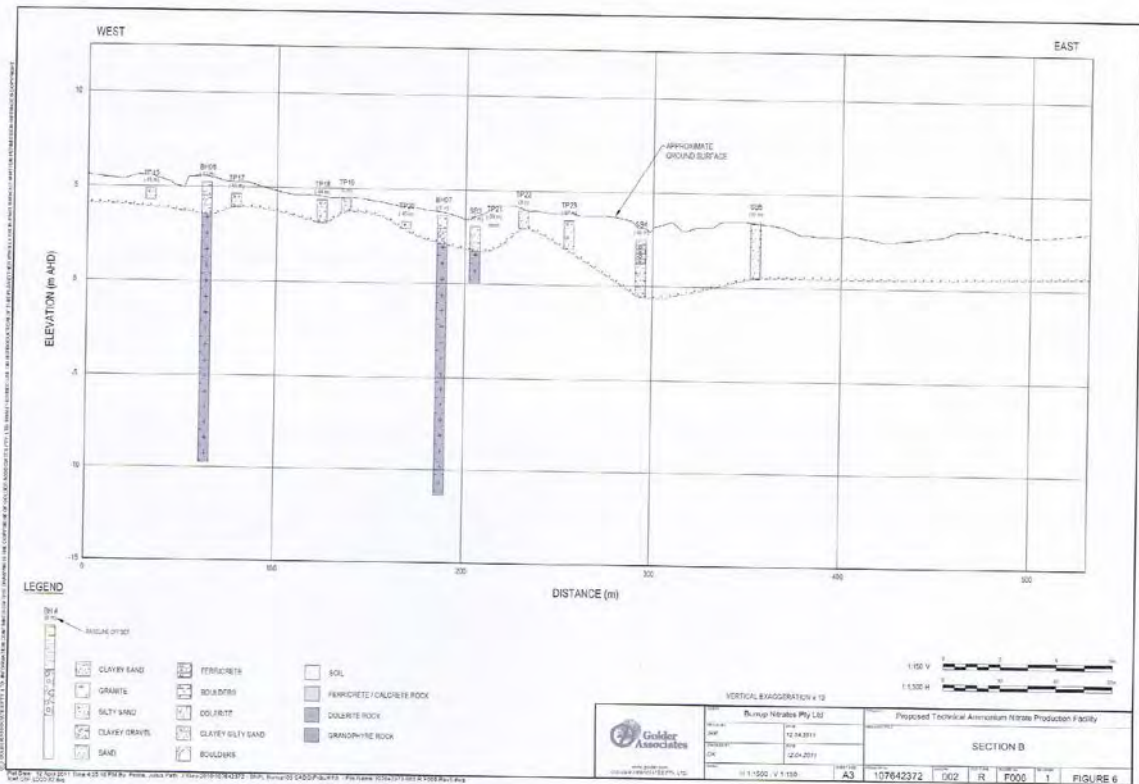
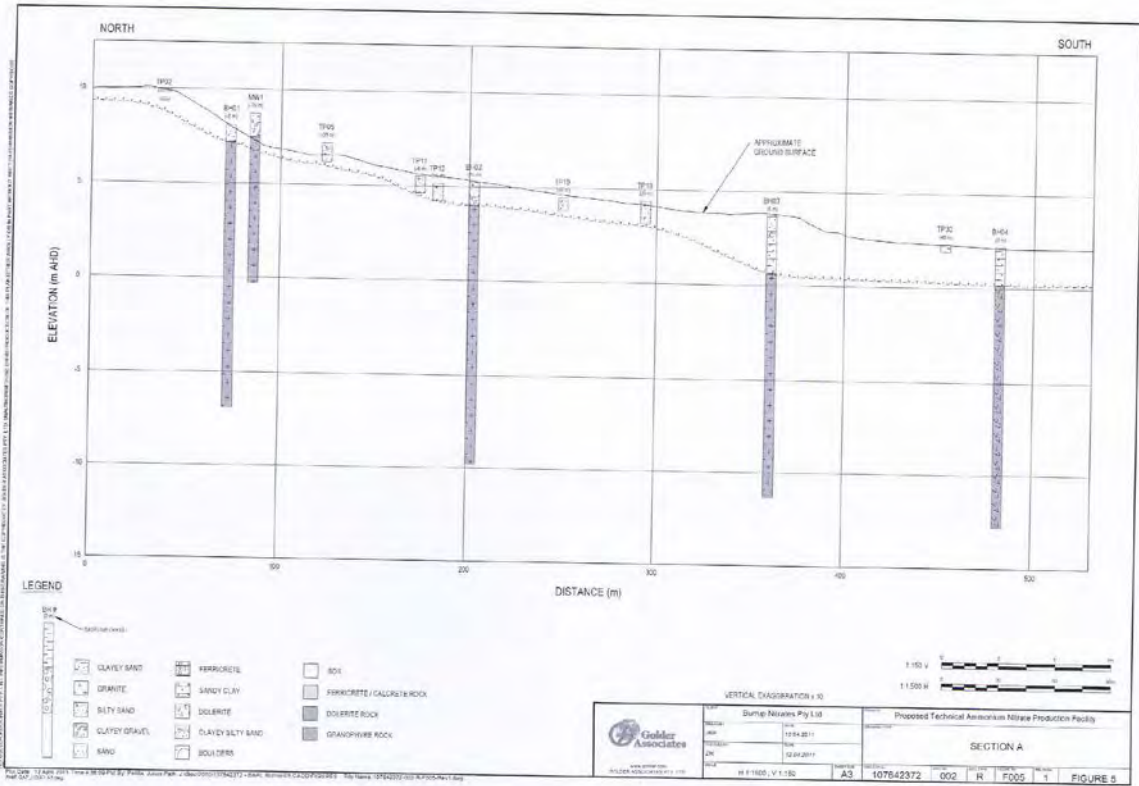
TAN BURRUP PROJECT
TAN BURRUP PROJECT
COMPLIANCE ASSESSMENT REPORT (MS 870)

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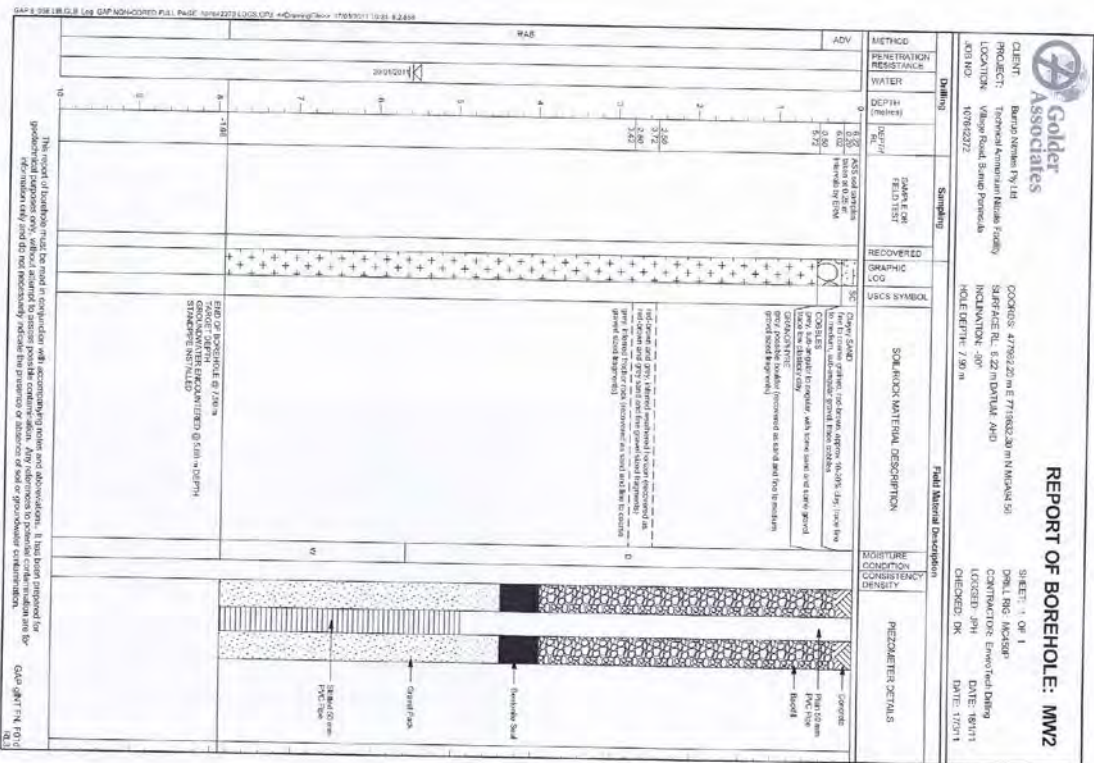
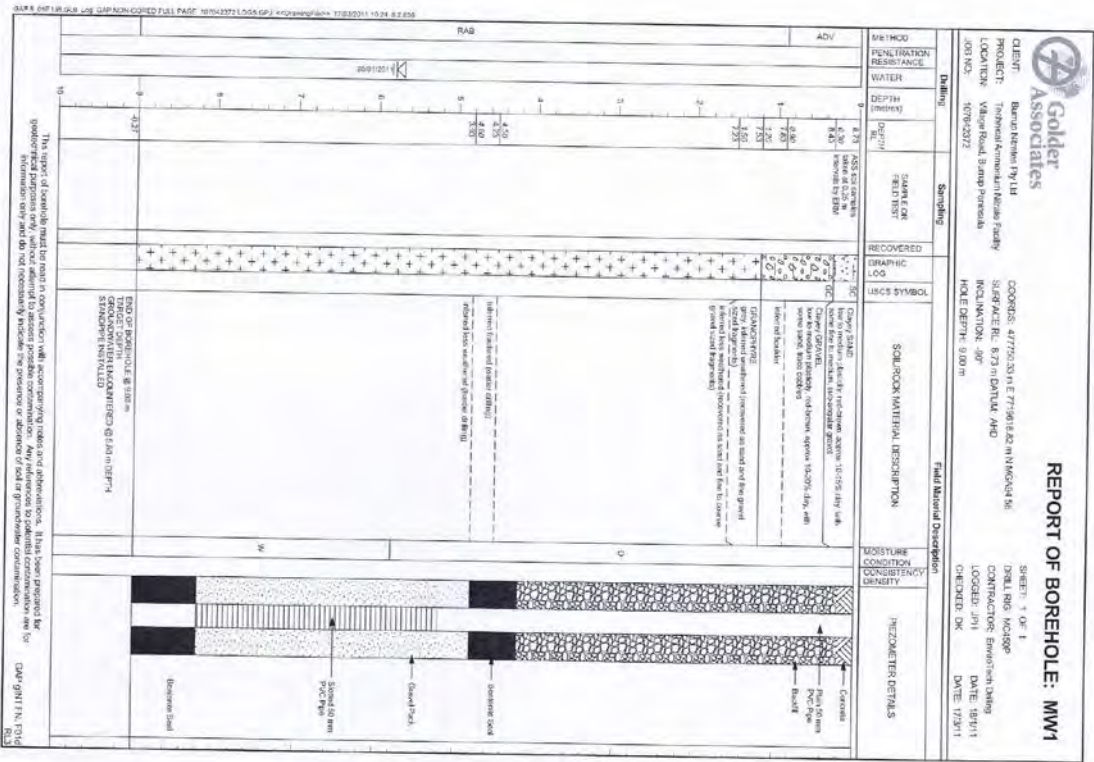
APPENDIX A
 Summary of Investigation Locations

Location	Coordinates (m MGA94) ¹		Surface RL (m AHD) ¹	Investigation Depth (m)	Depth to Rock (m bgl) ²	Rock Level (m AHD)	Depth to Groundwater (m bgl) ²	Groundwater Level (m AHD)
	Easting (m)	Northing (m)						
BH01	477824	7719632	8.14	15.00	0.90 (G)	7.24 (G)	5.90	2.24
BH02	477839	7719502	5.25	15.00	1.25 (G)	4.00 (G)	GNR	GNR
BH03	477835	7719344	3.67	15.00	0.80 (F)/3.07 (G)	2.87 (F)/0.60 (G)	GNR	GNR
BH04	477839 ⁽³⁾	7719223 ⁽³⁾	2.20 ⁽³⁾	15.00	2.05 (G)	0.15 (G)	GNR	GNR
BH05	477753	7719438	5.25	15.00	1.70 (G)	3.55 (G)	3.61	1.64
BH06	477767	7719344	3.85	15.00	0.95 (F)/2.95 (G)	2.70 (F)/0.70 (G)	GNR	GNR
BH07	477961	7719446	3.63	15.00	1.50 (G)	2.13 (G)	2.0	1.63
MW1	477750	7719619	8.73	9.00	1.20 (G)	7.53 (G)	5.80	2.93
MW2	477982	7719632	6.21	7.90	0.50 (G)	5.71 (G)	5.60	0.61
MW3	478229	7719615	4.17	7.80	3.00 (G)	1.17 (G)	3.60	0.57
MW4	477722	7719290	2.76	4.50	4.00 (G)	-1.24 (G)	1.80	0.96
MW5	477980 ⁽³⁾	7719304 ⁽³⁾	2.30 ⁽³⁾	5.05	5.00 (G)	-2.70 (G)	1.60	0.7
SB1	477731	7719494	8.09	3.00	0.90 (G)	5.18 (G)	GNR	GNR
SB2	477846	7719508	5.16	3.00	0.60 (G)	4.56 (G)	GNR	GNR
SB3	477990	7719427	3.05	3.00	1.30 (G)	1.75 (G)	GNR	GNR
SB4	478137	7719415	2.47	3.00	0.25 (F)	2.217 (F)	GNR	GNR
SB5	478239	7719464	3.51	3.00	RNE	RNE	GNR	GNR

¹Coordinates and levels taken from Handley Survey data. ²bgl = below ground level. ³Co-ordinates and levels taken from hand-held GPS during fieldwork due to site flooding.
 GNE = Groundwater not encountered. GNR = Groundwater not recordable.
 G = Graptiphyre. F = Ferricrete / Calcicrete.
 RNE = Rock not encountered. N/A = Not Applicable.



APPENDIX F
 Environmental Boreholes





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**TAN BURRUP PROJECT
 COMPLIANCE ASSESSMENT REPORT (MS 870)**

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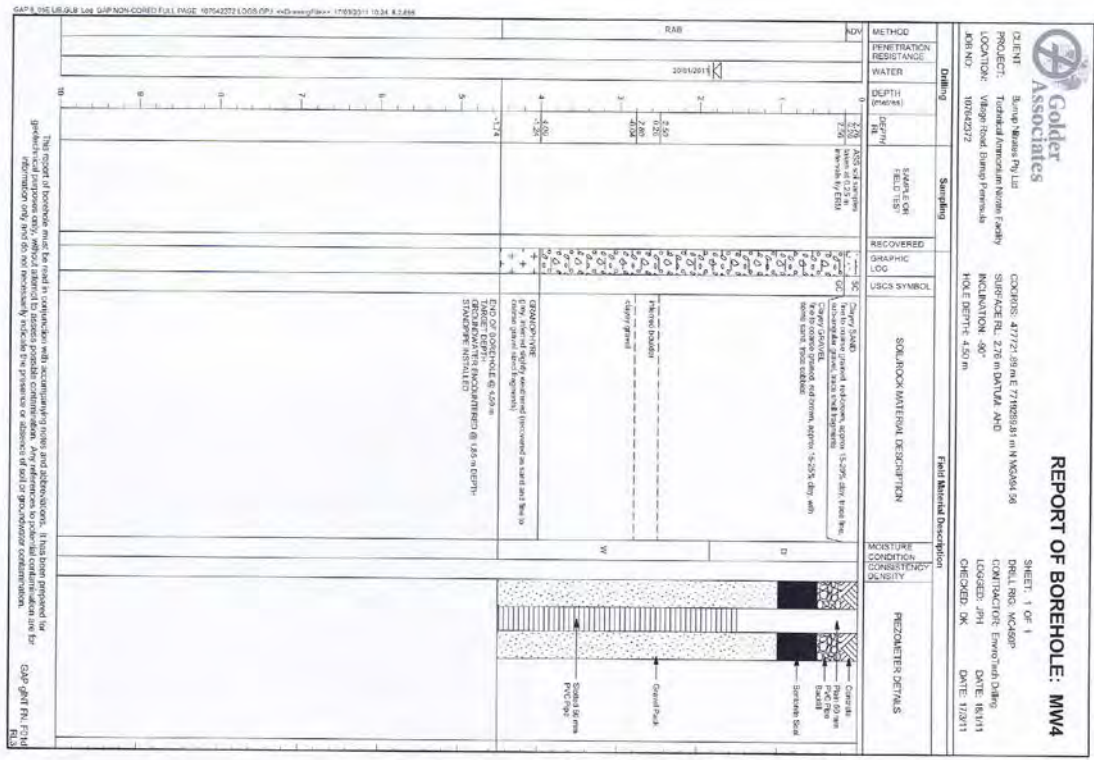
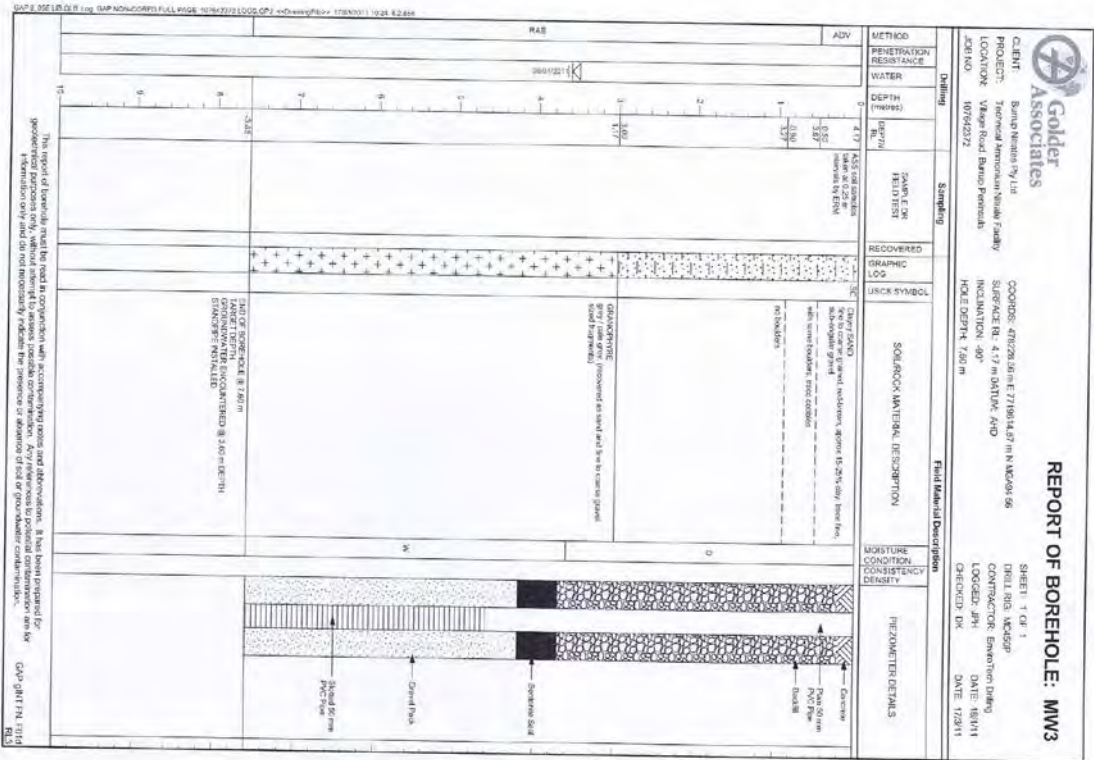
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TAN BURRUP PROJECT

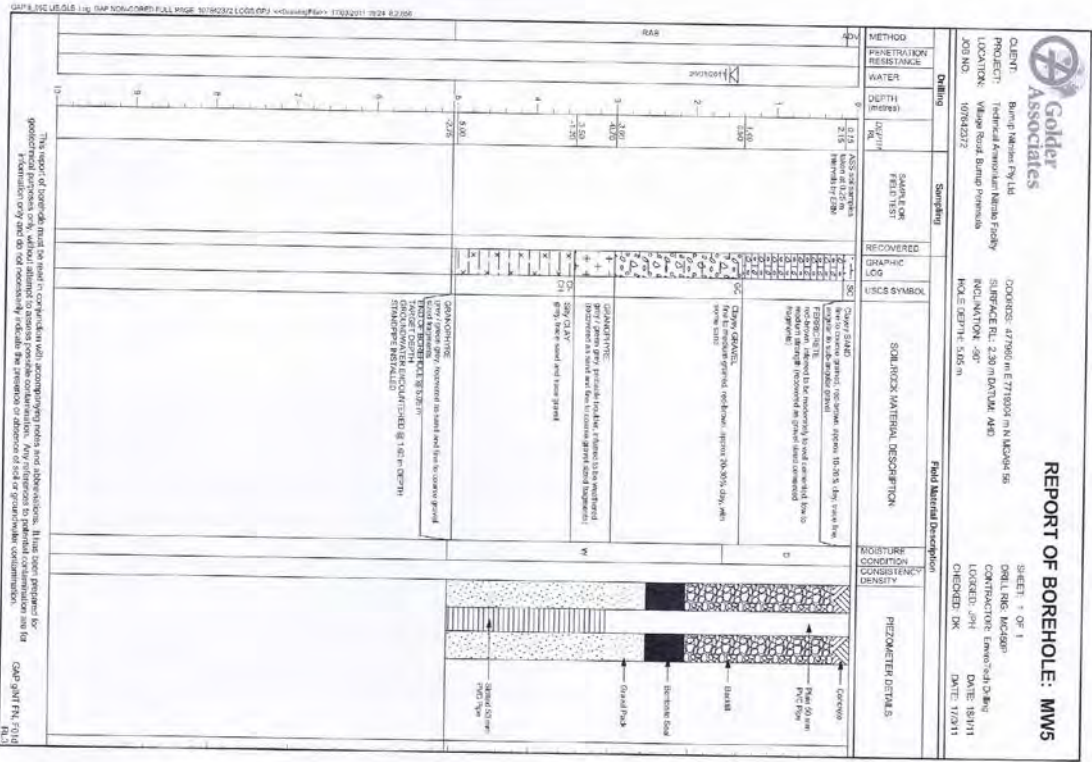
**TAN BURRUP PROJECT
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ATTACHMENT 22

New Groundwater wells to replace MW1 and MW4.

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New MW1



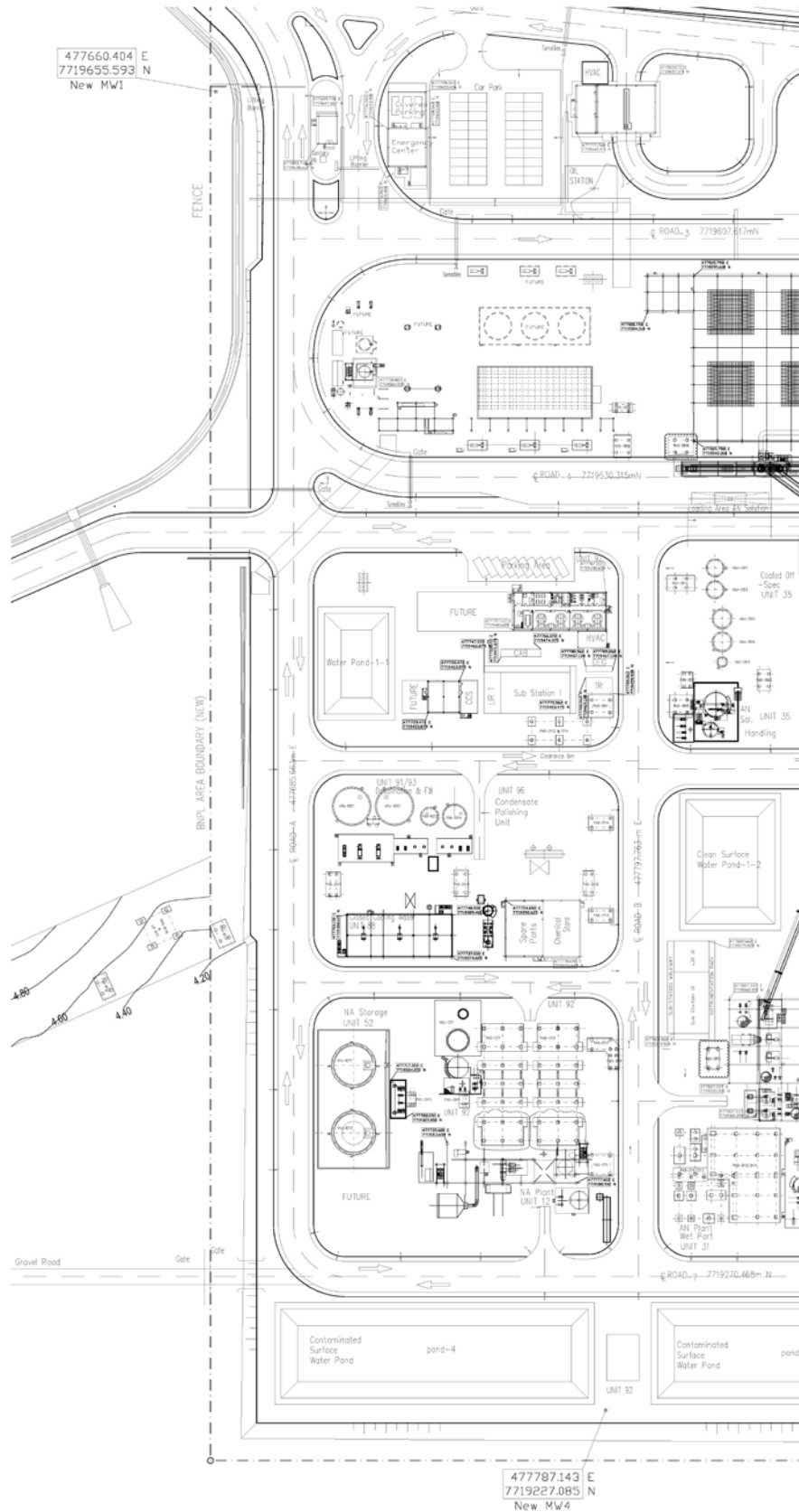
New MW4





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ATTACHMENT 23

GROUNDWATER QUALITY MONITORING

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**Environmental
Resources Management
Australia**

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Perth WA 6000

PO Box 7338
Cloisters Square WA 6850

Telephone +61 8 9321 5200
Facsimile +61 8 9321 5262

www.erm.com



21 December, 2012

Finn Almas
Yara Pilbara Nitrates Pty Ltd
5th Floor, 182 St Georges Terrace, Perth
Western Australia 6000
AUSTRALIA

Our Reference: 0086269

Attention: Finn Almas

Dear Finn,

RE: GROUNDWATER MONITORING OCTOBER 2012



1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by Yara Pilbara Nitrates Pty Ltd (YPNPL) to conduct a Groundwater Monitoring Event (GME) at the proposed site for the YPNPL Technical Ammonium Nitrates Plant Facility (TANPF) in October 2012. The site location and layout are illustrated in *Figures 1 and 2*, provided in *Annex A*.

2. PROJECT APPRECIATION

Lot 3017 within the Burrup Industrial Estate (BIE) occupies an area of approximately 49 ha with Village Road to the north and Hearson Cove Road to the south. The existing ammonia fertiliser plant is situated adjacent to the western boundary of Lot 3017, with vacant land present between the site and Hearson Cove to the east.

The site (including temporary laydown areas) occupies approximately 35 ha of land in the north-western section of Lot 3017. Bulk earthworks disturbance associated with construction of permanent works for the TANPF will be constrained to approximately 20.5 ha of land located within the western quadrant of the site (see *Figure 1*).

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The TANPF will comprise three major processing units, including: a nitric acid plant, ammonium nitrate solutions plant and the technical ammonium nitrate (TAN) plant. The proposed site preparation works for the TANPF are anticipated to include the following activities:

- Removal of vegetation within the designated area;
- Preparing the TANPF footprint and lay-down/stockpile areas, which will include cut and fill activities;
- Installation of site drainage;
- Establishment of perimeter fencing;
- Road and access tracks for construction; and
- Potential dewatering and trenching (pending more detailed design requirements).

3. OBJECTIVES



The primary objective of this groundwater monitoring event (GME) was to collect additional hydrogeological data to support the characterisation of groundwater conditions and establish a baseline data set prior to the commencement of construction.

4. SCOPE OF WORKS

In order to achieve the project objectives, the following scope of work was completed by ERM:

- 1) Preparation of site works risk/hazard analysis documents (Work Activity Risk Assessment (WARN)) and the preparation of a health and safety plan to oversee safe work practices at the site.
- 2) A single GME in October 2012, comprising the sampling of five established, on-site wells (*Figure 2*). This included:
 - a. gauging of groundwater depths, to allow for the interpretation of groundwater flow direction; and
 - b. collection and analysis of groundwater samples to assess groundwater conditions.

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- 3) Laboratory analysis of groundwater samples, including a Modified Acid Sulphate Soils Suite and an Extended Groundwater Quality suite. Five primary samples (one from each well), one duplicate sample and relevant quality assurance samples were taken. Analysis was undertaken by a NATA accredited laboratory to ensure quality assurance.
- 4) The preparation of this short factual report to detail the scope of works undertaken and the results of the investigation.

5. METHODOLOGY

5.1 HEALTH AND SAFETY



All works were completed in accordance with ERM health and safety (H&S) procedures. This included the preparation of site works risk/hazard analysis documents and the preparation of an H&S plan to ensure the safest work practices at the site.

5.2 GROUNDWATER SAMPLING

The five existing groundwater monitoring wells (MW1-MW5) were purged and sampled in accordance with ERM's standard groundwater sampling protocols, using disposable plastic bailers. A minimum of three well volumes were purged from each groundwater monitoring well prior to sampling. Field parameters were measured after each well volume and the sample collected following the stabilisation of field parameters over three consecutive readings. All groundwater samples were collected, stored and transported to the laboratory under strict chain of custody procedures.

Field parameters were measured using a calibrated water quality meter and included temperature, pH, oxygen reduction potential, electrical conductivity and dissolved oxygen. Groundwater purge details were recorded on standardised groundwater monitoring sheets and presented in *Annex B*.

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5.3 QUALITY ASSURANCE AND QUALITY CONTROL

QA/QC samples were collected and analysed in accordance with *Australian Standard AS/NZS 5667.11:1998: Water quality - Sampling - Guidance on sampling of groundwater*. This included the collection of field duplicates at a frequency of no less than 1 in 10 samples as well as a rinsate sample from the interface meter to demonstrate the sufficiency of the decontamination procedure.

A single duplicate sample was collected from MW4 and submitted for laboratory analysis. Of the 23 Relative Percentage Difference (RPD) values able to be calculated, all but two were within 30% (considered the acceptability limit); these being TSS and zinc with 32 and 40 respectively. The anomaly in the zinc results can be attributed to the laboratory provided rinsate water, which, upon analysis, was shown to have elevated zinc levels. Total Suspended Solids (TSS) returned an RPD% of 32, marginally above the adopted acceptability criteria of 30. This may be attributed to the sampling method used (disposable plastic bailer) that has the potential to pick up varying quantities of suspended solids. Given the high level of reproducibility for other analytes, this is not considered to represent an unacceptable level of uncertainty with respect to data quality.



A rinsate sample was collected from the equipment and submitted for laboratory analysis following the GME, with results indicating elevated levels of zinc. This accounts for the high zinc levels returned during this GME.

5.4 LABORATORY ANALYSIS

Groundwater samples were submitted to SGS Australia Pty Ltd (SGS), a NATA accredited laboratory. Samples were analysed for a suite of compounds including:

- Cations and anions including calcium, magnesium, sodium, potassium, phosphate, ammonia, carbonate, bicarbonate, chloride, sulphate, nitrate, nitrite and silica;
- Total dissolved solids (TDS), and total alkalinity; and
- Dissolved metals including; aluminium, arsenic, cadmium, chromium, iron, lead, manganese, mercury, selenium and zinc.

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6. RESULTS AND DISCUSSION

The results of this GME were broadly consistent with those of previous GMEs. Results are presented in *Tables 1 – 3 of Annex C* and discussed in further detail below. Laboratory analytical reports and chain of custody documentation are presented in *Annex D*.



Groundwater temperature was ranged between 28.9 and 29.8°C; consistent with previous GME's at the site, taking in to account seasonal fluctuations. The pH results ranged between 6.9 and 7.66 indicating neutral conditions, which is consistent with historical results. Oxygen reduction potentials were consistent for the duration of the sampling period (approx. 75 - 193). Electrical conductivity varied slightly between GMEs, likely due to differing rainfall preceding GMEs, but was generally considered to be consistent with historical results. Dissolved oxygen content was recorded as 1.73 - 3.78 during the GME and is considered as consistent for the four GMEs.

Groundwater samples extracted from the five wells were analysed for cations and anions; ionic balance was generally less than 10% indicating that the selected suite provides adequate characterisation of the groundwater. Concentrations of anions and cations were consistent with those obtained from previous GMEs.

Groundwater samples collected from the five wells were analysed for TDS and alkalinity; with results consistent with those of previous GMEs. Alkalinity results for all samples were < 1 mg/L, and TDS results were also consistent with those of previous GMEs.

Groundwater samples contained dissolved metal concentrations that were consistent with results obtained during previous GMEs, and are considered to be indicative of natural background conditions for groundwater in the area. No metals were identified in groundwater samples at concentrations exceeding Australian and New Zealand Environment Conservation Council (ANZECC) or Australian Drinking Water (ADW) guidelines in any of the samples.

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7. CONCLUSION

The results of this round of investigation are broadly consistent with those observed during previous GME investigations, and chemical results obtained can be considered to be indicative of natural background levels. The data collected will supplement the existing body of data and is considered to provide an adequate characterisation of background conditions prior to the commencement of construction at the site.



Yours Sincerely,
for Environmental Resources Management Australia Pty Ltd



Joe Edgell
Project Manager



Toby Whincup
Partner

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Annex A

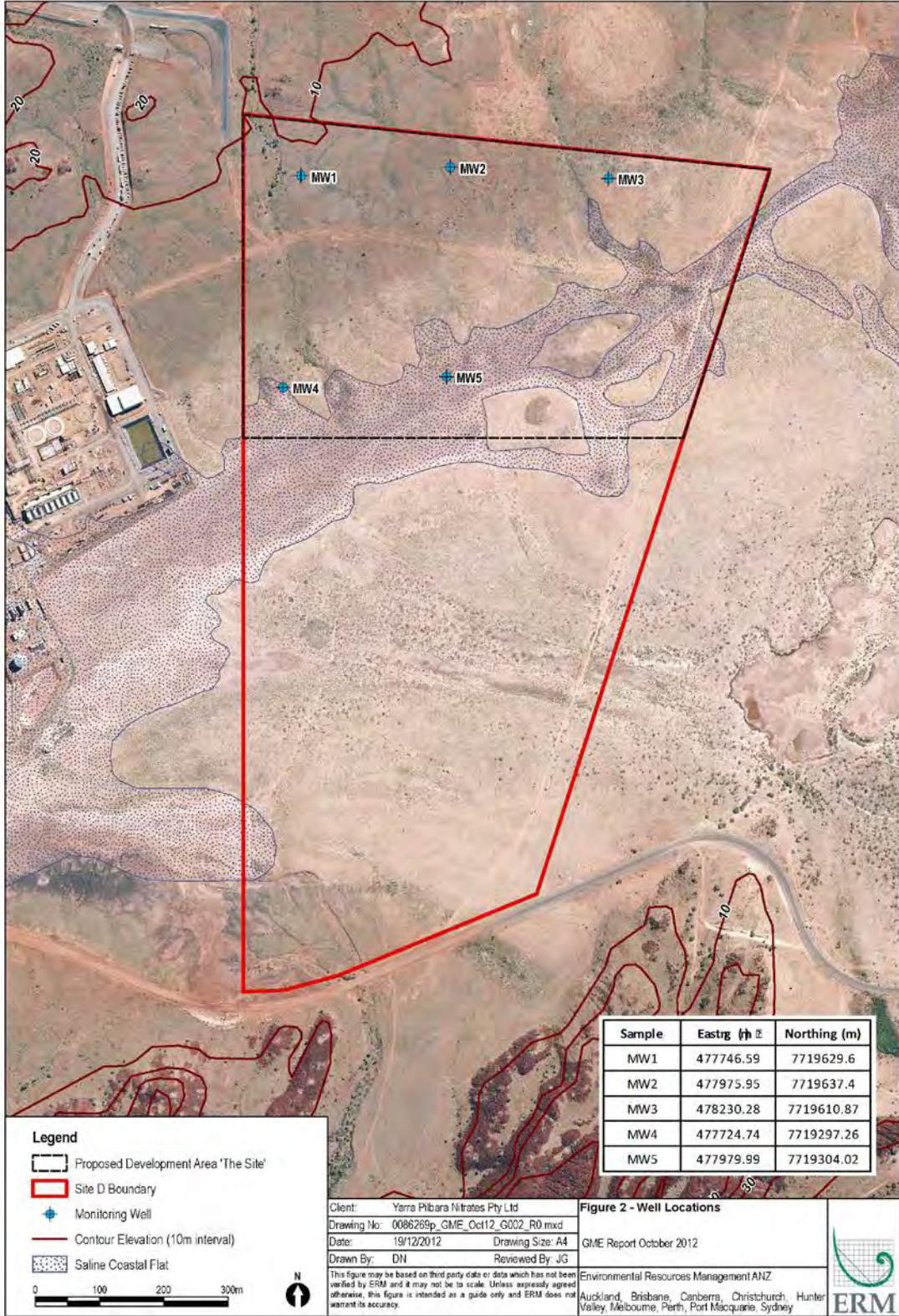
8. SITE LOCATION & WELL LOCATIONS





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Annex B

9. GROUND WATER PURGE RECORDS



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Groundwater - Well Sampling Data Form

Job Information	
Date: 11/10/17	Time: arrive 1205 depart 1240
Project Name: BNA TANPF	Project Number: 0086269
Site Location: BURRUP	Sampler: JG & CM
Well ID: MWI	Weather: 35°C sunny/windy

Equipment	
Water quality equipment description: YSI PP3	Interface probe number: H221
Purging equipment: (please circle)	Bailer type: Plastic Teflon
Pump type: Peristaltic	Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor Litre)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
8.720 m	(-) 5.106 m	(=) 3.6 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			3.6 m	(x) 1.96	(=) 7				
Depth to product: — m		Product Thickness: — m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time: 1212			Ending purge time: 1224			Pump Intake Depth (mbtoc): —			
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
8L	1215	7.09	29.8	252	3.11	134.5	—	slightly turbid, pale grey, moderate recharge	
8L	1221	7.04	29.8	252	3.82	145.2	—	becoming turbid at 15L, slight light brown	
3L	1224	7.09	29.8	252	3.78	149.6	—	dry purged, sampled upon recovery.	
*pH, temp, cond readings not necessary if well is purged dry									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									
19L	Total Well Volume			Sample time 1230			Containers used 5P		
Actual amount of water prior to sampling									
—	Flow rate mL/minute			Did field parameters stabilise? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks	
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was documentation of equipment conducted?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
Rinsate blank collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample ID: —	
Rinsate blank ID: —	

Groundwater - well sampling data form.cdr

11-04



Groundwater - Well Sampling Data Form

Job Information	
Date: 11/10/17	Time: arrive 1245 depart 1302
Project Name: BNPL TANPF	Project Number: 00 86269
Site Location: BURRUP	Sampler: JG & CM
Well ID: MW2	Weather: 35°C Sunny/Windy

Equipment	
Water quality equipment description: Y51 RP3	Interface probe number: H221
Purging equipment: (please circle)	Bailer type: <input checked="" type="radio"/> Plastic <input type="radio"/> Teflon
	Pump type: <input checked="" type="radio"/> Peristaltic <input type="radio"/> Submersible <input type="radio"/> Micro-purge <input type="radio"/> Amazon <input type="radio"/> Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $V = Pr \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
8.200 m	(-) 4.481 m	(=) 3.8 m							
		Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume					
		3.8 m	(x) 1.96	(=) 7.5					
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input checked="" type="radio"/> Y <input type="radio"/> N							

Water Quality Parameters									
Beginning purge time: 1248		Ending purge time: 1254			Pump Intake Depth (mbloc):				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
8L	1248	7.19	29.5	442	2.29	129.6	-	slightly turbid, pale brown,	
8L	1251	7.13	29.2	428	2.17	140.6	-	no odour, moderate recharge	
8L	1254	7.12	29.2	429	2.22	142.5	-		
<small>*pH, temp, cond readings not necessary if well is purged dry</small>									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									
24		Total Well Volume			Sample time: 1254		Containers used: 5P		
		Actual amount of water prior to sampling					Was the well dry purged? <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> NA		
		Flow rate mL/minute					Did field parameters stabilise? <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> NA		

Field QC Checks				
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="radio"/> Y	<input type="radio"/> N		
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="radio"/> Y	<input type="radio"/> N		
Was documentation of equipment conducted?	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	
Were air bubbles present in vials at time of collection?	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	
Was sample for metals field filtered prior to preservations?	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	
Duplicate sample collected?	<input type="radio"/> Y	<input checked="" type="radio"/> N	Duplicate sample ID: _____	
Rinsate blank collected?	<input type="radio"/> Y	<input checked="" type="radio"/> N	Rinsate blank ID: _____	



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Groundwater - Well Sampling Data Form

Job Information	
Date: 11/10/12	Time: arrive 1306 depart 1332
Project Name: BNPL TANPF	Project Number: 0086269
Site Location: BURRUP	Sampler: JG & CM
Well ID: MW3	Weather: 35°C sunny/windy

Equipment	
Water quality equipment description: YSI PP3	Interface probe number: H221
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth (-) Water level (=) Water Column	8.165 m (-) 2.867 m (=) 5.3 m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 5.3 m (x) 1.96 (=) 11								
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time: 1308			Ending purge time: 1325			Pump Intake Depth (mbtoc): _____			
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
11L	1314	7.78	28.8	13.11	3.67	168.7	—	Slightly turbid, pale brown	
11L	1316	7.48	28.1	14.85	2.04	56.9	—	no odour, moderate recharge	
11L	1321	7.43	28.0	17.00	2.18	12.5	—		
11L	1325	7.47	28.0	14.05	2.88	75.3	—		
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
44	Total Well Volume Actual amount of water prior to sampling			Sample time: 1330			Containers used: 5P		
—	Flow rate mL/minute			Did field parameters stabilise? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N		

Field QC Checks	
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was documentation of equipment conducted?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Rinsate blank collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
	Duplicate sample ID: _____
	Rinsate blank ID: _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>BNPL TAPF 11/10/12</u>	Time: arrive <u>1304</u> depart <u>1430</u>
Project Name: <u>BNPL TAPF</u>	Project Number: <u>0086269</u>
Site Location: <u>BURRUP</u>	Sampler: <u>JG & CM</u>
Well ID: <u>MW4</u>	Weather: <u>35°C sunny/windy</u>

Equipment	
Water quality equipment description: <u>Y SI PP3</u>	Interface probe number: <u>H221</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> Teflon
	Pump type: <u>Peristaltic</u> Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth (-) Water level (=) Water Column	<u>4.635</u> m (-) <u>1.519</u> m (=) <u>3</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>3</u> m (x) <u>1.96</u> (=) <u>6</u>								
Depth to product: <u> </u> m	Product Thickness: <u> </u> m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters								
Beginning purge time: <u>1405</u>			Ending purge time: <u>1414</u>				Pump intake Depth (mbloc):	
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
<u>8L</u>	<u>1406</u>	<u>7.93</u>	<u>29.3</u>	<u>11.99</u>	<u>2.47</u>	<u>1223</u>	-	<u>very turbid, red-brown, no odour</u>
<u>8L</u>	<u>1409</u>	<u>7.71</u>	<u>28.9</u>	<u>12.51</u>	<u>2.36</u>	<u>1222</u>	-	<u>fast recharge</u>
<u>8L</u>	<u>1414</u>	<u>7.66</u>	<u>28.7</u>	<u>12.68</u>	<u>2.06</u>	<u>1232</u>	-	
*pH, temp, cond readings not necessary if well is purged dry								
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth								
<u>24L</u>	Total Well Volume Actual amount of water prior to sampling			Sample time <u>1414</u>		Containers used <u>12P</u>		
<u> </u>	Flow rate mL/minute			Did field parameters stabilise? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA		Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks	
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was documentation of equipment conducted?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Rinsate blank collected?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample ID	<u>DUANZ</u>
Rinsate blank ID	<u>RIN02</u>



Groundwater - Well Sampling Data Form



Job Information	
Date: <u>11/10/12</u>	Time: arrive <u>1338</u> depart <u>1400</u>
Project Name: <u>BNPL TANPF</u>	Project Number: <u>0086269</u>
Site Location: <u>BURRUP</u>	Sampler: <u>JG&CM</u>
Well ID: <u>MWS</u>	Weather: <u>35°C sunny/windy</u>

Equipment	
Water quality equipment description: <u>YS1 PP3</u>	Interface probe number: <u>H221</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> Teflon
	Pump type: <u>Peristaltic</u> Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
<u>5.010</u> m	(-) <u>1.054</u> m	(=) <u>3.956</u> m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			<u>4</u> m	(x) <u>1.96</u>	(=) <u>8</u>				
Depth to product: _____ m			Product Thickness: _____ m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				

Water Quality Parameters									
Beginning purge time: <u>1340</u>			Ending purge time: <u>1351</u>			Pump Intake Depth (mbtoc):			
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
<u>84</u>	<u>1345</u>	<u>7.06</u>	<u>29.9</u>	<u>1401</u>	<u>1.67</u>	<u>1813</u>	—	<u>slightly turbid, pale brown</u>	
<u>86</u>	<u>1348</u>	<u>6.90</u>	<u>29.4</u>	<u>1445</u>	<u>1.53</u>	<u>187.1</u>	—	<u>no odour, fast recharge</u>	
<u>81</u>	<u>1351</u>	<u>6.90</u>	<u>29.3</u>	<u>1627</u>	<u>1.73</u>	<u>1932</u>	—	<u>becoming turbid, red-brown</u>	
*pH, temp, cond readings not necessary if well is purged dry Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									
<u>24L</u>	Total Well Volume			Sample time: <u>1355</u>			Containers used: <u>5P</u>		
—	Actual amount of water prior to sampling			Flow rate mL/minute			Did field parameters stabilise? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA		
							Was the well dry purged? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N		

Field QC Checks	
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Was documentation of equipment conducted?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Rinsate blank collected?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Duplicate sample ID: _____	
Rinsate blank ID: _____	

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Annex C

10. RESULTS TABLES



**Table 1: Gauging Data
0086269 - YPNPL**

Bore ID	Easting	Northing	TOC (mAHd)	Date	Bore Depth (m ToC)	Depth to Water (m ToC)	Water elevation (mAHd)
MW1	477750.267	7719618.897	9.236	11-Oct-12	8.720	5.106	3.614
MW2	477982.134	7719632.321	6.85	11-Oct-12	8.200	4.481	3.719
MW3	478226.561	7719614.98	4.832	11-Oct-12	8.165	2.867	5.298
MW4	477721.286	7719289.889	3.453	11-Oct-12	4.635	1.619	3.116
MW5	477976.901	7719306.205	2.732	11-Oct-12	5.010	1.054	3.956

YPNPL, Burrup, WA, Australia

ERM Australia

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**Table 2: Field Parameters
0086269 - YPNPL**

Well ID	Date	Time	Volume Pumped (L)	pH	Temperature (°C)	Electrical Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Field Redox Potential (mV)	Estimated TOC (mg/L)	Comments
MW1	11/10/2012	12:15	19.0	7.09	29.8	2520	3.78	149.6	1836	Slightly turbid, pale grey, moderate recharge, becoming turbid at 15L, slight light brown. Dry purged sampled upon recovery.
MW2	11/10/2012	12:46	24.0	7.12	28.2	4290	2.22	142.5	2769	Turbid, pale brown, no odour, moderate recharge, good yield.
MW3	11/10/2012	13:14	44.0	7.47	26.00	14050	2.88	75.3	5135	Slightly turbid, grey becoming pale brown, moderate recharge.
MW4	11/10/2012	14:09	24.0	7.66	28.7	12680	2.06	123.2	6229	Highly turbid, silty, orange, no odour, fast recharge.
MW5	11/10/2012	13:45	24.0	6.9	29.3	14570	1.73	193.2	9471	Slightly turbid, pale brown, no odour, recharge becoming turbid, red-brown.

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Item	Code	Description	Unit	Quantity	Material	Brand	Price	Total	Notes
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**Table 4: RPD%s
0086269 - YPNPL**

SDG	PE071546-1	PE071546-1	
Field_ID	MW4	DUP01	RPD
Sampled_Date-Time	11/10/2012	11/10/2012	

ChemName	Units	EQL			
Acidity	mg/L	5	20.0	16.0	22
Alkalinity (Bicarbonate)	mg/l	5	510.0	510.0	0
Alkalinity (Carbonate)	mg/l	1	<1.0	<1.0	0
Alkalinity (total) as CaCO3	mg/l	5	420.0	420.0	0
TSS	mg/l	5	2900.0	4000.0	32
Calcium (Filtered)	mg/l	0.2	69.0	68.0	1
Magnesium (Filtered)	mg/l	0.1	150.0	150.0	0
Potassium (Filtered)	mg/l	0.1	110.0	100.0	10
Sodium (Filtered)	mg/l	0.5	2400.0	2300.0	4
Aluminium	mg/l	0.02	65.0	74.0	13
Iron	mg/l	0.02	130.0	150.0	14
Chloride	mg/l	1	3700.0	3900.0	5
Fluoride	mg/l	0.1	0.4	0.4	0
Ammonia	mg/l	0.005	≤0.005	≤0.005	0
Ammonia as N	µg/l	5	<5.0	<5.0	0
Nitrate (as N)	mg/l	0.005	0.44	0.44	0
Nitrate (as NO3-)	mg/l	0.05	1.9	1.9	0
Nitrite (as N)	mg/l	0.005	≤0.005	≤0.005	0
Nitrite (as NO2-)	mg/l	0.05	≤0.05	≤0.05	0
Nitrogen (Total Oxidised)	mg/l	0.005	0.44	0.44	0
Kjeldahl Nitrogen Total	mg/l	0.05	0.72	0.67	7
Nitrogen (Total)	µg/l	50	1200.0	1100.0	9
Phosphorus	mg/l	0.01	0.54	0.55	2
Reactive Phosphorus as P	mg/l	0.002	0.007	0.007	0
Sulphide	mg/l	0.5	<0.5	<0.5	0
Silica	µg/l	100	19000.0	20000.0	5
Sulphate	mg/l	1	380.0	390.0	3
Aluminium (Filtered)	mg/l	0.01	<0.01	<0.01	0
Arsenic (Filtered)	mg/l	0.01	<0.01	<0.01	0
Cadmium (Filtered)	mg/l	0.001	<0.001	<0.001	0
Chromium (III+VI) (Filtered)	mg/l	0.01	<0.01	<0.01	0
Iron (Filtered)	mg/l	0.05	<0.05	<0.05	0
Manganese (Filtered)	mg/l	0.01	0.041	0.04	2
Nickel (Filtered)	mg/l	0.01	<0.01	<0.01	0
Selenium (Filtered)	mg/l	0.02	<0.02	<0.02	0
Zinc (Filtered)	mg/l	0.01	0.012	0.018	40

YPNPL, Burrup, WA, Australia

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Annex D

11. LABORATORY ANALYTICAL REPORTS



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TECNICAS REUNIDAS

SGS

REGISTRATION DETAILS

AUSTRALIA-ENVIRONMENTAL-PERTH AIRPORT-PROFORMA-QU101

APPROVED BY: R.MA

Sample Numbers:	Green	Green	Purple	Green	Red	Green	Amber	Amber	Amber	Amber	Green	White	Blue	Orange	Brown	Jar	Jar	Other	Ziplock Bag / Other	Job Number:
1-6	1			1	2							1							1L zinc acetate	71546.
7				1	1															2
8-9																				

Registration comments:

Action Taken:

Tray Numbers:
W-056
W-057
V-039
M-008.

IB/ICE / None
Temp: 14°C.

of Eskies: 2

Registered By:



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QUOTATION ENV1124146

Date: 24/02/2012
 Organisation: ERM Perth
 Contact Name: James Gavston
 Phone: 08 9321 5200
 Email: james.gavston@erm.com
 Valid Until: 24/05/2012
 Sample Type: Water
 Approximate Number of Samples: 8
 Expected Commencement: 27/02/2012
 Duration: Once
 Primary Laboratory: Perth
 Secondary Laboratory: None

Dear James,

Thank you for allowing SGS to quote on your project, please see the following pages for details regarding pricing and additional services for the selected analyses. SGS looks forward to providing you more than just a testing service for your project. We are able to assist with many aspects of your project including but not limited to logistics, sampling containers and specific testing advice.

SGS offers a typical 5 working day Turn Around Time (TAT) for routine analyses. Shorter turnaround times may be available for a surcharge if required subject to availability in the laboratory at the time of request.

Please ensure this quotation is accurate based on your project requirements. To commence your project with SGS please confirm your acceptance by email and advise me if you require the relevant sampling containers.

If you have any questions please do not hesitate to contact me on the below details.

Yours Sincerely,

Heide Mielke
 Environmental Services
 Client Services Officer
 SGS Australia Pty Ltd
 10 Reid Road
 Newburn, WA 6105
 Phone: +61 (0)8 9373 3692
 Fax: +61 (0)8 9373 3668
 E-mail: heide.mielke@sgs.com

ERM Perth ENV1124146



Pricing

ANALYSIS	METHOD	LOG (ML/D)	CONTAINERS PER SAMPLE	UNIT COST	UNITS	TOTAL (AUD)
Water						
Dissolved Al		5				
Aluminum		1				
Dissolved As, Arsenic		0.1				
Dissolved Cd		0.1				
Dissolved Cr		1				
Chromium						
Dissolved Mn	USEPA - 6020	1				
Manganese						
Dissolved Ni, Nickel		1	1 x 125mL Metals - field filter			
Dissolved Se		2				
Selenium						
Dissolved Fe, Iron		5				
Ca, calcium		10				
Total Dissolved Zn, Zinc	USEPA - 6010	100				
K, potassium		100				
Na, sodium		500				
Total Fe, Iron	USEPA - 6020	5				
Total Al, Aluminum			1 x 125mL Metals			
Ammonia - Total, HCO3 and CO3	APHA-8220	5mg CaCO3/L				
Sulphate	APHA 4110	1000			200	\$ 1,200.00
Chloride		1000				
Acidity	APHA-2310	5mg CaCO3/L	1 x 1L Unpreserved plastic			
Total Suspended Solids	APHA-2540	5000				
Colour - True	APHA-2120	5PCU				
Silica, SiO2	APHA-4500	50				
Fluoride	APHA-4110	100				
Total Kjeldahl Nitrogen		100				
Ammonia (as N and NH4)		50				
Nitrite (as N and NO2)		50				
Nitrate (as N and NO3)	APHA-4500	50	1 x 250mL Unpreserved plastic			
NX		50				
Total Nitrogen		50				
Reactive Phosphorus		5				
Total Phosphorus		50				
Sulphide (SO2)	APHA-4500	500	1 x 1L Zinc Acetate/iodum Hydroxide preserved			
Filtrates						
8. dissolved metals by ICP MS and MS	As, Cd, Cu, Cr, Hg, Pb, Ni, Zn	USEPA-6020	1 x 125mL Metals - field filter	28	1	\$ 28.00
Major Cations by ICP	Ca, K, Mg, Na	USEPA-8010	100	15	1	\$ 15.00
GES	Availability - Total, HCO3 and CO3	APHA-2320	5mg CaCO3/L	24	1	\$ 24.00
Major Anions	Sulphate Chloride	APHA 4110	1000			

ERM Perth ENV1124146



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ANALYSIS	METHOD	LOI (ppm)	CONTAINERS PER SAMPLE	UNIT COST	UNITS	TOTAL (AUD)
Trip Blanks						
THH (C ₁₀ -C ₁₄)	USEPA-8015	40-200	1 x 100mL unipreserved glass	56	1	\$ 56.00
METEX (including MIBK and C ₆ -C ₈)	USEPA-8260	0.5-2.0	2 x 40mL VOC vials			
Other Charges						
Administration Fee (per job)				30	1	\$ 30.00
Access Fee				1	1	\$ 1.00
VIA UNIT Fee				1	1	\$ 1.00
TOTAL PRICE						\$ 1,355.00



ERM Ref: ENVI24148



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SAMPLE RECEIPT ADVICE

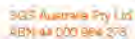
PE071546

CLIENT DETAILS		LABORATORY DETAILS	
Contact	James Gavshon	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Fax/mobile	08 9321 5262	Fax/mobile	(08) 9373 3556
Email	james.gavshon@erm.com	Email	au.environmental.perth@sgs.com
Project	0086269 Burrup Nitrates	Samples Received	Fri 12/10/2012
Order Number	17310	Report Due	Fri 19/10/2012
Samples	9	SGS Reference	PE071546

SUBMISSION DETAILS			
This is to confirm that 9 samples were received on Friday 12/10/2012. Results are expected to be ready by Friday 19/10/2012. Please quote SGS reference PE071546 when making enquiries. Refer below for details relating to sample integrity upon receipt.			
Sample counts by matrix	9 Waters	Type of documentation received	COC
Date documentation received	12/10/2012	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	15 degrees
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	2
Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.			

COMMENTS

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.



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SAMPLE RECEIPT ADVICE

PE071546

CLIENT DETAILS

Client	ERM Australia Pty Ltd	Project	0086269 Burrup Nitrates
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SUMMARY OF ANALYSIS

No.	Sample ID	Acidity and Free CO2	Alkalinity	Chloride by Discrete Analyser in Water	Colour by Discrete Analyser	Fluoride by Ion Selective Electrode in Water	Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA	Reactive Silica by Aquagem Discrete	Sulphate in water	Sulphide by Titration in Water	Total and Volatile Suspended Solids (TSS /
001	MW1	1	3	1	1	1	5	1	1	1	1
002	MW2	1	3	1	1	1	5	1	1	1	1
003	MW3	1	3	1	1	1	5	1	1	1	1
004	MW4	1	3	1	1	1	5	1	1	1	1
005	MW5	1	3	1	1	1	5	1	1	1	1
006	DUP01	1	3	1	1	1	5	1	1	1	1
007	RIN01	-	3	1	-	-	-	-	1	-	-

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

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SAMPLE RECEIPT ADVICE

PE071546

CLIENT DETAILS		
Client	ERM Australia Pty Ltd	Project
		0086269 Burrup Nitrates

SUMMARY OF ANALYSIS

No.	Sample ID	Calculation of Anion-Cation Balance	Filterable Reactive Phosphorus (FRP)	Low Level Ammonia Nitrogen by FIA	Mercury (dissolved) in Water	Metals in Water (Total) by ICPOES	Metals in Water (Dissolved) by ICPOES	TKN Kjeldahl Digestion by Discrete Analyser	Total Phosphorus by Kjeldahl Digestion DA in	Trace Metals (Dissolved) in Water by ICPMS	Volatile Petroleum Hydrocarbons in Water
001	MW1	1	1	2	-	2	4	2	1	9	-
002	MW2	1	1	2	-	2	4	2	1	9	-
003	MW3	1	1	2	-	2	4	2	1	9	-
004	MW4	1	1	2	-	2	4	2	1	9	-
005	MW5	1	1	2	-	2	4	2	1	9	-
006	DUP01	1	1	2	-	2	4	2	1	9	-
007	RIN01	-	-	-	1	-	4	-	-	7	-
008	TRIPBLANK 1	-	-	-	-	-	-	-	-	-	5
009	TRIPBLANK 2	-	-	-	-	-	-	-	-	-	5

CONTINUED OVER LEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



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SAMPLE RECEIPT ADVICE

PE071546

CLIENT DETAILS			
Client	ERM Australia Pty Ltd	Project	0086269 Burrup Nitrates

SUMMARY OF RESULTS

No.	Sample ID	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water
008	TRIPBLANK 1	3	10
009	TRIPBLANK 2	3	10

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

1/10/2013

1/10/2013



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ANALYTICAL REPORT



CLIENT DETAILS		LABORATORY DETAILS	
Contact	James Gavshon	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Facsimile	08 9321 5262	Facsimile	(08) 9373 3556
Email	james.gavshon@erm.com	Email	au.environmental.perth@sgs.com
Project	0086269 Burrup Nitrates	SGS Reference	PE071546 R0
Order Number	17310	Report Number	0000049017
Samples	9	Date Reported	26 Oct 2012
		Date Received	12 Oct 2012

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(898/20210).

Filterable Reactive Phosphorus (FRP) Matrix spike is outside acceptance criteria due to sample matrix.

Samples were diluted due to high conductivity for metals. Hence the LORs were raised.
Dissolved Mn spike recovery was outside acceptance criteria due to high background.
Dissolved Al, Cu and Zn spike recovery was outside acceptance criteria due to matrix interference. Confirmed by re-analysis.

SIGNATORIES

Dale Lang Organics Team Leader	Hue Thanh Ly Spectroscopy Chemist	Leanne Orsmond
Lien Tang Project Manager	Michael McKay Inorganic Team Leader - Waters	Murray O'Neill Laboratory Technician

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ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Sample Number PE071546.001 PE071546.002 PE071546.003 PE071546.004 Sample Matrix Water Water Water Water Sample Date 11 Oct 2012 11 Oct 2012 11 Oct 2012 11 Oct 2012 Sample Name MW1 MW2 MW3 MW4						
Reactive Silica by Aaquem Discrete Analyser Method: AN270						
Reactive Silica, SiO ₂	mg/L	0.1	32	26	33	19
Colour by Discrete Analyser Method: AN285						
Colour (True)	Hazen	1	<1	<1	1	<1
Fluoride by Ion Selective Electrode in Water Method: AN141						
Fluoride by ISE	mg/L	0.1	0.4	0.5	<0.1	0.4
Alkalinity Method: AN135						
Total Alkalinity as CaCO ₃	mg/L	5	300	370	540	420
Carbonate Alkalinity as CO ₃	mg/L	1	<1	<1	<1	<1
Bicarbonate Alkalinity as HCO ₃	mg/L	5	370	460	550	510
Total and Volatile Suspended Solids (TSS / VSS) Method: AN114						
Total Suspended Solids Dried at 105°C	mg/L	5	520	440	270	2800
Acidity and Free CO₂ Method: AN140						
Acidity to pH 8.3	mg CaCO ₃ /L	5	32	41	28	20
Chloride by Discrete Analyser in Water Method: AN274						
Chloride	mg/L	1	600	1300	4200	3700
Sulphate in water Method: AN275						
Sulphate	mg/L	1	100	180	710	380
Sulphide by Titration in Water Method: AN149						
Sulphide	mg/L	0.5	<0.5	<0.5	<0.5	<0.5
Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: AN258						
Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	1.1	0.63	0.12	0.44
Nitrate Nitrogen, NO ₃ as N	mg/L	0.005	1.1	0.63	0.12	0.44
Nitrate, NO ₃ as NO ₃	mg/L	0.05	4.7	2.8	0.51	1.9
Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005	<0.005	<0.005	<0.005
Nitrite, NO ₂ as NO ₂	mg/L	0.05	<0.05	<0.05	<0.05	<0.05



ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	PE071546.001 Sample Number Sample Matrix Sample Date Sample Name Water 11 Oct 2012 MW1	PE071546.002 Water 11 Oct 2012 MW2	PE071546.003 Water 11 Oct 2012 MW3	PE071546.004 Water 11 Oct 2012 MW4
Low Level Ammonia Nitrogen by FIA Method: AN261						
Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.063	<0.005	0.012	<0.005
Ammonia, NH ₃	mg/L	0.005	0.064	<0.005	0.015	<0.005
TKN Kjeldahl Digestion by Discrete Analyser Method: AN281						
Total Kjeldahl Nitrogen	mg/L	0.05	0.49	0.61	0.22	0.72
Total Nitrogen (calc)	mg/L	0.05	1.5	1.1	0.33	1.2
Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293						
Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	10	0.17	0.06	0.64
Filterable Reactive Phosphorus (FRP) Method: AN278						
Filterable Reactive Phosphorus	mg/L	0.002	0.003	<0.002	0.003	0.007
Metals in Water (Dissolved) by ICPOES Method: AN320/AN321						
Calcium, Ca	mg/L	0.2	170	180	100	89
Magnesium, Mg	mg/L	0.1	51	64	280	150
Potassium, K	mg/L	0.1	8.8	21	120	110
Sodium, Na	mg/L	0.5	290	600	2800	2400
Trace Metals (Dissolved) in Water by ICPMS Method: AN318						
Aluminium, Al	µg/L	1	6	2	<10r	<10r
Arsenic, As	µg/L	1	<1	<1	<10r	<10r
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<1.0r	<1.0r
Chromium, Cr	µg/L	1	<1	<1	<10r	<10r
Copper, Cu	µg/L	1	-	-	-	-
Iron, Fe	µg/L	5	9	<5	<50r	<50r
Lead, Pb	µg/L	1	-	-	-	-
Manganese, Mn	µg/L	1	38	10	27	41
Nickel, Ni	µg/L	1	<1	<1	<10r	<10r
Selenium, Se	µg/L	2	<2	<2	<20r	<20r
Zinc, Zn	µg/L	1	8	21	31	12
Metals in Water (Total) by ICPOES Method: AN022/AN320/AN321						
Total Aluminium	mg/L	0.02	21	9.2	5.0	65
Total Iron	mg/L	0.02	30	12	5.8	190
Calculation of Anion-Cation Balance (SAR Calc) Method: AN121						
Anion-Cation Balance	%	-100	1	-5	3	1



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ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Sample Number			PE071546.001	PE071546.002	PE071546.003	PE071546.004
Sample Matrix			Water	Water	Water	Water
Sample Date			11 Oct 2012	11 Oct 2012	11 Oct 2012	11 Oct 2012
Sample Name			MW1	MW2	MW3	MW4

Mercury (dissolved) in Water Method: AN311/AN312

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Mercury	mg/L	0.00005	-	-	-	-

Volatile Petroleum Hydrocarbons in Water Method: AN433/AN434/AN410

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
TRH C6-C9	µg/L	40	-	-	-	-

Surrogates

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-

TRH (Total Recoverable Hydrocarbons) in Water Method: AN403

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
TRH C10-C14	µg/L	50	-	-	-	-
TRH C15-C28	µg/L	200	-	-	-	-
TRH C29-C38	µg/L	200	-	-	-	-

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Oxygenated Compounds

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	-	-

Surrogates

Parameter	Units	LOR	PE071546.001	PE071546.002	PE071546.003	PE071546.004
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-



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ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Sample Number			PE071546.005	PE071546.006	PE071546.007	PE071546.008
Sample Matrix			Water	Water	Water	Water
Sample Date			11 Oct 2012	11 Oct 2012	11 Oct 2012	11 Oct 2012
Sample Name			MW5	DUP01	RIN01	TRIPBLANK 1

Reactive Silica by A Quakem Discrete Analyser Method: AN270

Reactive Silica, SiO ₂	mg/L	0.1	8.0	20	-	-
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Colour by Discrete Analyser Method: AN285

Colour (True)	Hazen	1	<1	<1	-	-
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Fluoride by Ion Selective Electrode in Water Method: AN141

Fluoride by ISE	mg/L	0.1	0.5	0.4	-	-
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Alkalinity Method: AN135

Total Alkalinity as CaCO ₃	mg/L	5	100	420	<5	-
Carbonate Alkalinity as CO ₃	mg/L	1	<1	<1	<1	-
Bicarbonate Alkalinity as HCO ₃	mg/L	5	200	510	<5	-

Total and Volatile Suspended Solids (TSS / VSS) Method: AN114

Total Suspended Solids Dried at 105°C	mg/L	5	2600	4000	-	-
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Acidity and Free CO₂ Method: AN140

Acidity to pH 8.3	mg CaCO ₃ /L	5	51	16	-	-
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Chloride by Discrete Analyser in Water Method: AN274

Chloride	mg/L	1	77000	3800	<1	-
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Sulphate in water Method: AN275

Sulphate	mg/L	1	3500	380	<1	-
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Sulphide by Titration in Water Method: AN149

Sulphide	mg/L	0.5	<0.5	<0.5	-	-
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Nitrate Nitrogen and Nitrite Nitrogen (NO_x) by FIA Method: AN258

Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	1.1	0.44	-	-
Nitrate Nitrogen, NO ₃ as N	mg/L	0.005	1.1	0.44	-	-
Nitrate, NO ₃ as NO ₃	mg/L	0.05	4.7	1.8	-	-
Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005	<0.005	-	-
Nitrite, NO ₂ as NO ₂	mg/L	0.05	<0.05	<0.05	-	-



ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Sample Number			PE071546.005	PE071546.006	PE071546.007	PE071546.008
Sample Matrix			Water	Water	Water	Water
Sample Date			11 Oct 2012	11 Oct 2012	11 Oct 2012	11 Oct 2012
Sample Name			MW5	DUP01	RIN01	TRIPBLANK 1

Low Level Ammonia Nitrogen by FIA Method: AN261

Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.82	<0.005	-	-
Ammonia, NH ₃	mg/L	0.005	0.75	<0.005	-	-

TKN Kjeldahl Digestion by Discrete Analyser Method: AN281

Total Kjeldahl Nitrogen	mg/L	0.05	0.72	0.67	-	-
Total Nitrogen (calc)	mg/L	0.05	1.8	1.1	-	-

Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293

Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01	0.65	-	-
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Filterable Reactive Phosphorus (FRP) Method: AN278

Filterable Reactive Phosphorus	mg/L	0.002	0.006	0.007	-	-
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Metals in Water (Dissolved) by ICPOES Method: AN320/AN321

Calcium, Ca	mg/L	0.2	970	88	<0.2	-
Magnesium, Mg	mg/L	0.1	3700	150	<0.1	-
Potassium, K	mg/L	0.1	1700	100	<0.1	-
Sodium, Na	mg/L	0.5	38000	2300	<0.5	-

Trace Metals (Dissolved) in Water by ICPMS Method: AN318

Aluminium, Al	µg/L	1	<50 f	<10 f	-	-
Arsenic, As	µg/L	1	<50 f	<10 f	<1	-
Cadmium, Cd	µg/L	0.1	<5.0 f	<1.0 f	<0.1	-
Chromium, Cr	µg/L	1	<50 f	<10 f	<1	-
Copper, Cu	µg/L	1	-	-	<1	-
Iron, Fe	µg/L	5	<250 f	<50 f	-	-
Lead, Pb	µg/L	1	-	-	<1	-
Manganese, Mn	µg/L	1	<50 f	40	-	-
Nickel, Ni	µg/L	1	<50 f	<10 f	<1	-
Selenium, Se	µg/L	2	<100 f	<20 f	-	-
Zinc, Zn	µg/L	1	<50 f	18	15	-

Metals in Water (Total) by ICPOES Method: AN022/AN320/AN321

Total Aluminium	mg/L	0.02	31	74	-	-
Total Iron	mg/L	0.02	37	150	-	-

Calculation of Anion-Cation Balance (SAR Calc) Method: AN121

Anion-Cation Balance	%	-100	-4	-2	-	-
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ANALYTICAL REPORT

PE071546 R0

Parameter	Units	LOR	Sample Number	Sample Matrix	Sample Date	Sample Name
			PE071546.005	Water	11 Oct 2012	MW5
			PE071546.006	Water	11 Oct 2012	DUP01
			PE071546.007	Water	11 Oct 2012	RIN01
			PE071546.008	Water	11 Oct 2012	TRIPBLANK 1

Mercury (dissolved) in Water Method: AN311/AN312

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Mercury	mg/L	0.00005	-	-	<0.00005	-

Volatile Petroleum Hydrocarbons in Water Method: AN433/AN434/AN410

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
TRH C6-C9	µg/L	40	-	-	-	-

Surrogates

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-

TRH (Total Recoverable Hydrocarbons) in Water Method: AN403

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
TRH C10-C14	µg/L	50	-	-	-	<50
TRH C15-C28	µg/L	200	-	-	-	<200
TRH C29-C38	µg/L	200	-	-	-	<200

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Oxygenated Compounds

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	-	-

Surrogates

Parameter	Units	LOR	PE071546.005	PE071546.006	PE071546.007	PE071546.008
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-



ANALYTICAL REPORT

PE071546 R0

Sample Number	PE071546.009	
Sample Matrix	Water	
Sample Date	11 Oct 2012	
Sample Name	TRIPBLANK 2	
Parameter	Units	LOR

Reactive Silica by Aaquakem Discrete Analyser Method: AN270

Reactive Silica, SiO ₂	mg/L	0.1	-
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Colour by Discrete Analyser Method: AN285

Colour (True)	Hazen	1	-
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Fluoride by Ion Selective Electrode in Water Method: AN141

Fluoride by ISE	mg/L	0.1	-
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Alkalinity Method: AN135

Total Alkalinity as CaCO ₃	mg/L	5	-
Carbonate Alkalinity as CO ₃	mg/L	1	-
Bicarbonate Alkalinity as HCO ₃	mg/L	5	-

Total and Volatile Suspended Solids (TSS / VSS) Method: AN114

Total Suspended Solids Dried at 105°C	mg/L	5	-
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Acidity and Free CO₂ Method: AN140

Acidity to pH 8.3	mg CaCO ₃ /L	5	-
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Chloride by Discrete Analyser in Water Method: AN274

Chloride	mg/L	1	-
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Sulphate in water Method: AN275

Sulphate	mg/L	1	-
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Sulphide by Titration in Water Method: AN148

Sulphide	mg/L	0.5	-
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Nitrate Nitrogen and Nitrite Nitrogen (NO_x) by FIA Method: AN258

Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	-
Nitrate Nitrogen, NO ₃ as N	mg/L	0.005	-
Nitrate, NO ₃ as NO ₃	mg/L	0.05	-
Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	-
Nitrite, NO ₂ as NO ₂	mg/L	0.05	-



ANALYTICAL REPORT

PE071546 R0

	Sample Number	PE071546.009
	Sample Matrix	Water
	Sample Date	11 Oct 2012
	Sample Name	TRIPBLANK 2
Parameter	Units	LOR

Low Level Ammonia Nitrogen by FIA Method: AN261

Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	-
Ammonia, NH ₃	mg/L	0.005	-

TKN Kjeldahl Digestion by Discrete Analyser Method: AN281

Total Kjeldahl Nitrogen	mg/L	0.05	-
Total Nitrogen (calc)	mg/L	0.05	-

Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293

Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	-
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Filterable Reactive Phosphorus (FRP) Method: AN278

Filterable Reactive Phosphorus	mg/L	0.002	-
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Metals in Water (Dissolved) by ICPOES Method: AN320/AN321

Calcium, Ca	mg/L	0.2	-
Magnesium, Mg	mg/L	0.1	-
Potassium, K	mg/L	0.1	-
Sodium, Na	mg/L	0.5	-

Trace Metals (Dissolved) in Water by ICPMS Method: AN318

Aluminium, Al	µg/L	1	-
Arsenic, As	µg/L	1	-
Cadmium, Cd	µg/L	0.1	-
Chromium, Cr	µg/L	1	-
Copper, Cu	µg/L	1	-
Iron, Fe	µg/L	5	-
Lead, Pb	µg/L	1	-
Manganese, Mn	µg/L	1	-
Nickel, Ni	µg/L	1	-
Selenium, Se	µg/L	2	-
Zinc, Zn	µg/L	1	-



ANALYTICAL REPORT

PE071546 R0

	Sample Number	PE071546.009
	Sample Matrix	Water
	Sample Date	11 Oct 2012
	Sample Name	TRIPBLANK 2
Parameter	Units	LOR

Metals in Water (Total) by ICPOES Method: AN022/AN320/AN321

Total Aluminium	mg/L	0.02	-
Total Iron	mg/L	0.02	-

Calculation of Anion-Cation Balance (SAR Calc) Method: AN121

Anion-Cation Balance	%	-100	-
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Mercury (dissolved) in Water Method: AN311/AN312

Mercury	mg/L	0.00005	-
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Volatile Petroleum Hydrocarbons in Water Method: AN433/AN434/AN410

TRH C6-C9	µg/L	40	-
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Surrogates

Dibromofluoromethane (Surrogate)	%	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-
d8-toluene (Surrogate)	%	-	-
Bromofluorobenzene (Surrogate)	%	-	-

TRH (Total Recoverable Hydrocarbons) in Water Method: AN403

TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Benzene	µg/L	0.5	-
Toluene	µg/L	0.5	-
Ethylbenzene	µg/L	0.5	-
m/p-xylene	µg/L	1	-
o-xylene	µg/L	0.5	-

Oxygenated Compounds

MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-
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ANALYTICAL REPORT

PE071546 R0

Sample Number	PE071546.009	
Sample Matrix	Water	
Sample Date	11 Oct 2012	
Sample Name	TRIPBLANK 2	
Parameter	Units	LOR

VOCs in Water Method: AN433/AN434 (continued)

Surrogates

Parameter	Units	LOR
Dibromofluoromethane (Surrogate)	%	--
d4-1,2-dichloroethane (Surrogate)	%	--
d8-toluene (Surrogate)	%	--
Bromofluorobenzene (Surrogate)	%	--



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QC SUMMARY

PE071546 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Acidity and Free CO2 Method: ME-(AU)-[ENV]AN140

Parameter	QC Reference	Units	LOR	MB	DUP % RPD
Acidity to pH 8.3	LB051650	mg CaCO3/L	5	<5	0%

Alkalinity Method: ME-(AU)-[ENV]AN135

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Total Alkalinity as CaCO3	LB051607	mg/L	5	<5	0 - 1%	104%
Carbonate Alkalinity as CO3	LB051607	mg/L	1	<1		
Bicarbonate Alkalinity as HCO3	LB051607	mg/L	5	<5		

Chloride by Discrete Analyser in Water Method: ME-(AU)-[ENV]AN274

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Chloride	LB051661	mg/L	1	<1	1 - 3%	103 - 104%	110 - 124%

Colour by Discrete Analyser Method: ME-(AU)-[ENV]AN205

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Colour (True)	LB051668	Hazen	1	<1	0%	92%

Filterable Reactive Phosphorus (FRP) Method: ME-(AU)-[ENV]AN270

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Filterable Reactive Phosphorus	LB051665	mg/L	0.002	<0.002	0%	118%	16%

Fluoride by Ion Selective Electrode in Water Method: ME-(AU)-[ENV]AN141

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Fluoride by ISE	LB051708	mg/L	0.1	<0.1	1%	98%



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QC SUMMARY

PE071546 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Low Level Ammonia Nitrogen by FIA Method: ME (AU) JENVJAN261

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Ammonia Nitrogen, NH ₃ as N	LB051686	mg/L	0.005	<0.005	1 - 8%	104 - 106%
Ammonia, NH ₃	LB051686	mg/L	0.005	<0.005	2 - 4%	104 - 106%

Mercury (dissolved) in Water Method: ME (AU) JENVJAN311/AN312

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Mercury	LB051920	mg/L	0.00005	<0.00005	0%	107%	110%

Metals in Water (Total) by ICP/OES Method: ME (AU) JENVJAN022/AN320/AN321

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Total Aluminium	LB051621	mg/L	0.02	<0.02	5%	109%	
Total Iron	LB051621	mg/L	0.02	<0.02	5%	102%	100%

Metals in Water (Dissolved) by ICP/OES Method: ME (AU) JENVJAN320/AN321

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Calcium, Ca	LB051607	mg/L	0.2	<0.2	3%	103%	90%
Magnesium, Mg	LB051607	mg/L	0.1	<0.1	4%	105%	93%
Potassium, K	LB051607	mg/L	0.1	<0.1	1%	119%	107%
Sodium, Na	LB051607	mg/L	0.5	<0.5	2%	113%	92%

Nitrate Nitrogen and Nitrite Nitrogen (NO₂) by FIA Method: ME (AU) JENVJAN258

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Nitrate/Nitrite Nitrogen, NO _x as N	LB051686	mg/L	0.005	<0.005	0 - 3%	89 - 91%
Nitrate Nitrogen, NO ₃ as N	LB051686	mg/L	0.005	<0.005		
Nitrate, NO ₃ as NO ₃	LB051686	mg/L	0.05	<0.05		
Nitrite Nitrogen, NO ₂ as N	LB051686	mg/L	0.005	<0.005	0 - 2%	101 - 103%
Nitrite, NO ₂ as NO ₂	LB051686	mg/L	0.05	<0.05		



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QC SUMMARY

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MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Reactive Silica by Aquagem Discrete Analyser Method: ME-(AU)-[EHV]AN270

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Reactive Silica, SiO ₂	LB051972	mg/L	0.1	<0.10	1%	106%	108%

Sulphate in water Method: ME-(AU)-[EHV]AN275

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Sulphate	LB051981	mg/L	1	<1	0 - 1%	103 - 104%	92 - 93%

Sulphide by Titration in Water Method: ME-(AU)-[EHV]AN149

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Sulphide	LB051706	mg/L	0.5	<0.5	101%

TKN Kjeldahl Digestion by Discrete Analyser Method: ME-(AU)-[EHV]AN281

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Total Kjeldahl Nitrogen	LB051642	mg/L	0.05	<0.05	0 - 2%	103%

Total and Volatile Suspended Solids (TSS / VSS) Method: ME-(AU)-[EHV]AN114

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Total Suspended Solids Dried at 105°C	LB051667	mg/L	5	<5	2 - 7%	114%

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[EHV]AN279/AN293

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery
Total Phosphorus (Kjeldahl Digestion)	LB051642	mg/L	0.01	<0.01	1 - 7%	99%



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QC SUMMARY

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MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-ENVJAH310

Parameter	QC Reference	Units	LOR	MB	DUP % RPD	LCS % Recovery	MS % Recovery
Aluminium, Al	LB051612	µg/L	1	<1	7%	115%	
Arsenic, As	LB051612	µg/L	1	<1	198%	119%	100%
Cadmium, Cd	LB051612	µg/L	0.1	<0.1	0%	111%	91%
Chromium, Cr	LB051612	µg/L	1	<1	198%	118%	109%
Copper, Cu	LB051612	µg/L	1	<1	0%	91%	
Iron, Fe	LB051612	µg/L	5	<5	4%	103%	100%
Lead, Pb	LB051612	µg/L	1	<1	195%	104%	96%
Manganese, Mn	LB051612	µg/L	1	<1	5%	116%	159%
Nickel, Ni	LB051612	µg/L	1	<1	7%	120%	89%
Selenium, Se	LB051612	µg/L	2	<2	0%	100%	128%
Zinc, Zn	LB051612	µg/L	1	<1	2%	104%	65%

TRH (Total Recoverable Hydrocarbons) in Water Method: ME-(AU)-ENVJAH03

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
TRH C10-C14	LB051600	µg/L	50	<50	93%
TRH C15-C28	LB051600	µg/L	200	<200	98%
TRH C29-C36	LB051600	µg/L	200	<200	88%



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METHOD SUMMARY

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METHOD	METHOD DESCRIPTION SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN022	Sample is prepared for metals analysis by digestion with Nitric Acid and made up to known volume.
AN022/AN320/AN321	Total (acid soluble) Metals by ICP-OES: Samples are digested in nitric or nitric and hydrochloric acids prior to analysis for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components.
AN083	Separatory funnels are used for aqueous samples and extracted by transferring an appropriate volume (mass) of liquid into a separatory funnel and adding 3 serial aliquots of dichloromethane. Samples receive a single extraction at pH 7 to recover base / neutral analytes and two extractions at pH < 2 to recover acidic analytes. QC samples are prepared by spiking organic free water with target analytes and extracting as per samples.
AN114	Total Suspended and Volatile Suspended Solids: The sample is homogenised by shaking and a known volume is filtered through a pre-weighed GF/C filter paper and washed well with deionised water. The filter paper is dried and reweighed. The TSS is the residue retained by the filter per unit volume of sample. Reference APHA 2540 D. Internal Reference AN114
AN121	This method is used to calculate the balance of major Anions and Cations in water samples and converts major ion concentration to milliequivalents and then summed. Anions sum and Cation sum is calculated as a difference and expressed as a percentage.
AN121	The sum of cations and anions in mg/L may also be reported. This sums Na, K, Ca, Mg, NH3, Fe, Cl, Total Alkalinity, SO4 and NO3.
AN135	Alkalinity (and forms of) by Titration: The sample is titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135
AN135	Free and Total Carbon Dioxide may be calculated using alkalinity forms only when the samples TDS is <500mg/L. If TDS is >500mg/L free or total carbon dioxide cannot be reported. APHA4500CO2 D.
AN140	Acidity by Titration: The water sample is titrated with sodium hydroxide to designated pH end point. In a sample containing only carbon dioxide, bicarbonates and carbonates, titration to pH 8.3 at 25°C corresponds to stoichiometric neutralisation of carbonic acid to bicarbonate. Method reference APHA 2310 B.
AN141	Determination of Fluoride by ISE: A fluoride ion selective electrode and reference electrode combination, in the presence of a pH/complexation buffer, is used to determine the fluoride concentration. The electrode millivolt response is measured logarithmically against fluoride concentration. Reference APHA F- C.
AN149	Sulphide by Iodometric Titration: Sulphide is precipitated as zinc sulphide to overcome interferences with sulphite and thiosulphate. After filtration, sulphide is determined titrimetrically. Reference APHA 4500-S2-
AN258	Nitrate and Nitrite by FIA: In an acidic medium, nitrate is reduced quantitatively to nitrite by cadmium metal. This nitrite plus any original nitrite is determined as an intense red-pink azo dye at 540 nm following diazotisation with sulphanilamide and subsequent coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. Without the cadmium reduction only the original nitrite is determined. Reference APHA 4500-NO3- F.



METHOD SUMMARY

PE071546 R0

METHOD	METHODOLOGY SUMMARY
AN261	Ammonia by Continuous Flow Analyser: Ammonium in a basic medium forms ammonia gas, which is separated from the sample matrix by diffusion through a polypropylene membrane. The ammonia is reacted with phenol and hypochlorite to form indophenol blue at an intensity proportional to the ammonia concentration. The blue colour is intensified with sodium nitroprusside and the absorbance measured at 630 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-NH3 H.
AN270	Reactive forms of silicon in acid solution below pH 2 react with ammonium molybdate ions to form a yellow silicomolybdate which is then reduced with ascorbic acid to produce a blue silicomolybdate complex. Oxalic acid is added to destroy any molybdophosphoric acid. Colourimetric determination by Aquakem Discrete Analyser.
AN274	Chloride by Aquakem DA. Chloride reacts with mercuric thiocyanate forming a mercuric chloride complex. In the presence of ferric iron, highly coloured ferric thiocyanate is formed which is proportional to the chloride concentration. Reference APHA 4500-Cl.
AN275	Sulphate by Aquakem DA: Sulphate is precipitated in an acidic medium with barium chloride. The resulting turbidity is measured photometrically at 405nm and compared with standard calibration solutions to determine the sulphate concentration in the sample. Reference APHA 4500-SO42-. Internal reference AN275.
AN278	Reactive Phosphorus by DA: Orthophosphate reacts with ammonium molybdate (Mo VI) and potassium antimonyl tartrate (Sb III) in acid medium to form an antimony-phosphomolybdate complex. This complex is subsequently reduced with ascorbic acid to form a blue colour and the absorbance is read at 880 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-P F.
AN279/AN293	The sample is digested with Sulphuric acid, K2SO4 and CuSO4. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.
AN281	An unfiltered water or soil sample is first digested in a block digester with sulphuric acid, K2SO4 and CuSO4. The ammonia produced following digestion is then measured colourimetrically using the Aquakem 250 Discrete Analyser. A portion of the digested sample is buffered to an alkaline pH, and interfering cations are complexed. The ammonia then reacts with salicylate and hypochlorite to give a blue colour whose absorbance is measured at 660nm and compared with calibration standards. This is proportional to the concentration of Total Kjeldahl Nitrogen in the original sample.
AN285	The term 'colour' is used here to mean true colour, that is, the colour of water from which turbidity has been removed. The term 'apparent colour' includes not only colour due to substances in solution, but also that due to suspended matter. Apparent colour is determined on the original sample without filtration.
AN311/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A.
AN320/AN321	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components.
AN320/AN321	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements. Reference APHA 3120 B.



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METHOD SUMMARY

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METHOD	METHODOLOGY SUMMARY
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C38.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Petroleum Hydrocarbons (TPH) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependant on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN433/AN434	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN433/AN434/AN410	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES			
IS	Insufficient sample for analysis.	QFH	QC result is above the upper tolerance
LNR	Sample listed, but not received.	QFL	QC result is below the lower tolerance
*	This analysis is not covered by the scope of accreditation	-	The sample was not analysed for this analyte
* ^o	Performed by outside laboratory.	NVL	Not Validated
LOR	Limit of Reporting		
↑↓	Raised or Lowered Limit of Reporting		
<p>Samples analysed as received. Solid samples expressed on a dry weight basis.</p> <p>Some totals may not appear to add up because the total is rounded after adding up the raw values.</p> <p>The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.sgs.com.au/pv/sgs/3/-/media/Local/Australia/Documents/Technical%20Documents/MIP-AU-ENV-QJ-022%20QA%20QC%20Plan.pdf</p> <p>This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.</p> <p>Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.</p> <p>This report must not be reproduced, except in full.</p>			



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TECNICAS REUNIDAS



26th March, 13

Annarrie Boer
Assessment and Compliance Division
Office of the Environmental Protection Authority
Locked Bag 33, Cloisters Square
WA - 6950

Attention: Annarrie Boer

Dear Annarrie,

Sub: Report to OEPA for groundwater monitoring result as per Conditions 8-4 of Ministerial Statement No. 870.

Conditions 8-4 of Ministerial Statement No. 870 requires YPNPL to sample/monitor all groundwater bores required by Condition 8-3 every six months. The condition sets a trigger value of 10% above the baseline contaminant concentrations.

The results of the recent water quality monitoring event were analysed by ERM on Tuesday 19 March 2013 and shows some exceedance of more than 10% over the baseline levels.

The details of this exceedance are outlined below. The full groundwater monitoring results are provided in the attached PDF.

- Concentrations of 'Ammonia' and 'Ammonia as Nitrate' were identified in monitoring well MW5 at levels exceeding baseline values by >10%;
- Recorded concentration for Ammonia in MW5 was 1.2 mg/L compared to the maximum acceptable baseline value of 0.039g;
- Recorded concentration for Ammonia as N in MW5 was 1000 µg/L compared to the maximum acceptable baseline value of 81.4 µg/L;
- Phosphorus was identified in MW3 at 1.6 mg/L compared to the maximum acceptable baseline value of 0.868 mg/L; and
- Elsewhere concentrations of analytes were consistent with previously recorded conditions.

Please note that no site construction activity which involves Ammonium nitrate like blasting had started before the sampling date. At this stage, it is not possible to make any assertions but as a follow up action we are going for second groundwater sampling for the same well and we will do the reporting after we get the result.

Yours sincerely,

Yara Pilbara Nitrates Pty. Ltd.

Rajan Shrinia
Deputy General Manager

Attachment: Full groundwater monitoring results (1 Page)

Yara Pilbara Nitrates Pty Ltd
Error! Unknown document
property name:
Level 5, 742 St Georges Terrace
Perth WA 6000
Australia

Error! Unknown document
property name:
+61 8 9327 8100
Facsimile
+61 8 9327 8193

ABN Number
33127281422

Well	Parameter	Unit	Result	Baseline	Exceedance
MW3	Phosphorus	mg/L	1.6	0.868	>10%
MW5	Ammonia	mg/L	1.2	0.039	>10%
MW5	Ammonia as Nitrate	µg/L	1000	81.4	>10%



TAN BURRUP PROJECT

02080

TAN BURRUP PROJECT
COMPLIANCE ASSESSMENT REPORT (MS 870)

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REV.: 00



27th May 2013

Cameron Hanush
Assessment and Compliance Division
Office of the Environmental Protection Authority
Locked Bag 53, Chisholm Square
WA - 61550

Attention: Cameron Hanush

Dear Cameron,

Sub: Reply on OEPA Letter A614408:OEPA2011000430-1 dated 23rd April (Groundwater
Trigger Levels Exceeded-AMMONIUM NITRATE PRODUCTION FACILITY-Conditions 8-
Statement No. 870.)

Please refer to OEPA letter dated 23rd April regarding Groundwater second round of sampling
and analysis.

Y/NPL undertook the second round of sampling at monitoring wells MW1-MW5 on Wednesday
17th April 2013.

Please find the attached detailed report of Groundwater Monitoring March and April 2013.

Yours sincerely,
Rajah Sinha
Yara Pilbara Nitrates Pty. Ltd.
Deputy General Manager



Attachment: Report of Groundwater Monitoring March and April 2013

Yara Pilbara Nitrates Pty Ltd

Environmental document
document name: Yara Pilbara Nitrates Pty Ltd
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17 May, 2013

Rajan Sinha
Yara Pilbara Nitrates Pty Ltd
5th Floor, 182 St Georges Terrace, Perth
Western Australia 6000
AUSTRALIA

Our Reference: 0086269

Attention: Rajan Sinha

Dear Rajan,

RE: GROUNDWATER MONITORING MARCH AND APRIL 2013

Environmental
Resources Management
Australia

6th Floor,
172 St. Georges Terrace
Perth WA 6000

PO Box 7338
Cloisters Square WA 6850

Telephone +61 8 9321 5200
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www.erm.com





1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by Yara Pilbara Nitrates Pty Ltd (YPNPL) to conduct a Groundwater Monitoring Event (GME) at the proposed site for the YPNPL Technical Ammonium Nitrates Plant Facility (TANPF) in March 2013. Following detections of analytes above trigger levels, an additional GME was undertaken in April 2013. The site location and layout are illustrated in *Figures 1 and 2*, provided in *Annex A*.

2. PROJECT APPRECIATION

Lot 3017 within the Burrup Industrial Estate (BIE) occupies an area of approximately 49 ha with Village Road to the north and Hearson Cove Road to the south. The existing ammonia fertiliser plant is situated adjacent to the western boundary of Lot 3017, with vacant land present between the site and Hearson Cove to the east.

The site (including temporary laydown areas) occupies approximately 35 ha of land in the north-western section of Lot 3017. Bulk earthworks disturbance associated with construction of permanent works for the TANPF will be constrained to approximately 20.5 ha of land located within the western quadrant of the site (see *Figure 1*).

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The TANPF will comprise three major processing units, including: a nitric acid plant, ammonium nitrate solutions plant and the technical ammonium nitrate (TAN) plant. The proposed site preparation works for the TANPF are anticipated to include the following activities:

- Removal of vegetation within the designated area;
- Preparing the TANPF footprint and lay-down/stockpile areas, which will include cut and fill activities;
- Installation of site drainage;
- Establishment of perimeter fencing;
- Road and access tracks for construction; and
- Potential dewatering and trenching (pending more detailed design requirements).

3. OBJECTIVES

Prior to the commencement of construction at the site, the groundwater below the site was characterised and baseline conditions were established. The baseline conditions were used to establish trigger levels (set at 10% above the maximum baseline concentration) for ongoing GME's during the construction of the site. The primary objective of the March and April GME was to determine if the construction activities at the site has impacted the groundwater below the site. The April GME was undertaken to further assess groundwater conditions following low level exceedences of trigger levels recorded during the March GME.



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4. SCOPE OF WORKS

In order to achieve the project objectives, the following scope of work was completed by ERM for each of the March and April GME's:

- 1) Preparation of site works risk/hazard analysis documents (Work Activity Risk Assessment (WARN)) and the preparation of a health and safety plan to oversee safe work practices at the site.
- 2) A single GME in March 2013 with an additional follow-on GME in April 2013, comprising the sampling of five established on-site wells (*Figure 2*). Each GME included:
 - a. Gauging of groundwater depths;
 - b. Measurement of groundwater field parameters during well purging to determine a stabilisation of field parameters prior to groundwater sampling; and
 - c. Collection and analysis of groundwater samples to assess groundwater conditions.
- 3) Laboratory analysis of groundwater samples, including a Modified Acid Sulphate Soils Suite and an Extended Groundwater Quality suite. Five primary samples (one from each well), one duplicate sample and relevant quality assurance samples were taken. Analysis was undertaken by a NATA accredited laboratory to ensure quality assurance.
- 4) Screening of laboratory results against trigger levels.
- 5) The preparation of this short factual report to detail the scope of works undertaken and the results of the investigation.

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5. METHODOLOGY

5.1 HEALTH AND SAFETY

All works were completed in accordance with ERM health and safety (H&S) procedures. This included the preparation of site works risk/hazard analysis documents and the preparation of an H&S plan to ensure safe work practices at the site.

5.2 GAUGING OF GROUNDWATER DEPTHS

Groundwater monitoring wells were gauged during both the March 2013 and April 2013 GME's with an interface probe in accordance with ERM's standard operation procedures with the exception of MW1 during the April 2013 GME. The ground around the well has been lowered and the monitoring well casing sticking up above the ground has bent such that the interface probe would not fit down the well. Groundwater levels where recorded, are presented in *Annex B*.



5.3 GROUNDWATER SAMPLING

March 2013 GME

The five existing groundwater monitoring wells (MW1-MW5) were purged and sampled in accordance with ERM's standard groundwater sampling protocols using disposable plastic bailers. A minimum of three well volumes were purged from each groundwater monitoring well prior to sampling. Field parameters were measured after each well volume and the sample collected following the stabilisation of field parameters over three consecutive readings. Construction work around the well heads has caused damage to the well casing on monitoring wells MW4 which prevented purging and sampling from the monitoring well.

April 2013 GME

The three groundwater monitoring wells (MW2, MW3 and MW5) were purged and sampled in accordance with ERM's standard groundwater sampling protocols using disposable plastic bailers. A minimum of three well volumes were purged from each groundwater monitoring well prior to sampling. Field parameters were measured after each well volume and the sample collected following the stabilisation of field parameters over three consecutive readings. Construction work around the well heads has caused damage to the well casing on monitoring wells MW1 and MW4 which prevented the use of bailers for purging and sampling. For these two wells a low flow peristaltic pump was used. Field parameters were measured at two minute intervals with the peristaltic pump operating at a flow of 0.5L per minuet in accordance with ERM's standard

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low flow groundwater sampling protocols. The groundwater sample was collected following the stabilisation of field parameters over three consecutive readings. It is considered unlikely that the change of sampling technique will compromise the quality of the field data and groundwater samples for laboratory analysis.

Field parameters for both the March and April GME were measured using a calibrated water quality meter and included temperature, pH, oxygen reduction potential, electrical conductivity and dissolved oxygen. The stabilised water quality parameters are detailed in *Annex B*. All groundwater samples were collected, stored and transported to the laboratory under strict chain of custody procedures.

5.4 QUALITY ASSURANCE AND QUALITY CONTROL



For each of the GME's QA/QC samples were collected and analysed in accordance with *Australian Standard AS/NZS 5667.11:1998: Water Quality – Sampling – Guidance on Sampling of Groundwater*. This included the collection of field duplicates at a frequency of no less than 1 in 10 samples as well as a rinsate sample from the interface meter to demonstrate the sufficiency of the decontamination procedure.

March 2013 GME

A single duplicate sample was collected from MW3 and submitted for laboratory analysis. Of the Relative Percentage Difference (RPD) values able to be calculated, all but three were within the acceptable limit. The analytes outside of the acceptable RPDs were aluminium, iron and phosphorous. Given the high level of reproducibility for other analytes, this is not considered to represent an unacceptable level of uncertainty with respect to data quality.

A rinsate sample was collected from the equipment and submitted for laboratory analysis following the GME. The results showed all analytes below the laboratory limit of detection with the exception of zinc where a low concentration, slightly above the laboratory limit of detection was recorded. The presence of zinc in rinsate samples from previous GME's would suggest that the rinsate provided by the Laboratory contains trace concentrations of zinc.

The trip blank sample stored in the esky during transit did not record any analytes above the limit of detection therefore suggesting that there has been no cross contamination from samples during transit and storage.

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April 2013 GME

A single duplicate sample was collected from MW5 and submitted for laboratory analysis. Of the Relative Percentage Difference (RPD) values able to be calculated all were within the acceptable limit.

A rinsate sample was collected from the equipment and submitted for laboratory analysis following the GME. The results showed all analytes below the laboratory limit of detection with the exception of zinc where a low concentration, slightly above the laboratory limit of detection was recorded. The presence of zinc in rinsate samples from the March 2013 GME and previous GME's would suggest that the rinsate provided by the Laboratory contains trace concentrations of zinc.



The trip blank sample stored in the esky during transit did not record any analytes above the limit of detection therefore suggesting that there has been no cross contamination from samples during transit and storage.

5.5 LABORATORY ANALYSIS

Groundwater samples from both the March 2013 and April 2013 GME's were submitted to SCS Australia Pty Ltd (SCS), a NATA accredited laboratory. Samples were analysed for a suite of compounds including:

- Cations and anions including calcium, magnesium, sodium, potassium, phosphate, ammonia, carbonate, bicarbonate, chloride, sulphate, nitrate, nitrite and silica;
- Total dissolved solids (TDS), and total alkalinity; and
- Dissolved metals including; aluminium, arsenic, cadmium, chromium, iron, lead, manganese, mercury, selenium and zinc.

Sean Scully / Técnicas Reunidas
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6. RESULTS AND DISCUSSION

March 2013 GME

Groundwater temperature was ranged between 30.7 and 34.3°C; which higher than previous monitoring in October 2012 but can most likely be attributed to seasonal changes in weather conditions. The pH results ranged between 6.84 and 7.32 indicating neutral conditions, which is consistent with historical results. Oxygen reduction potentials were consistent for the duration of the sampling period (approx. 33.2 - 135.9 mV). Electrical conductivity remained consistent across the monitoring wells with the exception of MW5 where an elevated electrical conductivity reading compared to previous GME's was displayed. Dissolved oxygen content was recorded as 0.99 - 1.82 mg/L during the GME which is consistent with previous GMEs.



The field and laboratory results of the GME are presented in *Annex B* and laboratory analytical reports and chain of custody documentation are presented in *Annex C*. A review of the displayed a number of low exceedences of the trigger levels (set at 10% above the maximum baseline concentration). The Following exceedences of trigger levels were observed.

- Monitoring well MW1 recorded a Total suspended soils (TSS) concentration of 2,900 mg/L;
- Monitoring well MW3 recorded a phosphorous concentration of 1.6 mg/L; and
- Monitoring well MW5 recorded an ammonia concentration of 1.2 mg/L and an ammonia (as N) concentration of 1,000 ug/L.

April 2013 GME

Groundwater temperature was ranged between 31.9 and 34.4°C; which slightly higher than the March 2013 GME. The pH results ranged between 6.71 and 7.19 indicating neutral conditions, which is consistent with March 2013 GME and historical results. Oxygen reduction readings remain comparable to previous GME's with reading between 2.69 and 210.7 mV. Electrical conductivity appears to have increased in monitoring wells MW3, MW4 and MW5 of the in comparison to previous GME's undertaken. MW5 remains hypersaline however salinity of other wells closest to the drainage system are also increasing likely as a result of precipitation of salts after high rainfall/flood events and leaching of these into the groundwater. Dissolved oxygen content was recorded as 0.13 - 3.44 mg/L during the GME which is consistent with previous GMEs.

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Seam Scale / Rajan Sinha
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The field and laboratory results of the GME are presented in *Annex B* and laboratory analytical reports and chain of custody documentation are presented in *Annex C*. A review of the displayed a number of low exceedences of the trigger levels (set at 10% above the maximum baseline concentration). The following exceedences of trigger levels were observed:



- Monitoring well MW1 recorded a nitrate concentration of 9.7 mg/l;
- Monitoring well MW3 recorded an ammonia concentration of 0.94 mg/L, an aluminium concentration of 0.072 mg/L, an iron (filtered) concentration of 0.52 mg/L and a manganese (filtered) concentration of 1.7 mg/L;
- Monitoring well MW4 recorded an aluminium concentration of 0.031 mg/L; and
- Monitoring well MW5 recorded a reactive phosphorous (as P) concentration of 0.014 and an aluminium concentration of 0.3 mg/L.

7. CONCLUSION

The results of the March 2013 and April 2013 Groundwater Monitoring Events (GMEs) display a number of exceedences in the set trigger levels. However none of the analytes which exceeded a trigger level during the March 2013 GME exceeded the trigger level during the April 2013 GME at the same well location. Sampling methodology has remained generally consistent and while two wells were sampled with low flow pumps as opposed to bailers, this would be unlikely to affect the groundwater chemistry.

It is noted that the salinity of the groundwater varies from brackish to hypersaline the closer the wells are to the natural surface water drainage systems. Groundwater in the vicinity of MW5 has likely been derived from multiple directions, while those monitoring wells located further away from the main drainage intercept groundwater from more discrete flow directions.

Until the wells are surveyed in, it is not possible to assess actual groundwater flow direction. However what is likely is that depending on the groundwater flow paths intercepted by the monitoring wells, groundwater chemistry is likely to differ between wells. In addition, rainfall events and cyclonic activity causing localised flooding will result in seasonal changes to groundwater recharge and resultant groundwater chemistry.

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The variability in the groundwater chemistry observed both between monitoring wells and between monitoring events with no clear trends suggests the results depict natural variability in groundwater chemistry as opposed to increasing concentrations of analytes associated with site activities. None of the analytes observed exceeding the trigger levels are attributed to current on site activities.

Site levelling activities may have exposed areas of ground and soils not previously exposed to rainfall and leaching, and it is possible that leaching of these soils has released localised increased metals into the groundwater.

The variability in chemistry between monitoring wells and between monitoring events should continue to be assessed biannually in order to build a more comprehensive data set of range in concentration over time and determine whether there are clear trends emerging and if so likely causes. Based on this data, the current trigger level concentrations may need to be reevaluated to account for natural variability.

Should you require any clarification please contact the undersigned.



Yours Sincerely,
for Environmental Resources Management Australia Pty Ltd



Sean Scaife
Project Manager



Paul Myers-Allen
Partner

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FRM

Annex A

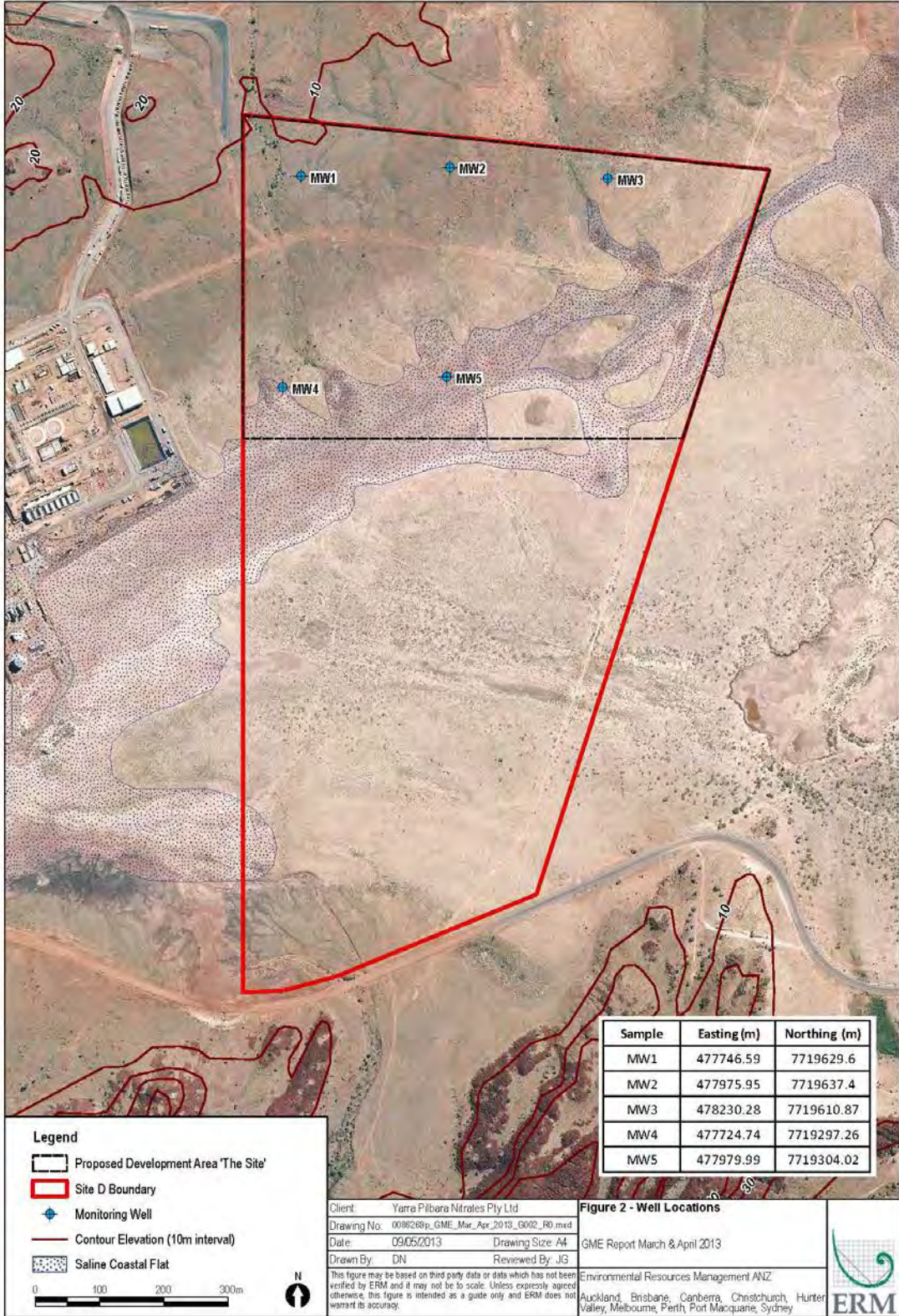
SITE LOCATION & WELL LOCATIONS





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Annex B

RESULTS TABLES



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**Table 1: Gauging Data
0086269 - YPNPL**

March 2013 GME

Bore ID	Easting	Northing	Date	Bore Depth (m ToC)	Depth to Water (m ToC)
MW1	477750.267	7719618.897	6-Mar-13	8.74	4.90
MW2	477982.134	7719632.321	6-Mar-13	8.20	4.43
MW3	478228.561	7719614.98	6-Mar-13	7.18	2.80
MW4	477721.886	7719289.889	6-Mar-13	7.21	3.95
MW5	477976.901	7719306.205	6-Mar-13	5.07	0.91

April 2013 GME

Bore ID	Easting	Northing	Date	Bore Depth (m ToC)	Depth to Water (m ToC)
MW1	477750.267	7719618.897	17-Apr-13	Probe would not fit down well	
MW2	477982.134	7719632.321	17-Apr-13	8.21	4.60
MW3	478228.561	7719614.98	17-Apr-13	8.18	3.01
MW4	477721.886	7719289.889	17-Apr-13	7.35	4.07
MW5	477976.901	7719306.205	17-Apr-13	5.97	2.02



March 2013 GME

**Table 2: Field Parameters
0085269 - YPNPL**

Well ID	Date	Time	Volume purged (L)	pH	Temperature (°C)	Electrical Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Fluid Redox Potential (mV)	Estimated TDS (mg/L)	Comments
MW1	6/03/2013	15:45	21.5	7.26	30.7	1820	1.82	70.5	1183	Slightly cloudy, no odour
MW2	6/03/2013	14:30	21.0	7.28	32.0	1850	1.65	37.9	1073	Turbid, slightly brown, no odour
MW3	6/03/2013	14:32	24.0	7.32	31.1	1490	1.49	33.2	959	Turbid, pale brown, no odour
MW4	6/03/2013									Unable to monitor due to damage to well casing
MW5	6/03/2013	15:11	24.0	8.84	34.5	141200	0.99	135.6	91780	Turbid, cream to pale brown, no odour

April 2013 GME

Well ID	Date	Time	Volume purged (L)	pH	Temperature (°C)	Electrical Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Fluid Redox Potential (mV)	Estimated TDS (mg/L)	Comments
MW1	17/04/2013	12:14	4.0	6.71	32.4	1563	0.58	2.69	1016	
MW2	17/04/2013	11:48	33.0	6.9	32.2	4690	3.44	101	3049	
MW3	17/04/2013	11:18	33.0	7.19	31.60	17650	1.78	27.5	11688	
MW4	17/04/2013	12:50	2.5	7.17	33.5	87400	0.13	15.72	43810	Turbid, red brown
MW5	17/04/2013	12:21	33.0	8.77	34.4	147300	2.24	210.7	95745	

YPNPL, Burrup, WA, Australia

ERM Australia

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The table is a large data grid with approximately 40 columns and 100 rows. The columns are densely packed with text, likely representing various parameters or data points. Several rows are highlighted in yellow, indicating specific data points of interest. The table is organized into sections, with some rows having a different background color (e.g., light blue or light green) to distinguish them from the main data rows.



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Table 4a QA/QC Samples
RPDs
YPNPI.

March 2013 GME

Field Duplicates (WATER)
Filter: SDG and FF075425.F

SDG	FF075425-F	FF075425-F
Field_ID	MW5	U3701
Sampled_Date-Time	6/05/2013	6/03/2015

Chem_Group	ChemName	Units	EQL			
	Alkalinity	mg/L	5	54.0	45.0	0
Inorganics	Alkalinity (Bicarbonate)	mg/L	5	590.0	590.0	0
	Alkalinity (Total) as CaCO3	mg/L	5	470.0	470.0	0
	Ammonia	mg/L	0.005	<0.005	<0.005	0
	Ammonia as-N	mg/L	5	<5.0	<5.0	0
	Chloride	mg/L	1	3900.0	3900.0	2
	Fluoride	mg/L	0.1	1.4	1.4	0
	Hydrogen sulfide	mg/L	0.5	<0.5	<0.5	0
	Kjeldahl Nitrogen Total	mg/L	0.05	0.16	0.2	22
	Nitrate (as-N)	mg/L	0.005	0.26	0.26	0
	Nitrate (as-NO3)	mg/L	0.05	1.1	1.2	0
	Nitrite (as-NO2)	mg/L	0.005	<0.005	<0.005	0
	Nitrite (as-NO2-N)	mg/L	0.05	<0.05	<0.05	0
	Nitrogen Total (Distilled)	mg/L	0.005	0.26	0.26	0
	Nitrogen Total	mg/L	5	420.0	400.0	0
	Reactive Phosphorus as P	mg/L	0.002	0.003	<0.002	40
	Silica (Filtered)	mg/L	50	36000.0	36000.0	0
	Sodium (Filtered)	mg/L	0.5	3560.0	3400.0	2
	Sulfate	mg/L	1	670.0	710.0	0
	Sulfide	mg/L	0.5	<0.5	<0.5	0
	TSS	mg/L	5	180.0	180.0	0
Metals	Aluminium (Filtered)	mg/L	0.025	<0.025	<0.025	0
	Aluminium	mg/L	0.05	5.8	3.7	44
	Arsenic (Filtered)	mg/L	0.005	<0.005	<0.005	0
	Cadmium (Filtered)	mg/L	0.0005	<0.0005	<0.0005	0
	Calcium (Filtered)	mg/L	0.2	130.0	130.0	0
	Chromium (III+VI) (Filtered)	mg/L	0.005	<0.005	<0.005	0
	Iron (Filtered)	mg/L	0.05	<0.025	<0.025	0
	Iron	mg/L	0.5	6.3	3.8	50
	Magnesium (Filtered)	mg/L	0.1	340.0	340.0	0
	Manganese (Filtered)	mg/L	0.005	0.038	0.017	6
	Nickel (Filtered)	mg/L	0.005	<0.005	<0.005	0
	Phosphorus	mg/L	0.01	1.6	<0.01	199
	Potassium (Filtered)	mg/L	0.1	130.0	130.0	0
	Selenium (Filtered)	mg/L	0.01	<0.01	<0.01	0
	Silicon (Filtered)	mg/L	20	17000.0	17000.0	0
	Zinc (Filtered)	mg/L	0.025	<0.025	<0.025	0
Organic	Alkalinity H. carbonate	mg/L	1	<1.0	<1.0	0

*RPDs have only been considered where a concentration is greater than 0 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (0-10 x EQL); 50 (10-30 x EQL); 30 (> 30 x EQL)).

***Interlab Duplicates are matched on a per component basis as methods vary between laboratories. Any outliers in the (row header) relate to those used in the primary laboratory.



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Table 4b. QA/QC Samples
RPD's
YPNPI.

April 2013 GME
Field Duplicate (WATER)
Filter SDG (CF976727-1)



SDC	FD56627-1	FD976727-1
Field ID	MW5	DUT9
Sampled Date-Time	17/04/2013	17/04/2013

Chem_Group	ChemName	Units	FQU	50*	97.5*	2
	Acidity	mg/L	5			
Inorganics	Alkalinity (Bicarbonate)	mg/l	5	210.0	210.0	0
	Alkalinity (total) as CaCO3	mg/l	5	170.0	170.0	0
	Ammonia	mg/l	0.005	<0.005	<0.005	0
	Ammonia as N	mg/l	5	<5.0	<5.0	0
	Chloride	mg/l	1	5000.0	5000.0	4
	Fluoride	mg/l	0.1	0.4	0.4	0
	Kjeldahl Nitrogen Total	mg/l	0.05	1.0	0.96	2
	Nitrate (as N)	mg/l	0.005	1.6	1.6	0
	Nitrate (as NO3-)	mg/l	0.05	6.9	6.9	0
	Nitrite (as N)	mg/l	0.005	<0.005	<0.005	0
	Nitrite (as NO2-)	mg/l	0.05	<0.05	<0.05	0
	Nitrogen Total (as total)	mg/l	0.005	1.4	1.4	0
	Nitrogen Total	mg/l	50	2600.0	2500.0	4
	Reactive Fluorides as F ⁻	mg/l	0.002	0.014	0.012	15
	Silica (Filtered)	ug/l	500	13000.0	13000.0	0
	Sodium (Filtered)	mg/l	5	25000.0	25000.0	0
	Sulphate	mg/l	1	3360.0	3400.0	3
	Sulphide	mg/l	0.5	<0.5	<0.5	0
	TSS	mg/l	5	1600.0	1400.0	13
Lead	Lead (Filtered)	mg/l	0.05	<0.05	<0.05	0
Metals	Aluminium (Filtered)	mg/l	0.25	0.3	0.33	10
	Aluminium	mg/l	0.1	5.0	5.0	10
	Arsenic (Filtered)	mg/l	0.05	<0.05	<0.05	0
	Cadmium (Filtered)	mg/l	0.005	<0.005	<0.005	0
	Calcium (Filtered)	mg/l	2	740.0	740.0	0
	Chromium (III-VI) (Filtered)	mg/l	0.05	<0.05	<0.05	0
	Copper (Filtered)	mg/l	0.05	<0.05	<0.05	0
	Iron (Filtered)	mg/l	0.25	<0.25	<0.25	0
	Iron	mg/l	1	44.0	44.0	0
	Magnesium (Filtered)	mg/l	1	2000.0	2000.0	0
	Manganese (Filtered)	mg/l	0.05	<0.05	<0.05	0
	Nickel (Filtered)	mg/l	0.05	<0.05	<0.05	0
	Phosphorus	mg/l	0.01	0.16	0.16	0
	Potassium (Filtered)	mg/l	1	2400.0	1400.0	0
	Selenium (Filtered)	mg/l	0.1	<0.1	<0.1	0
	Silicon (Filtered)	ug/l	200	6000.0	6000.0	0
	Zinc (Filtered)	mg/l	0.25	<0.25	<0.25	0
Organic	Alkalinity (Carbonate)	mg/l	1	<1.0	<1.0	0

*RPDs have only been considered where a concentration is greater than 0 times the 25QL.

†High RPD's are in bold (Acceptable RPD's for each EQL multiplier range are 50 (0.10 x EQL), 30 (10.30 x EQL), 20 (> 20 x FQU))

‡Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory.

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FRM

Annex C

LABORATORY ANALYTICAL REPORTS



 <input type="checkbox"/> Sydney <input type="checkbox"/> Melbourne <input checked="" type="checkbox"/> Brisbane <input checked="" type="checkbox"/> Perth <input type="checkbox"/> Hunter Valley <input type="checkbox"/> North Coast <input type="checkbox"/> Other	Grid Floor, 33 Saunders Street, Pyrmont, NSW, 2009. (ph) 02 8584 8888 (fax) 02 8584 8800 Level 3, Yarra Tower, WTC, 18-38 Siddley Street, Docklands, VIC, 3005. (ph) 03 9696 8011 (fax) 03 9696 8022 Level 1, 60 Leichhardt Street, Spring Hill, QLD, 4004. (ph) 07 3639 8369 (fax) 07 3639 8381 Level 6, Grain Pool Bld, 172 St Georges Ter, WA, 6850. (ph) 08 9321 5200 (fax) 08 9321 5262 53 Bonville Avenue, Thornton, NSW, 2322. (ph) 02 4964 2150 (fax) 02 4964 2152 Suite 3/146 Gordon Street, Port Macquarie, NSW, 2444. (ph) 02 6584 7155 (fax) 02 6584 7160	Project No: <u>0086269</u> Project Name: <u>Burrup Nikotes</u> Project Location: <u>Burrup</u> Project Manager: <u>Joe Edgell</u> Sampler: <u>C. Gorman / C. Maur</u>	COC Number: A 07500 Laboratory: SGS																																																																																																																																																																																																																																					
General Analysis Requirements Yes (tick)																																																																																																																																																																																																																																								
1. Turn Around Time (please tick: <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Normal TAT)																																																																																																																																																																																																																																								
2. Do you wish any sediment layers in water to be excluded from extractions?																																																																																																																																																																																																																																								
3. Additional QA/QC reported where sample batches are < 10 samples?																																																																																																																																																																																																																																								
4. % of extraneous material removed from samples to be reported as per NEPM 5.1.1?																																																																																																																																																																																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Laboratory Number</th> <th rowspan="2">Sample ID</th> <th rowspan="2">Sample Depth</th> <th rowspan="2">Sample Date</th> <th rowspan="2">Sample Time</th> <th colspan="3">Matrix</th> <th colspan="3">Preservation</th> <th rowspan="2">Containers (number/type)</th> <th rowspan="2">BTEX</th> <th rowspan="2">PAHs (C10-C28)</th> <th rowspan="2">Speciation TPH</th> <th rowspan="2">VOC Swab (USEPA 8260 Ltd)</th> <th rowspan="2">SYOC Swab (USEPA 8270 Ltd)</th> <th rowspan="2">DOC OP Presorbates</th> <th rowspan="2">PMH</th> <th rowspan="2">Phenols</th> <th rowspan="2">PCB</th> <th rowspan="2">Metals (As/Cd/Cr/Cu/Hg/Ni/Pb/Zn)</th> <th rowspan="2">Water (As/Cd/Cr/Cu/Hg/Ni/Pb/Zn)</th> <th rowspan="2">RINDATE</th> <th rowspan="2">TRIP BLANK</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MW1</td> <td></td> <td>6-3-13</td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td>5p</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>MW2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>MW3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>MW4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>54</td> <td>MW5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>85</td> <td>DUP01</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>86</td> <td>RIND01</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2p</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>87</td> <td>tripblanks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1v</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Laboratory Number	Sample ID	Sample Depth	Sample Date	Sample Time	Matrix			Preservation			Containers (number/type)	BTEX	PAHs (C10-C28)	Speciation TPH	VOC Swab (USEPA 8260 Ltd)	SYOC Swab (USEPA 8270 Ltd)	DOC OP Presorbates	PMH	Phenols	PCB	Metals (As/Cd/Cr/Cu/Hg/Ni/Pb/Zn)	Water (As/Cd/Cr/Cu/Hg/Ni/Pb/Zn)	RINDATE	TRIP BLANK	1	2	3	1	2	3	1	MW1		6-3-13		X	X				5p															2	MW2																								3	MW3																								4	MW4																								54	MW5																								85	DUP01																								86	RIND01									2p															87	tripblanks									1v															Other Comments on sample (eg: high visc, highly contaminated, special detection limits etc etc) PE075425
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Comments: <u>Ref quote: ENV1124146. Pls send results & invoice to: joe.edgell@erm.com</u>																																																																																																																																																																																																																																								
Relinquished by: <u>C. Gorman</u> Signed: <u>C. Gorman</u> Date/Time: <u>7/3/13 12:50</u>																																																																																																																																																																																																																																								
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SGS	AUSTRALIA-ENVIRONMENTAL-PERTH AIRPORT-PROFORMA -QU101																																							
REGISTRATION DETAILS		APPROVED BY: R. MA																																						
Bottle Map	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>1L Plastic</th> <th>500ml Plastic</th> <th>500ml Plastic</th> <th>500ml Amber</th> <th>250ml Plastic</th> <th>125ml Plastic</th> <th>1L Amber</th> <th>500ml Amber</th> <th>100ml Amber</th> <th>40ml Glass Vial</th> <th>40ml Glass Vial HAA</th> <th>500ml Plastic</th> <th>250ml Plastic</th> <th>125ml Plastic</th> <th>250ml Glass Jar</th> <th>125ml Glass Jar</th> <th>1L Plastic</th> <th>Other Lab</th> <th>Ziplock Bag/Other</th> </tr> </thead> <tbody> <tr> <td>Green</td> <td>Yellow</td> <td>Green</td> <td>Purple</td> <td>Green</td> <td>Green</td> <td>Red</td> <td>Green</td> <td>Orange</td> <td>Green</td> <td>White</td> <td>Blue</td> <td>Orange</td> <td>Brown</td> <td></td> <td></td> <td>Yellow</td> <td></td> <td></td> </tr> </tbody> </table>	1L Plastic	500ml Plastic	500ml Plastic	500ml Amber	250ml Plastic	125ml Plastic	1L Amber	500ml Amber	100ml Amber	40ml Glass Vial	40ml Glass Vial HAA	500ml Plastic	250ml Plastic	125ml Plastic	250ml Glass Jar	125ml Glass Jar	1L Plastic	Other Lab	Ziplock Bag/Other	Green	Yellow	Green	Purple	Green	Green	Red	Green	Orange	Green	White	Blue	Orange	Brown			Yellow			Job Number: PE075425
1L Plastic	500ml Plastic	500ml Plastic	500ml Amber	250ml Plastic	125ml Plastic	1L Amber	500ml Amber	100ml Amber	40ml Glass Vial	40ml Glass Vial HAA	500ml Plastic	250ml Plastic	125ml Plastic	250ml Glass Jar	125ml Glass Jar	1L Plastic	Other Lab	Ziplock Bag/Other																						
Green	Yellow	Green	Purple	Green	Green	Red	Green	Orange	Green	White	Blue	Orange	Brown			Yellow																								
Sample Numbers: 1-5 86 87 1-5		# of Eskies: 1 Esky																																						
		Temp: <u>14.6 °C</u>																																						
		Tray Numbers: W-319-320 V-9																																						
Registration comments: * MW4 bottles received empty.																		Action Taken:																						
																		Registered By: CB 7/3/10																						



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SAMPLE RECEIPT ADVICE

PE075425

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Joe Edgell	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Fax/mobile	08 9321 5262	Fax/mobile	(08) 9373 3556
Email	(Not specified)	Email	au.environmental.perth@sgs.com
Project	0086269 Burrup Nitrates	Samples Received	Thu 7/3/2013
Order Number	A07500	Report Due	Thu 14/3/2013
Samples	7	SGS Reference	PE075425

SUBMISSION DETAILS			
This is to confirm that 7 samples were received on Thursday 7/3/2013. Results are expected to be ready by Thursday 14/3/2013. Please quote SGS reference PE075425 when making enquiries. Refer below for details relating to sample integrity upon receipt.			
Sample counts by matrix	7 Water	Type of documentation received	COC
Date documentation received	7/3/2013	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	15°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	1
Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.			

COMMENTS
Sample bottles labelled MW4 received empty.

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.

SGS Australia Pty Ltd
ABN 44 000 984 373

Environmental Services

10 Reid Rd
PO Box 32
Newburn WA 6105
Welshpool WA 6983

Australia
Australia

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f +61 8 9373 3556

www.au.sgs.com

Member of the SGS Group



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SAMPLE RECEIPT ADVICE

PE075425

CLIENT DETAILS

Client	ERM Australia Pty Ltd	Project	0086269 Burrup Nitrates
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SUMMARY OF ANALYSES

No.	Sample ID	Acidity and Free CO2	Alkalinity	Chloride by Discrete Analyser in Water	Colour by Discrete Analyser	Fluoride by Ion Selective Electrode in Water	Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA	Sulphate in water	Sulphide by Titration in Water	Total and Volatile Suspended Solids (TSS /
001	MW1	1	3	1	1	1	5	1	2	1
002	MW2	1	3	1	1	1	5	1	2	1
003	MW3	1	3	1	1	1	5	1	2	1
004	MW5	1	3	1	1	1	5	1	2	1
005	DUP01	1	3	1	1	1	5	1	2	1
006	RIN01	-	3	1	-	-	-	1	-	-

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



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SAMPLE RECEIPT ADVICE

PE075425

CLIENT DETAILS

Client	ERM Australia Pty Ltd	Project	0086269 Burrup Nitrates
--------	-----------------------	---------	-------------------------

SUMMARY OF ANALYSIS

No.	Sample ID	Filterable Reactive Phosphorus (FRP)	Low Level Ammonia Nitrogen by FIA	Mercury (dissolved) in Water	Metals in Water (Dissolved) by ICPOES	TKN Kjeldahl Digestion by Discrete Analyser	Total Phosphorus by Kjeldahl Digestion DA In	Trace Metals (Dissolved) in Water by ICPMS	Trace Metals (Total) in Water by ICPMS	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	MW1	1	2	-	6	2	1	9	2	-	-
002	MW2	1	2	-	6	2	1	9	2	-	-
003	MW3	1	2	-	6	2	1	9	2	-	-
004	MW5	1	2	-	6	2	1	9	2	-	-
005	DUP01	1	2	-	6	2	1	9	2	-	-
006	RIN01	-	-	1	4	-	-	7	-	-	-
007	Trip Blank	-	-	-	-	-	-	-	-	11	5

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



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ANALYTICAL REPORT



CLIENT DETAILS		LABORATORY DETAILS	
Contact	Joe Edgell	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Ter PERTH WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Facsimile	08 9321 5262	Facsimile	(08) 9373 3556
Email	(Not specified)	Email	au.environmental.perth@sgs.com
Project	0086269 Burrup Nitrates	SGS Reference	PE075425 R0
Order Number	A07500	Report Number	0000057055
Samples	7	Date Reported	15 Mar 2013
		Date Received	07 Mar 2013

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(898/20210).

Samples were diluted due to high conductivity for metals. Hence the LORs were raised.

Total Al and Fe spike recoveries for "MW1" were outside acceptance criteria due to high background.

SIGNATORIES

		
Dale Lang Organics Team Leader	Hue Thanh Ly Metals Supervisor	Leanne Orsmond Inorganics Coordinator
		
Lien Tang Project Manager	Michael McKay Inorganic Team Leader - Waters	Ohmar David Metals Chemist



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ANALYTICAL REPORT

PE075425 R0

Parameter	Units	LOR	PE075425.001	PE075425.002	PE075425.003	PE075425.004
Sample Number PE075425.001 PE075425.002 PE075425.003 PE075425.004 Sample Matrix Water Water Water Water Sample Date 06 Mar 2013 06 Mar 2013 06 Mar 2013 06 Mar 2013 Sample Name MW1 MW2 MW3 MW4						
Total and Volatile Suspended Solids (TSS / VSS) Method: AN114						
Total Suspended Solids Dried at 105°C	mg/L	5	2900	320	180	660
Acidity and Free CO2 Method: AN140						
Acidity to pH 8.3	mg CaCO3/L	5	210	83	64	130
Alkalinity Method: AN135						
Total Alkalinity as CaCO3	mg/L	5	300	360	470	170
Carbonate Alkalinity as CO3	mg/L	1	<1	<1	<1	<1
Bicarbonate Alkalinity as HCO3	mg/L	5	370	440	560	210
Colour by Discrete Analyser Method: AN285						
Colour (True)	Hazen	1	<1	<1	<1	<1
Fluoride by Ion Selective Electrode in Water Method: AN141						
Fluoride by ISE	mg/L	0.1	0.6	0.6	1.4	0.4
Chloride by Discrete Analyser in Water Method: AN274						
Chloride	mg/L	1	670	1000	800	64000
Sulphate in water Method: AN275						
Sulphate	mg/L	1	100	170	670	3800
Sulphide by Titration in Water Method: AN149						
Sulphide	mg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hydrogen Sulphide at 20 C	mg/L	0.5	<0.5	<0.5	<0.5	<0.5
Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: AN258						
Nitrate, NOx as NOx	mg/L	0.05	<0.05	2.7	1.1	6.0
Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	1.9	0.60	0.28	1.3
Nitrite Nitrogen, NOx as N	mg/L	0.005	0.025	<0.005	<0.005	<0.005
Nitrate Nitrogen, NOx as N	mg/L	0.005	1.9	0.60	0.28	1.3
Nitrite, NOx as NOx	mg/L	0.05	0.05	<0.05	<0.05	<0.05



ANALYTICAL REPORT

PE075425 R0

Parameter	Units	LOR	PE075425.001	PE075425.002	PE075425.003	PE075425.004
Sample Information: Sample Number: PE075425.001, PE075425.002, PE075425.003, PE075425.004 Sample Matrix: Water, Water, Water, Water Sample Date: 06 Mar 2013, 06 Mar 2013, 06 Mar 2013, 06 Mar 2013 Sample Name: MW1, MW2, MW3, MW5						
Low Level Ammonia Nitrogen by FIA Method: AN261						
Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.015	<0.005	<0.005	1.0
Ammonia, NH ₃	mg/L	0.005	0.018	<0.005	<0.005	1.2
TKN Kjeldahl Digestion by Discrete Analyser Method: AN281						
Total Kjeldahl Nitrogen	mg/L	0.05	0.14	0.10	0.18	2.1
Total Nitrogen (calc)	mg/L	0.05	2.0	0.70	0.42	3.4
Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293						
Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01	<0.01	1.8	0.04
Filterable Reactive Phosphorus (FRP) Method: AN278						
Filterable Reactive Phosphorus	mg/L	0.002	0.003	<0.002	0.003	0.007
Metals in Water (Dissolved) by ICPOES Method: AN320/AN321						
Calcium, Ca	mg/L	0.2	160	160	130	770
Magnesium, Mg	mg/L	0.1	46	87	340	3000
Potassium, K	mg/L	0.1	8.2	21	130	1500
Silica, Soluble	mg/L	0.05	32	27	36	13
Silicon, Si	mg/L	0.02	15	13	17	5.9
Sodium, Na	mg/L	0.5	280	580	3500	36000
Trace Metals (Dissolved) in Water by ICPMS Method: AN318						
Aluminium, Al	µg/L	5	<5	8	<25†	<250†
Arsenic, As	µg/L	1	<1	<1	<5†	<50†
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.5†	<5.0†
Chromium, Cr	µg/L	1	<1	<1	<5†	<50†
Copper, Cu	µg/L	1	-	-	-	-
Iron, Fe	µg/L	5	<5	<5	<25†	<250†
Lead, Pb	µg/L	1	-	-	-	-
Manganese, Mn	µg/L	1	170	12	18	<50†
Nickel, Ni	µg/L	1	<1	<1	<5†	<50†
Selenium, Se	µg/L	2	<2	<2	<10†	<100†
Zinc, Zn	µg/L	5	10	17	<25†	<250†
Trace Metals (Total) in Water by ICPMS Method: AN318						
Total Aluminium	µg/L	5	10000	10000	5800	16000
Total Iron	µg/L	5	14000	16000	6300	18000
Mercury (dissolved) in Water Method: AN311/AN312						
Mercury	mg/L	0.00005	-	-	-	-



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ANALYTICAL REPORT

PE075425 R0

Parameter	Units	LOR	PE075425.001	PE075425.002	PE075425.003	PE075425.004
Sample Number			PE075425.001	PE075425.002	PE075425.003	PE075425.004
Sample Matrix			Water	Water	Water	Water
Sample Date			06 Mar 2013	06 Mar 2013	06 Mar 2013	06 Mar 2013
Sample Name			MW1	MW2	MW3	MW5

Volatile Petroleum Hydrocarbons in Water - Method: AN433/AN434/AN410

TRH 06-C9	µg/L	40	-	-	-	-
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Surrogates

Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-

VOCs in Water - Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons:

Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Oxygenated Compounds:

MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	-	-
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Polycyclic VOCs:

Naphthalene	µg/L	0.5	-	-	-	-
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Surrogates:

Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-



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PE075425 R0

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007																
<table border="1"> <tr> <td>Sample Number</td> <td>PE075425.005</td> <td>PE075425.006</td> <td>PE075425.007</td> </tr> <tr> <td>Sample Matrix</td> <td>Water</td> <td>Water</td> <td>Water</td> </tr> <tr> <td>Sample Date</td> <td>06 Mar 2013</td> <td>06 Mar 2013</td> <td>06 Mar 2013</td> </tr> <tr> <td>Sample Name</td> <td>DUP01</td> <td>RUN01</td> <td>Trip Blank</td> </tr> </table>						Sample Number	PE075425.005	PE075425.006	PE075425.007	Sample Matrix	Water	Water	Water	Sample Date	06 Mar 2013	06 Mar 2013	06 Mar 2013	Sample Name	DUP01	RUN01	Trip Blank
Sample Number	PE075425.005	PE075425.006	PE075425.007																		
Sample Matrix	Water	Water	Water																		
Sample Date	06 Mar 2013	06 Mar 2013	06 Mar 2013																		
Sample Name	DUP01	RUN01	Trip Blank																		
Total and Volatile Suspended Solids (TSS / VSS) Method: AN114																					
Total Suspended Solids Dried at 105°C	mg/L	5	180	-	-																
Acidity and Free CO₂ Method: AN140																					
Acidity to pH 8.3	mg CaCO ₃ /L	5	46	-	-																
Alkalinity Method: AN135																					
Total Alkalinity as CaCO ₃	mg/L	5	470	<5	-																
Carbonate Alkalinity as CO ₃	mg/L	1	<1	<1	-																
Bicarbonate Alkalinity as HCO ₃	mg/L	5	590	<5	-																
Colour by Discrete Analyser Method: AN285																					
Colour (True)	Hazen	1	<1	-	-																
Fluoride by Ion Selective Electrode in Water Method: AN141																					
Fluoride by ISE	mg/L	0.1	1.4	-	-																
Chloride by Discrete Analyser in Water Method: AN274																					
Chloride	mg/L	1	6900	<1	-																
Sulphate in water Method: AN275																					
Sulphate	mg/L	1	710	<1	-																
Sulphide by Titration in Water Method: AN149																					
Sulphide	mg/L	0.5	<0.5	-	-																
Hydrogen Sulphide at 20 C	mg/L	0.5	<0.5	-	-																
Nitrate Nitrogen and Nitrite Nitrogen (NO_x) by FIA Method: AN258																					
Nitrate, NO ₃ as NO ₃	mg/L	0.05	1.2	-	-																
Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	0.28	-	-																
Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005	-	-																
Nitrate Nitrogen, NO ₃ as N	mg/L	0.005	0.28	-	-																
Nitrite, NO ₂ as NO ₂	mg/L	0.05	<0.05	-	-																



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ANALYTICAL REPORT

PE075425 R0

Parameter	Units	LOR	Sample Number	PE075425.005	PE075425.006	PE075425.007
			Sample Matrix	Water	Water	Water
			Sample Date	06 Mar 2013	06 Mar 2013	06 Mar 2013
			Sample Name	DUP01	RUN01	Trip Blank

Low Level Ammonia Nitrogen by FIA Method: AN261

Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005	-	-
Ammonia, NH ₃	mg/L	0.005	<0.005	-	-

TKN Kjeldahl Digestion by Discrete Analyser Method: AN281

Total Kjeldahl Nitrogen	mg/L	0.05	0.20	-	-
Total Nitrogen (calc)	mg/L	0.05	0.48	-	-

Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293

Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01	-	-
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Filterable Reactive Phosphorus (FRP) Method: AN278

Filterable Reactive Phosphorus	mg/L	0.002	<0.002	-	-
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Metals in Water (Dissolved) by ICPOES Method: AN320/AN321

Calcium, Ca	mg/L	0.2	130	<0.2	-
Magnesium, Mg	mg/L	0.1	340	<0.1	-
Potassium, K	mg/L	0.1	130	<0.1	-
Silica, Soluble	mg/L	0.05	36	-	-
Silicon, Si	mg/L	0.02	17	-	-
Sodium, Na	mg/L	0.5	3600	<0.5	-

Trace Metals (Dissolved) in Water by ICPMS Method: AN318

Aluminium, Al	µg/L	5	<25 r	-	-
Arsenic, As	µg/L	1	<5 r	<1	-
Cadmium, Cd	µg/L	0.1	<0.5 r	<0.1	-
Chromium, Cr	µg/L	1	<5 r	<1	-
Copper, Cu	µg/L	1	-	<1	-
Iron, Fe	µg/L	5	<25 r	-	-
Lead, Pb	µg/L	1	-	<1	-
Manganese, Mn	µg/L	1	17	-	-
Nickel, Ni	µg/L	1	<5 r	<1	-
Selenium, Se	µg/L	2	<10 r	-	-
Zinc, Zn	µg/L	5	<25 r	13	-

Trace Metals (Total) in Water by ICPMS Method: AN318

Total Aluminium	µg/L	5	3700	-	-
Total Iron	µg/L	5	3800	-	-



ANALYTICAL REPORT

PE075425 R0

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Sample Number			PE075425.005	PE075425.006	PE075425.007
Sample Matrix			Water	Water	Water
Sample Date			06 Mar 2013	06 Mar 2013	06 Mar 2013
Sample Name			DUP01	RUN01	Trip Blank

Mercury (dissolved) in Water Method: AN311/AN312

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Mercury	mg/L	0.00005	-	<0.00005	-

Volatile Petroleum Hydrocarbons in Water Method: AN433/AN434/AN410

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
TRH 06-C9	µg/L	40	-	-	<40

Surrogates

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Dibromofluoromethane (Surrogate)	%	-	-	-	102
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	102
d8-toluene (Surrogate)	%	-	-	-	100
Bromofluorobenzene (Surrogate)	%	-	-	-	97

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Benzene	µg/L	0.5	-	-	<0.5
Toluene	µg/L	0.5	-	-	<0.5
Ethylbenzene	µg/L	0.5	-	-	<0.5
m/p-xylene	µg/L	1	-	-	<1
o-xylene	µg/L	0.5	-	-	<0.5

Oxygenated Compounds

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
MtBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	<0.5

Polycyclic VOCs

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Naphthalene	µg/L	0.5	-	-	<0.5

Surrogates

Parameter	Units	LOR	PE075425.005	PE075425.006	PE075425.007
Dibromofluoromethane (Surrogate)	%	-	-	-	102
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	102
d8-toluene (Surrogate)	%	-	-	-	100
Bromofluorobenzene (Surrogate)	%	-	-	-	97



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QC SUMMARY

PE075425 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Acidity and Free CO₂ Method: ME-(AU)-[ENV]AN140

Parameter	QC Reference	Units	LOR	MB	DUP %RPD
Acidity to pH 8.3	LB080108	mg CaCO ₃ /L	5	<5	0 - 8%

Alkalinity Method: ME-(AU)-[ENV]AN135

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Alkalinity as CaCO ₃	LB080106	mg/L	5	<5	0%	101%
	LB080191	mg/L	5	<5	0 - 8%	98%
Carbonate Alkalinity as CO ₃	LB080106	mg/L	1	<1		
	LB080191	mg/L	1	<1		
Bicarbonate Alkalinity as HCO ₃	LB080106	mg/L	5	<5		
	LB080191	mg/L	5	<5		

Chloride by Discrete Analyser In Water Method: ME-(AU)-[ENV]AN274

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Chloride	LB080097	mg/L	1	<1	0 - 1%	102%	100 - 106%

Colour by Discrete Analyser Method: ME-(AU)-[ENV]AN205

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Colour (True)	LB080138	Hazen	1	<1	0%	96 - 97%

Filterable Reactive Phosphorus (FRP) Method: ME-(AU)-[ENV]AN276

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Filterable Reactive Phosphorus	LB080032	mg/L	0.002	<0.002	0 - 1%	99 - 103%	106 - 119%



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QC SUMMARY

PE075425 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Fluoride by Ion Selective Electrode in Water Method: ME-(AU)-[ENV]A1141

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Fluoride by ISE	LB060212	mg/L	0.1	<0.1	0%	104%	78 - 102%

Low Level Ammonia Nitrogen by FIA Method: ME-(AU)-[ENV]A261

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Ammonia Nitrogen, NH ₃ as N	LB060285	mg/L	0.005	<0.005	0 - 9%	100 - 109%
Ammonia, NH ₃	LB060285	mg/L	0.005	<0.005	0 - 1%	100 - 109%

Mercury (dissolved) in Water Method: ME-(AU)-[ENV]A311/A312

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB060277	mg/L	0.00005	<0.00005	0%	98%	120%

Metals in Water (Dissolved) by ICPOES Method: ME-(AU)-[ENV]A320/A321

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Calcium, Ca	LB060176	mg/L	0.2	<0.2	0 - 1%	98%	77%
Magnesium, Mg	LB060176	mg/L	0.1	<0.1	0 - 1%	99%	90%
Potassium, K	LB060176	mg/L	0.1	<0.1	1 - 7%	109%	96%
Silica, Soluble	LB060176	mg/L	0.05	<0.05			
Silicon, Si	LB060176	mg/L	0.02	<0.02		104%	87%
Sodium, Na	LB060176	mg/L	0.5	<0.5	1 - 2%	108%	71%

Nitrate Nitrogen and Nitrite Nitrogen (NO₂) by FIA Method: ME-(AU)-[ENV]A258

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Nitrate, NO ₃ as NO ₃	LB060285	mg/L	0.05	<0.05		
Nitrate/Nitrite Nitrogen, NO _x as N	LB060285	mg/L	0.005	<0.005	0 - 14%	102 - 107%
Nitrite Nitrogen, NO ₂ as N	LB060285	mg/L	0.005	<0.005	0%	103 - 105%
Nitrate Nitrogen, NO ₃ as N	LB060285	mg/L	0.005	<0.005		
Nitrite, NO ₂ as NO ₂	LB060285	mg/L	0.05	<0.05		



QC SUMMARY

PE075425 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Sulphate in water Method: ME-(AU)-[ENV]AN275

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Sulphate	LB060097	mg/L	1	<1	0 - 3%	102 - 103%	94 - 97%

Sulphide by Titration in Water Method: ME-(AU)-[ENV]AN149

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Sulphide	LB060025	mg/L	0.5	<0.5	98 - 103%

TKN Kjeldahl Digestion by Discrete Analyser Method: ME-(AU)-[ENV]AN281

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Kjeldahl Nitrogen	LB060220	mg/L	0.05	<0.05	1 - 12%	105%

Total and Volatile Suspended Solids (TSS / VSS) Method: ME-(AU)-[ENV]AN114

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Suspended Solids Dried at 105°C	LB060142	mg/L	5	<5	6 - 19%	95%

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[ENV]AN279/AN293

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Phosphorus (Kjeldahl Digestion)	LB060220	mg/L	0.01	<0.01	0 - 4%	101%

Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN316

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Aluminium, Al	LB060179	µg/L	5	<5		108%	
Arsenic, As	LB060179	µg/L	1	<1	0%	94%	94%
Cadmium, Cd	LB060179	µg/L	0.1	<0.1	0%	100%	92%
Chromium, Cr	LB060179	µg/L	1	<1	0%	98%	101%
Copper, Cu	LB060179	µg/L	1	<1	0 - 1%	101%	75%
Iron, Fe	LB060179	µg/L	5	<5	9%	94%	90%
Lead, Pb	LB060179	µg/L	1	<1	0 - 1%	108%	101%
Manganese, Mn	LB060179	µg/L	1	<1	11%	97%	99%
Nickel, Ni	LB060179	µg/L	1	<1	0%	103%	99%
Selenium, Se	LB060179	µg/L	2	<2		83%	
Zinc, Zn	LB060179	µg/L	5	<5	4 - 13%	113%	101%



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QC SUMMARY

PE075425 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Trace Metals (Total) in Water by ICPMS Method: ME-(AU)JEHVJAN310

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery	MS % Recovery
Total Aluminium	LB080182	µg/L	5	<5	103%	NA
Total Iron	LB080182	µg/L	5	<5	95%	NA

VOCs in Water Method: ME-(AU)JEHVJAN433/AH434

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Benzene	LB080117	µg/L	0.5	<0.5	95%
Toluene	LB080117	µg/L	0.5	<0.5	95%
Ethylbenzene	LB080117	µg/L	0.5	<0.5	94%
m/p-xylene	LB080117	µg/L	1	<1	
o-xylene	LB080117	µg/L	0.5	<0.5	

Oxygenated Compounds



Parameter	QC Reference	Units	LOR	MB
MIBE (Methyl-tert-butyl ether)	LB080117	µg/L	0.5	<0.5

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB
Naphthalene	LB080117	µg/L	0.5	<0.5

Surrogates

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Dibromofluoromethane (Surrogate)	LB080117	%	-	100%	105%
d4-1,2-dichloroethane (Surrogate)	LB080117	%	-	97%	105%
d8-toluene (Surrogate)	LB080117	%	-	96%	102%
Bromofluorobenzene (Surrogate)	LB080117	%	-	93%	96%

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QC SUMMARY

PE075425 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Volatile Petroleum Hydrocarbons in Water Method: ME-(AU)-EIRMAN433/AN131/AN110

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
TRH C6-C9	LB080117	µg/L	40	<40	90%

Surrogates

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Dibromofluoromethane (Surrogate)	LB080117	%	-	100%	105%
d4-1,2-dichloroethane (Surrogate)	LB080117	%	-	97%	105%
d8-toluene (Surrogate)	LB080117	%	-	96%	102%
Bromofluorobenzene (Surrogate)	LB080117	%	-	93%	96%



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METHOD SUMMARY

PE075425 R0

METHOD	METHOD DESCRIPTION SUMMARY
AN114	Total Suspended and Volatile Suspended Solids: The sample is homogenised by shaking and a known volume is filtered through a pre-weighed GF/C filter paper and washed well with deionised water. The filter paper is dried and reweighed. The TSS is the residue retained by the filter per unit volume of sample. Reference APHA 2540 D. Internal Reference AN114
AN135	Alkalinity (and forms of) by Titration: The sample is titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135
AN135	Free and Total Carbon Dioxide may be calculated using alkalinity forms only when the samples TDS is <500mg/L. If TDS is >500mg/L free or total carbon dioxide cannot be reported. APHA4500CO2 D.
AN140	Acidity by Titration: The water sample is titrated with sodium hydroxide to designated pH end point. In a sample containing only carbon dioxide, bicarbonates and carbonates, titration to pH 8.3 at 25°C corresponds to stoichiometric neutralisation of carbonic acid to bicarbonate. Method reference APHA 2310 B.
AN141	Determination of Fluoride by ISE: A fluoride ion selective electrode and reference electrode combination, in the presence of a pH/complexation buffer, is used to determine the fluoride concentration. The electrode millivolt response is measured logarithmically against fluoride concentration. Reference APHA F- C.
AN149	Sulphide by Iodometric Titration: Sulphide is precipitated as zinc sulphide to overcome interferences with sulphite and thiosulphate. After filtration, sulphide is determined titrimetrically. Reference APHA 4500-S2-
AN258	Nitrate and Nitrite by FIA: In an acidic medium, nitrate is reduced quantitatively to nitrite by cadmium metal. This nitrite plus any original nitrite is determined as an intense red-pink azo dye at 540 nm following diazotisation with sulphanilamide and subsequent coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. Without the cadmium reduction only the original nitrite is determined. Reference APHA 4500-NO3- F.
AN281	Ammonia by Continuous Flow Analyser: Ammonium in a basic medium forms ammonia gas, which is separated from the sample matrix by diffusion through a polypropylene membrane. The ammonia is reacted with phenol and hypochlorite to form indophenol blue at an intensity proportional to the ammonia concentration. The blue colour is intensified with sodium nitroprusside and the absorbance measured at 630 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-NH3 H.
AN274	Chloride by Aquakem DA: Chloride reacts with mercuric thiocyanate forming a mercuric chloride complex. In the presence of ferric iron, highly coloured ferric thiocyanate is formed which is proportional to the chloride concentration. Reference APHA 4500Cl-
AN275	Sulphate by Aquakem DA: Sulphate is precipitated in an acidic medium with barium chloride. The resulting turbidity is measured photometrically at 405nm and compared with standard calibration solutions to determine the sulphate concentration in the sample. Reference APHA 4500-SO42-. Internal reference AN275.
AN278	Reactive Phosphorus by DA: Orthophosphate reacts with ammonium molybdate (Mo VI) and potassium antimonyl tartrate (Sb III) in acid medium to form an antimony-phosphomolybdate complex. This complex is subsequently reduced with ascorbic acid to form a blue colour and the absorbance is read at 880 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-P F.
AN279/AN293	The sample is digested with Sulphuric acid, K2SO4 and CuSO4. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.





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METHOD	METHODOLOGY SUMMARY
AN281	An unfiltered water or soil sample is first digested in a block digester with sulphuric acid, K ₂ SO ₄ and CuSO ₄ . The ammonia produced following digestion is then measured colourimetrically using the Aquakem 250 Discrete Analyser. A portion of the digested sample is buffered to an alkaline pH, and interfering cations are complexed. The ammonia then reacts with salicylate and hypochlorite to give a blue colour whose absorbance is measured at 660nm and compared with calibration standards. This is proportional to the concentration of Total Kjeldahl Nitrogen in the original sample.
AN285	The term 'colour' is used here to mean true colour, that is, the colour of water from which turbidity has been removed. The term 'apparent colour' includes not only colour due to substances in solution, but also that due to suspended matter. Apparent colour is determined on the original sample without filtration.
AN311/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A.
AN320/AN321	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components.
AN320/AN321	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements. Reference APHA 3120 B.
AN433/AN434	VOCs and CB-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN433/AN434/AN410	VOCs and CB-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

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FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	This analysis is not covered by the scope of accreditation.	QFH	QC result is above the upper tolerance
**	Indicative data, theoretical holding time exceeded.	QFL	QC result is below the lower tolerance
*	Performed by outside laboratory.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <http://www.sgs.com.au/pv.sgs/3~/media/Local/Australia/Documents/Technical%20Documents/MF-AU-ENV-QJ-022%20QA%20QC%20Plan.pdf>

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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STATEMENT OF QA/QC PERFORMANCE

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CLIENT DETAILS		LABORATORY DETAILS	
Contact	Joe Edgell	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newbun Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newbun WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Facsimile	08 9321 5282	Facsimile	(08) 9373 3558
Email	(Not specified)	Email	au.environmental.perth@sgs.com
Project	0086269 Burrup Nitrates	SGS Reference	PE075425 R0
Order Number	A07500	Report Number	0000057056
Samples	7	Date Reported	15 Mar 2013

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS Environmental Services' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document and was supplied by the Client. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	Colour by Discrete Analyser	5 items
Analysis Date	Colour by Discrete Analyser	5 items

SAMPLE SUMMARY

Sample counts by matrix	7 Water	Type of documentation received	COC
Date documentation received	7/3/2013	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	15°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	1



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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Acidity and Free CO₂

Method: ME-(AU)-ENVJAN140

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW2	PE075425.002	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW3	PE075425.003	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW5	PE075425.004	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
DUP01	PE075425.005	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013

Alkalinity

Method: ME-(AU)-ENVJAN186

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW2	PE075425.002	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW3	PE075425.003	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
MW5	PE075425.004	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
DUP01	PE075425.005	LB060108	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013
RIN01	PE075425.006	LB060191	06 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013	07 Mar 2013

Chloride by Direct Analysis in Water

Method: ME-(AU)-ENVJAN274

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW2	PE075425.002	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW3	PE075425.003	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW5	PE075425.004	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
DUP01	PE075425.005	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
RIN01	PE075425.006	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013

Colour by Direct Analysis

Method: ME-(AU)-ENVJAN285

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060138	06 Mar 2013	07 Mar 2013	08 Mar 2013	11 Mar 2013†	08 Mar 2013	11 Mar 2013†
MW2	PE075425.002	LB060138	06 Mar 2013	07 Mar 2013	08 Mar 2013	11 Mar 2013†	08 Mar 2013	11 Mar 2013†
MW3	PE075425.003	LB060138	06 Mar 2013	07 Mar 2013	08 Mar 2013	11 Mar 2013†	08 Mar 2013	11 Mar 2013†
MW5	PE075425.004	LB060138	06 Mar 2013	07 Mar 2013	08 Mar 2013	11 Mar 2013†	08 Mar 2013	11 Mar 2013†
DUP01	PE075425.005	LB060138	06 Mar 2013	07 Mar 2013	08 Mar 2013	11 Mar 2013†	08 Mar 2013	11 Mar 2013†

Filtrable Reactive Phosphorus (FRP)

Method: ME-(AU)-ENVJAN278

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060032	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	08 Mar 2013
MW2	PE075425.002	LB060032	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	08 Mar 2013
MW3	PE075425.003	LB060032	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	08 Mar 2013
MW5	PE075425.004	LB060032	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	08 Mar 2013
DUP01	PE075425.005	LB060032	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	08 Mar 2013

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-ENVJAN141

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060212	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW2	PE075425.002	LB060212	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW3	PE075425.003	LB060212	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW5	PE075425.004	LB060212	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
DUP01	PE075425.005	LB060212	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-ENVJAN291

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW2	PE075425.002	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW3	PE075425.003	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW5	PE075425.004	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
DUP01	PE075425.005	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013

Mercury (dissolved) in Water

Method: ME-(AU)-ENVJAN311/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RIN01	PE075425.006	LB060277	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013

Metals in Water (Dissolved) by ICP-OES

Method: ME-(AU)-ENVJAN320/AN321

Sample Name	Sample No.	QC Ref
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**HOLDING TIME SUMMARY**

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Metals in Water (Dissolved) by ICPOES (continued)

Method: ME-(AU)-ENV\AN20\AN24

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW2	PE075425.002	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW3	PE075425.003	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW5	PE075425.004	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
DUP01	PE075425.005	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
RIN01	PE075425.006	LB060176	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA

Method: ME-(AU)-ENV\AN25

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW2	PE075425.002	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW3	PE075425.003	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
MW5	PE075425.004	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013
DUP01	PE075425.005	LB060285	06 Mar 2013	07 Mar 2013	03 Apr 2013	13 Mar 2013	03 Apr 2013	14 Mar 2013

Sulphate in water

Method: ME-(AU)-ENV\AN25

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW2	PE075425.002	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW3	PE075425.003	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
MW5	PE075425.004	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
DUP01	PE075425.005	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013
RIN01	PE075425.006	LB060097	06 Mar 2013	07 Mar 2013	03 Apr 2013	08 Mar 2013	03 Apr 2013	11 Mar 2013

Sulphide by Titration in Water

Method: ME-(AU)-ENV\AN26

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060025	06 Mar 2013	07 Mar 2013	13 Mar 2013	08 Mar 2013	13 Mar 2013	13 Mar 2013
MW2	PE075425.002	LB060025	06 Mar 2013	07 Mar 2013	13 Mar 2013	08 Mar 2013	13 Mar 2013	13 Mar 2013
MW3	PE075425.003	LB060025	06 Mar 2013	07 Mar 2013	13 Mar 2013	08 Mar 2013	13 Mar 2013	13 Mar 2013
MW5	PE075425.004	LB060025	06 Mar 2013	07 Mar 2013	13 Mar 2013	08 Mar 2013	13 Mar 2013	13 Mar 2013
DUP01	PE075425.005	LB060025	06 Mar 2013	07 Mar 2013	13 Mar 2013	08 Mar 2013	13 Mar 2013	13 Mar 2013

TKN Kjeldahl Digestion by Distillation Analysis

Method: ME-(AU)-ENV\AN25

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW2	PE075425.002	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW3	PE075425.003	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW5	PE075425.004	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
DUP01	PE075425.005	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-ENV\AN14

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060142	06 Mar 2013	07 Mar 2013	13 Mar 2013	11 Mar 2013	18 Mar 2013	11 Mar 2013
MW2	PE075425.002	LB060142	06 Mar 2013	07 Mar 2013	13 Mar 2013	11 Mar 2013	18 Mar 2013	11 Mar 2013
MW3	PE075425.003	LB060142	06 Mar 2013	07 Mar 2013	13 Mar 2013	11 Mar 2013	18 Mar 2013	11 Mar 2013
MW5	PE075425.004	LB060142	06 Mar 2013	07 Mar 2013	13 Mar 2013	11 Mar 2013	18 Mar 2013	11 Mar 2013
DUP01	PE075425.005	LB060142	06 Mar 2013	07 Mar 2013	13 Mar 2013	11 Mar 2013	18 Mar 2013	11 Mar 2013

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-ENV\AN27\AN28

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW2	PE075425.002	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW3	PE075425.003	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
MW5	PE075425.004	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013
DUP01	PE075425.005	LB060220	06 Mar 2013	07 Mar 2013	03 Apr 2013	12 Mar 2013	03 Apr 2013	13 Mar 2013

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENV\AN319

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013
MW2	PE075425.002	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013
MW3	PE075425.003	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013
MW5	PE075425.004	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013
DUP01	PE075425.005	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013



HOLDING TIME SUMMARY

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-ENVJAN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RIN01	PE075425.006	LB060179	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	13 Mar 2013

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-ENVJAN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	PE075425.001	LB060182	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW2	PE075425.002	LB060182	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW3	PE075425.003	LB060182	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
MW5	PE075425.004	LB060182	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013
DUP01	PE075425.005	LB060182	06 Mar 2013	07 Mar 2013	02 Sep 2013	11 Mar 2013	02 Sep 2013	14 Mar 2013

VOCs in Water

Method: ME-(AU)-ENVJAN433/AM64

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Trip Blank	PE075425.007	LB060117	06 Mar 2013	07 Mar 2013	13 Mar 2013	10 Mar 2013	19 Apr 2013	14 Mar 2013

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433/AN434/AN10

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Trip Blank	PE075425.007	LB060117	06 Mar 2013	07 Mar 2013	13 Mar 2013	10 Mar 2013	19 Apr 2013	14 Mar 2013



SURROGATES

PE075425 R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]00-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOCs In Water

Method: ME-(AU)-[ENV]AH433/AH434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	Trip Blank	PE075425.007	%	40 - 130%	102
d8-toluene (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	100
Dibromofluoromethane (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	102

Volatile Petroleum Hydrocarbons In Water

Method: ME-(AU)-[ENV]AH433/AH434/AH410

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	102
d8-toluene (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	100
Dibromofluoromethane (Surrogate)	Trip Blank	PE075425.007	%	60 - 130%	102

**METHOD BLANKS**

PE075425 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Acidity and Free CO₂

Method: ME-(AU)-ENV\AN140

Sample Number	Parameter	Units	LOR	Result
LB060108.001	Acidity to pH 8.3	mg CaCO ₃ /L	5	<5

Alkalinity

Method: ME-(AU)-ENV\AN195

Sample Number	Parameter	Units	LOR	Result
LB060106.001	Total Alkalinity as CaCO ₃	mg/L	5	<5
LB060191.001	Total Alkalinity as CaCO ₃	mg/L	5	<5

Chloride by Discrete Analyser in Water

Method: ME-(AU)-ENV\AN274

Sample Number	Parameter	Units	LOR	Result
LB060097.001	Chloride	mg/L	1	<1
LB060097.026	Chloride	mg/L	1	<1

Colour by Discrete Analyser

Method: ME-(AU)-ENV\AN286

Sample Number	Parameter	Units	LOR	Result
LB060138.001	Colour (True)	Hazen	1	<1
LB060138.025	Colour (True)	Hazen	1	<1

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-ENV\AN278

Sample Number	Parameter	Units	LOR	Result
LB060032.001	Filterable Reactive Phosphorus	mg/L	0.002	<0.002
LB060032.025	Filterable Reactive Phosphorus	mg/L	0.002	<0.002

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-ENV\AN141

Sample Number	Parameter	Units	LOR	Result
LB060212.001	Fluoride by ISE	mg/L	0.1	<0.1
LB060212.026	Fluoride by ISE	mg/L	0.1	<0.1

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-ENV\AN281

Sample Number	Parameter	Units	LOR	Result
LB060285.001	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005
	Ammonia, NH ₃	mg/L	0.005	<0.005
LB060285.024	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005
	Ammonia, NH ₃	mg/L	0.005	<0.005
LB060285.047	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005
	Ammonia, NH ₃	mg/L	0.005	<0.005

Mercury (dissolved) in Water

Method: ME-(AU)-ENV\AN311\AN312

Sample Number	Parameter	Units	LOR	Result
LB060277.001	Mercury	mg/L	0.00005	<0.00005

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-ENV\AN320\AN321

Sample Number	Parameter	Units	LOR	Result
LB060176.001	Calcium, Ca	mg/L	0.2	<0.2
	Magnesium, Mg	mg/L	0.1	<0.1
	Potassium, K	mg/L	0.1	<0.1
	Silicon, Si	mg/L	0.02	<0.02
	Sodium, Na	mg/L	0.5	<0.5

Nitrate-Nitrogen and Nitrite Nitrogen (NO_x) by FIA

Method: ME-(AU)-ENV\AN258

Sample Number	Parameter	Units	LOR	Result
LB060285.001	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	<0.005
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005
LB060285.024	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	<0.005
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005
LB060285.047	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	<0.005
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005

**METHOD BLANKS**

PE075425 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Sulphate in water

Method: ME-(AU)-[ENV]AN275

Sample Number	Parameter	Units	LOR	Result
LB060097.001	Sulphate	mg/L	1	<1
LB060097.026	Sulphate	mg/L	1	<1

Sulphide by Titration in Water

Method: ME-(AU)-[ENV]AN149

Sample Number	Parameter	Units	LOR	Result
LB060025.001	Sulphide	mg/L	0.5	<0.5
LB060025.025	Sulphide	mg/L	0.5	<0.5

TKN Kjeldahl Digestion by Discrete Analyser

Method: ME-(AU)-[ENV]AN281

Sample Number	Parameter	Units	LOR	Result
LB060220.002	Total Kjeldahl Nitrogen	mg/L	0.05	<0.05

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-[ENV]AN114

Sample Number	Parameter	Units	LOR	Result
LB060142.001	Total Suspended Solids Dried at 105°C	mg/L	5	<5

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-[ENV]AN279AN283

Sample Number	Parameter	Units	LOR	Result
LB060220.001	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB060179.001	Aluminium, Al	µg/L	5	<5
	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Iron, Fe	µg/L	5	<5
	Lead, Pb	µg/L	1	<1
	Manganese, Mn	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Selenium, Se	µg/L	2	<2
	Zinc, Zn	µg/L	5	<5

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB060182.001	Total Aluminium	µg/L	5	<5

VOCs in Water

Method: ME-(AU)-[ENV]AN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB060117.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
	Ethylbenzene	Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Oxygenated Compounds	MtBE (Methyl-Tert-butyl ether)	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	100
		d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	96
		Bromofluorobenzene (Surrogate)	%	-	93

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Number	Parameter	Units	LOR
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METHOD BLANKS

PE075425 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Volatile Petroleum Hydrocarbons in Water (continued)

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result
LB060117.001	TRH C6-C9	µg/L	40	<40
	Dibromofluoromethane (Surrogate)	%	-	100
	1,4-1,2-dichloroethane (Surrogate)	%	-	97
	1,4-toluene (Surrogate)	%	-	98
	Bromofluorobenzene (Surrogate)	%	-	93



DUPLICATES

PE075425 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Acidity and Free CO₂

Method: ME-(AU)-ENVJAN140

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075381.010	LB060108.012	Acidity to pH 8.3	mg CaCO ₃ /L	5	50	54	25	6
PE075381.013	LB060108.016	Acidity to pH 8.3	mg CaCO ₃ /L	5	19	19	41	0
PE075425.005	LB060108.023	Acidity to pH 8.3	mg CaCO ₃ /L	5	45	46	26	2

Alkalinity

Method: ME-(AU)-ENVJAN136

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075398.002	LB060191.007	Total Alkalinity as CaCO ₃	mg/L	5	16	14	48	8
PE075425.001	LB060108.012	Total Alkalinity as CaCO ₃	mg/L	5	300	300	17	0
PE075447A.009	LB060191.017	Total Alkalinity as CaCO ₃	mg/L	5	379.78	380.54	16	0

Chloride by Discrete Analyser in Water

Method: ME-(AU)-ENVJAN274

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075373.003	LB060097.015	Chloride	mg/L	1	81	81	17	1
PE075381.009	LB060097.029	Chloride	mg/L	1	<1	<1	125	0
PE075425.006	LB060097.040	Chloride	mg/L	1	<1	<1	200	0

Colour by Discrete Analyser

Method: ME-(AU)-ENVJAN286

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075398.001	LB060138.013	Colour (True)	Hazen	1	<1	<1	200	0
PE075425.002	LB060138.024	Colour (True)	Hazen	1	<1	<1	200	0
PE075447A.009	LB060138.035	Colour (True)	Hazen	1	0	0	200	0

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-ENVJAN270

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075425.002	LB060032.014	Filterable Reactive Phosphorus	mg/L	0.002	<0.002	<0.002	200	0
PE075429.010	LB060032.028	Filterable Reactive Phosphorus	mg/L	0.002	0.017	0.017	45	1
PE075429.012	LB060032.031	Filterable Reactive Phosphorus	mg/L	0.002	0.039	0.039	28	1

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-ENVJAN141

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075327.004	LB060212.014	Fluoride by ISE	mg/L	0.1	<0.1	<0.1	200	0
PE075399.004	LB060212.028	Fluoride by ISE	mg/L	0.1	<0.1	<0.1	200	0
PE075425.005	LB060212.045	Fluoride by ISE	mg/L	0.1	1.4	1.4	22	0
PE075450.001	LB060212.040	Fluoride by ISE	mg/L	0.1	0.65	0.65	30	0

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-ENVJAN201

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075429.001	LB060285.037	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	1.1	1.1	15	4
PE075429.012	LB060285.049	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.13	0.12	19	9
PE075470.010	LB060285.013	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0	0	200	0
		Ammonia, NH ₃	mg/L	0.005	0	0	200	0
PE075473.005	LB060285.026	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.39	0.39	16	1
		Ammonia, NH ₃	mg/L	0.005	0.47	0.47	16	1

Mercury (dissolved) in Water

Method: ME-(AU)-ENVJAN311/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075399.001	LB060277.014	Mercury	µg/L	0.00005	<0.00005	<0.00005	200	0
PE075472.001	LB060277.024	Mercury	µg/L	0.00005	0	0	200	0

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-ENVJAN320/AN321

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075429.004	LB060176.014	Calcium, Ca	mg/L	0.2	4.9	5.0	19	0
		Magnesium, Mg	mg/L	0.1	3.6	3.5	18	0
		Potassium, K	mg/L	0.1	2.4	2.6	19	7
		Sodium, Na	mg/L	0.5	27	28	17	1
PE075429.012	LB060176.021	Calcium, Ca	mg/L	0.2	110	110	15	1
		Magnesium, Mg	mg/L	0.1	37	37	15	1
		Potassium, K	mg/L	0.1	3.0	3.1	16	1
		Sodium, Na	mg/L	0.5	170	170	15	2

Nitrate Nitrogen and Nitrite Nitrogen (NO₂) by FIA

Method: ME-(AU)-ENVJAN258

Original	Duplicate	Parameter	Units	LOR
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DUPLICATES

PE075425 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Nitrite Nitrogen and Nitrite Nitrogen (NOx) by FIA (continued)

Method: ME-(AU)-ENVJAN258

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075429.001	LB060285.037	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	<0.005	<0.005	200	0
PE075429.012	LB060285.049	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0.015	0.013	51	14
PE075470.010	LB060285.013	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0	0	200	0
		Nitrite Nitrogen, NOx as N	mg/L	0.005	0	0	200	0
PE075473.005	LB060285.026	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	<0	0	200	0
		Nitrite Nitrogen, NOx as N	mg/L	0.005	<0	0	200	0

Sulphate in water

Method: ME-(AU)-ENVJAN276

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075373.003	LB060097.015	Sulphate	mg/L	1	73	71	16	3
PE075381.009	LB060097.030	Sulphate	mg/L	1	5	5	34	1
PE075425.006	LB060097.041	Sulphate	mg/L	1	<1	<1	200	0

TKN Kjeldahl Digestion by Dumas Analyser

Method: ME-(AU)-ENVJAN281

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075425.001	LB060220.011	Total Kjeldahl Nitrogen	mg/L	0.05	0.14	0.13	52	12
PE075474.004	LB060220.023	Total Kjeldahl Nitrogen	mg/L	0.05	2.3675	2.3975	17	1

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-ENVJAN114

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075391.001	LB060142.020	Total Suspended Solids Dried at 105°C	mg/L	5	70.91836734858	4999999999	23	19
PE075450.001	LB060142.013	Total Suspended Solids Dried at 105°C	mg/L	5	7.14285714287	57575757	83	6

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-ENVJAN278AN288

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075425.001	LB060220.011	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01	<0.01	200	0
PE075474.004	LB060220.022	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	42.4375	40.6125	15	4

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENVJAN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE075405.008	LB060179.014	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	1100	1100	15	1
		Iron, Fe	µg/L	5	11	10	63	9
		Lead, Pb	µg/L	1	<1	1	118	1
		Manganese, Mn	µg/L	1	1	1	101	11
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	93	89	20	4
PE075425.008	LB060179.023	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	13	12	56	13



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LABORATORY CONTROL SAMPLES

PE075425 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity

Method: ME-(AU)-[ENV]AN139

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060106.002	Total Alkalinity as CaCO ₃	mg/L	5	230	225	85 - 115	101
LB060191.002	Total Alkalinity as CaCO ₃	mg/L	5	220	225	85 - 115	98

Chloride by Discrete Analyser in Water

Method: ME-(AU)-[ENV]AN274

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060097.002	Chloride	mg/L	1	20	20	85 - 115	102
LB060097.027	Chloride	mg/L	1	20	20	85 - 115	102

Colour by Discrete Analyser

Method: ME-(AU)-[ENV]AN285

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060138.002	Colour (True)	Hazen	1	5	5	90 - 110	97
LB060138.028	Colour (True)	Hazen	1	5	5	90 - 110	98

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-[ENV]AN278

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060032.002	Filterable Reactive Phosphorus	mg/L	0.002	0.051	0.05	80 - 120	103
LB060032.028	Filterable Reactive Phosphorus	mg/L	0.002	0.049	0.05	80 - 120	99

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-[ENV]AN141

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060212.002	Fluoride by ISE	mg/L	0.1	2.1	2	80 - 120	104

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-[ENV]AN281

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060285.002	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.87	0.8	85 - 115	109
	Ammonia, NH ₃	mg/L	0.005	1.1	0.971	85 - 115	109
LB060285.025	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.80	0.8	85 - 115	100
	Ammonia, NH ₃	mg/L	0.005	0.97	0.971	85 - 115	100
LB060285.048	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.80	0.8	85 - 115	100
	Ammonia, NH ₃	mg/L	0.005	0.97	0.971	85 - 115	100

Mercury (Dissolved) in Water

Method: ME-(AU)-[ENV]AN311/AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060277.002	Mercury	mg/L	0.00005	0.0025	2.5	80 - 120	98

Metals in Water (Dissolved) by ICP-OES

Method: ME-(AU)-[ENV]AN320/AN321

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060176.002	Calcium, Ca	mg/L	0.2	190	200	80 - 120	98
	Magnesium, Mg	mg/L	0.1	200	200	80 - 120	99
	Potassium, K	mg/L	0.1	22	20	80 - 120	109
	Silicon, Si	mg/L	0.02	2.1	2	80 - 120	104
	Sodium, Na	mg/L	0.5	220	200	80 - 120	108

Nitrate Nitrogen and Nitrite Nitrogen (NO_x) by FIA

Method: ME-(AU)-[ENV]AN358

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060285.002	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	0.82	0.8	85 - 115	102
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.83	0.8	85 - 115	103
LB060285.025	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	0.84	0.8	85 - 115	105
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.84	0.8	85 - 115	105
LB060285.048	Nitrate/Nitrite Nitrogen, NO _x as N	mg/L	0.005	0.85	0.8	85 - 115	107
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.83	0.8	85 - 115	104

Sulphate in water

Method: ME-(AU)-[ENV]AN275

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060097.002	Sulphate	mg/L	1	10	10	80 - 120	103
LB060097.028	Sulphate	mg/L	1	10	10	80 - 120	102

**LABORATORY CONTROL SAMPLES**

PE075425 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Sulphide by Titration in Water

Method: ME-(AU)-[ENV]AN140

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060025.002	Sulphide	mg/L	0.5	1.0	1	80 - 120	96
LB060025.026	Sulphide	mg/L	0.5	1.0	1	80 - 120	103

TKN Kjeldahl Digestion by Diatoms Analyser

Method: ME-(AU)-[ENV]AN281

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060220.001	Total Kjeldahl Nitrogen	mg/L	0.05	1.1	1	80 - 120	105

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-[ENV]AN114

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060142.002	Total Suspended Solids Dried at 105°C	mg/L	5	470	500	85 - 115	95

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-[ENV]AN270/AN285

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060220.001	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	0.51	0.5	80 - 120	101

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060179.002	Aluminium, Al	µg/L	5	11	10	80 - 120	108
	Arsenic, As	µg/L	1	9	10	80 - 120	94
	Cadmium, Cd	µg/L	0.1	10	10	80 - 120	100
	Chromium, Cr	µg/L	1	10	10	80 - 120	98
	Copper, Cu	µg/L	1	10	10	80 - 120	101
	Iron, Fe	µg/L	5	9	10	80 - 120	94
	Lead, Pb	µg/L	1	11	10	80 - 120	108
	Manganese, Mn	µg/L	1	10	10	80 - 120	97
	Nickel, Ni	µg/L	1	10	10	80 - 120	103
	Selenium, Se	µg/L	2	8	10	80 - 120	83
	Zinc, Zn	µg/L	5	11	10	80 - 120	113

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB060182.002	Total Aluminium	µg/L	5	5	5	80 - 120	103
	Total Iron	µg/L	5	<5	5	80 - 120	95

VOCs in Water

Method: ME-(AU)-[ENV]AN433/AN434

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB060117.002	Monocyclic	Benzene	µg/L	0.5	4.8	5	50 - 150	95
		Toluene	µg/L	0.5	4.8	5	50 - 150	95
	Aromatic	Ethylbenzene	µg/L	0.5	4.7	5	50 - 150	94
		Dibromofluoromethane (Surrogate)	µg/L	-	5.2	5	60 - 130	105
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.2	5	60 - 130	105
		d8-toluene (Surrogate)	µg/L	-	5.1	5	60 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	4.8	5	60 - 130	96

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB060117.002	Surrogates	TRH C8-C9	µg/L	40	<40	30	70 - 130	90
		Dibromofluoromethane (Surrogate)	µg/L	-	5.2	5	60 - 130	105
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.2	5	60 - 130	105
		d8-toluene (Surrogate)	µg/L	-	5.1	5	60 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	4.8	5	60 - 130	96

**MATRIX SPIKES**

PE075425 R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref. MP-(AU)-(ENV)QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Chloride by Direct Analyser in Water

Method: ME-(AU)-(ENV)AN274

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075373.001	LB060097.012	Chloride	mg/L	1	160	61	100	100
PE075381.012	LB060097.032	Chloride	mg/L	1	110	<1	100	106

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-(ENV)AN276

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE071460H16.	LB060032.004	Filterable Reactive Phosphorus	mg/L	0.002	0.057	<0.005	0.05	106
PE075429.012	LB060032.030	Filterable Reactive Phosphorus	mg/L	0.002	0.099	0.039	0.05	119

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-(ENV)AN141

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075301.001	LB060212.004	Fluoride by ISE	mg/L	0.1	1.2	0.8	0.5	78
PE075398.001	LB060212.029	Fluoride by ISE	mg/L	0.1	0.6	<0.1	0.5	102

Mercury (dissolved) in Water

Method: ME-(AU)-(ENV)AN311/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075344.003	LB060277.004	Mercury	mg/L	0.00005	0.0024	0	0.0025	120

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-(ENV)AN320/AN321

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075425.001	LB060178.004	Calcium, Ca	mg/L	0.2	310	160	200	77
		Magnesium, Mg	mg/L	0.1	230	49	200	90
		Potassium, K	mg/L	0.1	27	8.2	20	96
		Silicon, Si	mg/L	0.02	17	15	2	87
		Sodium, Na	mg/L	0.5	420	280	200	71

Sulphate in water

Method: ME-(AU)-(ENV)AN275

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075373.001	LB060097.012	Sulphate	mg/L	1	170	76	100	94
PE075381.012	LB060097.032	Sulphate	mg/L	1	97	<1	100	97

Trace Metals (Dissolved) in Water by ICPMS



Method: ME-(AU)-(ENV)AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075376.001	LB060179.004	Arsenic, As	µg/L	1	10	0.407105	10	94
		Cadmium, Cd	µg/L	0.1	9.2	0.015736	10	92
		Chromium, Cr	µg/L	1	11	1.305448	10	101
		Copper, Cu	µg/L	1	64	56.713463	10	75
		Iron, Fe	µg/L	5	13	3.6	10	90
		Lead, Pb	µg/L	1	10	0.2846	10	101
		Manganese, Mn	µg/L	1	10	0.26393	10	99
		Nickel, Ni	µg/L	1	10	0.204747	10	99
		Zinc, Zn	µg/L	5	74	64.243586	10	101

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-(ENV)AN314

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE075425.001	LB060182.004	Total Aluminium	µg/L	5	9600	10000	5	-
		Total Iron	µg/L	5	12000	14000	5	-

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MATRIX SPIKE DUPLICATES

PE075425 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$



The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job

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FOOTNOTES

PE075425 R0

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here:
<http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-11.pdf>

- * Non-accredited analysis.
- Sample not analysed for this analyte.
- ^ Analysis performed by external laboratory.

- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.

- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Low surrogate recovery due to the sample emulsifying during extraction.
- † Refer to Analytical Report comments for further information.

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Any other holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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		Sydney <input type="checkbox"/> Melbourne <input type="checkbox"/> Brisbane <input type="checkbox"/> Perth <input type="checkbox"/> Hunter Valley <input type="checkbox"/> North Coast <input type="checkbox"/> Other <input type="checkbox"/>		Gnd Floor, 33 Saunders Street, Pyrmont, NSW, 2009. (ph) 02 8584 8888 (fax) 02 8584 8800 Level 3, Yarra Tower, WTC, 18-38 Siddley Street, Docklands, VIC, 3006. (ph) 03 9698 8011 (fax) 03 9696 8022 Level 1, 60 Leichhardt Street, Spring Hill, QLD, 4004. (ph) 07 3839 8393 (fax) 07 3839 8381 53 Bonville Avenue, Thornhill, NSW, 2322. (ph) 02 4964 2150 (fax) 02 4964 2152 Suite 3/146 Gordon Street, Port Macquarie, NSW, 2444. (ph) 02 6584 7155 (fax) 02 6584 7160		Project No: 02080 Project Name: YARA TANP Project Location: Burrup Project Manager: Sean Scarfe Sampler: James Gavshan		COC Number: A 06995 Laboratory: SGS									
General Analysis Requirements 1. Turn Around Time (please tick: <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input checked="" type="checkbox"/> Normal TAT) Yes (tick)				2. Do you wish any sediment layers in water to be excluded from extractions?				3. Additional QA/QC reported where sample batches are < 10 samples?									
4. % of extraneous material removed from samples to be reported as per NEPM 5.1.17?				BTEX <input type="checkbox"/> TPH (C10-C28) <input type="checkbox"/> Specific TPH <input type="checkbox"/> VOC Scan (USEPA 8000 List) <input type="checkbox"/> SVOC Scan (USEPA 8000 List) <input type="checkbox"/> OC/OP Fractions <input type="checkbox"/> PAH <input type="checkbox"/> Phenols <input type="checkbox"/> PCB <input type="checkbox"/> Metals (selected) <input checked="" type="checkbox"/>				Other Comments on sample (eg: high voc, highly contaminated, special detection limits etc etc)									
Lab No	Sample ID	Depth	Date	Time	Matrix	Preservation	Containers	BTEX	TPH	Specific	VOC	SVOC	OC/OP	PAH	Phenols	PCB	Metals
1	MW01				X	X	5=plastic										
2	MW02				X	X											
3	MW03				X	X											
4	MW04				X	X											
5	MW05				X	X											
6	DUP01				X	X											
7	RIN01				X	X	3=plastic							X			plastic and tot
8	Trip Blank				X		2	X									
Comments: Invoice and results to sean.scarfe@erm.com, james.gavshan@erm.com Relinquished by: David Richards Signed: [Signature] Date/Time: 17-4-13 2:15pm Received by: Alan Dickinson Date/Time: 18/4/13 10am Relinquished by: Signed: Date/Time: Received by: Date/Time:																	

		AUSTRALIA-ENVIRONMENTAL-PERTH AIRPORT-PROFORMA -QU101												APPROVED BY: R. MA							
Bottle Map		1L Plastic	500mL Plastic	500mL Plastic	500mL Amber	250mL Plastic	125mL Plastic	1L Amber	500mL Amber	400mL Amber	40mL Glass Vial	40mL Glass Vial	500mL Plastic	250mL Plastic	125mL Plastic	125mL Glass Jar	125mL Glass Jar	1L Plastic	Other Lab	Ziplock Bag/Other	Job Number:
Sample Numbers:		Green	Green	Purple	Green	Green	Red	Green	Orange	Green	White	White	Blue	Orange	Brown			Yellow			PE076727
1-6		1				1	2														
7						1	2														# of Bskies:
8										2											2 Eskies
Registration comments:		Received extra sample labelled as Trip Blank. 130 bottles are 2x40ml VOC vials.																			
Action Taken:		- Bottle in for BTEX & Co-C9 as per HM.																			
Registered By:		DB 18/4/13																			



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SAMPLE RECEIPT ADVICE

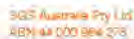
PE076727

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Sean Scaife	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Fax/mobile	08 9321 5262	Fax/mobile	(08) 9373 3556
Email	sean.scaife@erm.com	Email	au.environmental.perth@sgs.com
Project	0086269 YARA TANPF Burrup	Samples Received	Thu 18/4/2013
Order Number	A06995	Report Due	Fri 26/4/2013
Samples	8	SGS Reference	PE076727

SUBMISSION DETAILS			
This is to confirm that 8 samples were received on Thursday 18/4/2013. Results are expected to be ready by Friday 26/4/2013. Please quote SGS reference PE076727 when making enquiries. Refer below for details relating to sample integrity upon receipt:			
Sample counts by matrix	8 Water	Type of documentation received	COC
Date documentation received	18/4/2013	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	18°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	2
Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.			

COMMENTS

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.



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PO Box 32 Welshpool WA 6983

Member of the SGS Group



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SAMPLE RECEIPT ADVICE

PE076727

CLIENT DETAILS			
Client	ERM Australia Pty Ltd	Project	0086269 YARA TANPF Burrup

SUMMARY OF ANALYSIS

No.	Sample ID	Acidity and Free CO2	Alkalinity	Chloride by Discrete Analyser in Water	Colour by Discrete Analyser	Fluoride by Ion Selective Electrode in Water	Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA	Sulphate in water	Sulphide by Titration in Water	Total and Volatile Suspended Solids (TSS /
001	MW01	1	3	1	1	1	5	1	1	1
002	MW02	1	3	1	1	1	5	1	1	1
003	MW03	1	3	1	1	1	5	1	1	1
004	MW04	1	3	1	1	1	5	1	1	1
005	MW05	1	3	1	1	1	5	1	1	1
006	DUP01	1	3	1	1	1	5	1	1	1
007	RIN01	1	3	1	1	1	5	1	1	1

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

18/04/2013

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SAMPLE RECEIPT ADVICE

PE076727

CLIENT DETAILS

Client: ERM Australia Pty Ltd Project: 0086269 YARA TANPF Burrup

SUMMARY OF ANALYSIS

No.	Sample ID	Filterable Reactive Phosphorus (FRP)	Low Level Ammonia Nitrogen by FIA	Mercury (dissolved) in Water	Mercury (total) in Water	Metals in Water (Dissolved) by ICP-OES	TKN Kjeldahl Digestion by Discrete Analyser	Total Phosphorus by Kjeldahl Digestion DA in	Trace Metals (Dissolved) in Water by ICPMS	Trace Metals (Total) in Water by ICPMS	Volatile Petroleum Hydrocarbons in Water
001	MW01	1	2	-	-	6	2	1	11	2	-
002	MW02	1	2	-	-	6	2	1	11	2	-
003	MW03	1	2	-	-	6	2	1	11	2	-
004	MW04	1	2	-	-	6	2	1	11	2	-
005	MW05	1	2	-	-	6	2	1	11	2	-
006	DUP01	1	2	-	-	6	2	1	11	2	-
007	RIN01	-	-	1	1	4	-	-	7	7	-
008	Trip Blank	-	-	-	-	-	-	-	-	-	5

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



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SAMPLE RECEIPT ADVICE

PE076727

CLIENT DETAILS			
Client	ERM Australia Pty Ltd	Project	0086269 YARA TANPF Burrup

SUMMARY OF RESULTS

No.	Sample ID	VOCs in Water
008	Trip Blank	11

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

18/04/2013

18/04/2013



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ANALYTICAL REPORT



CLIENT DETAILS		LABORATORY DETAILS	
Contact	Sean Scaife	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newburn Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newburn WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Facsimile	08 9321 5262	Facsimile	(08) 9373 3556
Email	sean.scaife@erm.com	Email	au.environmental.perth@sgs.com
Project	0086269 YARA TANPF Burrup	SGS Reference	PE076727 R0
Order Number	A06995	Report Number	0000060075
Samples	8	Date Reported	30 Apr 2013
		Date Received	18 Apr 2013

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(898/20210).

Samples were diluted due to high conductivity for metals. Hence the LORs were raised.

SIGNATORIES

Leanne Orsmond Inorganics Coordinator	Lien Tang Project Manager	Michael McKay Inorganic Team Leader - Waters
Ohmar David Metals Chemist	Orla Brady Organic Supervisor (VOC/TRH)	Ros Ma Laboratory Manager



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ANALYTICAL REPORT

PE076727 R0

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Sample Number PE076727.001 PE076727.002 PE076727.003 PE076727.004 Sample Matrix Water Water Water Water Sample Date 17 Apr 2013 17 Apr 2013 17 Apr 2013 17 Apr 2013 Sample Name MW01 MW02 MW03 MW04						
Total and Volatile Suspended Solids (TSS / VSS) Method: AN114						
Total Suspended Solids Dried at 105°C	mg/L	5	16	200	470	210
Acidity and Free CO2 Method: AN140						
Acidity to pH 8.3	mg CaCO ₃ /L	5	46	44	91	21
Alkalinity Method: AN135						
Total Alkalinity as CaCO ₃	mg/L	5	200	340	560	390
Carbonate Alkalinity as CO ₃	mg/L	1	<1	<1	<1	<1
Bicarbonate Alkalinity as HCO ₃	mg/L	5	360	410	860	470
Colour by Discrete Analyser Method: AN285						
Colour (True)	Hazen	1	<1	<1	17	<1
Fluoride by Ion Selective Electrode in Water Method: AN141						
Fluoride by ISE	mg/L	0.1	0.4	0.6	1.0	0.4
Chloride by Discrete Analyser in Water Method: AN274						
Chloride	mg/L	1	660	1100	2600	4700
Sulphate in water Method: AN275						
Sulphate	mg/L	1	120	200	1400	440
Sulphide by Titration in Water Method: AN149						
Sulphide	mg/L	0.5	<0.5	<0.5	<0.5	<0.5
Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: AN258						
Nitrate, NO ₃ as NO ₃	mg/L	0.05	0.7	2.3	0.14	1.0
Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	2.2	0.51	0.031	0.24
Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.022	<0.005	<0.005	<0.005
Nitrate Nitrogen, NO ₃ as N	mg/L	0.005	2.2	0.51	0.031	0.24
Nitrite, NO ₂ as NO ₂	mg/L	0.05	0.07	<0.05	<0.05	<0.05



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PE076727 R0

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Low Level Ammonia Nitrogen by FIA Method: AN261						
Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005	<0.005	0.77	<0.005
Ammonia, NH ₃	mg/L	0.005	<0.005	<0.005	0.94	<0.005
TKN Kjeldahl Digestion by Discrete Analyser Method: AN281						
Total Kjeldahl Nitrogen	mg/L	0.05	0.15	0.21	1.5	0.49
Total Nitrogen (calc)	mg/L	0.05	2.4	0.72	1.5	0.73
Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293						
Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	0.02	0.10	0.18	0.05
Filterable Reactive Phosphorus (FRP) Method: AN278						
Filterable Reactive Phosphorus	mg/L	0.002	0.004	0.008	0.008	0.010
Metals in Water (Dissolved) by ICPOES Method: AN320/AN321						
Calcium, Ca	mg/L	0.2	180	180	360	94
Magnesium, Mg	mg/L	0.1	48	100	810	180
Potassium, K	mg/L	0.1	8.2	23	340	120
Silica, Soluble	mg/L	0.05	33	28	30	23
Silicon, Si	mg/L	0.02	18	13	14	11
Sodium, Na	mg/L	0.5	270	810	8000	2660
Trace Metals (Dissolved) in Water by ICPMS Method: AN318						
Aluminium, Al	µg/L	5	<5	<5	72	31
Arsenic, As	µg/L	1	<1	<1	<10†	<5†
Cadmium, Cd	µg/L	0.1	0.4	0.3	<1.0†	<0.5†
Chromium, Cr	µg/L	1	<1	<1	<10†	<5†
Copper, Cu	µg/L	1	1	<1	<10†	<5†
Iron, Fe	µg/L	5	<5	<5	820	<25†
Lead, Pb	µg/L	1	<1	<1	<10†	<5†
Manganese, Mn	µg/L	1	87	12	1700	120
Nickel, Ni	µg/L	1	<1	<1	<10†	<5†
Selenium, Se	µg/L	2	<2	<2	<20†	<10†
Zinc, Zn	µg/L	5	10	12	<50†	<25†
Mercury (dissolved) in Water Method: AN311/AN312						
Mercury	mg/L	0.00005	-	-	-	-



ANALYTICAL REPORT

PE076727 R0

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Sample Number			PE076727.001	PE076727.002	PE076727.003	PE076727.004
Sample Matrix			Water	Water	Water	Water
Sample Date			17 Apr 2013	17 Apr 2013	17 Apr 2013	17 Apr 2013
Sample Name			MW01	MW02	MW03	MW04

Trace Metals (Total) in Water by ICPMS Method: AN318

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Total Aluminium	µg/L	5	330	3600	14000	4400
Total Arsenic	µg/L	1	-	-	-	-
Total Cadmium	µg/L	0.1	-	-	-	-
Total Chromium	µg/L	1	-	-	-	-
Total Copper	µg/L	1	-	-	-	-
Total Iron	µg/L	5	390	6200	21000	7400
Total Lead	µg/L	1	-	-	-	-
Total Nickel	µg/L	1	-	-	-	-
Total Zinc	µg/L	5	-	-	-	-

Mercury (total) in Water Method: AN311/AN312

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Total Mercury	mg/L	0.0001	-	-	-	-

Volatile Petroleum Hydrocarbons in Water Method: AN433/A N434/A N410

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
TRH C6-C9	µg/L	40	-	-	-	-

Surrogates

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-



ANALYTICAL REPORT

PE076727 R0

Parameter	Units	LOR	PE076727.001	PE076727.002	PE076727.003	PE076727.004
VOCs in Water Method: AN433/AN434 (continued)						
Oxygenated Compounds						
MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	-	-
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-



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PE076727 R0

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Sample Number PE076727.005 PE076727.006 PE076727.007 PE076727.008 Sample Matrix Water Water Water Water Sample Date 17 Apr 2013 17 Apr 2013 17 Apr 2013 17 Apr 2013 Sample Name MWA05 DUP01 RIN01 Trip Blank						
Total and Volatile Suspended Solids (TSS / VSS) Method: AN114						
Total Suspended Solids Dried at 105°C	mg/L	5	1800	1400	-	-
Acidity and Free CO2 Method: AN140						
Acidity to pH 8.3	mg CaCO3/L	5	56	57	-	-
Alkalinity Method: AN135						
Total Alkalinity as CaCO3	mg/L	5	170	170	<5	-
Carbonate Alkalinity as CO3	mg/L	1	<1	<1	<1	-
Bicarbonate Alkalinity as HCO3	mg/L	5	210	210	<5	-
Colour by Discrete Analyser Method: AN285						
Colour (True)	Hazen	1	<1	<1	-	-
Fluoride by Ion Selective Electrode in Water Method: AN141						
Fluoride by ISE	mg/L	0.1	0.4	0.4	-	-
Chloride by Discrete Analyser in Water Method: AN274						
Chloride	mg/L	1	68000	66000	<1	-
Sulphate in water Method: AN275						
Sulphate	mg/L	1	3300	3400	<1	-
Sulphide by Titration in Water Method: AN149						
Sulphide	mg/L	0.5	<0.5	<0.5	-	-
Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: AN258						
Nitrate, NOx as NOx	mg/L	0.05	1.8	1.8	-	-
Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	1.8	1.8	-	-
Nitrite Nitrogen, NOx as N	mg/L	0.005	<0.005	<0.005	-	-
Nitrate Nitrogen, NOx as N	mg/L	0.005	1.8	1.8	-	-
Nitrite, NOx as NOx	mg/L	0.05	<0.05	<0.05	-	-





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ANALYTICAL REPORT

PE076727 R0

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Sample Number PE076727.005 PE076727.006 PE076727.007 PE076727.008 Sample Matrix Water Water Water Water Sample Date 17 Apr 2013 17 Apr 2013 17 Apr 2013 17 Apr 2013 Sample Name MWA05 DUP01 RIN01 Trip Blank						
Low Level Ammonia Nitrogen by FIA Method: AN261						
Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005	<0.005	-	-
Ammonia, NH ₃	mg/L	0.005	<0.005	<0.005	-	-
TKN Kjeldahl Digestion by Discrete Analyser Method: AN281						
Total Kjeldahl Nitrogen	mg/L	0.05	1.0	0.98	-	-
Total Nitrogen (calc)	mg/L	0.05	2.8	2.5	-	-
Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293						
Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	0.16	0.16	-	-
Filterable Reactive Phosphorus (FRP) Method: AN278						
Filterable Reactive Phosphorus	mg/L	0.002	0.014	0.012	-	-
Metals in Water (Dissolved) by ICPOES Method: AN320/AN321						
Calcium, Ca	mg/L	0.2	740	740	<0.2	-
Magnesium, Mg	mg/L	0.1	2900	2900	<0.1	-
Potassium, K	mg/L	0.1	1400	1400	<0.1	-
Silica, Soluble	mg/L	0.05	13	13	-	-
Silicon, Si	mg/L	0.02	6.0	6.0	-	-
Sodium, Na	mg/L	0.5	33000	33000	<0.5	-
Trace Metals (Dissolved) in Water by ICPMS Method: AN318						
Aluminium, Al	µg/L	5	300	330	-	-
Arsenic, As	µg/L	1	<5.0 r	<5.0 r	<1	-
Cadmium, Cd	µg/L	0.1	<5.0 r	<5.0 r	<0.1	-
Chromium, Cr	µg/L	1	<5.0 r	<5.0 r	<1	-
Copper, Cu	µg/L	1	<5.0 r	<5.0 r	<1	-
Iron, Fe	µg/L	5	<25.0 r	<25.0 r	-	-
Lead, Pb	µg/L	1	<5.0 r	<5.0 r	<1	-
Manganese, Mn	µg/L	1	<5.0 r	<5.0 r	-	-
Nickel, Ni	µg/L	1	<5.0 r	<5.0 r	<1	-
Selenium, Se	µg/L	2	<10.0 r	<10.0 r	-	-
Zinc, Zn	µg/L	5	<25.0 r	<25.0 r	8	-
Mercury (dissolved) in Water Method: AN311/AN312						
Mercury	mg/L	0.00005	-	-	<0.00005	-

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PE076727 R0

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Sample Number			PE076727.005	PE076727.006	PE076727.007	PE076727.008
Sample Matrix			Water	Water	Water	Water
Sample Date			17 Apr 2013	17 Apr 2013	17 Apr 2013	17 Apr 2013
Sample Name			MW05	DUP01	RIN01	Trip Blank

Trace Metals (Total) in Water by ICPMS Method: AN318

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Total Aluminium	µg/L	5	33000	30000	-	-
Total Arsenic	µg/L	1	-	-	<1	-
Total Cadmium	µg/L	0.1	-	-	<0.1	-
Total Chromium	µg/L	1	-	-	<1	-
Total Copper	µg/L	1	-	-	<1	-
Total Iron	µg/L	5	44000	41000	-	-
Total Lead	µg/L	1	-	-	<1	-
Total Nickel	µg/L	1	-	-	<1	-
Total Zinc	µg/L	5	-	-	10	-

Mercury (total) in Water Method: AN311/AN312

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Total Mercury	mg/L	0.0001	-	-	<0.0001	-

Volatile Petroleum Hydrocarbons in Water Method: AN433/AN434/AN410

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
TRH C6-C9	µg/L	40	-	-	-	<40

Surrogates

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Dibromofluoromethane (Surrogate)	%	-	-	-	-	99
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	87
d8-toluene (Surrogate)	%	-	-	-	-	129
Bromofluorobenzene (Surrogate)	%	-	-	-	-	123

VOCs in Water Method: AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
Benzene	µg/L	0.5	-	-	-	<0.5
Toluene	µg/L	0.5	-	-	-	<0.5
Ethylbenzene	µg/L	0.5	-	-	-	<0.5
m/p-xylene	µg/L	1	-	-	-	<1
o-xylene	µg/L	0.5	-	-	-	<0.5



ANALYTICAL REPORT

PE076727 R0

Parameter	Units	LOR	PE076727.005	PE076727.006	PE076727.007	PE076727.008
VOCs in Water Method: AN433/AN434 (continued)						
Oxygenated Compounds						
MIBE (Methyl-tert-butyl ether)	µg/L	0.5	-	-	-	<0.5
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	<0.5
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	99
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	97
d8-toluene (Surrogate)	%	-	-	-	-	120
Bromofluorobenzene (Surrogate)	%	-	-	-	-	128



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QC SUMMARY

PE076727 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Acidity and Free CO₂ Method: ME-(AU)-[ENV]AH140

Parameter	QC Reference	Units	LOR	MB	DUP %RPD
Acidity to pH 8.3	LB082657	mg CaCO ₃ /L	5	<5	1%

Alkalinity Method: ME-(AU)-[ENV]AH135

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Alkalinity as CaCO ₃	LB082656	mg/L	5	<5	0%	91%
Carbonate Alkalinity as CO ₃	LB082656	mg/L	1	<1		
Bicarbonate Alkalinity as HCO ₃	LB082656	mg/L	5	<5		

Chloride by Discrete Analyser in Water Method: ME-(AU)-[ENV]AH274

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Chloride	LB082699	mg/L	1	<1	1 - 5%	101%	93 - 96%

Colour by Discrete Analyser Method: ME-(AU)-[ENV]AH265

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Colour (True)	LB082679	Hazen	1	<1	0%	98 - 101%

Filterable Reactive Phosphorus (FRP) Method: ME-(AU)-[ENV]AH270

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Filterable Reactive Phosphorus	LB082623	mg/L	0.002	<0.002	0 - 4%	108%	115%

Fluoride by Ion Selective Electrode in Water Method: ME-(AU)-[ENV]AH141

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Fluoride by ISE	LB082935	mg/L	0.1	<0.1	0 - 3%	104%	108%
	LB083107	mg/L	0.1	<0.1	0 - 6%	100%	104 - 110%



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QC SUMMARY

PE076727 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Low Level Ammonia Nitrogen by FIA Method: ME (AU) [ENV]AN261

Parameter	QC Reference	Units	LOR	MR	DUP %RPD	LCS % Recovery
Ammonia Nitrogen, NH ₃ as N	LB063004	mg/L	0.005	<0.005	0%	93 - 96%
Ammonia, NH ₃	LB063004	mg/L	0.005	<0.005	0%	93 - 96%

Mercury (dissolved) in Water Method: ME (AU) [ENV]AN311/AN312

Parameter	QC Reference	Units	LOR	MR	DUP %RPD	LCS % Recovery	MS % Recovery
Mercury	LB062796	mg/L	0.00005	<0.00005	0%	106%	94%

Mercury (total) in Water Method: ME (AU) [ENV]AN311/AN312

Parameter	QC Reference	Units	LOR	MR	DUP %RPD	LCS % Recovery	MS % Recovery
Total Mercury	LB062795	mg/L	0.0001	<0.0001	0%	106%	101%

Metals in Water (Dissolved) by ICPOES Method: ME (AU) [ENV]AN320/AN321

Parameter	QC Reference	Units	LOR	MR	DUP %RPD	LCS % Recovery	MS % Recovery
Calcium, Ca	LB062596	mg/L	0.2	<0.2	0 - 5%	96%	
Magnesium, Mg	LB062596	mg/L	0.1	<0.1	0 - 4%	96%	
Potassium, K	LB062596	mg/L	0.1	<0.1	0 - 4%	109%	
Silica, Soluble	LB062596	mg/L	0.05	<0.05			
Silicon, Si	LB062596	mg/L	0.02	<0.02	4%	105%	
Sodium, Na	LB062596	mg/L	0.5	<0.5	0 - 5%	101%	105%

Nitrate Nitrogen and Nitrite Nitrogen (NO₂) by FIA Method: ME (AU) [ENV]AN258

Parameter	QC Reference	Units	LOR	MR	DUP %RPD	LCS % Recovery
Nitrate, NO ₃ as NO ₃	LB063004	mg/L	0.05	<0.05		
Nitrate/Nitrite Nitrogen, NO _x as N	LB063004	mg/L	0.005	<0.005	0 - 38%	96 - 113%
Nitrite Nitrogen, NO ₂ as N	LB063004	mg/L	0.005	<0.005	0%	97 - 99%
Nitrate Nitrogen, NO ₃ as N	LB063004	mg/L	0.005	<0.005		
Nitrite, NO ₂ as NO ₂	LB063004	mg/L	0.05	<0.05		

**QC SUMMARY**

PE076727 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Sulphate in water Method: ME-(AU)-[ENV]AN275

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Sulphate	LB062699	mg/L	1	<1	0 - 4%	98 - 101%	99 - 110%

Sulphide by Titration in Water Method: ME-(AU)-[ENV]AN149

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Sulphide	LB062681	mg/L	0.5	<0.5	92%

TKN Kjeldahl Digestion by Discrete Analyser Method: ME-(AU)-[ENV]AN281

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Kjeldahl Nitrogen	LB062640	mg/L	0.05	<0.05	3 - 10%	101%

Total and Volatile Suspended Solids (TSS / VSS) Method: ME-(AU)-[ENV]AN114

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Suspended Solids Dried at 105°C	LB062699	mg/L	5	<5	4%	100%

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[ENV]AN279/AN293

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery
Total Phosphorus (Kjeldahl Digestion)	LB062640	mg/L	0.01	<0.01	1 - 11%	98%

Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN316

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Aluminum, Al	LB062606	µg/L	5	<5		104%	77%
Arsenic, As	LB062606	µg/L	1	<1	0%	98%	103%
Cadmium, Cd	LB062606	µg/L	0.1	<0.1	0%	95%	87%
Chromium, Cr	LB062606	µg/L	1	<1	0%	100%	99%
Copper, Cu	LB062606	µg/L	1	<1	0%	97%	83%
Iron, Fe	LB062606	µg/L	5	<5		105%	98%
Lead, Pb	LB062606	µg/L	1	<1	0%	105%	87%
Manganese, Mn	LB062606	µg/L	1	<1		99%	107%
Nickel, Ni	LB062606	µg/L	1	<1	0%	99%	85%
Selenium, Se	LB062606	µg/L	2	<2		112%	107%
Zinc, Zn	LB062606	µg/L	5	<5	2%	96%	85%



QC SUMMARY

PE076727 R0

MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Trace Metals (Total) in Water by ICPMS Method: ME-(AU) (ENVJAN310)

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS % Recovery	MS % Recovery
Total Aluminium	LB062610	µg/L	5	<5	14%	120%	94%
Total Arsenic	LB062610	µg/L	1	<1	0%	96%	
Total Cadmium	LB062610	µg/L	0.1	<0.1	0%	111%	
Total Chromium	LB062610	µg/L	1	<1	0%	116%	
Total Copper	LB062610	µg/L	1	<1	0%	119%	
Total Iron	LB062610	µg/L	5	<5	7%	108%	
Total Lead	LB062610	µg/L	1	<1	0%	113%	
Total Nickel	LB062610	µg/L	1	<1	0%	93%	
Total Zinc	LB062610	µg/L	5	<5	13%	96%	

VOCs in Water Method: ME-(AU) (ENVJAN433/AN431)

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Benzene	LB062719	µg/L	0.5	<0.5	111%
Toluene	LB062719	µg/L	0.5	<0.5	107%
Ethylbenzene	LB062719	µg/L	0.5	<0.5	101%
m/p-xylene	LB062719	µg/L	1	<1	
o-xylene	LB062719	µg/L	0.5	<0.5	

Oxygenated Compounds



Parameter	QC Reference	Units	LOR	MB
MIBE (Methyl-tert-butyl ether)	LB062719	µg/L	0.5	<0.5

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB
Naphthalene	LB062719	µg/L	0.5	<0.5

Surrogates

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Dibromofluoromethane (Surrogate)	LB062719	%	-	100%	119%
d4-1,2-dichloroethane (Surrogate)	LB062719	%	-	101%	119%
d8-toluene (Surrogate)	LB062719	%	-	108%	129%
Bromofluorobenzene (Surrogate)	LB062719	%	-	104%	124%

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QC SUMMARY

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MB blank results are compared to the Limit of Reporting
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Volatile Petroleum Hydrocarbons in Water Method: ME-(AU)-EIR/MAH433/AN131/AN110

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
TRH C6-C9	LB062719	µg/L	40	<40	99%

Surrogates

Parameter	QC Reference	Units	LOR	MB	LCS % Recovery
Dibromofluoromethane (Surrogate)	LB062719	%	-	100%	119%
d4-1,2-dichloroethane (Surrogate)	LB062719	%	-	101%	119%
d8-toluene (Surrogate)	LB062719	%	-	108%	129%
Bromofluorobenzene (Surrogate)	LB062719	%	-	104%	124%



METHOD SUMMARY

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METHOD	METHOD DESCRIPTION SUMMARY
AN114	Total Suspended and Volatile Suspended Solids: The sample is homogenised by shaking and a known volume is filtered through a pre-weighed GF/C filter paper and washed well with deionised water. The filter paper is dried and reweighed. The TSS is the residue retained by the filter per unit volume of sample. Reference APHA 2540 D. Internal Reference AN114
AN135	Alkalinity (and forms of) by Titration: The sample is titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135
AN135	Free and Total Carbon Dioxide may be calculated using alkalinity forms only when the samples TDS is <500mg/L. If TDS is >500mg/L free or total carbon dioxide cannot be reported. APHA4500CO2 D.
AN140	Acidity by Titration: The water sample is titrated with sodium hydroxide to designated pH end point. In a sample containing only carbon dioxide, bicarbonates and carbonates, titration to pH 8.3 at 25°C corresponds to stoichiometric neutralisation of carbonic acid to bicarbonate. Method reference APHA 2310 B.
AN141	Determination of Fluoride by ISE: A fluoride ion selective electrode and reference electrode combination, in the presence of a pH/complexation buffer, is used to determine the fluoride concentration. The electrode millivolt response is measured logarithmically against fluoride concentration. Reference APHA F- C.
AN149	Sulphide by Iodometric Titration: Sulphide is precipitated as zinc sulphide to overcome interferences with sulphite and thiosulphate. After filtration, sulphide is determined titrimetrically. Reference APHA 4500-S2-
AN258	Nitrate and Nitrite by FIA: In an acidic medium, nitrate is reduced quantitatively to nitrite by cadmium metal. This nitrite plus any original nitrite is determined as an intense red-pink azo dye at 540 nm following diazotisation with sulphanilamide and subsequent coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. Without the cadmium reduction only the original nitrite is determined. Reference APHA 4500-NO3- F.
AN281	Ammonia by Continuous Flow Analyser: Ammonium in a basic medium forms ammonia gas, which is separated from the sample matrix by diffusion through a polypropylene membrane. The ammonia is reacted with phenol and hypochlorite to form indophenol blue at an intensity proportional to the ammonia concentration. The blue colour is intensified with sodium nitroprusside and the absorbance measured at 630 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-NH3 H.
AN274	Chloride by Aquakem DA: Chloride reacts with mercuric thiocyanate forming a mercuric chloride complex. In the presence of ferric iron, highly coloured ferric thiocyanate is formed which is proportional to the chloride concentration. Reference APHA 4500Cl-
AN275	Sulphate by Aquakem DA: Sulphate is precipitated in an acidic medium with barium chloride. The resulting turbidity is measured photometrically at 405nm and compared with standard calibration solutions to determine the sulphate concentration in the sample. Reference APHA 4500-SO42-. Internal reference AN275.
AN278	Reactive Phosphorus by DA: Orthophosphate reacts with ammonium molybdate (Mo VI) and potassium antimonyl tartrate (Sb III) in acid medium to form an antimony-phosphomolybdate complex. This complex is subsequently reduced with ascorbic acid to form a blue colour and the absorbance is read at 880 nm. The sensitivity of the automated method is 10-20 times that of the macro method. Reference APHA 4500-P F.
AN279/AN293	The sample is digested with Sulphuric acid, K2SO4 and CuSO4. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.





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METHOD SUMMARY

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METHOD	METHODOLOGY SUMMARY
AN281	An unfiltered water or soil sample is first digested in a block digester with sulphuric acid, K ₂ SO ₄ and CuSO ₄ . The ammonia produced following digestion is then measured colourimetrically using the Aquakem 250 Discrete Analyser. A portion of the digested sample is buffered to an alkaline pH, and interfering cations are complexed. The ammonia then reacts with salicylate and hypochlorite to give a blue colour whose absorbance is measured at 660nm and compared with calibration standards. This is proportional to the concentration of Total Kjeldahl Nitrogen in the original sample.
AN285	The term 'colour' is used here to mean true colour, that is, the colour of water from which turbidity has been removed. The term 'apparent colour' includes not only colour due to substances in solution, but also that due to suspended matter. Apparent colour is determined on the original sample without filtration.
AN311/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A.
AN320/AN321	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components.
AN320/AN321	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements. Reference APHA 3120 B.
AN433/AN434	VOCs and CB-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN433/AN434/AN410	VOCs and CB-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

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FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	This analysis is not covered by the scope of accreditation.	QFH	QC result is above the upper tolerance
**	Indicative data, theoretical holding time exceeded.	QFL	QC result is below the lower tolerance
*	Performed by outside laboratory.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <http://www.sgs.com.au/pv.sgs/3~/media/Local/Australia/Documents/Technical%20Documents/MIP-AU-ENV-QJ-022%20QA%20QC%20Plan.pdf>

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STATEMENT OF QA/QC PERFORMANCE

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CLIENT DETAILS		LABORATORY DETAILS	
Contact	Sean Scaife	Manager	Ros Ma
Client	ERM Australia Pty Ltd	Laboratory	SGS Newbun Environmental
Address	PO Box 7338 Cloisters Square Level 6, Grain Pool Bld, 172 St Georges Tce PERTH WA 6850	Address	10 Reid Rd Newbun WA 6105
Telephone	08 9321 5200	Telephone	(08) 9373 3500
Facsimile	08 9321 5282	Facsimile	(08) 9373 3556
Email	sean.scaife@erm.com	Email	au.environmental.perth@sgs.com
Project	0086269 YARA TANPF Burrup	SGS Reference	PE076727 R0
Order Number	A06995	Report Number	0000060076
Samples	8	Date Reported	30 Apr 2013

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS Environmental Services' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document and was supplied by the Client. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	Colour by Discrete Analyser	8 items
Analysis Date	Colour by Discrete Analyser	8 items

SAMPLE SUMMARY

Sample counts by matrix	8 Water	Type of documentation received	COC
Date documentation received	18/4/2013	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	18°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	2



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HOLDING TIME SUMMARY

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Acidity and Free CO₂

Method: ME-(AU)-ENVJAH10

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW02	PE076727.002	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW03	PE076727.003	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW04	PE076727.004	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW05	PE076727.005	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
DUP01	PE076727.006	LB062857	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013

Alkalinity

Method: ME-(AU)-ENVJAH106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW02	PE076727.002	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW03	PE076727.003	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW04	PE076727.004	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
MW05	PE076727.005	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
DUP01	PE076727.006	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013
RIN01	PE076727.007	LB062856	17 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013	18 Apr 2013

Chloride by Discrete Analyser in Water

Method: ME-(AU)-ENVJAH274

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
MW02	PE076727.002	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
MW03	PE076727.003	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
MW04	PE076727.004	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
MW05	PE076727.005	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
DUP01	PE076727.006	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013
RIN01	PE076727.007	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	28 Apr 2013

Colour by Discrete Analyser

Method: ME-(AU)-ENVJAH286

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†
MW02	PE076727.002	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†
MW03	PE076727.003	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†
MW04	PE076727.004	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†
MW05	PE076727.005	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†
DUP01	PE076727.006	LB062879	17 Apr 2013	18 Apr 2013	19 Apr 2013	22 Apr 2013†	19 Apr 2013	22 Apr 2013†

Filtrable Residue Phosphorus (FRP)

Method: ME-(AU)-ENVJAH278

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013
MW02	PE076727.002	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013
MW03	PE076727.003	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013
MW04	PE076727.004	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013
MW05	PE076727.005	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013
DUP01	PE076727.006	LB062823	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	19 Apr 2013

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-ENVJAH141

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062935	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	24 Apr 2013
MW02	PE076727.002	LB062935	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	24 Apr 2013
MW03	PE076727.003	LB062935	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	24 Apr 2013
MW04	PE076727.004	LB062935	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	24 Apr 2013
MW05	PE076727.005	LB062935	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	24 Apr 2013
DUP01	PE076727.006	LB063107	17 Apr 2013	18 Apr 2013	15 May 2013	29 Apr 2013	15 May 2013	29 Apr 2013

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-ENVJAH281

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW02	PE076727.002	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW03	PE076727.003	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW04	PE076727.004	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW05	PE076727.005	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
DUP01	PE076727.006	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013

**HOLDING TIME SUMMARY**

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENVJ001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Mercury (dissolved) in Water

Method: ME-(AU)-ENVJAN311/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RIN01	PE076727.007	LB062798	17 Apr 2013	18 Apr 2013	15 May 2013	23 Apr 2013	15 May 2013	23 Apr 2013

Mercury (total) in Water

Method: ME-(AU)-ENVJAN311/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RIN01	PE076727.007	LB062795	17 Apr 2013	18 Apr 2013	15 May 2013	23 Apr 2013	15 May 2013	23 Apr 2013

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-ENVJAN320/AN321

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
MW02	PE076727.002	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
MW03	PE076727.003	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
MW04	PE076727.004	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
MW05	PE076727.005	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
DUP01	PE076727.006	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013
RIN01	PE076727.007	LB062598	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	24 Apr 2013

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA

Method: ME-(AU)-ENVJAN294

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW02	PE076727.002	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW03	PE076727.003	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW04	PE076727.004	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
MW05	PE076727.005	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013
DUP01	PE076727.006	LB063004	17 Apr 2013	18 Apr 2013	15 May 2013	26 Apr 2013	15 May 2013	29 Apr 2013

Sulfate in water

Method: ME-(AU)-ENVJAN275

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
MW02	PE076727.002	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
MW03	PE076727.003	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
MW04	PE076727.004	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
MW05	PE076727.005	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
DUP01	PE076727.006	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013
RIN01	PE076727.007	LB062899	17 Apr 2013	18 Apr 2013	15 May 2013	24 Apr 2013	15 May 2013	26 Apr 2013

Sulfide by Titration in Water

Method: ME-(AU)-ENVJAN140

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013
MW02	PE076727.002	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013
MW03	PE076727.003	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013
MW04	PE076727.004	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013
MW05	PE076727.005	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013
DUP01	PE076727.006	LB062881	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	24 Apr 2013	24 Apr 2013

TKN Kjeldahl Digestion by Chloride Analyser

Method: ME-(AU)-ENVJAN291

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW02	PE076727.002	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW03	PE076727.003	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW04	PE076727.004	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW05	PE076727.005	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
DUP01	PE076727.006	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-ENVJAN114

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013
MW02	PE076727.002	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013
MW03	PE076727.003	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013
MW04	PE076727.004	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013
MW05	PE076727.005	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013
DUP01	PE076727.006	LB062889	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	29 Apr 2013	24 Apr 2013



HOLDING TIME SUMMARY

PE076727 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-[ENV]AN278/AN283

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW02	PE076727.002	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW03	PE076727.003	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW04	PE076727.004	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
MW05	PE076727.005	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013
DUP01	PE076727.006	LB062840	17 Apr 2013	18 Apr 2013	15 May 2013	19 Apr 2013	15 May 2013	24 Apr 2013

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013
MW02	PE076727.002	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013
MW03	PE076727.003	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
MW04	PE076727.004	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
MW05	PE076727.005	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
DUP01	PE076727.006	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
RIN01	PE076727.007	LB062806	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW01	PE076727.001	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013
MW02	PE076727.002	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013
MW03	PE076727.003	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
MW04	PE076727.004	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
MW05	PE076727.005	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
DUP01	PE076727.006	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	23 Apr 2013
RIN01	PE076727.007	LB062810	17 Apr 2013	18 Apr 2013	14 Oct 2013	19 Apr 2013	14 Oct 2013	22 Apr 2013

VOCs in Water

Method: ME-(AU)-[ENV]AN433/AN434

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Trip Blank	PE076727.008	LB062719	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	01 Jun 2013	24 Apr 2013

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Trip Blank	PE076727.008	LB062719	17 Apr 2013	18 Apr 2013	24 Apr 2013	22 Apr 2013	01 Jun 2013	24 Apr 2013



SURROGATES

PE076727 R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]00-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOCs In Water

Method: ME-(AU)-[ENV]AH433/AH434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	Trip Blank	PE076727.008	%	40 - 130%	123
d4-1,2-dichloroethane (Surrogate)	Trip Blank	PE076727.008	%	40 - 130%	97
d8-toluene (Surrogate)	Trip Blank	PE076727.008	%	40 - 130%	120
Dibromofluoromethane (Surrogate)	Trip Blank	PE076727.008	%	40 - 130%	99

Volatile Polycyclic Hydrocarbons In Water

Method: ME-(AU)-[ENV]AH433/AH434/AH410

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	Trip Blank	PE076727.008	%	80 - 130%	123
d4-1,2-dichloroethane (Surrogate)	Trip Blank	PE076727.008	%	80 - 130%	97
d8-toluene (Surrogate)	Trip Blank	PE076727.008	%	80 - 130%	120
Dibromofluoromethane (Surrogate)	Trip Blank	PE076727.008	%	80 - 130%	99

**METHOD BLANKS**

PE076727 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Acidity and Free CO₂ Method: ME-(AU)-ENVJAN140

Sample Number	Parameter	Units	LOR	Result
LB062657.001	Acidity to pH 8.3	mg CaCO ₃ /L	5	<5

Alkalinity Method: ME-(AU)-ENVJAN195

Sample Number	Parameter	Units	LOR	Result
LB062656.001	Total Alkalinity as CaCO ₃	mg/L	5	<5

Chloride by Discrete Analyser in Water Method: ME-(AU)-ENVJAN274

Sample Number	Parameter	Units	LOR	Result
LB062699.001	Chloride	mg/L	1	<1
LB062699.026	Chloride	mg/L	1	<1

Colour by Discrete Analyser Method: ME-(AU)-ENVJAN285

Sample Number	Parameter	Units	LOR	Result
LB062679.001	Colour (True)	Hazen	1	<1
LB062679.025	Colour (True)	Hazen	1	<1

Filterable Reactive Phosphorus (FRP) Method: ME-(AU)-ENVJAN278

Sample Number	Parameter	Units	LOR	Result
LB062623.001	Filterable Reactive Phosphorus	mg/L	0.002	<0.002

Fluoride by Ion Selective Electrode in Water Method: ME-(AU)-ENVJAN141

Sample Number	Parameter	Units	LOR	Result
LB062335.001	Fluoride by ISE	mg/L	0.1	<0.1
LB062935.026	Fluoride by ISE	mg/L	0.1	<0.1
LB063107.001	Fluoride by ISE	mg/L	0.1	<0.1
LB063107.026	Fluoride by ISE	mg/L	0.1	<0.1

Low Level Ammonia Nitrogen by FIA Method: ME-(AU)-ENVJAN261

Sample Number	Parameter	Units	LOR	Result
LB063004.001	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005
	Ammonia, NH ₃	mg/L	0.005	<0.005
LB063004.024	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	<0.005
	Ammonia, NH ₃	mg/L	0.005	<0.005

Mercury (dissolved) in Water Method: ME-(AU)-ENVJAN311/AN312

Sample Number	Parameter	Units	LOR	Result
LB062796.001	Mercury	mg/L	0.00005	<0.00005

Mercury (total) in Water Method: ME-(AU)-ENVJAN311/AN312

Sample Number	Parameter	Units	LOR	Result
LB062795.001	Total Mercury	mg/L	0.0001	<0.0001

Metals in Water (Dissolved) by ICPQES Method: ME-(AU)-ENVJAN320/AN321

Sample Number	Parameter	Units	LOR	Result
LB062596.001	Calcium, Ca	mg/L	0.2	<0.2
	Magnesium, Mg	mg/L	0.1	<0.1
	Potassium, K	mg/L	0.1	<0.1
	Silicon, Si	mg/L	0.02	<0.02
	Sodium, Na	mg/L	0.5	<0.5

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: ME-(AU)-ENVJAN258

Sample Number	Parameter	Units	LOR
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**METHOD BLANKS**

PE076727 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA (continued)

Method: ME-(AU)-ENVJAN258

Sample Number	Parameter	Units	LOR	Result
LB063004.001	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	<0.005
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005
LB063004.024	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	<0.005
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	<0.005

Sulphate in water

Method: ME-(AU)-ENVJAN276

Sample Number	Parameter	Units	LOR	Result
LB062899.001	Sulphate	mg/L	1	<1
LB062899.025	Sulphate	mg/L	1	<1

Sulphide by Titration in Water

Method: ME-(AU)-ENVJAN148

Sample Number	Parameter	Units	LOR	Result
LB062881.001	Sulphide	mg/L	0.5	<0.5

TKN Kjeldahl Digestion by Discrete Analyser

Method: ME-(AU)-ENVJAN281

Sample Number	Parameter	Units	LOR	Result
LB062840.001	Total Kjeldahl Nitrogen	mg/L	0.05	<0.05

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-ENVJAN114

Sample Number	Parameter	Units	LOR	Result
LB062889.001	Total Suspended Solids Dried at 105°C	mg/L	5	<5

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-ENVJAN278/AN283

Sample Number	Parameter	Units	LOR	Result
LB062840.001	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	<0.01

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENVJAN319

Sample Number	Parameter	Units	LOR	Result
LB062806.001	Aluminium, Al	µg/L	5	<5
	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Iron, Fe	µg/L	5	<5
	Lead, Pb	µg/L	1	<1
	Manganese, Mn	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Selenium, Se	µg/L	2	<2
	Zinc, Zn	µg/L	5	<5

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-ENVJAN318

Sample Number	Parameter	Units	LOR	Result
LB062810.001	Total Aluminium	µg/L	5	<5
	Total Arsenic	µg/L	1	<1
	Total Cadmium	µg/L	0.1	<0.1
	Total Chromium	µg/L	1	<1
	Total Copper	µg/L	1	<1
	Total Lead	µg/L	1	<1
	Total Nickel	µg/L	1	<1
	Total Zinc	µg/L	5	<5

VOCs in Water

Method: ME-(AU)-ENVJAN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB062719.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5



METHOD BLANKS

PE076727 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB062719-001	Monocyclic Aromatic Hydrocarbons	m/p-xylene	µg/L	1	
		o-xylene	µg/L	0.5	
	Oxygenated Compounds	MIBE (Methyl-Tert-butyl ether)	µg/L	0.5	
	Polycyclic VOCs	Naphthalene	µg/L	0.5	
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	100
		d4-1,2-dichloroethane (Surrogate)	%	-	101
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	104

Visible Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB062719-001		TRH 06-09	µg/L	40	
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	100
		d4-1,2-dichloroethane (Surrogate)	%	-	101
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	104



DUPLICATES

PE076727 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Acidity and Free CO2

Method: ME-(AU)-ENVJAN140

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076727.006	LB062857.012	Acidity to pH 8.3	mg CaCO3/L	5	57	58	24	1

Alkalinity

Method: ME-(AU)-ENVJAN136

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076724.003	LB062856.015	Total Alkalinity as CaCO3	mg/L	5	<5	<5	200	0
PE076724.007	LB062856.020	Total Alkalinity as CaCO3	mg/L	5	<5	<5	200	0
PE076727.003	LB062856.007	Total Alkalinity as CaCO3	mg/L	5	580	580	16	0

Chloride by Discrete Analyser in Water

Method: ME-(AU)-ENVJAN274

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076804.010	LB062899.014	Chloride	mg/L	1	10579.8	10083.897	15	5
PE076820.005	LB062899.029	Chloride	mg/L	1	1541.373	1554.99	15	1
PE076826.003	LB062899.039	Chloride	mg/L	1	14.252	14.154	22	1

Colour by Discrete Analyser

Method: ME-(AU)-ENVJAN285

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076880.003	LB062879.024	Colour (True)	Hazen	1	<1	<1	200	0
PE076713.002	LB062879.013	Colour (True)	Hazen	1	<1	<1	200	0
PE076727.001	LB062879.037	Colour (True)	Hazen	1	<1	<1	200	0
PE076727.006	LB062879.043	Colour (True)	Hazen	1	<1	<1	200	0

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-ENVJAN278

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076717.001	LB062823.014	Filterable Reactive Phosphorus	mg/L	0.002	0.1052	0.1083	20	4
PE076732.003	LB062823.024	Filterable Reactive Phosphorus	mg/L	0.002	22.5035	22.4227	15	0

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-ENVJAN141

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE068891CL32	LB063107.014	Fluoride by ISE	mg/L	0.1	0	0	200	0
PE076880.001	LB062935.014	Fluoride by ISE	mg/L	0.1	0.3	0.3	48	3
PE076713.001	LB062935.028	Fluoride by ISE	mg/L	0.1	<0.1	<0.1	200	0
PE076717.002	LB062935.040	Fluoride by ISE	mg/L	0.1	0.6	0.59	32	2
PE076727.005	LB062935.045	Fluoride by ISE	mg/L	0.1	0.4	0.4	42	0
PE076774.007	LB063107.045	Fluoride by ISE	mg/L	0.1	0	0	200	0
PE076885.008	LB063107.040	Fluoride by ISE	mg/L	0.1	0.32	0.3	47	6
PE076888.002	LB063107.028	Fluoride by ISE	mg/L	0.1	0.23	0.22	59	4

Low Level Ammonia Nitrogen by FIA

Method: ME-(AU)-ENVJAN281

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076826.002	LB063004.037	Ammonia Nitrogen, NH3 as N	mg/L	0.005	0	0	200	0
PE076762.008	LB063004.026	Ammonia Nitrogen, NH3 as N	mg/L	0.005	0	0	200	0
		Ammonia, NH3	mg/L	0.005	0	0	200	0
PE076775.012	LB063004.013	Ammonia Nitrogen, NH3 as N	mg/L	0.005	0	0	200	0
		Ammonia, NH3	mg/L	0.005	<0.005	<0.005	200	0

Mercury (dissolved) in Water

Method: ME-(AU)-ENVJAN311/JAN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076885.001	LB062798.014	Mercury	µg/L	0.00005	<0.00005	<0.00005	200	0
PE076727.007	LB062798.027	Mercury	µg/L	0.00005	<0.00005	<0.00005	200	0

Mercury (Total) in Water

Method: ME-(AU)-ENVJAN311/JAN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076727.007	LB062795.010	Total Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0

Metals in Water (Dissolved) by ICP-OES

Method: ME-(AU)-ENVJAN320/JAN321

Original	Duplicate	Parameter	Units	LOR
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DUPLICATES

PE076727 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = \frac{|OriginalResult - ReplicateResult|}{Mean} \times 100$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Metals in Water (Dissolved) by ICPOES (continued)

Method: ME-(AU)-(ENV)AN320/AN321

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076727.001	LB062596.014	Calcium, Ca	mg/L	0.2	160	150	15	5
		Magnesium, Mg	mg/L	0.1	49	47	15	4
		Potassium, K	mg/L	0.1	8.2	7.9	16	4
		Silicon, Si	mg/L	0.02	16	15	15	4
		Sodium, Na	mg/L	0.5	270	260	15	5
PE076727.007	LB062596.021	Calcium, Ca	mg/L	0.2	<0.2	<0.2	200	0
		Magnesium, Mg	mg/L	0.1	<0.1	<0.1	200	0
		Potassium, K	mg/L	0.1	<0.1	<0.1	200	0
		Sodium, Na	mg/L	0.5	<0.5	<0.5	200	0

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA

Method: ME-(AU)-(ENV)AN258

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076762.008	LB063004.026	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0.013	0.019	46	36
		Nitrite Nitrogen, NOx as N	mg/L	0.005	0	0	200	0
PE076775.012	LB063004.013	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0	0	200	0
		Nitrite Nitrogen, NOx as N	mg/L	0.005	0	0	200	0

Sulphate in water

Method: ME-(AU)-(ENV)AN276

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076904.010	LB062899.014	Sulphate	mg/L	1	13.804	13.743	22	0
PE076820.005	LB062899.029	Sulphate	mg/L	1	181.811	188.72	16	4
PE076828.003	LB062899.040	Sulphate	mg/L	1	2.013	2.885	58	29

TKN Kjeldahl Digestion by Discrete Analyser

Method: ME-(AU)-(ENV)AN291

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076655.003	LB062840.024	Total Kjeldahl Nitrogen	mg/L	0.05	22.1125	19.94	15	10
PE076655.010	LB062840.032	Total Kjeldahl Nitrogen	mg/L	0.05	15.9575	16.385	15	3
PE076717.001	LB062840.006	Total Kjeldahl Nitrogen	mg/L	0.05				

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-(ENV)AN114

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076717.001	LB062899.015	Total Suspended Solids Dried at 105°C	mg/L	5	39.215896827445	58.8235294	19	4

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-(ENV)AN276/AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076655.003	LB062840.024	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	20.74	18.6525	15	11
PE076655.010	LB062840.032	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	19.2375	19.1125	15	1
PE076717.001	LB062840.006	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01				

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-(ENV)AN319

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076727.007	LB062808.011	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	8	8	80	2

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-(ENV)AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
PE076727.003	LB062810.014	Total Aluminium	µg/L	5	14000	12000	15	14
		Total Iron	µg/L	5	21000	20000	15	7
PE076727.007	LB062810.019	Total Arsenic	µg/L	1	<1	<1	200	0
		Total Cadmium	µg/L	0.1	<0.1	<0.1	200	0
		Total Chromium	µg/L	1	<1	<1	200	0
		Total Copper	µg/L	1	<1	<1	188	0
		Total Lead	µg/L	1	<1	<1	200	0
		Total Nickel	µg/L	1	<1	<1	145	0
		Total Zinc	µg/L	5	10	9	89	13

**LABORATORY CONTROL SAMPLES**

PE076727 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity Method: ME-(AU)-[ENV]AN139

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062656.002	Total Alkalinity as CaCO ₃	mg/L	5	200	225	85 - 115	91

Chloride by Discrete Analyser in Water Method: ME-(AU)-[ENV]AN274

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062899.002	Chloride	mg/L	1	20	20	85 - 115	101
LB062899.027	Chloride	mg/L	1	20	20	85 - 115	101

Colour by Discrete Analyser Method: ME-(AU)-[ENV]AN285

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062879.002	Colour (True)	Hazen	1	5	5	90 - 110	98
LB062879.028	Colour (True)	Hazen	1	5	5	90 - 110	101

Filterable Reactive Phosphorus (FRP) Method: ME-(AU)-[ENV]AN278

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062823.002	Filterable Reactive Phosphorus	mg/L	0.002	0.054	0.05	80 - 120	108

Fluoride by Ion Selective Electrode in Water Method: ME-(AU)-[ENV]AN141

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062935.002	Fluoride by ISE	mg/L	0.1	2.1	2	80 - 120	104
LB063107.002	Fluoride by ISE	mg/L	0.1	2.0	2	80 - 120	100

Low Level Ammonia Nitrogen by FIA Method: ME-(AU)-[ENV]AN281

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB063004.002	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.75	0.8	85 - 115	93
	Ammonia, NH ₃	mg/L	0.005	0.90	0.971	85 - 115	93
LB063004.025	Ammonia Nitrogen, NH ₃ as N	mg/L	0.005	0.77	0.8	85 - 115	96
	Ammonia, NH ₃	mg/L	0.005	0.93	0.971	85 - 115	96

Mercury (dissolved) in Water Method: ME-(AU)-[ENV]AN311/AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062796.002	Mercury	mg/L	0.00005	0.0026	2.5	80 - 120	106

Mercury (total) in Water Method: ME-(AU)-[ENV]AN311/AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062795.002	Total Mercury	mg/L	0.0001	0.0027	2.5	80 - 120	108

Metals in Water (Dissolved) by ICPOES Method: ME-(AU)-[ENV]AN320/AN321

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062596.002	Calcium, Ca	mg/L	0.2	190	200	80 - 120	98
	Magnesium, Mg	mg/L	0.1	200	200	80 - 120	99
	Potassium, K	mg/L	0.1	22	20	80 - 120	109
	Silicon, Si	mg/L	0.02	2.1	2	80 - 120	105
	Sodium, Na	mg/L	0.5	200	200	80 - 120	101

Nitrate Nitrogen and Nitrite Nitrogen (NOx) by FIA Method: ME-(AU)-[ENV]AN256

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB063004.002	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0.90	0.8	85 - 115	113
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.79	0.8	85 - 115	97
LB063004.025	Nitrate/Nitrite Nitrogen, NOx as N	mg/L	0.005	0.79	0.8	85 - 115	99
	Nitrite Nitrogen, NO ₂ as N	mg/L	0.005	0.79	0.8	85 - 115	99

Sulphate in water Method: ME-(AU)-[ENV]AN275

Sample Number	Parameter	Units	LOR
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**LABORATORY CONTROL SAMPLES**

PE076727 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Sulphate in water (continued)

Method: ME-(AU)-[ENV]AN275

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062899.002	Sulphate	mg/L	1	10	10	80 - 120	101
LB062899.027	Sulphate	mg/L	1	10	10	80 - 120	98

Sulphide by Titration in Water

Method: ME-(AU)-[ENV]AN149

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062891.002	Sulphide	mg/L	0.5	0.9	1	80 - 120	92

TKN Kjeldahl Digestion by Diacrate Analyser

Method: ME-(AU)-[ENV]AN281

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062840.002	Total Kjeldahl Nitrogen	mg/L	0.05	1.0	1	80 - 120	101

Total and Volatile Suspended Solids (TSS / VSS)

Method: ME-(AU)-[ENV]AN114

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062889.002	Total Suspended Solids Dried at 105°C	mg/L	5	500	500	85 - 115	100

Total Phosphorus by Kjeldahl Digestion DA in Water

Method: ME-(AU)-[ENV]AN276AN283

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062840.002	Total Phosphorus (Kjeldahl Digestion)	mg/L	0.01	0.48	0.5	80 - 120	96

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN319

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062806.002	Aluminium, Al	µg/L	5	10	10	80 - 120	104
	Arsenic, As	µg/L	1	10	10	80 - 120	98
	Cadmium, Cd	µg/L	0.1	9.5	10	80 - 120	95
	Chromium, Cr	µg/L	1	10	10	80 - 120	100
	Copper, Cu	µg/L	1	10	10	80 - 120	97
	Iron, Fe	µg/L	5	11	10	80 - 120	105
	Lead, Pb	µg/L	1	11	10	80 - 120	105
	Manganese, Mn	µg/L	1	10	10	80 - 120	99
	Nickel, Ni	µg/L	1	10	10	80 - 120	99
	Selenium, Se	µg/L	2	11	10	80 - 120	112
Zinc, Zn	µg/L	5	10	10	80 - 120	96	

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-[ENV]AN319

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB062810.002	Total Aluminium	µg/L	5	6	5	80 - 120	120
	Total Arsenic	µg/L	1	5	5	80 - 120	96
	Total Cadmium	µg/L	0.1	5.6	5	80 - 120	111
	Total Chromium	µg/L	1	6	5	80 - 120	116
	Total Copper	µg/L	1	6	5	80 - 120	119
	Total Iron	µg/L	5	5	5	80 - 120	108
	Total Lead	µg/L	1	6	5	80 - 120	113
	Total Nickel	µg/L	1	5	5	80 - 120	93
	Total Zinc	µg/L	5	<5	5	80 - 120	96

VOCs in Water

Method: ME-(AU)-[ENV]AN433AN434

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB062719.002	Monocyclic	Benzene	µg/L	0.5	5.5	5	50 - 150	111
	Aromatic	Toluene	µg/L	0.5	5.3	5	50 - 150	107
Surrogates	Ethylbenzene	µg/L	0.5	5.1	5	50 - 150	101	
	Dibromofluoromethane (Surrogate)	µg/L	-	5.9	5	60 - 130	119	
	d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.9	5	60 - 130	119	
	d8-toluene (Surrogate)	µg/L	-	6.4	5	60 - 130	129	
	Bromofluorobenzene (Surrogate)	µg/L	-	6.2	5	60 - 130	124	



LABORATORY CONTROL SAMPLES

PE076727 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Volatile Petroleum Hydrocarbons in Water

Method: NE-(AU)-[ENV]AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB062719.002	TRH C6-C9	µg/L	40	<40	30	70 - 130	99	
	Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	5.9	5	60 - 130	119
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.9	5	60 - 130	119
		d8-toluene (Surrogate)	µg/L	-	6.4	5	60 - 130	129
		Bromofluorobenzene (Surrogate)	µg/L	-	6.2	5	60 - 130	124



MATRIX SPIKES

PE076727 R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref. MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Chloride by Direct Analyser in Water

Method: ME-(AU)-[ENV]AN274

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076820.002	LB062899.022	Chloride	mg/L	1	130	33.507	100	96
PE076828.002	LB062899.037	Chloride	mg/L	1	150	51.711	100	93

Filterable Reactive Phosphorus (FRP)

Method: ME-(AU)-[ENV]AN276

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076727.001	LB062823.017	Filterable Reactive Phosphorus	mg/L	0.002	0.061	0.004	0.05	115

Fluoride by Ion Selective Electrode in Water

Method: ME-(AU)-[ENV]AN141

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE08116CL32	LB063107.004	Fluoride by ISE	mg/L	0.1	0.6	0	0.5	110
PE086228AH24	LB062935.004	Fluoride by ISE	mg/L	0.1	0.5	<0.1	0.5	106
PE076713.002	LB062935.029	Fluoride by ISE	mg/L	0.1	0.5	<0.1	0.5	106
PE076988.003	LB063107.029	Fluoride by ISE	mg/L	0.1	0.8	0.27	0.5	104

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076628.001	LB062798.004	Mercury	mg/L	0.00005	0.0019	0	0.0025	94

Mercury (total) in Water

Method: ME-(AU)-[ENV]AN311/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076679.001	LB062795.004	Total Mercury	mg/L	0.0001	0.0020	<0.0001	0.002	101

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-[ENV]AN320/AN321

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076725.001	LB062598.004	Sodium, Na	mg/L	0.5	290	80	200	105

Sulphate in water

Method: ME-(AU)-[ENV]AN275

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076820.002	LB062899.021	Sulphate	mg/L	1	180	48.59	100	110
PE076828.002	LB062899.038	Sulphate	mg/L	1	130	34.488	100	99

Trace Metals (Dissolved) in Water by ICPMS



Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076727.001	LB062806.004	Aluminium, Al	µg/L	5	11	<5	10	77
		Arsenic, As	µg/L	1	11	<1	10	103
		Cadmium, Cd	µg/L	0.1	9.1	0.4	10	87
		Chromium, Cr	µg/L	1	10	<1	10	99
		Copper, Cu	µg/L	1	10	1	10	83
		Iron, Fe	µg/L	5	11	<5	10	98
		Lead, Pb	µg/L	1	9	<1	10	87
		Manganese, Mn	µg/L	1	98	87	10	107
		Nickel, Ni	µg/L	1	9	<1	10	85
		Selenium, Se	µg/L	2	12	<2	10	107
		Zinc, Zn	µg/L	5	19	10	10	85

Trace Metals (Total) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
PE076720.002	LB062810.004	Total Aluminium	µg/L	5	31	27	5	94

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MATRIX SPIKE DUPLICATES

PE076727 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$



The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job

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FOOTNOTES

PE076727 R0

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here:
<http://www.au.sgs.com/sgs-mp-au-env-qa-022-qa-qc-plan-en-11.pdf>

- * Non-accredited analysis.
- Sample not analysed for this analyte.
- ^ Analysis performed by external laboratory.

- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.

- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Low surrogate recovery due to the sample emulsifying during extraction.
- † Refer to Analytical Report comments for further information.

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