

EASTMAN
Cefn Mawr



18th April 2013

Beth Voice
Natural Resources Wales
Chester Road
Buckley
Flintshire
CH7 3AJ

Dear Beth,

Re: Permit No: EPR/NP3335GR
Reporting of Monitoring Data

Please find enclosed the Monitoring Data Report for the period 01/01/2013 to 31/03/2013.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "P. Armitage", written over a horizontal line.

P. Armitage
WTP Production Engineer

MONITORING RETURNS N. WALES

CHECKED vs AUTHORIZATION

✓ 19/9/13

TRACKING

JB 22.4.13

OK FOR PUBLIC REGISTER

EV 19/9/13

LOADED TO PUBLIC REGISTER

JB EPRM

Solutia UK Limited

Form Number: Water 1

Emissions to Water

Emissions to Water							
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾	Uncertainty ⁽⁴⁾
Pontcysyllte Adit (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	2.91	TOC Analysis using Hach Lange Tubes	06/03/2013 10:00:00	
	Total Phenol (mg/l)	No Limit	Quarterly	0.01	HPLC with Electrochemical Detector	02/01/2013 10:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants
	2,4 Dimethylphenol		Quarterly	0			
	2,6 Dimethylphenol		Quarterly	0			
	Aniline		Quarterly	0			
	Benzothiazole		Quarterly	0			
	Hydroxybenzothiazole		Quarterly	0			
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	4-Ethylmorpholine		Quarterly	0			
	Flectol A		Quarterly	0			
	Methyl Benzothiazole		Quarterly	0			
	O-Cresol		Quarterly	0			
	O-phenetidine		Quarterly	0			
	P-Cresol		Quarterly	0			
	Phenylisocyanate		Quarterly	0			
	P-Phenetidine		Quarterly	0			
	Sulphur (Mo)		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6 Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

[1] The result is maximum value (or the minimum value in the case of a limit expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values

[3] -for non continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples the percentage of the process operating time covered by the monitoring is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis as stated

16/04/2013

Permit Number: EPR/NP3335GR

Facility: Ruabon Chemical Works

Operator:

Solutia UK Limited

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result (1)	Test Method (2)	Sample Date and Time (3)
Trefnant Brook (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	6.89	TOC Analysis using Hach Lange Tubes	11/02/2013 10:00:00
	Total Phenol (mg/l)	No Limit	Quarterly	0.01	HPLC with Electrochemical Detector	09/01/2013 10:00:00
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS	
	2,4-Dimethylphenol		Quarterly	0		
	2,6-Dimethylphenol		Quarterly	0		
	Aniline		Quarterly	0		
	Benzothiazole		Quarterly	0		
	Hydroxybenzothiazole		Quarterly	0		
	2,4-Dichloroaniline		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	4-Ethymorpholine		Quarterly	0		
	Fiecol A		Quarterly	0		
	Methyl Benzothiazole		Quarterly	0		
	O-Cresol		Quarterly	0		
	O-phenetidine		Quarterly	0		
	P-Cresol		Quarterly	0		
	Phenylisocyanate		Quarterly	0		
	P-phenetidine		Quarterly	0		
	Sulphur (Mol)		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6 Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

Note 1: This is an off-site environmental monitoring condition

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(authorised to sign as representative of the Operator)

Date:

16/04/2013

Permit Number: EPR/NP3335GR

Operator:

Solutia UK Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾
Factory Borehole Middle (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	10	TOC Analysis using Hach Lange Tubes	20/03/2013 09:00:00
	Total Phenol (mg/l)	No Limit	Quarterly	0.05	HPLC with Electrochemical Detector	20/03/2013 09:00:00
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GC/MS	
	2,6 Dimethylphenol		Quarterly	0		
	4-Acetylmorpholine		Quarterly	0		
	Aniline		Quarterly	0		
	Hydroxybenzothiazole		Quarterly	3152		20/02/2013 09:00:00
	2,4-Dichloroaniline		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Ethoxybenzene		Quarterly	0		
	4-Ethylmorpholine		Quarterly	0		
	Flectol A		Quarterly	0		
	O-phenetidine		Quarterly	9.2		20/03/2013 09:00:00
	Phenyl Salicylate		Quarterly	0		
	Phthalimide		Quarterly	0		
	P-Phenetidine		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6 Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

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Facility: Ruabon Chemical Works

Operator:

Solutia UK Limited

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water							
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾	Uncertainty ⁽⁴⁾
Factory Borehole South (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	4.39	TOC Analysis using Hach Lange Tubes	20/02/2013 09:00:00	
	Total Phenol (mg/l)	No Limit	Quarterly	0.05	HPLC with Electrochemical Detector	20/03/2013 09:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants.
	2,6 Dimethylphenol		Quarterly	0			
	4-Acetylmorpholine		Quarterly	0			
	Aniline		Quarterly	0			
	Hydroxybenzothiazole		Quarterly	1378		31/01/2013 09:00:00	
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	Ethoxybenzene		Quarterly	0			
	4-Ethymorpholine		Quarterly	0			
	Fiecol A		Quarterly	0			
	O-phenelidine		Quarterly	0			
	Phenyl Salicylate		Quarterly	0			
	Phthalimide		Quarterly	0			
	P-Phenetidine		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6 Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

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Operator:

Solutia UK Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water							
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
Brook Culvert Sump (Note1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	16.4	TOC Analysis using Hach Lange Tubes	09/01/2013 10:00:00	
	Total Phenol (mg/l)	No Limit	Quarterly	0.06	HPLC with Electrochemical Detector	13/03/2013 10:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants
	2,4-Dimethylphenol		Quarterly	0			
	2,6-Dimethylphenol		Quarterly	0			
	Aniline		Quarterly	0			
	Benzothiazole		Quarterly	2.6		09/01/2013 10:00:00	
	Hydroxybenzothiazole		Quarterly	8453		09/01/2013 10:00:00	
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	4-Ethylmorpholine		Quarterly	0			
	Flectol A		Quarterly	6.7		13/03/2013 10:00:00	
	Methyl Benzothiazole		Quarterly	3.4		13/03/2013 10:00:00	
	O-Cresol		Quarterly	0			
	O-phenetidine		Quarterly	0			
	P-Cresol		Quarterly	0			
	Phenylisocyanate		Quarterly	0			
	P-Phenetidine		Quarterly	211		13/03/2013 10:00:00	
	Sulphur (Mol)		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6 Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

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Date:

16/04/2013

Permit Number: EPR/NP3335GR

Facility: Ruabon Chemical Works

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Operator:

Solutia UK Limited

Form Number: Water 1

Emissions to Water							
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result (1)	Test Method (2)	Sample Date and Times (3)	Uncertainty (4)
Road Culvert Sump (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	14.4	TOC Analysis using Hach Lange Tubes	09/01/2013 10:00:00	
	Total Phenol (mg/l)	No Limit	Quarterly	0.03	HPLC with Electrochemical Detector	13/03/2013 10:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants
	2,4-Dimethylphenol		Quarterly	0			
	2,4,6-Dimethylphenol		Quarterly	0			
	Aniline		Quarterly	0			
	Benzothiazole		Quarterly	0			
	Hydroxybenzothiazole		Quarterly	12286		09/01/2013 10:00:00	
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	4-Ethylmorpholine		Quarterly	0			
	Fiecol A		Quarterly	5.1			
	Methyl Benzothiazole		Quarterly	0		09/01/2013 10:00:00	
	O-Cresol		Quarterly	0			
	O-phenetidine		Quarterly	0			
	P-Cresol		Quarterly	0			
	Phenylisocyanate		Quarterly	0			
	P-Phenetidine		Quarterly	0			
	Sulphur (Mol)		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6 Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

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Date:

16/04/2013

Permit Number: EPR/NP3335GR

Operator:

Solutia UK Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾
Rhosphre Quary Leachate (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	39	TOC Analysis using Hach Lange Tubes	06/03/2013 10:00:00
	Total Phenol (mg/l)	No Limit	Quarterly	0.06	HPLC with Electrochemical Detector	06/03/2013 10:00:00
	Micro Pollutants (ppb)	No Limit	Quarterly	0	Solvent Extraction with analysis by GCMS	
	2,6-Dimethylphenol		Quarterly	0		
	4-Acetylmorpholine		Quarterly	0		
	Aniline		Quarterly	0		
	Hydroxybenzothiazole		Quarterly	9720		08/02/2013 10:00:00
	2,4-Dichloroaniline		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Dimorpholinyl Ketone		Quarterly	0		
	Ethoxybenzene		Quarterly	0		
	4-Ethylmorpholine		Quarterly	0		
	Flecol A		Quarterly	0		
	Methyl Benzothiazole		Quarterly	0		
	O-phenetidine		Quarterly	0		
	Phenyl Salicylate		Quarterly	0		
	Phthalimide		Quarterly	2.5		02/01/2013 10:00:00
	P-Phenetidine		Quarterly	0		
	Sulphur (Mo)		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6-Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

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Solutia UK Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾
Rhosymedre Quarry b/h B3 (Note 1)	Total Organic Carbon (TOC) mg/l	No Limit	Quarterly	32.6	TOC Analysis using Hach Lange Tubes	02/01/2013 10:00:00
	Total Phenol (mg/l)	No Limit	Quarterly	0.04	HPLC with Electrochemical Detector	02/01/2013 10:00:00
	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS	
	2,6-Dimethylphenol		Quarterly	0		
	4-Acetylmorpholine		Quarterly	0		
	Aniline		Quarterly	0		
	Hydroxybenzothiazole		Quarterly	1024		02/01/2013 10:00:00
	2,4-Dichloroaniline		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Dimorpholinyl Ketone		Quarterly	0		
	Ethoxybenzene		Quarterly	5.8		08/02/2013 10:00:00
	4-Ethylmorpholine		Quarterly	0		
	Flectol A		Quarterly	0		
	Methyl Benzothiazole		Quarterly	0		
	O-phenetidine		Quarterly	7.5		06/03/2013 10:00:00
	Phenyl Salicylate		Quarterly	0		
	Phthalimide		Quarterly	0		
	P-Phenetidine		Quarterly	0		
	Sulphur (Mo)		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6-Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

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16/04/2013

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Facility: Ruabon Chemical Works

Operator:

Solutia UK Limited

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾
River Dee Upstream (Note 1)	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS	
	Aniline		Quarterly	0		
	Benzothiazole		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Dimorpholyl Ketone		Quarterly	0		
	Ethoxybenzene		Quarterly	0		
	4-Ethylmorpholine		Quarterly	0		
	Fiecol A		Quarterly	0		
	Methyl BTI Sulphone		Quarterly	0		
	Methyl Sulphy BTI		Quarterly	0		
	Methyl-4-morpholinocarbodithioate		Quarterly	0		
	O-Cresol		Quarterly	0		
	P-Cresol		Quarterly	0		
	Phenylisothiocyanate		Quarterly	0		
	Phthalimide		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6-Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

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- [4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
- [5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated).

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Date:

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Solutia UK Limited

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/20123 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reference Period	Result (1)	Test Method (2)	Sample Date and Time (3)
River Dee Downstream (Note 1)	Micro Pollutants (ppb)	No Limit			Solvent Extraction with analysis by GCMS	
	Aniline		Quarterly	0		
	Benzothiazole		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Dimorpholinyl Ketone		Quarterly	0		
	Ethoxybenzene		Quarterly	0		
	4-Ethylmorpholine		Quarterly	0		
	Fieclol A		Quarterly	0		
	Methyl BTH Sulphone		Quarterly	0		
	Methyl Sulphyl BTH		Quarterly	0		
	Methyl-4-morpholinocarbodithioate		Quarterly	0		
	O-Cresol		Quarterly	0		
	P-Cresol		Quarterly	0		
	Phenylisothiocyanate		Quarterly	0		
	Phthalimide		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6-Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

Note 1: This is an off-site environmental monitoring condition

- [1] The result is maximum value (or the minimum value in the case of a limit expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.
- [3] For non continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples the percentage of the process operating time covered by the monitoring is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated).

Signed:

(authorised to sign as representative of the Operator)

Date:

16/04/2013

Permit Number: EPR/NP3335GR

Facility: Ruabon Chemical Works

Operator:

Solutia U Limited

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/10/2012 to 31/12/2012

Emissions to Water							
Emission Point	Substance/ Parameter	Emission Limit Value	Reporting Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
Ground Water Carbon Filter (Brook & Road Culvert)	Total Phenol (mg/l)	0.2	Quarterly	0.01	HPLC with Electrochemical Detector	07/01/2013 09:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Total Iron (mg/l)	No Limit Set	Quarterly	22.74	SCA Blue Book Method	28/01/2013 09:00:00	
	Micro Pollutants (ppb)	Note 1			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants
	2,6-Dimethylphenol		Quarterly	0			
	4-Acetylmorpholine		Quarterly	0			
	Aniline		Quarterly	0			
	Hydroxybenzothiazole		Quarterly	0			
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	Dimorpholiny Ketone		Quarterly	0			
	Ethoxybenzene		Quarterly	0			
	4-Ethylmorpholine		Quarterly	0			
	Fiecol A		Quarterly	0			
	Methyl Benzothiazole		Quarterly	0			
	O-phenetidine		Quarterly	0			
	Phenyl Salicylate		Quarterly	0			
	Phthalimide		Quarterly	0			
	P-Phenetidine		Quarterly	0			
	Sulphur (Mol)		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6 - Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

Note 1: Two consecutive weekly or resample results not to exceed: Hydroxybenzothiazole = 20 ppb, Fiecol A = 2ppb, others = 2ppb

- [1] The result is maximum value (or the minimum value in the case of a limit expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.
- [3] For non continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples the percentage of the process operating time covered by the monitoring is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated).

Signed:

(authorised to sign as representative of the Operator)

Date:

16/04/2013

Permit Number: EPR/NP3335GR

Operator:

Solutia UK Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water

Emission Point	Substance/Parameter	Emission Limit Value	Reporting Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾	Uncertainty ⁽⁴⁾
Ground Water Carbon Filter (Middle Borehole)	Total Phenol (mg/l)	0.2	Quarterly	0.01	HPLC with Electrochemical Detector	08/01/2013 09:00:00	Method uncertainty is ± 0.007 mg/l at 0.06 mg/l
	Total Iron (mg/l)	No Limit Set	Quarterly	36.24	SCA Blue Book Method	14/01/2013 09:00:00	
	Micro Pollutants (ppb)	Note 1			Solvent Extraction with analysis by GCMS		See repeatability data for micropollutants
	2,6-Dimethylphenol		Quarterly	0			
	4-Acetylmorpholine		Quarterly	0			
	Aniline		Quarterly	0			
	Hydroxybenzothiazole		Quarterly	0			
	2,4-Dichloroaniline		Quarterly	0			
	2,4-Dichlorophenol		Quarterly	0			
	Dimorpholinyl Ketone		Quarterly	0			
	Ethoxybenzene		Quarterly	0			
	4-Ethylmorpholine		Quarterly	0			
	Flectol A		Quarterly	0			
	Methyl Benzothiazole		Quarterly	0			
	O-phenetidine		Quarterly	0			
	Phenyl Salicylate		Quarterly	0			
	Phthalimide		Quarterly	0			
	P-Phenetidine		Quarterly	0			
	Sulphur (Mo)		Quarterly	0			
	Tetrachloroethylene		Quarterly	0			
	2,4,6-Trichlorophenol		Quarterly	0			
	Toluene		Quarterly	0			
	Xylene		Quarterly	0			

Note 1: Two consecutive weekly or resample results not to exceed: Hydroxybenzothiazole = 20 ppb, Flectol A = 2ppb, others = 2ppb

- [1] The result is maximum value (or the minimum value in the case of a limit expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.
- [3] For non continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples the percentage of the process operating time covered by the monitoring is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated).

Signed:

(authorised to sign as representative of the Operator)

Date:

16/04/2013

Permit Number: EPR/NP3335GR

Operator:

Solutia K Limited

Facility: Ruabon Chemical Works

Form Number: Water 1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/2013 to 31/03/2013

Emissions to Water						
Emission Point	Substance/Parameter	Emission Limit Value	Reporting Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾
Ground Water Carbon Filter (South Borehole)	Total Phenol (mg/l)	0.2	Quarterly	0.01	HPLC with Electrochemical Detector	01/02/2013 09:00:00
	Total Iron (mg/l)	No Limit Set	Quarterly	46.17	SCA Blue Book House	11/02/2013 09:00:00
	Micro Pollutants (ppb)	Note 1			Solvent Extraction with analysis by GCMS	
	2,6-Dimethylphenol		Quarterly	0		
	4-Acetylmorpholine		Quarterly	0		
	Aniline		Quarterly	0		
	Hydroxybenzothiazole		Quarterly	0		
	2,4-Dichloroaniline		Quarterly	0		
	2,4-Dichlorophenol		Quarterly	0		
	Dimorpholinyl Ketone		Quarterly	0		
	Ethoxybenzene		Quarterly	0		
	4-Ethylmorpholine		Quarterly	0		
	Flectol A		Quarterly	0		
	Methyl Benzothiazole		Quarterly	0		
	O-phenetidine		Quarterly	0		
	Phenyl Salicylate		Quarterly	0		
	Phthalimide		Quarterly	0		
	P-Phenetidine		Quarterly	0		
	Sulphur (Mo)		Quarterly	0		
	Tetrachloroethylene		Quarterly	0		
	2,4,6-Trichlorophenol		Quarterly	0		
	Toluene		Quarterly	0		
	Xylene		Quarterly	0		

Note 1: Two consecutive weekly or resample results not to exceed :Hydroxybenzothiazole = 20 ppb, Flectol A = 2ppb, others = 2ppb

[1] The result is maximum value (or the minimum value in the case of a limit expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.

[3] For non continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples the percentage of the process operating time covered by the monitoring is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated).

Signed:


(authorised to sign as representative of the Operator)

Date:

16/04/2013

REPEATABILITY DATA FOR MICROPOLLUTANTS

Component	Linearity 95% confidence through zero, R ²	Repeatability, r			
		6mg/l	10mg/l	16mg/l	40mg/l
	Range: 5 - 40 mg/l				
Toluene	0.999	0.10	0.40	0.40	3.25
P.C.E	0.998	0.23	0.26	0.15	2.61
p-Xylene	0.998	0.24	0.22	0.30	1.80
Ethylmorpholine	0.997	0.48	0.87	0.41	1.79
Aniline	0.998	0.47	0.83	0.63	3.60
Phenol	0.995	0.31	0.72	0.48	3.46
Ethoxybenzene	0.998	0.34	0.21	0.55	2.92
o-Cresol	0.994	0.30	0.47	0.38	1.83
p-Cresol	0.996	0.19	0.28	0.32	2.81
Dichlorophenol	0.996	0.18	0.09	0.17	1.44
Phenylisothiocyanate	0.995	0.16	0.78	0.28	1.89
Benzothiazole	0.999	0.24	0.34	0.01	2.02
Trichlorophenol	0.996	0.21	0.25	0.70	2.26
Fieetol A	0.999	0.30	0.21	0.30	4.00
Phthalimide	0.994	0.20	0.78	0.39	1.67
Methyl-4-morpholinylcarbodithioate	0.998	0.43	0.21	0.18	1.94
Dimorpholinyl Ketone	0.998	0.31	0.54	0.73	1.81
Me Sulphyl BTH	0.996	0.14	0.49	1.12	3.05
Me BTH Sulphone	0.997	0.20	0.46	0.95	2.84

