Part D

Solvent/Product Analysis: 2012 *(Base Data for VOC Calculation)*

Solvent Analysis

Solvent	Op. Bal.	Receipts	Cl. Bal.	Usage		
ACETONE	2069	8538	3494	7113		
ISOPROPANOL	1356	19700	2881	18175	18541	
N-PROPANOL	150	330	114	367		
HEPTANES	0	6606	0	6606		
HEXANES	26053	105060	2811	128302	2500382	1250191
CYCLOHEXANE	0	5005	1251	3754		
HYDROCARBON	10596	2411090	53359	2368327		
ETHANOL (IMS)	650	2370	119	2901		
TOTAL	**40874**	**2558698**	**64029**	**2535543**	**1,730,963**	**40.57%**

Production Analysis

Production Volume Jan - Dec 2011					
Product	**Tanker**	**IBC**	**Drum**	**Poly**	**Total**
SLC 100A	124,280	59,945	2,158,475	-	**2,342,700**
SLC 160	-	-	925,440	-	**925,440**
SLC 235	168,520	-	323,680	32	**492,232**
SLC 239G	-	-	11,020	-	**11,020**
SLC 9291ES	-	-	72,864	-	**72,864**
	-	-	-	-	0
SOLV 1E	-	-	8,576	-	**8,576**
SOLV 3	-	-	1,120	-	**1,120**
NDF 20/27T DF	-	-	27,650	702	**28,352**
SP 1427	56,640	160,500	157,320	247	**374,707**
DL	-	-	571	3,654	**4,225**
LF	-	-	-	-	**-**
NW	-	-	1,260	1,920	**3,180**
CSF	-	-	-	2,090	**2,090**
DREM	-	-	-	-	**-**
Total	**349,440**	**220,445**	**3,687,976**	**8,645**	**4,266,506**

Vent Measurements: May 14th 2012

Mass Emission is calculated from Ideal Gas Law

mass emission mg/min = ppm x flow rate x molecular weight x P /RT

n= PV/RT

V = measured flow rate (m3/min)	
P = 101325 Pa (760 mm Mercury)	**101325**
T = 293 K	**293**
R = molar gas constant 8.314 (m3Pa/mol K)	**8.314**
Molecular weight for solvent = 90	**90**
R x T	**2436.002**
P/RxT	**41.595**

		Solvent Tank to Mixer	Homogenisation Tank to Tank	Mixer to Buk Tank
		ST2 toMM	BT1 to BT4	MM to BT5
Mean ppm	**ppm**	**0.00**	**5.42**	**0.74**
Flow Volume	**m3/min**	**3.20**	**3.20**	**3.20**
Emission rate	**gm/min**	0.00000	0.06501	0.00888
Emission Rate MR	**kg/min**	0.00000	0.00007	0.00001
Prebalanced Rate (PBR)	**kg/min**	0.18000	0.18000	0.04400
MR/PBR		0.00000	0.00036	0.00020
Efficiency 1-MR/PBR		1.00000	0.99964	0.99980
EFFICIENCY PERCENT	**%**	**100.000**	**99.964**	**99.980**

Vent Measurements: October 16th 2012

Mass Emission is calculated from Ideal Gas Law

mass emission mg/min = ppm x flow rate x molecular weight x P /RT

n= PV/RT

V = measured flow rate (m3/min)	
P = 101325 Pa (760 mm Mercury)	**101325**
T = 293 K	**293**
R = molar gas constant 8.314 (m3Pa/mol K)	**8.314**
Molecular weight for solvent = 90	**90**
R x T	**2436.002**
P/RxT	**41.595**

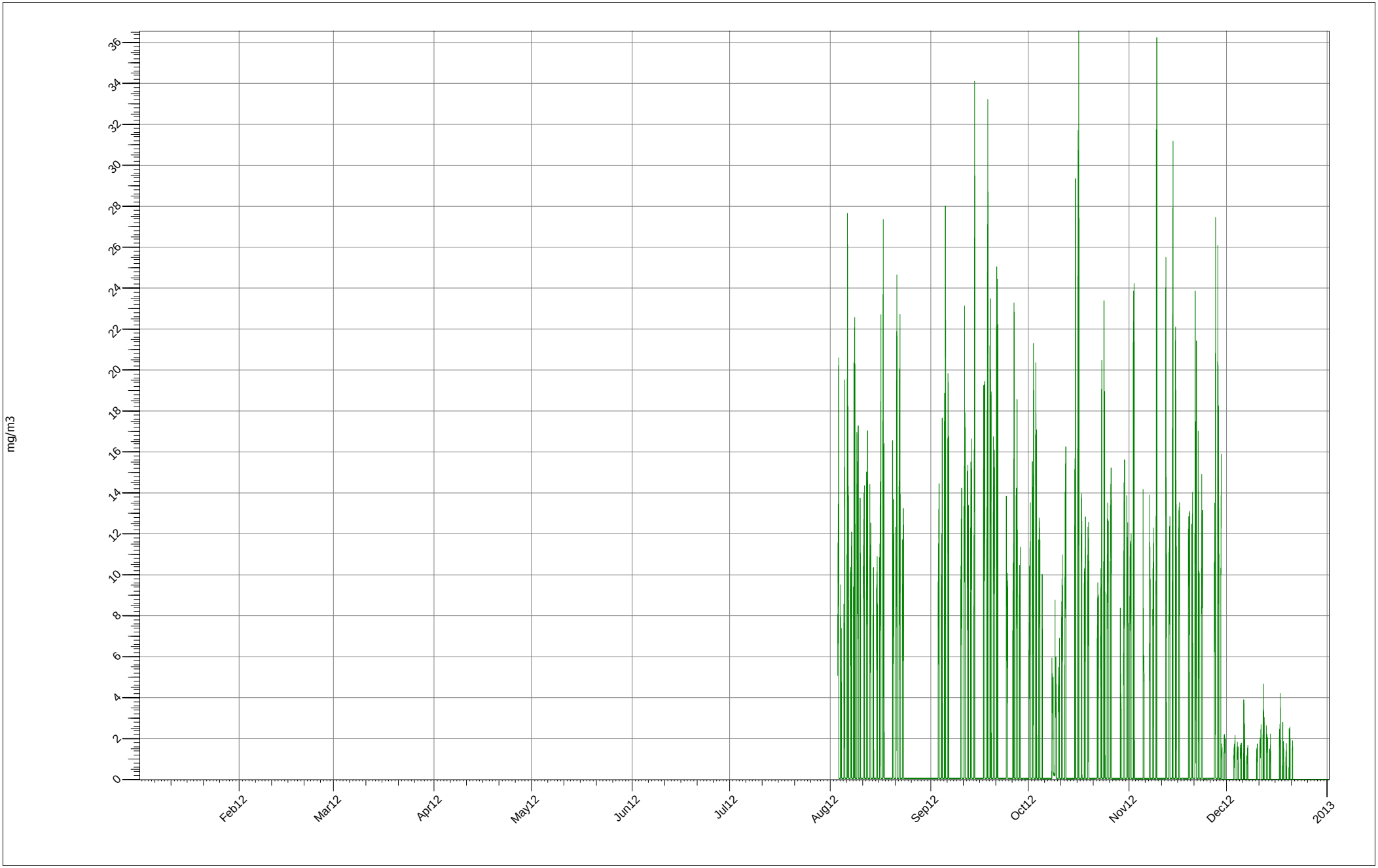
		Solvent Tank to Mixer	**Homogenisation Tank to Tank**	**Mixer to Buk Tank**
		ST2 toMM	**BT1 to BT4**	**MM to BT5**
Mean ppm	**ppm**	**0.00**	**0.00**	**6.49**
Flow Volume	**m3/min**	**3.20**	**3.20**	**3.20**
Emission rate	**gm/min**	0.00000	0.00000	0.07782
Emission Rate MR	**kg/min**	0.00000	0.00000	0.00008
Prebalanced Rate (PBR)	**kg/min**	0.18000	0.18000	0.04400
MR/PBR		0.00000	0.00000	0.00177
Efficiency 1-MR/PBR		1.00000	1.00000	0.99823
EFFICIENCY PERCENT	**%**	**100.000**	**100.000**	**99.823**

Emission Report

Company:DAREX UK LTD Contact

From:01 Jan 12 09:15:00 To:01 Jan 13 15:15:00

Device 1 : Stack1 Banbury Cal Factor: WARNING CAL FACTOR IS NOT CONSTANT Average:2.110 Averaging Period:15 mins Maximum:36.57



Emission Report

Company:DAREX UK LTD Contact

From:01 Jan 12 09:15:00 To:01 Jan 13 15:15:00

Device 1 : Stack2 Conveyor Cal Factor: 1.00 (constant) Average:0.122 Averaging Period:15 mins Maximum:3.040