S&ME
3718 OLD BATTLEGROUND ROAD
GREENSBORO, N.C. 27410
PHONE (910) 288-7180

JOB UNOCAL MEBANE
SHEET NO. 1 OF 1
CALCULATED BY G. SIMCOX DATE 11/9/94
CHECKED BY DATE
SCALE

WELL #	TOTAL DEPTH	H_2O LEVEL	GALLONS PURGED	2" BAILERS	TIME
MW-7	24.88	18.20'	13.23 gal	50	4:00p
* MW-3	25.00	17.80'	3.70	14	2:15p
MW-2	23.90	17.12'	13.42	51	1:30p
MW-1	23.29	14.94'	16.53	63	1:15p
MW-6	23.95	17.90'	12.00	46	2:45p
* MW-4	23.71	18.78' DTP = 18.70'	10.00	38	3:30p

NOTE: MW-3 IS A 2" WELL

MW-4 HAD .08' OF PRODUCT FLOATING ON THE WATER.

THE SAMPLES WERE SHIPPED 11/10/94 BY FED. EX. FROM GREENSBORO OFFICE.

Note: All 6 MW's sampled for EPA methods 601, 602 including MTBE and 610, in accordance with NCDEHNR protocol.

REC'D NOV 2 8 1994

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Nov21 1994
Project Number : UNOC - 9787-214
PO Number : N/A
FDHRSDW Number : 83139
FHRS ENVNumber : E83018
FDER COMQAPNum : 86-0008G
A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9502 MW1	9503 MW2	9504 MW3	9505 MW4	9506 MW6
Dilution_Factor		-	-	-	1.00	1.00	1.00	20.0	1.00
1,1,1-trichloroethan	ug/L	1.00	82.9	.650	<1.00	<1.00	<1.00	<20.0	<1.00
1,1,2,2-tetrachloroe	ug/L	1.00	84.1	1.81	<1.00	<1.00	<1.00	<20.0	<1.00
1,1,2-trichloroethan	ug/L	1.00	86.0	3.09	<1.00	<1.00	<1.00	<20.0	<1.00
1,1-dichloroethane	ug/L	1.00	85.6	.620	<1.00	<1.00	<1.00	<20.0	<1.00
1,1-dichloroethene	ug/L	1.00	83.6	3.08	<1.00	<1.00	<1.00	<20.0	<1.00
1,2-dichloroethane	ug/L	1.00	85.5	2.47	<1.00	<1.00	13.2	29.3	<1.00
1,2-dichloropropane	ug/L	1.00	86.5	2.07	<1.00	<1.00	<1.00	<20.0	<1.00
2-chloroethylvinylet	ug/L	1.00			<1.00	<1.00	<1.00	<20.0	<1.00
Bromodichloromethane	ug/L	1.00	85.9	1.35	<1.00	<1.00	<1.00	<20.0	<1.00
Bromoform	ug/L	1.00	84.7	1.47	<1.00	<1.00	<1.00	<20.0	<1.00
cis-1,3-dichloroprop	ug/L	1.00	84.6	.090	<1.00	<1.00	<1.00	<20.0	<1.00
Carbon tetrachloride	ug/L	1.00	84.5	.370	<1.00	<1.00	<1.00	<20.0	<1.00
Chloroform	ug/L	1.00	87.3	.030	<1.00	<1.00	<1.00	<20.0	<1.00
Dibromochloromethane	ug/L	1.00	84.0	1.10	<1.00	<1.00	<1.00	<20.0	<1.00
Methylene chloride	ug/L	1.00	86.7	2.16	<1.00	<1.00	<1.00	<20.0	<1.00
trans-1,3,-dichlorop	ug/L	1.00	84.6	1.18	<1.00	<1.00	<1.00	<20.0	<1.00
Trichlorofluorometha	ug/L	2.00	91.4	3.75	<2.00	<2.00	<2.00	<40.0	<2.00
1,2-dichloroethene	ug/L	1.00	85.3	.010	<1.00	<1.00	<1.00	<20.0	<1.00
Trichloroethene	ug/L	1.00	86.4	.250	<1.00	<1.00	<1.00	<20.0	<1.00
Tetrachloroethene	ug/L	1.00	87.7	1.65	<1.00	<1.00	<1.00	<20.0	<1.00
1,2-dibromo-3-chloro	ug/L	1.00	85.2	.520	<1.00	<1.00	<1.00	<20.0	<1.00
Bromomethane	ug/L	5.00			<5.00	<5.00	<5.00	<100.	<5.00
Chloroethane	ug/L	3.00	82.9	.800	<3.00	<3.00	<3.00	<60.0	<3.00
Chloromethane	ug/L	5.00			<5.00	<5.00	<5.00	<100.	<5.00
Dichlorodifluorometh	ug/L	2.00			<2.00	<2.00	<2.00	<40.0	<2.00

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.
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Jefferson S. Flowers, Ph.d.
President/Technical Director

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Jefferson L. Flower, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Nov21 1994
Project Number : UNOC
PO Number : N/A
FDHRSDW Number : 83139
FHRS ENVNumber : E83018
FDER COMQAPNum : 86-0008G
A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9507 MW7	9508 TRIP
Dilution_Factor		-	-	-	1.00	1.00
1,1,1-trichloroethan	ug/L	1.00	82.9	.650	<1.00	-
1,1,2,2-tetrachloroe	ug/L	1.00	84.1	1.81	<1.00	-
1,1,2-trichloroethan	ug/L	1.00	86.0	3.09	<1.00	-
1,1-dichloroethane	ug/L	1.00	85.6	.620	<1.00	-
1,1-dichloroethene	ug/L	1.00	83.6	3.08	<1.00	-
1,2-dichloroethane	ug/L	1.00	85.5	2.47	<1.00	-
1,2-dichloropropane	ug/L	1.00	86.5	2.07	<1.00	-
2-chloroethylvinylet	ug/L	1.00			<1.00	-
Bromodichloromethane	ug/L	1.00	85.9	1.35	<1.00	-
Bromoform	ug/L	1.00	84.7	1.47	<1.00	-
cis-1,3-dichloroprop	ug/L	1.00	84.6	.090	<1.00	-
Carbon tetrachloride	ug/L	1.00	84.5	.370	<1.00	-
Chloroform	ug/L	1.00	87.3	.030	1.40	-
Dibromochloromethane	ug/L	1.00	84.0	1.10	<1.00	-
Methylene chloride	ug/L	1.00	86.7	2.16	<1.00	-
trans-1,3,-dichlorop	ug/L	1.00	84.6	1.18	<1.00	-
Trichlorofluorometha	ug/L	2.00	91.4	3.75	<2.00	-
1,2-dichloroethene	ug/L	1.00	85.3	.010	<1.00	-
Trichloroethene	ug/L	1.00	86.4	.250	<1.00	-
Tetrachloroethene	ug/L	1.00	87.7	1.65	<1.00	-
1,2-dibromo-3-chloro	ug/L	1.00	85.2	.520	<1.00	-
Bromomethane	ug/L	5.00			<5.00	-
Chloroethane	ug/L	3.00	82.9	.800	<3.00	-
Chloromethane	ug/L	5.00			<5.00	-
Dichlorodifluorometh	ug/L	2.00			<2.00	-

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481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

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FHRS ENVNumber : E83018
FDER COMQAPNum : 86-0008G
A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9502 MW1	9503 MW2	9504 MW3	9505 MW4	9506 MW6
Vinyl chloride	ug/L	0.500			<0.500	<0.500	<0.500	<10.0	<0.500
Hall_Spike	ug/L	0.500	100.	2.57	90.8	88.1	93.5	99.0	88.5
o-dichlorobenzene	ug/L	0.500	81.8	.070	<0.500	<0.500	<0.500	<10.0	<0.500
m-dichlorobenzene	ug/L	0.500	81.7	1.19	<0.500	<0.500	<0.500	<10.0	<0.500
Para-dichlorobenzene	ug/L	0.500	83.6	3.90	<0.500	<0.500	<0.500	<10.0	<0.500
Benzene	ug/L	0.500	91.3	.660	<0.500	<0.500	<0.500	22100	<0.500
Chlorobenzene	ug/L	0.500	83.6	2.57	<0.500	<0.500	<0.500	<10.0	<0.500
Ethylbenzene	ug/L	0.500	89.2	.100	<0.500	<0.500	18.5	4710	<0.500
Toluene	ug/L	0.500	89.0	.460	<0.500	<0.500	<0.500	40100	<0.500
Xylene	ug/L	0.500	89.1	.660	<0.500	<0.500	184.	20500	<0.500
Methyl-tert-butyleth	ug/L	0.500	88.8	.120	<0.500	<0.500	<0.500	15700	<0.500
Total_BTEX	ug/L	0.500	89.5	.310	<0.500	<0.500	203.	87400	<0.500
PID_Spike	ug/L	0.500	107.	.940	103.	104.	103.	140.	102.
-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	1.00	95.7	2.67	<1.00	<1.00	<1.00	<1.00	<1.00
Acenaphthene	ug/L	1.00	96.8	.590	<1.00	<1.00	<1.00	<1.00	<1.00
Anthracene	ug/L	1.00	94.4	3.83	<1.00	<1.00	<1.00	<1.00	<1.00
Benzo(a)anthracene	ug/L	1.00	98.4	9.41	<1.00	<1.00	<1.00	<1.00	<1.00
Benzo(a)pyrene	ug/L	1.00	93.6	9.78	<1.00	<1.00	<1.00	<1.00	<1.00
Benzo(b)fluoranthene	ug/L	1.00	96.8	16.9	<1.00	<1.00	<1.00	<1.00	<1.00
Benzo(g,h,i)perylene	ug/L	1.00	84.9	.130	<1.00	<1.00	<1.00	<1.00	<1.00
Benzo(k)fluoranthene	ug/L	1.00	96.8	16.9	<1.00	<1.00	<1.00	<1.00	<1.00
Chrysene	ug/L	1.00	95.5	11.3	<1.00	<1.00	<1.00	<1.00	<1.00
Dibnz(a,h)anthracene	ug/L	1.00	84.3	10.5	<1.00	<1.00	<1.00	<1.00	<1.00
Fluoranthene	ug/L	1.00	88.2	8.01	<1.00	<1.00	<1.00	<1.00	<1.00
Fluorene	ug/L	1.00	95.3	3.06	<1.00	<1.00	<1.00	<1.00	<1.00

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President/Technical Director

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Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Nov21 1994
Project Number : UNOC
PO Number : N/A
FDHRSDW Number : 83139
FHRS ENVNumber : E83018
FDER COMQAPNum : 86-0008G
A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9507 MW7	9508 TRIP
Vinyl chloride	ug/L	0.500			<0.500	-
Hall_Spike	ug/L	0.500	100.	2.57	85.8	-
o-dichlorobenzene	ug/L	0.500	81.8	.070	<0.500	<0.500
m-dichlorobenzene	ug/L	0.500	81.7	1.19	<0.500	<0.500
Para-dichlorobenzene	ug/L	0.500	83.6	3.90	<0.500	<0.500
Benzene	ug/L	0.500	91.3	.660	<0.500	<0.500
Chlorobenzene	ug/L	0.500	83.6	2.57	<0.500	<0.500
Ethylbenzene	ug/L	0.500	89.2	.100	<0.500	<0.500
Toluene	ug/L	0.500	89.0	.460	<0.500	<0.500
Xylene	ug/L	0.500	89.1	.660	<0.500	<0.500
Methyl-tert-butyleth	ug/L	0.500	88.8	.120	<0.500	<0.500
Total_BTEX	ug/L	0.500	89.5	.310	<0.500	<0.500
PID_Spike	ug/L	0.500	107.	.940	102.	103.
-	-	-	-	-	-	-
Acenaphthylene	ug/L	1.00	95.7	2.67	<1.00	-
Acenaphthene	ug/L	1.00	96.8	.590	<1.00	-
Anthracene	ug/L	1.00	94.4	3.83	<1.00	-
Benzo(a)anthracene	ug/L	1.00	98.4	9.41	<1.00	-
Benzo(a)pyrene	ug/L	1.00	93.6	9.78	<1.00	-
Benzo(b)fluoranthene	ug/L	1.00	96.8	16.9	<1.00	-
Benzo(g,h,i)perylene	ug/L	1.00	84.9	.130	<1.00	-
Benzo(k)fluoranthene	ug/L	1.00	96.8	16.9	<1.00	-
Chrysene	ug/L	1.00	95.5	11.3	<1.00	-
Dibnz(a,h)anthracene	ug/L	1.00	84.3	10.5	<1.00	-
Fluoranthene	ug/L	1.00	88.2	8.01	<1.00	-
Fluorene	ug/L	1.00	95.3	3.06	<1.00	-

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Jefferson L. Flower, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

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A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9502 MW1	9503 MW2	9504 MW3	9505 MW4	9506 MW6
Indn(1,2,3-cd)pyrene	ug/L	1.00	87.9	7.66	<1.00	<1.00	<1.00	<1.00	<1.00
Naphthalene	ug/L	1.00	99.1	1.93	<1.00	<1.00	<1.00	251.	<1.00
1-methyl-Naphthalene	ug/L	1.00	103.	1.72	<1.00	<1.00	<1.00	64.5	<1.00
2-methyl-Naphthalene	ug/L	1.00	93.5	3.12	<1.00	<1.00	<1.00	116.	<1.00
Phenanthrene	ug/L	1.00	90.7	5.79	<1.00	<1.00	<1.00	<1.00	<1.00
Pyrene	ug/L	1.00	83.6	5.48	<1.00	<1.00	<1.00	<1.00	<1.00
Intl_QA_Spike(2FBP)	ug/L	1.00	97.2	.030	32.6	13.5	55.0	54.2	49.8
Surr_Spike(DBBP)	ug/L	1.00	89.4	7.46	37.6	16.5	61.2	79.1	57.5
PAH_Extraction	-	-			-	-	-	-	-

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Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	9507 MW7	9508 TRIP
Indn(1,2,3-cd)pyrene	ug/L	1.00	87.9	7.66	<1.00	-
Naphthalene	ug/L	1.00	99.1	1.93	<1.00	-
1-methyl-Naphthalene	ug/L	1.00	103.	1.72	<1.00	-
2-methyl-Naphthalene	ug/L	1.00	93.5	3.12	<1.00	-
Phenanthrene	ug/L	1.00	90.7	5.79	<1.00	-
Pyrene	ug/L	1.00	83.6	5.48	<1.00	-
Intl_QA_Spike(2FBP)	ug/L	1.00	97.2	.030	43.6	-
Surr_Spike(DBBP)	ug/L	1.00	89.4	7.46	54.4	-
PAH_Extraction	-	-			-	-

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For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF INFORMATION

Parameter	Unit	Limit	Expected	Value	Range	Correlation
				9502		
Hall_Spike	ug/L	153.	93.8	90.8		
PID_Spike	ug/L	153.	101.	103.		
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	32.6		
Surr_Spike(DBBP)	ug/L	-	-	37.6		
				9503		
Hall_Spike	ug/L	153.	93.8	88.1		
PID_Spike	ug/L	153.	101.	104.		
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	13.5		
Surr_Spike(DBBP)	ug/L	-	-	16.5		
				9504		
1,2-dichloroethane	ug/L	109000	1870	13.2		
Hall_Spike	ug/L	153.	93.8	93.5		
Ethylbenzene	ug/L	23700	686.	18.5		
Xylene	ug/L	35100	2100	184.		
Total_BTEX	ug/L	44300	4710	203.		
PID_Spike	ug/L	153.	101.	103.		
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	55.0		
Surr_Spike(DBBP)	ug/L	-	-	61.2		

The above information is intended to highlight exceptional data as compared to the upper control limits (Limit) established for each of the parameters. Range exceedances are flagged by integer values in the Range column. The Expected values are derived from historical data. Expected is computed as either the mean or computed directly from another parameter using linear regression. All known correlation rule exceedances are listed as enumerated rule numbers in the Correlation column. Correlation pair rules are defined on the last page.

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9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Nov21 1994
Project Number : UNOC
PO Number : N/A
FDHRS Number : 83139
FDER Number : E83018
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF INFORMATION

Parameter	Unit	Limit	Expected	Value	Range	Correlation		
				9505				
1,2-dichloroethane	ug/L	109000	1870	29.3				
Hall_Spike	ug/L	153.	93.8	99.0				
Benzene	ug/L	8810	27200	22100	150			
Ethylbenzene	ug/L	2890	8930	4710	185			
Toluene	ug/L	22700	1770	40100	207	138	131	
Xylene	ug/L	13000	30000	20500	202	202	176	
Methyl-tert-butyleth	ug/L	32400	1470	15700				
Total_BTEX	ug/L	43400	4720	87400	207	185	150	29
PID_Spike	ug/L	153.	101.	140.				
Naphthalene	ug/L	16900	330.	251.				
1-methyl-Naphthalene	ug/L	28400	2000	64.5				
2-methyl-Naphthalene	ug/L	43100	2610	116.				
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	54.2				
Surr_Spike(DBBP)	ug/L	-	-	79.1				
				9506				
Hall_Spike	ug/L	153.	93.8	88.5				
PID_Spike	ug/L	153.	101.	102.				
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	49.8				
Surr_Spike(DBBP)	ug/L	-	-	57.5				
				9507				
Chloroform	ug/L	79.3	12.7	1.40				
Hall_Spike	ug/L	153.	93.8	85.8				
PID_Spike	ug/L	153.	101.	102.				
Intl_QA_Spike(2FBP)	ug/L	231.	87.1	43.6				
Surr_Spike(DBBP)	ug/L	-	-	54.4				

The above information is intended to highlight exceptional data as compared to the upper control limits (Limit) established for each of the parameters. Range exceedances are flagged by integer values in the Range column. The Expected values are derived from historical data. Expected is computed as either the mean or computed directly from another parameter using linear regression. All known correlation rule exceedances are listed as enumerated rule numbers in the Correlation column. Correlation pair rules are defined on the last page.

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Jefferson L. Flower, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

FLOWERS
CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Nov21 1994
Project Number : UNOC
PO Number : N/A
FDHRS Number : 83139
FDER Number : E83018
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF INFORMATION

Parameter	Unit	Limit	Expected	Value	Range	Correlation
				9508		
PID_Spike	ug/L	153.	101.	103.		

The above information is intended to highlight exceptional data as compared to the upper control limits (Limit) established for each of the parameters. Range exceedances are flagged by integer values in the Range column. The Expected values are derived from historical data. Expected is computed as either the mean or computed directly from another parameter using linear regression. All known correlation rule exceedances are listed as enumerated rule numbers in the Correlation column. Correlation pair rules are defined on the last page.

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FLORIDA 32715-0597
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FDER Number : E83018
NCDEHNR Number : 296
SCDHEC Number : 96019

For: EPA601602 EPA610 EPA602 Discount
Date Sampled:Nov10 1994 Date Received:Nov11 1994 Lab Numbers: 9502-9508

REPORT OF INFORMATION

Correlation Pairs Referenced

29	Naphthalene	Total_BTEX
131	Benzene	Toluene
138	Ethylbenzene	Toluene
150	Benzene	Total_BTEX
176	Toluene	Xylene
185	Ethylbenzene	Total_BTEX
202	Total_BTEX	Xylene

The above information is intended to highlight exceptional data as compared to the upper control limits (Limit) established for each of the parameters. Range exceedances are flagged by integer values in the Range column. The Expected values are derived from historical data. Expected is computed as either the mean or computed directly from another parameter using linear regression. All known correlation rule exceedances are listed as enumerated rule numbers in the Correlation column. Correlation pair rules are defined on the last page.

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FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

2670

FLOWERS CHEMICAL LABORATORIES

ANALYTICAL RESULTS FORM HRS Number 83139

Parameter	Symbol	Unit	MW-1 9502	MW-2 9503	MW-3 9504	MW-4 9505	MW-6 9506	MW-7 9507	trip 9508				Method	QA MDL	Section %RSD	%Rec	Analys	Date
Dilution Factor	*	#	1.00	1.00	1.00	20.0	1.00	1.00	1.00				EPA601	1			DO	11-11-94
1,1,1-trichloroethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.659	82.9	DO	11-11-94
1,1,2,2-tetrachloroethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.81	84.1	DO	11-11-94
1,1,2-trichloroethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	3.09	86.0	DO	11-11-94
1,1-dichloroethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.623	85.6	DO	11-11-94
1,1-dichloroethene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	3.08	83.6	DO	11-11-94
1,2-dichloroethane	*	ug/L	<1	<1	13.2	29.3	<1	<1	-				EPA601	1	2.47	85.5	DO	11-11-94
1,2-dichloropropane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	2.07	86.5	DO	11-11-94
2-chloroethylvinylether	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1			DO	11-11-94
Bromodichloromethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.35	85.9	DO	11-11-94
Bromoform	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.47	84.7	DO	11-11-94
cis-1,3-dichloropropene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.0915	84.6	DO	11-11-94
Carbon tetrachloride	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.379	84.5	DO	11-11-94
Chloroform	*	ug/L	<1	<1	<1	<1	<1	1.40	-				EPA601	1	0.0399	87.3	DO	11-11-94
Dibromochloromethane	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.10	84.0	DO	11-11-94
Methylene chloride	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	2.16	86.7	DO	11-11-94
trans-1,3,-dichloropropene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.18	84.6	DO	11-11-94
Trichlorofluoromethane	*	ug/L	<2	<2	<2	<2	<2	<2	-				EPA601	2	3.75	91.4	DO	11-11-94
1,2-dichloroethene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.0168	85.3	DO	11-11-94
Trichloroethene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.251	86.4	DO	11-11-94
Tetrachloroethene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	1.65	87.7	DO	11-11-94
1,2-dibromo-3-chloroprop	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA601	1	0.524	85.2	DO	11-11-94
Bromomethane	*	ug/L	<5	<5	<5	<5	<5	<5	-				EPA601	5			DO	11-11-94
Chloroethane	*	ug/L	<3	<3	<3	<3	<3	<3	-				EPA601	3	0.804	82.9	DO	11-11-94
Chloromethane	*	ug/L	<5	<5	<5	<5	<5	<5	-				EPA601	5			DO	11-11-94
Dichlorodifluoromethane	*	ug/L	<2	<2	<2	<2	<2	<2	-				EPA601	2			DO	11-11-94
Vinyl chloride	*	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-				EPA601	0.5			DO	11-11-94
Hall_Spike	*	ug/L	90.8	88.1	93.5	99.0	88.5	85.8	-				EPA601	0.5	2.57	100	DO	11-11-94
o-dichlorobenzene	*	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				EPA602	0.5	0.0753	81.8	DO	11-11-94
m-dichlorobenzene	*	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				EPA602	0.5	1.19	81.7	DO	11-11-94
Para-dichlorobenzene	*	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				EPA602	0.5	3.90	83.6	DO	11-11-94
Benzene	*	ug/L	<0.5	<0.5	<0.5	22077	<0.5	<0.5	<0.5				EPA602	0.5	0.663	91.3	DO	11-11-94
Chlorobenzene	*	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				EPA602	0.5	2.57	83.6	DO	11-11-94
Ethylbenzene	*	ug/L	<0.5	<0.5	18.5	4708	<0.5	<0.5	<0.5				EPA602	0.5	0.107	89.2	DO	11-11-94
Toluene	*	ug/L	<0.5	<0.5	<0.5	40086	<0.5	<0.5	<0.5				EPA602	0.5	0.465	89.0	DO	11-11-94
Xylene	*	ug/L	<0.5	<0.5	184	20532	<0.5	<0.5	<0.5				EPA602	0.5	0.665	89.1	DO	11-11-94
Methyl-tert-butylether	*	ug/L	<0.5	<0.5	<0.5	15708	<0.5	<0.5	<0.5				EPA602	0.5	0.127	88.8	DO	11-11-94
Total_BTEX	*	ug/L	<0.5	<0.5	203	87403	<0.5	<0.5	<0.5				EPA602	0.5	0.313	89.5	DO	11-11-94
PID_Spike	*	ug/L	103	104	103	140	102	102	103				EPA602	0.5	0.940	107	DO	11-11-94
-	*	-											-	-				
Acenaphthylene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	2.67	95.7	CLS	11-18-94
Acenaphthene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	0.592	96.8	CLS	11-18-94
Anthracene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	3.83	94.4	CLS	11-18-94
Benzo(a)anthracene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	9.41	98.4	CLS	11-18-94
Benzo(a)pyrene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	9.78	93.6	CLS	11-18-94
Benzo(b)fluoranthene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	16.9	96.8	CLS	11-18-94
Benzo(g,h,i)perylene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	0.136	84.9	CLS	11-18-94
Benzo(k)fluoranthene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	16.9	96.8	CLS	11-18-94
Chrysene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	11.3	95.5	CLS	11-18-94
Dibnz(a,h)anthracene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	10.5	84.3	CLS	11-18-94
Fluoranthene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	8.01	88.2	CLS	11-18-94
Fluorene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	3.06	95.3	CLS	11-18-94

Indn(1,2,3-cd)pyrene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	7.66	87.9	CLS	11-18-94
Naphthalene	*	ug/L	<1	<1	<1	251	<1	<1	-				EPA625	1	1.93	99.1	CLS	11-18-94
1-Methyl-Naphthalene	*	ug/L	<1	<1	<1	64.5	<1	<1	-				EPA625	1	1.72	103	CLS	11-18-94
2-Methyl-Naphthalene	*	ug/L	<1	<1	<1	116	<1	<1	-				EPA625	1	3.12	93.5	CLS	11-18-94
Phenanthrene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	5.79	90.7	CLS	11-18-94
Pyrene	*	ug/L	<1	<1	<1	<1	<1	<1	-				EPA625	1	5.48	83.6	CLS	11-18-94
Surr_Spike(2FBP)	*	ug/L	32.6	13.5	55.0	54.2	49.8	43.6	-				EPA625	1	0.0364	97.2	CLS	11-18-94
Surr_Spike(DBBP)	*	ug/L	37.6	16.5	61.2	79.1	57.5	54.4	-				EPA625	1	7.46	89.4	CLS	11-18-94
PAH_Extraction	*	-	-	-	-	-	-	-	-				-	-			HJ	11-17-94

Date Received: 11-11-94 Typed: 11-21-94 Sent: 11-21-94

Project Number	UNOC		
PO Number	N/A		
Date Sampled	1	11-10-94	*
Date Analyzed	0		
Compacted	1		
Format	NormRR		
Unit Cost	Exted		
EPA601602	9000	6	*
EPA610	13500	6	*
EPA602	6500	1	*
Discount	-46695	1	*
0.00			

Quality Assurance Report

Prepared for: S&ME-Charlotte
Project Number: UNOC
Lab Numbers: 9502 - 9508

Report date: 21-Nov-94

ACCREDITED

FLOWERS CHEMICAL LABORATORIES

FLOWERS CHEMICAL LABORATORIES, INC.

QA Conformance Summary

Client:	S&ME-Charlotte
Project Number:	UNOC
P.O. Number:	N/A
Date Sampled:	10-Nov-94
Lab Numbers:	9502 - 9508

Sample Handling

Sample handling and holding time criteria were met for all samples.

Surrogate Compound Recoveries:

The recovery limits were exceded for 2 samples as shown in section 1. This represents a 92.0% success rate.
Surrogate exceedences are attributed to matrix interferences.

Accuracy / Precision:

The recovery limits were met for all compounds in the matrix spike as shown in section 2.
The recovery limits were met for all compounds in the matrix spike duplicate as shown in section 2.
The RSD was exceeded for 2 compounds as shown in section 2. This represents a 95.9% success rate.

Method Blanks:

No target compounds were found in the method blank in excess of the method limit as shown in section 3.

QCCS Check Sample:

The control limits were met for all compounds as shown in section 4.

FLOWERS CHEMICAL LABORATORIES, INC.

Section 1

Surrogate Compound Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Hall_Spike for EPA601
Unit of measure: ug/L

Surrogate Expected: 100
Acceptability Limits: 82.5 - 115

Laboratory Number	Site Description	Surrogate Recovered	Percent Recovered
9502	MW-1	90.8	90.8
9503	MW-2	88.1	88.1
9504	MW-3	93.5	93.5
9505	MW-4	99.0	99.0
9506	MW-6	88.5	88.5
9507	MW-7	85.8	85.8

FLOWERS CHEMICAL LABORATORIES, INC.

Section 1

Surrogate Compound Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

PID_Spike for EPA602
Unit of measure: ug/L

Surrogate Expected: 100
Acceptability Limits: 74 - 122

Laboratory Number	Site Description	Surrogate Recovered	Percent Recovered
9502	MW-1	103	103
9503	MW-2	104	104
9504	MW-3	103	103
9505	MW-4	140	140
9506	MW-6	102	102
9507	MW-7	102	102
9508	trip	103	103

FLOWERS CHEMICAL LABORATORIES, INC.

Section 1

Surrogate Compound Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Surr_Spike(2FBP) for EPA625
Unit of measure: ug/L

Surrogate Expected: 100
Acceptability Limits: 20.7 - 149

Laboratory Number	Site Description	Surrogate Recovered	Percent Recovered
9502	MW-1	32.6	32.6
9503	MW-2	13.5	13.5
9504	MW-3	55.0	55.0
9505	MW-4	54.2	54.2
9506	MW-6	49.8	49.8
9507	MW-7	43.6	43.6

FLOWERS CHEMICAL LABORATORIES, INC.

Section 1

Surrogate Compound Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Surr_Spike(DBBP) for EPA625
Unit of measure: ug/L

Surrogate Expected: 100
Acceptability Limits: 12.7 - 169

Laboratory Number	Site Description	Surrogate Recovered	Percent Recovered
9502	MW-1	37.6	37.6
9503	MW-2	16.5	16.5
9504	MW-3	61.2	61.2
9505	MW-4	79.1	79.1
9506	MW-6	57.5	57.5
9507	MW-7	54.4	54.4

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Section 2

Matrix Spike Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Analysis Method	Date	Spike Added	Sample Conc.	MS Conc.	MS Rec.	MSD Conc.	MSD Rec.	Acceptable Limits	RSD Rec.	Acceptable Limits
1,1,1-trichloroethane	ug/L	EPA601	11-11-94	40	<1	33.0	82.5%	33.3	83.3%	30.9 - 48.8	0.219	0 - 5.50
1,1,2,2-tetrachloroethane	ug/L	EPA601	11-11-94	40	<1	34.1	85.1%	33.2	83.0%	29.5 - 49.2	0.609	0 - 7.38
1,1,2-trichloroethane	ug/L	EPA601	11-11-94	40	<1	35.2	87.9%	33.7	84.1%	30.4 - 47.8	1.06	0 - 6.10
1,1-dichloroethane	ug/L	EPA601	11-11-94	40	<1	34.1	85.2%	34.4	86.0%	29.7 - 50.4	0.213	0 - 6.03
1,1-dichloroethene	ug/L	EPA601	11-11-94	40	<1	34.2	85.5%	32.7	81.8%	26.8 - 55.6	1.03	0 - 8.58
1,2-dichloroethane	ug/L	EPA601	11-11-94	40	<1	34.8	87.0%	33.6	84.0%	29.6 - 49.6	0.844	0 - 5.92
1,2-dichloropropane	ug/L	EPA601	11-11-94	40	<1	35.1	87.8%	34.1	85.3%	31.0 - 47.7	0.717	0 - 5.53
Bromodichloromethane	ug/L	EPA601	11-11-94	40	<1	34.7	86.7%	34.0	85.0%	30.0 - 47.8	0.463	0 - 6.01
Bromoform	ug/L	EPA601	11-11-94	40	<1	34.2	85.6%	33.5	83.8%	28.0 - 49.9	0.499	0 - 7.70
cis-1,3-dichloropropene	ug/L	EPA601	11-11-94	40	<1	33.9	84.7%	33.8	84.6%	30.1 - 46.7	0.031	0 - 6.32
Carbon tetrachloride	ug/L	EPA601	11-11-94	40	<1	33.9	84.7%	33.7	84.2%	31.4 - 48.7	0.128	0 - 5.82
Chloroform	ug/L	EPA601	11-11-94	40	<1	34.9	87.2%	34.9	87.3%	29.5 - 48.9	0.014	0 - 5.59
Dibromochloromethane	ug/L	EPA601	11-11-94	40	<1	33.9	84.7%	33.3	83.4%	30.0 - 47.8	0.370	0 - 5.66
Methylene chloride	ug/L	EPA601	11-11-94	40	<1	34.2	85.4%	35.2	88.1%	27.0 - 53.0	0.751	0 - 6.75
trans-1,3,-dichloropropene	ug/L	EPA601	11-11-94	40	<1	34.1	85.3%	33.6	83.9%	29.9 - 47.3	0.400	0 - 5.38
Trichlorofluoromethane	ug/L	EPA601	11-11-94	40	<2	35.6	89.0%	37.5	93.8%	27.2 - 54.3	1.37	0 - 7.91
1,2-dichloroethene	ug/L	EPA601	11-11-94	40	<1	34.1	85.3%	34.1	85.3%	29.8 - 51.6	0.006	0 - 6.36
Trichloroethene	ug/L	EPA601	11-11-94	40	<1	34.6	86.5%	34.5	86.2%	31.7 - 48.1	0.087	0 - 5.99
Tetrachloroethene	ug/L	EPA601	11-11-94	40	<1	35.5	88.7%	34.7	86.6%	31.5 - 47.7	0.579	0 - 5.41
1,2-dibromo-3-chloropropan	ug/L	EPA601	11-11-94	40	<1	34.0	84.9%	34.2	85.5%	26.9 - 53.0	0.179	0 - 8.42
Chloroethane	ug/L	EPA601	11-11-94	40	<3	33.0	82.5%	33.4	83.4%	25.9 - 58.4	0.267	0 - 8.38
o-dichlorobenzene	ug/L	EPA602	11-11-94	40	<0.5	32.7	81.7%	32.7	81.8%	29.2 - 48.9	0.025	0 - 5.46
m-dichlorobenzene	ug/L	EPA602	11-11-94	40	<0.5	32.9	82.4%	32.4	81.0%	29.5 - 49.1	0.390	0 - 5.32
Para-dichlorobenzene	ug/L	EPA602	11-11-94	40	<0.5	32.5	81.3%	34.4	85.9%	29.2 - 49.4	1.30	0 - 5.43
Benzene	ug/L	EPA602	11-11-94	40	<0.5	36.7	91.7%	36.4	90.9%	30.3 - 48.0	0.242	0 - 3.44
Chlorobenzene	ug/L	EPA602	11-11-94	40	<0.5	34.0	85.1%	32.8	82.0%	30.0 - 48.4	0.858	0 - 5.93
Ethylbenzene	ug/L	EPA602	11-11-94	40	<0.5	35.7	89.1%	35.7	89.3%	29.9 - 48.0	0.038	0 - 3.75
Toluene	ug/L	EPA602	11-11-94	40	<0.5	35.5	88.7%	35.7	89.3%	30.7 - 47.2	0.165	0 - 3.44
Xylene	ug/L	EPA602	11-11-94	120	<0.5	106	88.7%	107	89.5%	89.3 - 141	0.711	0 - 11.4
Methyl-tert-butylether	ug/L	EPA602	11-11-94	40	<0.5	35.6	88.9%	35.5	88.8%	28.4 - 48.8	0.045	0 - 5.38

FLOWERS CHEMICAL LABORATORIES, INC.

Section 2

Matrix Spike Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Analysis Method	Date	Spike Added	Sample Conc.	MS Conc.	MS Rec.	MSD Conc.	MSD Rec.	Acceptable Limits	RSD Rec.	Acceptable Limits
Total_BTEX	ug/L	EPA602	11-11-94	240	<0.5	214	89.3%	215	89.7%	183 - 281	0.673	0 - 20.4
Acenaphthylene	ug/L	EPA625	11-18-94	40	<1	39.0	97.5%	37.6	93.9%	27.2 - 51.5	1.02	0 - 5.18
Acenaphthene	ug/L	EPA625	11-18-94	40	<1	38.9	97.2%	38.6	96.4%	26.7 - 52.1	0.229	0 - 4.95
Anthracene	ug/L	EPA625	11-18-94	40	<1	38.8	97.0%	36.8	91.9%	26.8 - 52.0	1.45	0 - 5.93
Benzo(a)anthracene	ug/L	EPA625	11-18-94	40	<1	36.8	91.9%	42.0	105%	25.5 - 52.7	3.70	0 - 6.68
Benzo(a)pyrene	ug/L	EPA625	11-18-94	40	<1	34.9	87.2%	40.0	100%	24.4 - 53.9	3.66	0 - 8.85
Benzo(b)fluoranthene	ug/L	EPA625	11-18-94	40	<1	34.1	85.3%	43.3	108%	25.3 - 53.2	6.53	0 - 6.46
Benzo(g,h,i)perylene	ug/L	EPA625	11-18-94	40	<1	34.0	85.0%	33.9	84.8%	25.2 - 53.4	0.046	0 - 8.53
Benzo(k)fluoranthene	ug/L	EPA625	11-18-94	40	<1	34.1	85.3%	43.3	108%	25.7 - 52.9	6.53	0 - 6.38
Chrysene	ug/L	EPA625	11-18-94	40	<1	35.2	87.9%	41.3	103%	25.8 - 52.4	4.33	0 - 7.25
Dibnz(a,h)anthracene	ug/L	EPA625	11-18-94	40	<1	31.2	78.1%	36.2	90.6%	24.3 - 53.5	3.55	0 - 8.46
Fluoranthene	ug/L	EPA625	11-18-94	40	<1	37.3	93.2%	33.3	83.2%	27.8 - 50.9	2.83	0 - 5.03
Fluorene	ug/L	EPA625	11-18-94	40	<1	38.9	97.4%	37.3	93.2%	26.9 - 51.8	1.17	0 - 4.74
Indn(1,2,3-cd)pyrene	ug/L	EPA625	11-18-94	40	<1	33.3	83.2%	37.1	92.7%	25.7 - 52.8	2.69	0 - 8.00
Naphthalene	ug/L	EPA625	11-18-94	40	<1	40.2	100%	39.1	97.7%	25.6 - 53.0	0.764	0 - 5.47
1-Methyl-Naphthalene	ug/L	EPA625	11-18-94	40	<1	41.7	104%	40.7	102%	26.8 - 52.8	0.707	0 - 5.29
2-Methyl-Naphthalene	ug/L	EPA625	11-18-94	40	<1	38.2	95.6%	36.6	91.4%	25.9 - 52.6	1.17	0 - 5.22
Phenanthrene	ug/L	EPA625	11-18-94	40	<1	37.8	94.4%	34.8	87.0%	27.3 - 51.4	2.10	0 - 5.44
Pyrene	ug/L	EPA625	11-18-94	40	<1	34.7	86.9%	32.2	80.4%	27.4 - 51.7	1.83	0 - 5.50

FLOWERS CHEMICAL LABORATORIES, INC.

Section 3

Method Blank Report

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Method	Date	Concentration
1,1,1-trichloroethane	ug/L	EPA601	11-11-94	<1
1,1,2,2-tetrachloroethane	ug/L	EPA601	11-11-94	<1
1,1,2-trichloroethane	ug/L	EPA601	11-11-94	<1
1,1-dichloroethane	ug/L	EPA601	11-11-94	<1
1,1-dichloroethene	ug/L	EPA601	11-11-94	<1
1,2-dichloroethane	ug/L	EPA601	11-11-94	<1
1,2-dichloropropane	ug/L	EPA601	11-11-94	<1
2-chloroethylvinylether	ug/L	EPA601	11-11-94	<1
Bromodichloromethane	ug/L	EPA601	11-11-94	<1
Bromoform	ug/L	EPA601	11-11-94	<1
cis-1,3-dichloropropene	ug/L	EPA601	11-11-94	<1
Carbon tetrachloride	ug/L	EPA601	11-11-94	<1
Chloroform	ug/L	EPA601	11-11-94	<1
Dibromochloromethane	ug/L	EPA601	11-11-94	<1
Methylene chloride	ug/L	EPA601	11-11-94	<1
trans-1,3,-dichloropropene	ug/L	EPA601	11-11-94	<1
Trichlorofluoromethane	ug/L	EPA601	11-11-94	<2
1,2-dichloroethene	ug/L	EPA601	11-11-94	<1
Trichloroethene	ug/L	EPA601	11-11-94	<1
Tetrachloroethene	ug/L	EPA601	11-11-94	<1
1,2-dibromo-3-chloropropane	ug/L	EPA601	11-11-94	<1
Bromomethane	ug/L	EPA601	11-11-94	<5
Chloroethane	ug/L	EPA601	11-11-94	<3
Chloromethane	ug/L	EPA601	11-11-94	<5
Dichlorodifluoromethane	ug/L	EPA601	11-11-94	<2
Vinyl chloride	ug/L	EPA601	11-11-94	<0.5
o-dichlorobenzene	ug/L	EPA602	11-11-94	<0.5
m-dichlorobenzene	ug/L	EPA602	11-11-94	<0.5
Para-dichlorobenzene	ug/L	EPA602	11-11-94	<0.5
Benzene	ug/L	EPA602	11-11-94	<0.5
Chlorobenzene	ug/L	EPA602	11-11-94	<0.5

FLOWERS CHEMICAL LABORATORIES, INC.

Section 3

Method Blank Report

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Method	Date	Concentration
Ethylbenzene	ug/L	EPA602	11-11-94	<0.5
Toluene	ug/L	EPA602	11-11-94	<0.5
Xylene	ug/L	EPA602	11-11-94	<0.5
Methyl-tert-butylether	ug/L	EPA602	11-11-94	<0.5
Total_BTEX	ug/L	EPA602	11-11-94	<0.5
Acenaphthylene	ug/L	EPA625	11-18-94	<1
Acenaphthene	ug/L	EPA625	11-18-94	<1
Anthracene	ug/L	EPA625	11-18-94	<1
Benzo(a)anthracene	ug/L	EPA625	11-18-94	<1
Benzo(a)pyrene	ug/L	EPA625	11-18-94	<1
Benzo(b)fluoranthene	ug/L	EPA625	11-18-94	<1
Benzo(g,h,i)perylene	ug/L	EPA625	11-18-94	<1
Benzo(k)fluoranthene	ug/L	EPA625	11-18-94	<1
Chrysene	ug/L	EPA625	11-18-94	<1
Dibnz(a,h)anthracene	ug/L	EPA625	11-18-94	<1
Fluoranthene	ug/L	EPA625	11-18-94	<1
Fluorene	ug/L	EPA625	11-18-94	<1
Indn(1,2,3-cd)pyrene	ug/L	EPA625	11-18-94	<1
Naphthalene	ug/L	EPA625	11-18-94	<1
1-Methyl-Naphthalene	ug/L	EPA625	11-18-94	<1
2-Methyl-Naphthalene	ug/L	EPA625	11-18-94	<1
Phenanthrene	ug/L	EPA625	11-18-94	<1
Pyrene	ug/L	EPA625	11-18-94	<1

FLOWERS CHEMICAL LABORATORIES, INC.

Section 4

QCCS Sample Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Method	Date	QCCS Expected	QCCS Measured	Rec. %	Acceptable Limits
1,1,1-trichloroethane	ug/L	EPA601	11-11-94	40.0	38.5	96.2%	34.1 - 45.1
1,1,2,2-tetrachloroethane	ug/L	EPA601	11-11-94	40.0	39.5	98.8%	34.4 - 45.9
1,1,2-trichloroethane	ug/L	EPA601	11-11-94	40.0	40.2	100%	34.9 - 45.2
1,1-dichloroethane	ug/L	EPA601	11-11-94	40.0	39.1	97.8%	35.0 - 44.5
1,1-dichloroethene	ug/L	EPA601	11-11-94	40.0	38.8	97.1%	28.3 - 51.4
1,2-dichloroethane	ug/L	EPA601	11-11-94	40.0	38.9	97.3%	36.1 - 44.1
1,2-dichloropropane	ug/L	EPA601	11-11-94	40.0	39.5	98.8%	35.7 - 44.0
Bromodichloromethane	ug/L	EPA601	11-11-94	40.0	39.6	98.9%	34.7 - 45.2
Bromoform	ug/L	EPA601	11-11-94	40.0	40.4	101%	34.0 - 47.1
cis-1,3-dichloropropene	ug/L	EPA601	11-11-94	40.0	39.0	97.4%	35.6 - 43.8
Carbon tetrachloride	ug/L	EPA601	11-11-94	40.0	38.1	95.3%	35.6 - 43.6
Chloroform	ug/L	EPA601	11-11-94	40.0	39.4	98.6%	35.6 - 44.0
Dibromochloromethane	ug/L	EPA601	11-11-94	40.0	39.9	99.8%	34.1 - 46.7
Methylene chloride	ug/L	EPA601	11-11-94	40.0	39.9	99.7%	32.7 - 48.6
trans-1,3,-dichloropropene	ug/L	EPA601	11-11-94	40.0	40.4	101%	35.2 - 44.4
Trichlorofluoromethane	ug/L	EPA601	11-11-94	40.0	37.7	94.4%	22.2 - 58.1
1,2-dichloroethene	ug/L	EPA601	11-11-94	40.0	39.9	99.8%	34.6 - 44.8
Trichloroethene	ug/L	EPA601	11-11-94	40.0	38.7	96.8%	34.3 - 45.4
Tetrachloroethene	ug/L	EPA601	11-11-94	40.0	39.6	98.9%	34.6 - 44.3
1,2-dibromo-3-chloropropane	ug/L	EPA601	11-11-94	40.0	41.0	103%	31.1 - 51.5
Chloroethane	ug/L	EPA601	11-11-94	40.0	39.5	98.8%	33.4 - 46.0
o-dichlorobenzene	ug/L	EPA602	11-11-94	40.0	39.0	97.5%	32.5 - 47.4
m-dichlorobenzene	ug/L	EPA602	11-11-94	40.0	38.1	95.2%	33.1 - 46.7
Para-dichlorobenzene	ug/L	EPA602	11-11-94	40.0	38.2	95.6%	32.6 - 47.1
Benzene	ug/L	EPA602	11-11-94	40.0	39.1	97.8%	35.3 - 44.2
Chlorobenzene	ug/L	EPA602	11-11-94	40.0	39.1	97.9%	33.1 - 46.9
Ethylbenzene	ug/L	EPA602	11-11-94	40.0	38.6	96.4%	33.6 - 45.7
Toluene	ug/L	EPA602	11-11-94	40.0	38.4	96.1%	35.3 - 44.0
Xylene	ug/L	EPA602	11-11-94	120	117	97.5%	105 - 132
Methyl-tert-butylether	ug/L	EPA602	11-11-94	40.0	40.4	101%	32.1 - 46.9
Total_BTEX	ug/L	EPA602	11-11-94	240	233	97.2%	212 - 263

FLOWERS CHEMICAL LABORATORIES, INC.

Section 4

QCCS Sample Recovery

Client: S&ME-Charlotte
Project Number: UNOC
P.O. Number: N/A
Date Sampled: 10-Nov-94
Lab Numbers: 9502 - 9508

Analyte	Unit	Method	Date	QCCS Expected	QCCS Measured	Rec. %	Acceptable Limits
Acenaphthylene	ug/L	EPA625	11-18-94	40.0	39.2	98.1%	27.0 - 51.6
Acenaphthene	ug/L	EPA625	11-18-94	40.0	39.5	98.8%	26.0 - 52.4
Anthracene	ug/L	EPA625	11-18-94	40.0	38.9	97.3%	28.5 - 50.4
Benzo(a)anthracene	ug/L	EPA625	11-18-94	40.0	38.3	95.8%	25.6 - 53.2
Benzo(a)pyrene	ug/L	EPA625	11-18-94	40.0	40.2	100%	24.1 - 54.6
Benzo(b)fluoranthene	ug/L	EPA625	11-18-94	40.0	38.2	95.5%	23.8 - 55.1
Benzo(g,h,i)perylene	ug/L	EPA625	11-18-94	40.0	36.1	90.3%	20.7 - 57.5
Benzo(k)fluoranthene	ug/L	EPA625	11-18-94	40.0	38.2	95.5%	25.0 - 54.1
Chrysene	ug/L	EPA625	11-18-94	40.0	38.9	97.3%	25.9 - 52.7
Dibnz(a,h)anthracene	ug/L	EPA625	11-18-94	40.0	38.1	95.2%	19.9 - 58.7
Fluoranthene	ug/L	EPA625	11-18-94	40.0	39.3	98.4%	28.0 - 51.1
Fluorene	ug/L	EPA625	11-18-94	40.0	39.0	97.5%	28.0 - 50.8
Indn(1,2,3-cd)pyrene	ug/L	EPA625	11-18-94	40.0	38.1	95.3%	21.8 - 57.0
Naphthalene	ug/L	EPA625	11-18-94	40.0	39.9	99.7%	29.6 - 49.5
1-Methyl-Naphthalene	ug/L	EPA625	11-18-94	40.0	41.3	103%	26.2 - 53.7
2-Methyl-Naphthalene	ug/L	EPA625	11-18-94	40.0	38.4	96.1%	23.9 - 54.2
Phenanthrene	ug/L	EPA625	11-18-94	40.0	39.2	97.9%	27.7 - 51.3
Pyrene	ug/L	EPA625	11-18-94	40.0	39.8	99.6%	27.6 - 51.4

FLOWERS
CHEMICAL LABORATORIES INCORPORATED

Jefferson L. Flowers, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

CHAIN OF CUSTODY RECORD

Client: S+ME
Address: 3718 Old Battleground Rd, Greensboro, N.C. 27410
Phone:
Sampled By (PRINT): X
Sampler Signature: X
Date Sampled: X 4/14/99

FCL Client No.:
FCL Project Manager: M. McCoy
FCL Lab Coordinator: S. Welsh
Requested Due Date:

P.O. Number: Unoc
Project Name / No.:
Contact: Gary Simcox

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	LAB NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	HCl			ANALYSES REQUEST: 610	601/602 & MTBE							
1	MW1	1:15p	H_2O	9502	4	✓						✓	✓							
2	MW2	1:30p	"	03	4	✓						✓	✓							
3	MW3	2:15p	"	04	4	✓						✓	✓							
4	MW4	3:30p	"	05	4	✓						✓	✓							
5	MW6	2:45p	"	06	4	✓						✓	✓							
6	MW7	4:00p	"	9507	4	✓						✓	✓							

CARRIER	BAILERS	SHIP DATES OUT / DATE	SHIP DATES RETURNED / DATE	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
				[signature]	6-14	10:10a	[signature] / FCL	4/1	1416

SPECIAL INSTRUCTIONS

TO BE RETURNED WITH RESULTS

FLOWERS
CHEMICAL LABORATORIES INCORPORATED

Jefferson L. Flowers, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

CHAIN OF CUSTODY RECORD

Client S+ME

Address 3718 Old Battleground Rd
Greensboro, N.C. 27410

Phone

Sampled By (PRINT): [illegible]

X Sampler Signature X Date Sampled 11/10/97

FCL Client No.

FCL Project Manager M. McCoy

FCL Lab Coordinator S. Welsh

Requested Due Date:

P.O. Number UNOC

Project Name / No.

Contact Gary Simcoy

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	LAB NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	HCl			ANALYSES REQUEST
1												
2												
3												
4												
5												
6												

CARRIER	BAILERS	SHIP DATES: OUT / DATE	RETURNED / DATE

SPECIAL INSTRUCTIONS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME

WHITE / TO BE RETURNED WITH RESULTS

TABLE 1
VACUUM SPEED AND AIR FLOW CALCULATIONS

UNOCAL-MEBANE #9787-214
1342 TROLLINGWOOD ROAD
MEBANE, NC

VFD FREQ (hertz)	BLOWER SPEED (rpm)	VE DP ("H20)	VE TEMP (Faren.)	VE VACUUM/DISCHARGE ("Hg)	Y (constant)	Q (SCFM)	DATE	VE WELLS ON/OFF	SPARGING WELLS ON/OFF	REMARKS
60	1760.00	3	72	9.4	178.30	308.82	8/19/94	HVE-1, HVE-2/NONE	NONE/AS-1-7 & DMW-5	INLET AIR FLOW, NO BLEED IN AIR
60	1760.00	2.45	164	2	194.19	303.95	8/19/94	HVE-1, HVE-2/NONE	NONE/AS-1-7 & DMW-5	OUTLET AIR FLOW, NO BLEED IN AIR
60	1584.00	2.85	72	9	180.17	304.17	8/19/94	HVE-1, HVE-2/NONE	NONE/AS-1-7 & DMW-5	INLET AIR FLOW, NO BLEED IN AIR
60	1584.00	2.5	168	1.6335	194.91	308.18	8/19/94	HVE-1, HVE-2/NONE	NONE/AS-1-7 & DMW-5	OUTLET AIR FLOW, NO BLEED IN AIR
60	1408.00	2	72	9	180.17	254.80	8/19/94	HVE-1/HVE-2	NONE/AS-1-7 & DMW-5	INLET AIR FLOW, NO BLEED IN AIR
60	880.00	0.4	72	12	165.59	104.73	8/19/94	HVE-2/HVE-1	NONE/AS-1-7 & DMW-5	INLET AIR FLOW, NO BLEED IN AIR
60	1584.00	3	72	9.2	179.24	310.45	8/25/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	INLET AIR FLOW, NO BLEED IN AIR
60	1584.00	2.6	169	2	193.42	311.87	8/25/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	OUTLET AIR FLOW, NO BLEED IN AIR
60	1056.00	1.6	76	5	197.22	249.46	8/31/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	INLET AIR FLOW, NO BLEED IN AIR
60	1056.00	1.5	124	1.22	203.68	249.46	8/31/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	OUTLET AIR FLOW, NO BLEED IN AIR
60	1760.00	3	61	8.7	183.47	317.79	10/5/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	INLET AIR FLOW, NO BLEED IN AIR
60	1760.00	2.7	150	2.035	196.27	322.51	10/5/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	OUTLET AIR FLOW, NO BLEED IN AIR
60	1760.00	4.2	50	9.2	183.06	375.17	11/23/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	INLET AIR FLOW, NO BLEED IN AIR
60	1760.00	3.2	135	2	198.86	355.74	11/23/94	HVE-1, HVE-2/NONE	AS-1-7 & DMW-5/NONE	OUTLET AIR FLOW, NO BLEED IN AIR

REC'D OCT 27 1994

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Oct25 1994
Project Number : UNOC 9787-214
PO Number : AFE#335927785
FDHRSDW Number : 83139
FHRS ENVNumber : E83018
FDER COMQAPNum : 86-0008G
A2LA Number : 0312-01
NCDEHNR Number : 296
SCDHEC Number : 96019

For: GRO EPA602 DRO Discount
Date Sampled:Oct 5 1994 Date Received:Oct 7 1994 Lab Numbers: 30753-30754

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	30753 INF1	30754 EFF2
Benzene	mg/m3	.00010			12.8	2.96
Toluene	mg/m3	.00010			34.2	14.2
Ethylbenzene	mg/m3	.00010			5.18	3.02
Xylene	mg/m3	.00010			28.9	12.3
Total_BTEX	mg/m3	.00010			81.2	32.5
-	-	-	-	-	-	-
Gasoline Range Organ	mg/m3	.00010			182.	83.1
Diesel Range Organic	mg/m3	.00050			7.80	0.600
Diesel_Range_Extract	-	-			-	-

Data Release Authorization
Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.
This Report of Analysis may not be reproduced in part.

Jefferson S. Flowers, Ph.d.
President/Technical Director

Serving Your Analytical and Environmental Needs Since 1957

Jefferson L. Flowers, Ph.D.
Jefferson S. Flowers, Ph.D.
481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
S&ME-Charlotte
9751 S. Pine Blvd.
Charlotte,NC 28273

Date Reported : Oct25 1994
Project Number : UNOC 9787-214
PO Number : AFE#335927785
FDHRS Number : 83139
FDER Number : E83018
NCDEHNR Number : 296
SCDHEC Number : 96019

For: GRO EPA602 DRO Discount
Date Sampled:Oct 5 1994 Date Received:Oct 7 1994 Lab Numbers: 30753-30754

REPORT OF INFORMATION

Parameter	Unit	Limit	Expected	Value	Range	Correlation
				30753		
Benzene	mg/m3	3970	249.	12.8		
Toluene	mg/m3	5430	361.	34.2		
Ethylbenzene	mg/m3	740.	74.3	5.18		
Xylene	mg/m3	1750	216.	28.9		
Total_BTEX	mg/m3	6380	684.	81.2		
Gasoline Range Organ	mg/m3	-	-	182.		
Diesel Range Organic	mg/m3	-	-	7.80		
				30754		
Benzene	mg/m3	3970	249.	2.96		
Toluene	mg/m3	5430	361.	14.2		
Ethylbenzene	mg/m3	740.	74.3	3.02		
Xylene	mg/m3	1750	216.	12.3		
Total_BTEX	mg/m3	6380	684.	32.5		
Gasoline Range Organ	mg/m3	-	-	83.1		
Diesel Range Organic	mg/m3	-	-	0.600		

The above information is intended to highlight exceptional data as compared to the upper control limits (Limit) established for each of the parameters. Range exceedances are flagged by integer values in the Range column. The Expected values are derived from historical data. Expected is computed as either the mean or computed directly from another parameter using linear regression. All known correlation rule exceedances are listed as enumerated rule numbers in the Correlation column. Correlation pair rules are defined on the last page.

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481 NEWBURYPORT
P.O. BOX 150-597
ALTAMONTE SPRINGS
FLORIDA 32715-0597
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FAX: (407) 260-6110

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FLOWERS CHEMICAL LABORATORIES

ANALYTICAL RESULTS FORM HRS Number 83139

Parameter	Symbol	Unit	INF 1 30753	EFF 2 30754									Method	QA MDL	Section %RSD	%Rec	Analys	Date
Benzene	*	mg/m3	12.8	2.96									EPA18	0.0001			CJG	10-24-94
Toluene	*	mg/m3	34.225	14.19									EPA18	0.0001			CJG	10-24-94
Ethylbenzene	*	mg/m3	5.175	3.02									EPA18	0.0001			CJG	10-24-94
Xylene	*	mg/m3	28.95	12.305									EPA18	0.0001			CJG	10-24-94
Total_BTEX	*	mg/m3	81.15	32.475									EPA18	0.0001			CJG	10-24-94
-	*	-	<-	<-									-	-			CJG	10-24-94
Gasoline Range Organics	*	mg/m3	181.75	83.1									GRO	0.0001			CJG	10-24-94
Diesel Range Organics	*	mg/m3	7.8	0.6									DRO	0.0005			CJG	10-24-94
Diesel_Range_Extraction	*	-	<-	<-									-	-			CJG	10-24-94

Date Received: 10-07-94 Typed: 10-25-94 Sent: 10-25-94

Project Number	UNOC 9787-214		
PO Number	AFE#335927785		
Date Sampled	1	10-05-94 *	
Date Analyzed	0		20.00
Compacted	1		
Format	NormRR		
Unit Cost	Exted		
GRO	13500	2 *	
EPA602	6500	2 *	
DRO	15500	2 *	
Discount	-23430	1 *	
0.00			

Quality Assurance Report

Prepared for: S&ME-Charlotte
Project Number: UNOC 9787-214
Lab Numbers: 30753 - 30754

Report date: 25-Oct-94

ACCREDITED

FLOWERS CHEMICAL LABORATORIES

FLOWERS CHEMICAL LABORATORIES, INC.

QA Conformance Summary

Client:	S&ME-Charlotte
Project Number:	UNOC 9787-214
P.O. Number:	AFE#335927785
Date Sampled:	5-Oct-94
Lab Numbers:	30753 - 30754

Sample Handling

Sample handling and holding time criteria were met for all samples.

Surrogate Compound Recoveries:

The requested analytes did not require surrogates.

Method Blanks:

No target compounds were found in the method blank in excess of the method limit as shown in section 3.

QCCS Check Sample:

The control limits were met for all compounds as shown in section 4.

FLOWERS CHEMICAL LABORATORIES, INC.

Section 3

Method Blank Report

Client: S&ME-Charlotte
Project Number: UNOC 9787-214
P.O. Number: AFE#335927785
Date Sampled: 5-Oct-94
Lab Numbers: 30753 - 30754

Analyte	Unit	Method	Date	Concentration
Diesel Range Organics	ug	DRO	10-24-94	<0.1

FLOWERS CHEMICAL LABORATORIES, INC.

Section 4

QCCS Sample Recovery

Client: S&ME-Charlotte
Project Number: UNOC 9787-214
P.O. Number: AFE#335927785
Date Sampled: 5-Oct-94
Lab Numbers: 30753 - 30754

Analyte	Unit	Method	Date	QCCS Expected	QCCS Measured	Rec. %	Acceptable Limits
Diesel Range Organics	ug	DRO	10-24-94	3.15	3.66	116%	1.95 - 4.42

any, unless complete for U-Mebane Air Sample

S&ME Sampling Data Sheet

Job # 1354-94-603 Sample Date 10/5/94

Job Name Unocal-Mebane IH/Eng/Tech G. Sisco

Sample No	Lab No	Pump No	Time on/off Total mins	Flow Rate lpm	Comments	Filter Media	Analysis	Lab Comments
VF #1	30753	#1	20	200/cc 1MIN	4 LITER INFLUENT AIR SAMPLE VAPOR EXTRACTION	Carbon Tube	TPH DRO & GRO & Benzene	
FF #2	30754	#1	100	200/cc 1MIN	20 LITER EFFLUENT AIR SAMPLE VAPOR EXTRACTION			

Description of Work/Purpose of Samples

REPORT RESULTS TO S. HINES

RELEASE # AWH 029

UNOC # 9787-214

AFE # 35927785

UNOCAL CODE # 3

IWA Calculations

Calibration Date

Pump No	1589 #1					
Precal Date	10/5/94					
Time	7:30 am					
Flow Rate	200 cc/MIN					
Postcal Date						
Time						
Flow Rate						

Calibration Method

PROJECTED EMISSION CALCULATIONSHEET FOR SOIL/GROUNDWATER REMEDIATION PROJECT
By soil vapor extraction & air sparging

1. PROJECT NAME Unocal- Mebane # 9787-214 (Incident # 10119)

2. PROJECT LOCATION 1342 Trollingwood Rd., Mebane, NC 3. INITIAL STARTUP DATE 8/19/94

4. PROJECT DURATION ____ months x ___ days/month x 24 hrs/day = 1837 operating hours 8/19/94 — 11/23/94

5. 2nd QUARTER EMISSION CALCULATIONS NOTE: ppm = mg/m³ x 24.45/molecular weight

	POLLUTANT	10/5/94 mg/m³	10/5/94 EFFLUENT MAX CONC (PPM)		MOL. WT.		FLOW RATE (CFM)		CONV. FACTOR	(After Control) EMISSIONS (lbs/hr.)
Influent (Extraction)	Benzene	12.8	4.007	x	78.1	x	318	x	1.557×10^{-7}	1.55E-2 or 0.4 lbs/day
	TPH	189.8	66.3	x	70	x	318	x	1.557×10^{-7}	0.23 or 5.5 lbs/day
				x		x		x	1.557×10^{-7}	
				x		x		x	1.557×10^{-7}	
				x		x		x	1.557×10^{-7}	
Effluent (Emission)	TPH	83.7	29.2	x	70	x	322.5	x	1.557×10^{-7}	0.1 or 2.5 lbs./day
	Benzene	2.96	0.93	x	78.1	x	322.5	x	1.557×10^{-7}	3.65E-3 or 8.8E-2 lbs./day

NOTE: * Estimated at 70. MDS states that there is no way to provide an extract molecular weight for TPH

6. TOTAL PROJECTED VOC EMISSIONS

EMISSIONS (lbs/hr)		TOTAL HOURS		EMISSIONS (lbs/tons)		
0.23	x	1787	=	411 / 0.2	8/31/94 - 11/23/94	956 / 0.7
10.9	x	50	=	545/0.5	8/19/94 - 8/31/94	

HINES\EMISSION.CAL