M.B.A. LABS

MICROBIOLOGICAL AND BIOCHEMICAL ASSAY LABORATORIES

P.O. BOX 9461 340 S. 66th STREET HOUSTON, TEXAS 77261
TELEPHONE NO. (713) 928-2701

SAMPLE SUBMITTED BY: Riedel Peterson

DATE RECEIVED: 1-29-1990

DATE COMPLETED: 2-4-1990

LABORATORY REPORT NUMBER: J-24478-00

SAMPLE IDENTIFICATION: Soil Sample Sta. 1
Grant Road Drum Site
Project Code: TFA-K

RESULTS

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
pH	EPA 150.1	2-16-90	10:20	H.K.	7.39
PCB's	SW-846-8080	2-4-90	10:00	S.L.	<1 mg/kg
Flash Point	SW-846-1010	1-29-90	7:00	D.H.	>140°F
Arsenic	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Beryllium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Cadmium	EPA 200.7	2-1-90	6:27	C.W.	2.7 mg/kg
Chromium	EPA 200.7	2-1-90	6:27	C.W.	25.0 mg/kg
Copper	EPA 200.7	2-1-90	6:27	C.W.	22.0 mg/kg
Lead	EPA 200.7	2-1-90	6:27	C.W.	255.0 mg/kg
Nickel	EPA 200.7	2-1-90	6:27	C.W.	10.7 mg/kg
Selenium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Silver	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Thallium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg

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REPORTED BY Joe Kress

Riedel - Peterson
Page 2
J-24478-00

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
Antimony	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Zinc	EPA 200.7	2-1-90	6:27	C.W.	163.0 mg/kg
Mercury	EPA 245.1	2-2-90	8:00	J.K.	0.11 mg/kg
Total Available H_2S	EPA 376.1	2-12-90	3:00	J.C.	<1 mg/kg
Total Cyanide	SM 412 B	2-14-90	16:00	M.M.	<1 mg/kg

JaKrem

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LABORATORIES

P.O.BOX 9461
HOUSTON,TEXAS 77261

340 S.66 TH STREET
TEL (713) 928-2701

SAMPLE SUBMITTED BY:	RIEDEL - PETERSON
DATE RECEIVED:	1-29-90
DATE COMPLETED:	1-31-90
LABORATORY REPORT NUMBER:	J-24478
SAMPLE IDENTIFICATION:	SOIL SAMPLE STA#1 PROJECT CODE-TFA-K (GRANT RD DRUM SITE)

THE SAMPLES WERE ANALYZED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USING HEWLETT-PACKARD MODEL # 5970&5985 GC/MS SYSTEMS.

THE SAMPLES WERE PREPARED FOR ANALYSIS ACCORDING TO THE METHODS DESCRIBED IN:

U.S ENVIRONMENTAL PROTECTION AGENCY
TEST METHODS FOR EVALUATING SOLID WASTE
SW-846

1. METHOD - 8240
2. METHOD - 8270

THE SAMPLES WERE ANALYZED FOR THE FOLLOWING COMPOUNDS:

VOLATILE ORGNICS(P.P)
BNA'S EXTRACTABLE ORGANICS(P.P)
GC/MS SCAN

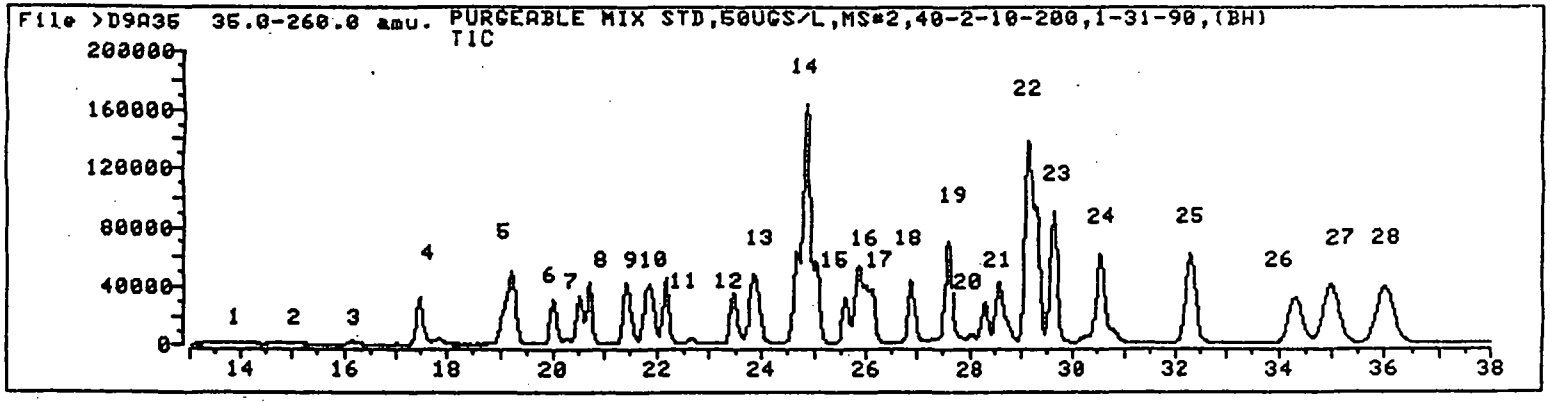
Ben Aparamian

THE GC/MS PARAMETERS WERE AS FOLLOWS

PURGE GAS	HELIUM @ 20 MLS/MIN
PURGE TIME	12 MINUTES
DESORB TIME	04 MINUTES
DESORB TEMP	180 DEGREES
COLUMN	3% SP-1500 ON CARBOPACK B, 80/120 MESH 1/4 INCH X 6 FEED ,PYREX
CARRIER GAS	HELIUM @ 20 CM/SEC (0.9 ML/MIN)
INJECTION TEMP	180 DEGREES
	40 DEGREES FOR 2 MINS, THEN 10 DEGREES PER MINUTES TO 200 DEGREES, HOLD 15 MINS
GC/MS INTERFACE	MOLECULLAR JET SEPARATOR
MASS RANGE	35 TO 260
SCAN TIME	0.9 SEC
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V

COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/ DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC TAPE.

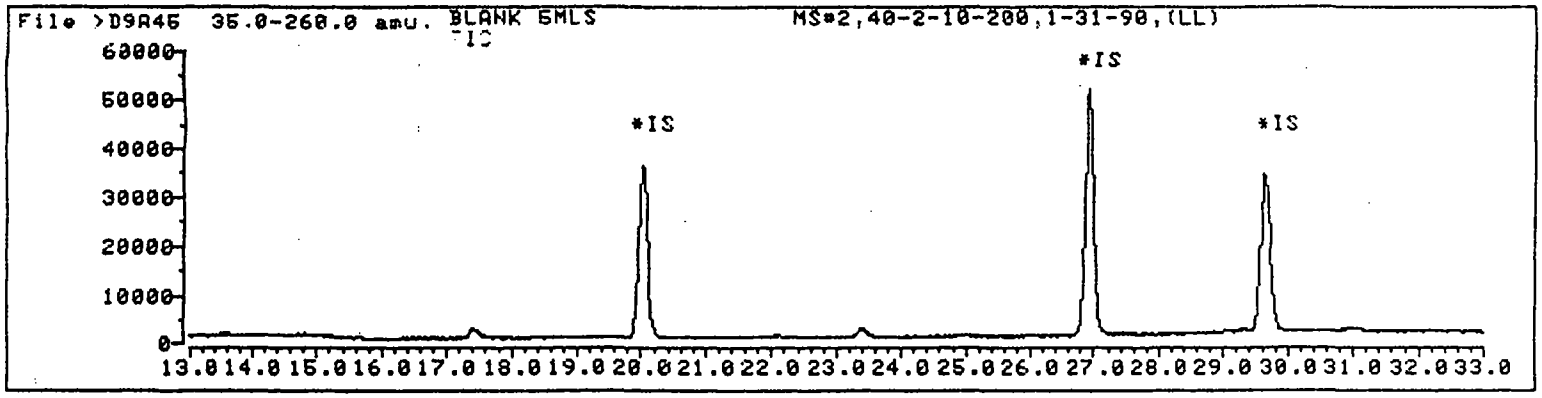
Ben Hassani



SAMPLE ID = PURGEABLES STANDARD MIX (A+B+C+HSL)

1. CHLOROMETHANE
2. BROMOMETHANE
   & VINYL CHLORIDE
3. CHLOROETHANE
4. DICHLOROMETHANE
   & ACETONE
5. 1,1-DICHLOROETHENE
   & CARBON DISULFIDE
   & TRICHLOROFLUOROMETHANE
6. BROMOCHLOROMETHANE (INTERNAL STANDARD)
7. 1,1-DICHLOROETHANE
8. 1,2-DICHLOROETHENE
9. CHLOROFORM
   & 2-BUTANONE (METHYL ETHYL KETONE, MEK)
10. 1,2-DICHLOROETHANE
    & 1,2-DICHLOROETHANE-D4 (SURROGATE STANDARD)
11. VINYL ACETATE (ACETIC ACID ETHENYL ESTER)
12. 1,1,1-TRICHLOROETHANE
13. BROMODICHLOROMETHANE
14. 1,2-DICHLOROPROPANE
    & BENZENE
    & TRANS-1,3-DICHLOROPROPENE
    & TRICHLOROETHENE
15. CIS-1,3-DICHLOROPROPENE
16. 1,1,2-TRICHLOROETHANE
    & 2-CHLOROETHYL VINYL ETHER
17. DIBROMOCHLOROMETHANE
18. 2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
19. 4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)
20. 2-HEXANONE
21. BROMOFORM
22. TETRACHLOROETHENE
    & TOLUENE
    & TOLUENE-D8 (SURROGATE STANDARD)
23. 1,4-DICHLOROBUTANE (INTERNAL STANDARD)
    & 1,1,2,2-TETRACHLOROETHANE
24. CHLOROBENZENE
25. ETHYLBENZENE
26. 4-BROMOFLUOROBENZENE (SURROGATE STANDARD)
27. STYRENE
28. O-XYLENE

Ben Vasanian



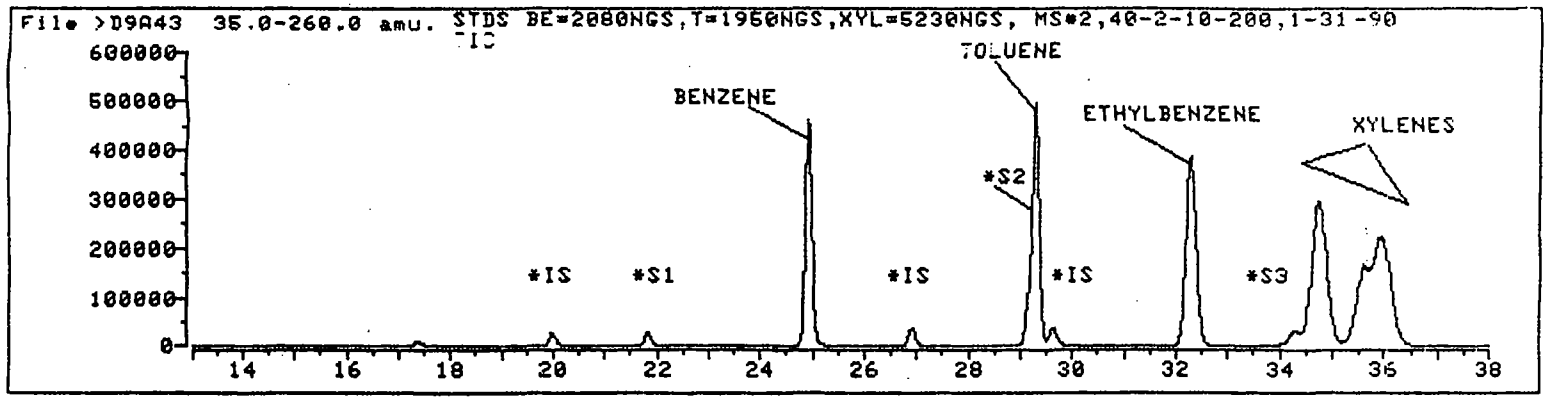
SAMPLE ID = BLANK

RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS NOT FOUND <5 UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Hassanein



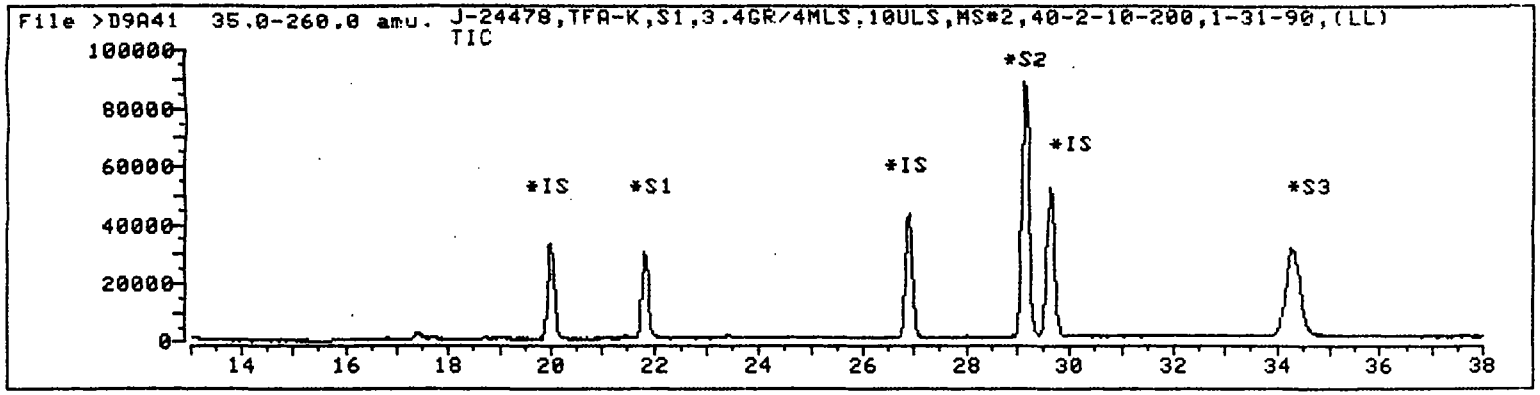
SAMPLE ID = BTEX STANDARDS.

RESULTS

1.	BENZENE	24.90	MINS	2080	NGS
2.	TOLUENE	29.28	MINS	1950	NGS
3.	ETHYLBENZENE	32.27	MINS	2080	NGS
4.	XYLENES	34-36	MINS	5230	NGS

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.34%, S2=103.32, S3=101.20%).

Ben Kessaman



SAMPLE ID = J-24478, TFA-K, STATION 1
RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS NOT FOUND <20 UG/KG

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=88.19%, S2=74.35%, S3=53.30%).

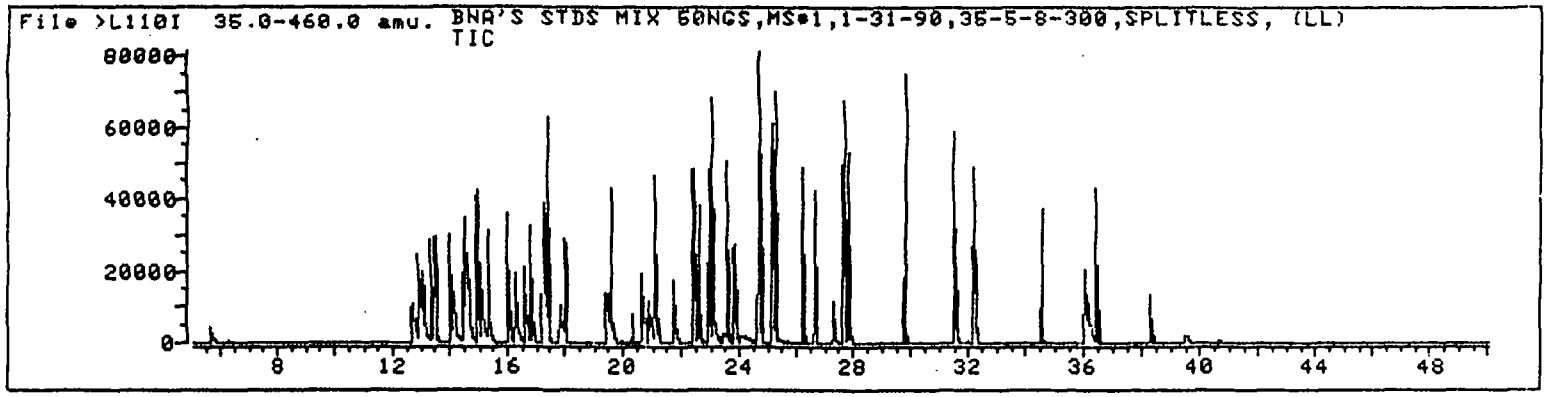
Ben Vasamais

BASE NEUTRAL/ACID EXTRACTABLES

THE GC/MS PARAMETERS WERE AS FOLLOWS:

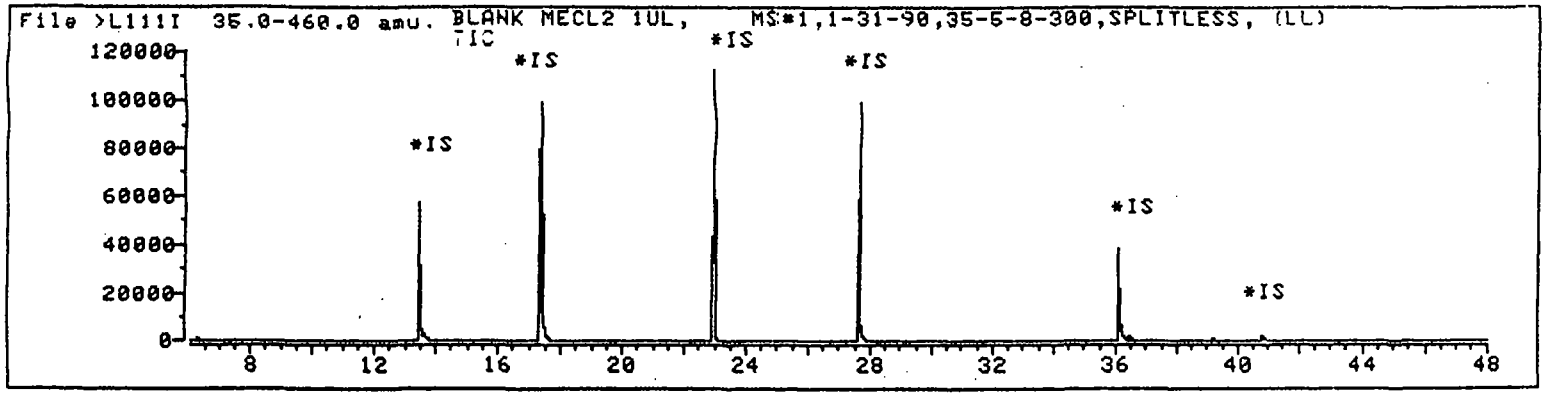
COLUMN	25 METER FUSED SILICA CAPILLARY COATED WITH SE-30
CARRIER GAS	HELIUM @ 30 CM/SEC(0.9 ML/MIN)
INJECTOR TEMP	270 DEGREES
COLUMN TEMP	5 MINUTES @ 35 DEGREES, THEN 8 DEGREES PER MINUTE TO 300 DEGREES, HOLD AT 300 DEGREES.
INJECTION MODE	SPLITLESS
SPLIT RATIO	----
GC/MS INTERFACE	DIRECT
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V
MASS RANGE SCAN	35 TO 450 AMU
SCAN TIME	0.4 SEC

COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/MS DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC MEDIA.



SAMPLE ID = BNA'S STANDARDS MIX.GR

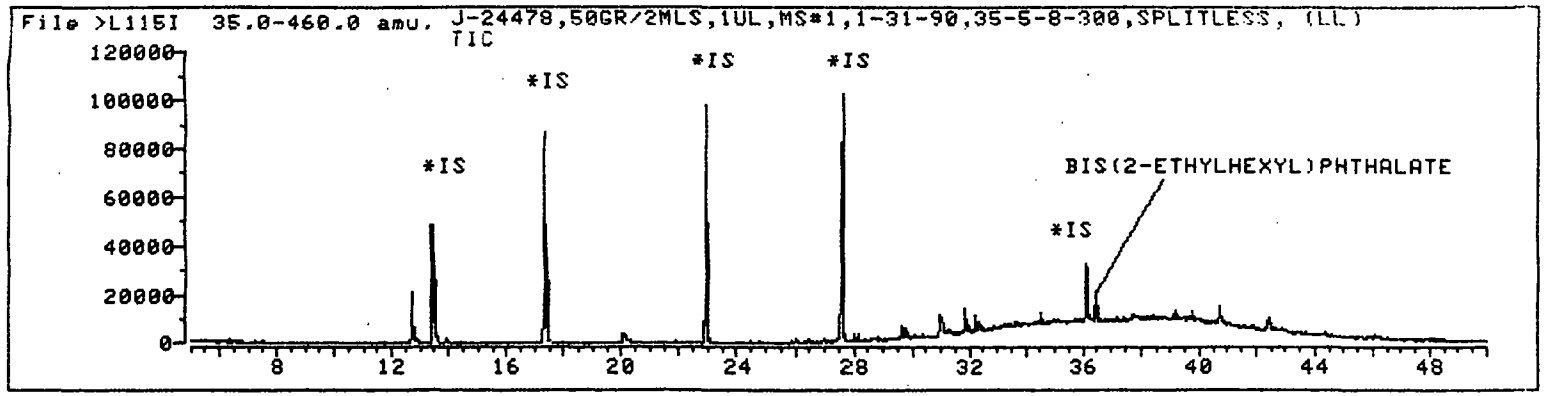
Bo Hoessaurer



SAMPLE ID = BLANK MECL2 EXTRACT
RESULTS

1. BNA'S (EXTRACTABLE ORGANICS) NOT FOUND <5 UG/L

*IS THESE ARE INTERNAL STANDARDS.



SAMPLE ID = J-24478, TFA-K, STATION 1

RESULTS

1.	DI-N-BUTYLPHTHALATE	29.78	MINS	0.1	MG/KG
2.	BUTYLBENZYLPHTHALATE	34.51	MINS	0.2	MG/KG
3.	BIS(2-ETHYLHEXYL)PHTHALATE	36.43	MINS	0.7	MG/KG
4.	OTHER BNA'S (EXTRACTABLE ORGANICS)	NOT	FOUND	<0.1	MG/KG
5.	PESTICIDES	NOT	FOUND	<0.1	MG/KG

*IS THESE ARE INTERNAL STANDARDS.

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SAMPLE SUBMITTED BY: Riedel Peterson

DATE RECEIVED: 1-29-1990

DATE COMPLETED: 2-4-1990

LABORATORY REPORT NUMBER: J-24479-00

SAMPLE IDENTIFICATION: Soil Sample Sta. 2
Grant Road Drum Site
Project Code: TFA-K

RESULTS

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
pH	EPA 150.1	2-16-90	10:20	H.K.	5.17
PCB's	SW-846-8080	2-4-90	10:00	S.L.	<1 mg/kg
Flash Point	SW-846-1010	1-29-90	7:00	D.H.	>140°F
Arsenic	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Beryllium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Cadmium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Chromium	EPA 200.7	2-1-90	6:27	C.W.	54.6 mg/kg
Copper	EPA 200.7	2-1-90	6:27	C.W.	5.0 mg/kg
Lead	EPA 200.7	2-1-90	6:27	C.W.	53.0 mg/kg
Nickel	EPA 200.7	2-1-90	6:27	C.W.	2.0 mg/kg
Selenium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Silver	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Thallium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg

REPORTED BY Joe Krent

Riedel - Peterson
Page 2
J-24479-00

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
Antimony	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Zinc	EPA 200.7	2-1-90	6:27	C.W.	83.0 mg/kg
Mercury	EPA 245.1	2-2-90	8:00	J.K.	<0.05 mg/kg
Total Available H_2S	EPA 376.1	2-12-90	3:00	J.C.	<1 mg/kg
Total Cyanide	SM 412 B	2-14-90	16:00	M.M.	<1 mg/kg

Joel Kerse

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TEL (713) 928-2701

SAMPLE SUBMITTED BY:	RIEDEL - PETERSON
DATE RECEIVED:	1-29-90
DATE COMPLETED:	1-31-90
LABORATORY REPORT NUMBER:	J-24479
SAMPLE IDENTIFICATION:	SOIL SAMPLE STA#2 PROJECT CODE-TFA-K (GRANT RD DRUM SITE)

THE SAMPLES WERE ANALYZED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USING HEWLETT-PACKARD MODEL # 5970&5985 GC/MS SYSTEMS.

THE SAMPLES WERE PREPARED FOR ANALYSIS ACCORDING TO THE METHODS DESCRIBED IN:

U.S ENVIRONMENTAL PROTECTION AGENCY
TEST METHODS FOR EVALUATING SOLID WASTE
SW-846

1. METHOD - 8240
2. METHOD - 8270

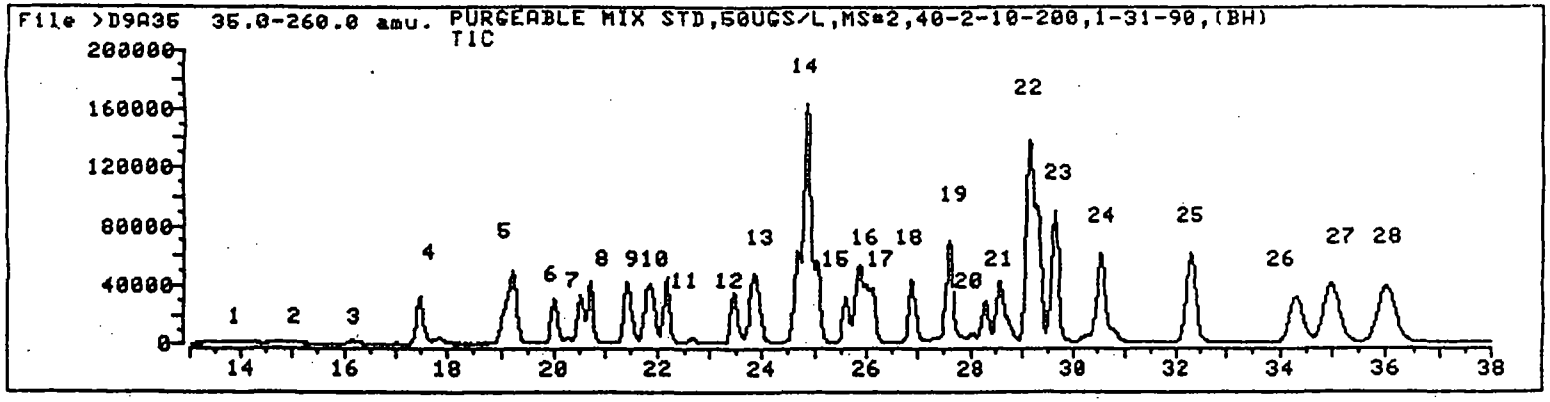
THE SAMPLES WERE ANALYZED FOR THE FOLLOWING COMPOUNDS:

VOLATILE ORGNICS(P.P)
BNA'S EXTRACTABLE ORGANICS(P.P)
GC/MS SCAN

THE GC/MS PARAMETERS WERE AS FOLLOWS

PURGE GAS	HELIUM @ 20 MLS/MIN
PURGE TIME	12 MINUTES
DESORB TIME	04 MINUTES
DESORB TEMP	180 DEGREES
COLUMN	3% SP-1500 ON CARBOPACK B, 80/120 MESH 1/4 INCH X 6 FEED ,PYREX
CARRIER GAS	HELIUM @ 20 CM/SEC (0.9 ML/MIN)
INJECTION TEMP	180 DEGREES
	40 DEGREES FOR 2 MINS, THEN 10 DEGREES PER MINUTES TO 200 DEGREES, HOLD 15 MINS
GC/MS INTERFACE	MOLECULLAR JET SEPARATOR
MASS RANGE	35 TO 260
SCAN TIME	0.9 SEC
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V

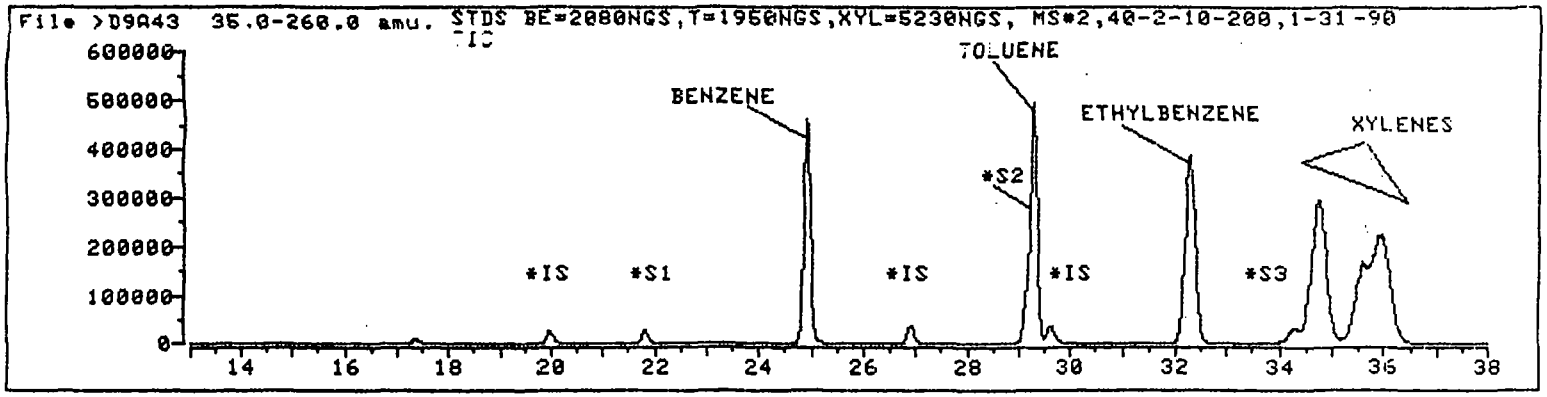
COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/M
DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC TAPE.



SAMPLE ID = PURGEABLES STANDARD MIX (A+B+C+HSL)

1. CHLOROMETHANE
2. BROMOMETHANE
   & VINYL CHLORIDE
3. CHLOROETHANE
4. DICHLOROMETHANE
   & ACETONE
5. 1,1-DICHLOROETHENE
   & CARBON DISULFIDE
   & TRICHLOROFLUOROMETHANE
6. BROMOCHLOROMETHANE (INTERNAL STANDARD)
7. 1,1-DICHLOROETHANE
8. 1,2-DICHLOROETHENE
9. CHLOROFORM
   & 2-BUTANONE (METHYL ETHYL KETONE, MEK)
10. 1,2-DICHLOROETHANE
    & 1,2-DICHLOROETHANE-D4 (SURROGATE STANDARD)
11. VINYL ACETATE (ACETIC ACID ETHENYL ESTER)
12. 1,1,1-TRICHLOROETHANE
13. BROMODICHLOROMETHANE
14. 1,2-DICHLOROPROPANE
    & BENZENE
    & TRANS-1,3-DICHLOROPROPENE
    & TRICHLOROETHENE
15. CIS-1,3-DICHLOROPROPENE
16. 1,1,2-TRICHLOROETHANE
    & 2-CHLOROETHYL VINYL ETHER
17. DIBROMOCHLOROMETHANE
18. 2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
19. 4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)
20. 2-HEXANONE
21. BROMOFORM
22. TETRACHLOROETHENE
    & TOLUENE
    & TOLUENE-D8 (SURROGATE STANDARD)
23. 1,4-DICHLOROBUTANE (INTERNAL STANDARD)
    & 1,1,2,2-TETRACHLOROETHANE
24. CHLOROBENZENE
25. ETHYLBENZENE
26. 4-BROMOFLUOROBENZENE (SURROGATE STANDARD)
27. STYRENE
28. O-XYLENE

Bor Vasania



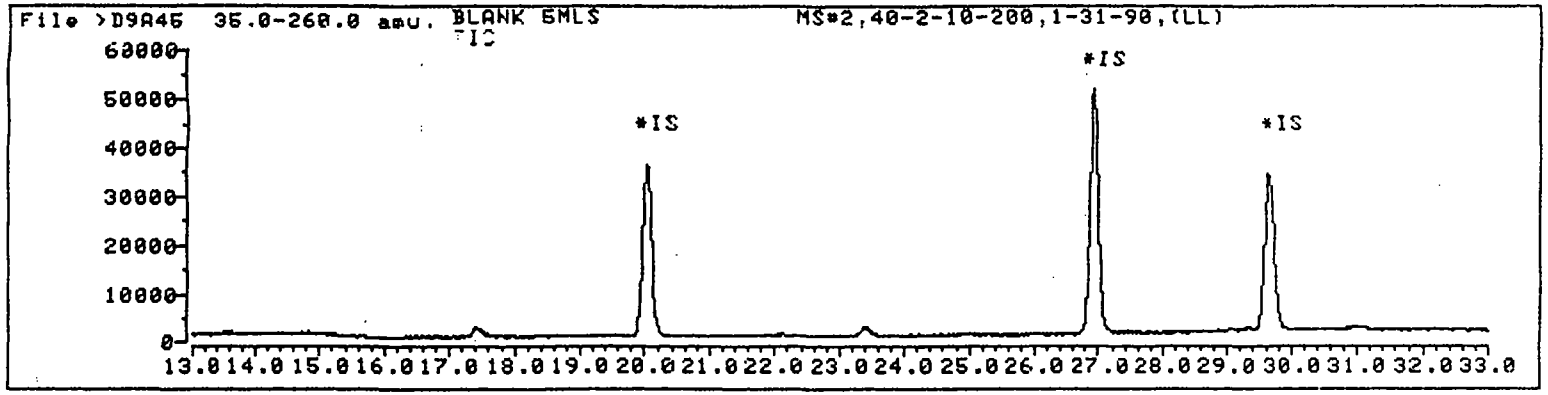
SAMPLE ID = BTEX STANDARDS.

RESULTS

1. BENZENE	24.90	MINS	2080	NGS
2. TOLUENE	29.28	MINS	1950	NGS
3. ETHYLBENZENE	32.27	MINS	2080	NGS
4. XYLENES	34-36	MINS	5230	NGS

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.34%, S2=103.32, S3=101.20%).

Ben Kosana



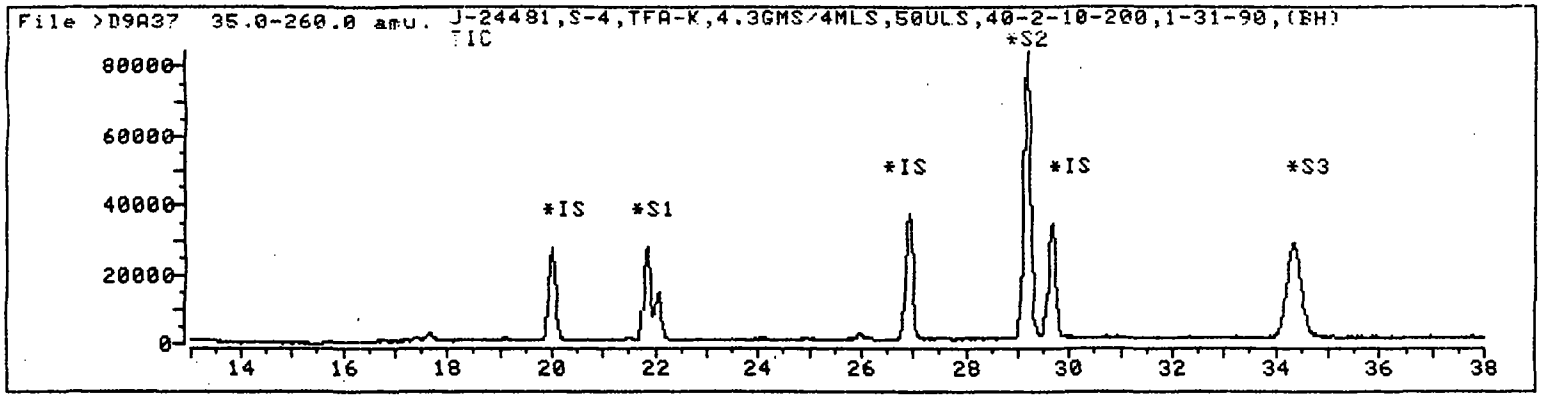
SAMPLE ID = BLANK

RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS	NOT	FOUND	<5	UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Hassman



SAMPLE ID = J-24481, TFA-K, STATION 4
RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS NOT FOUND <20 UG/KG

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.55%, S2=103.43, S3=98.12%).

Ben Vasamer

BASE NEUTRAL/ACID EXTRACTABLES

THE GC/MS PARAMETERS WERE AS FOLLOWS:

COLUMN	25 METER FUSED SILICA CAPILLARY COATED WITH SE-30
CARRIER GAS	HELIUM @ 30 CM/SEC(0.9 ML/MIN)
INJECTOR TEMP	270 DEGREES
COLUMN TEMP	5 MINUTES @ 35 DEGREES, THEN 8 DEGREES PER MINUTE TO 300 DEGREES, HOLD AT 300 DEGREES.
INJECTION MODE	SPLITLESS
SPLIT RATIO	----
GC/MS INTERFACE	DIRECT
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V
MASS RANGE SCAN	35 TO 450 AMU
SCAN TIME	0.4 SEC

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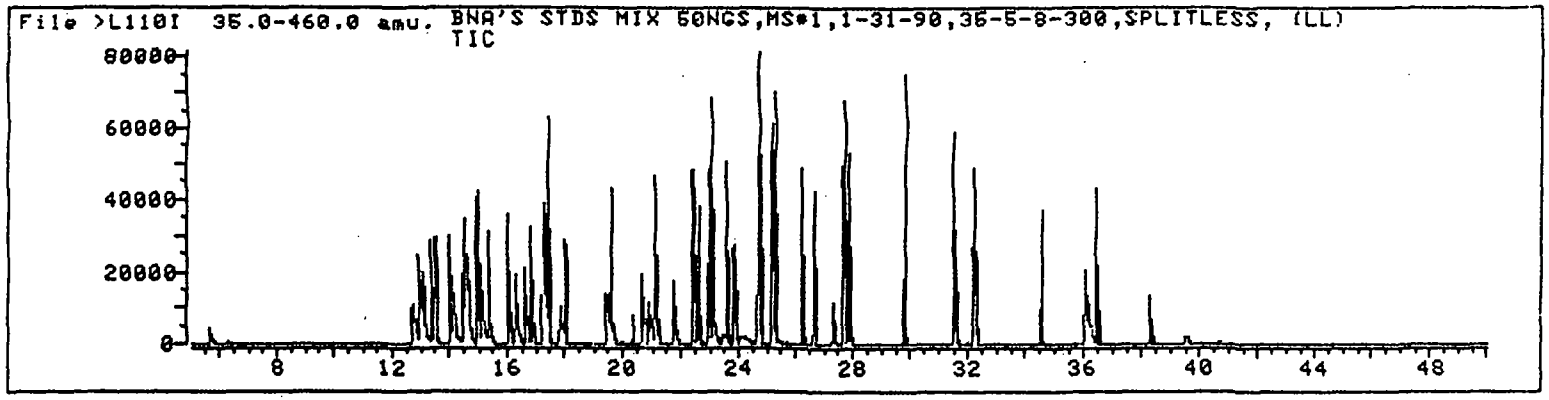
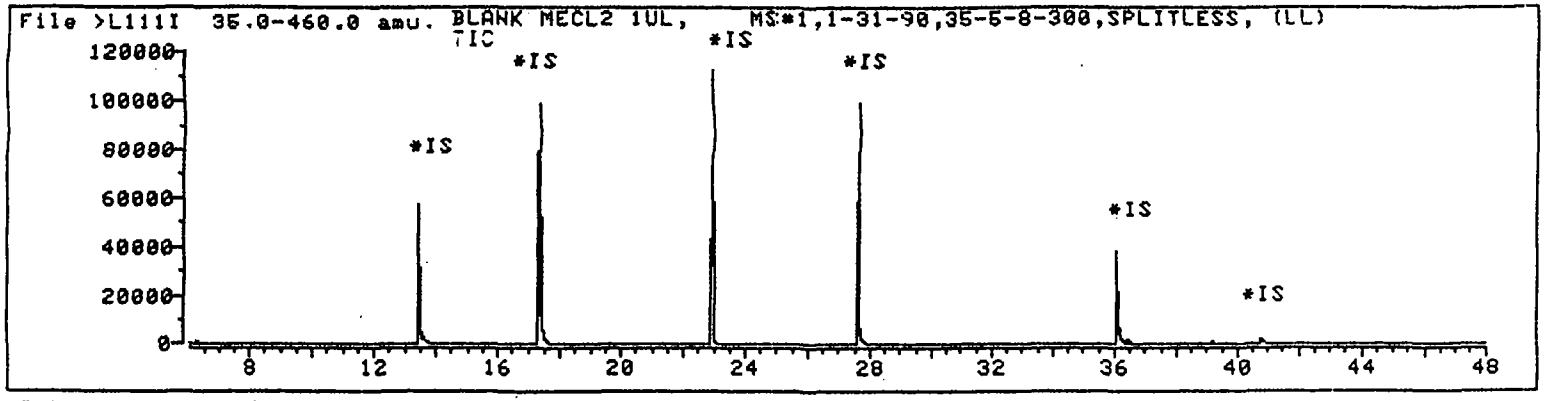


SAMPLE ID = BNA'S STANDARDS MIX.GR

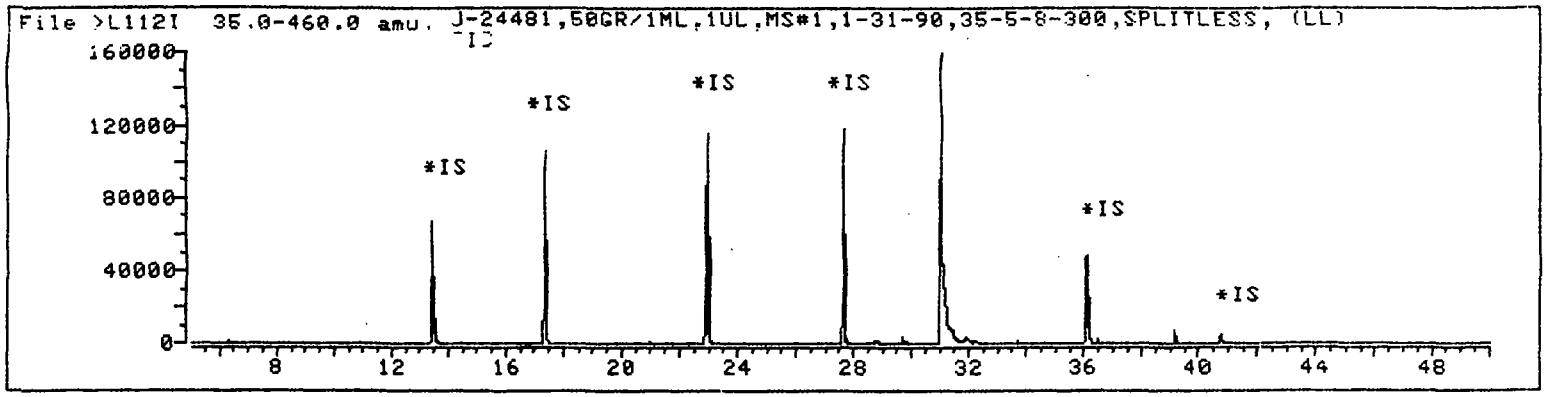


SAMPLE ID = BLANK MECL2 EXTRACT
RESULTS

1. BNA'S (EXTRACTABLE ORGANICS) NOT FOUND <5 UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Varsamar



SAMPLE ID = J-24481, TFA-K, STATION 4

RESULTS

1. FATTY ACID, ESTER	30.96	MINS	1.2	MG/KG
2. BNA'S (EXTRACTABLE ORGANICS)	NOT	FOUND	<0.1	MG/KG
3. PESTICIDES	NOT	FOUND	<1.0	MG/KG

*IS THESE ARE INTERNAL STANDARDS.

Ben Vaccaman

M.B.A. LABS

MICROBIOLOGICAL AND BIOCHEMICAL ASSAY LABORATORIES

P.O. BOX 9461 340 S. 66th STREET HOUSTON, TEXAS 77261
TELEPHONE NO. (713) 928-2701

SAMPLE SUBMITTED BY: Riedel Peterson

DATE RECEIVED: 1-29-1990

DATE COMPLETED: 2-4-1990

LABORATORY REPORT NUMBER: J-24480-00

SAMPLE IDENTIFICATION: Soil Sample Sta. 3
Grant Road Drum Site
Project Code: TFA-K

RESULTS

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
pH	EPA 150.1	2-16-90	10:20	H.K.	5.15
PCB's	SW-846-8080	2-4-90	10:00	S.L.	<1 mg/kg
Flash Point	SW-846-1010	1-29-90	7:00	D.H.	>140°F
Arsenic	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Beryllium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Cadmium	EPA 200.7	2-1-90	6:27	C.W.	1.68 mg/kg
Chromium	EPA 200.7	2-1-90	6:27	C.W.	15.7 mg/kg
Copper	EPA 200.7	2-1-90	6:27	C.W.	5.5 mg/kg
Lead	EPA 200.7	2-1-90	6:27	C.W.	19.0 mg/kg
Nickel	EPA 200.7	2-1-90	6:27	C.W.	4.2 mg/kg
Selenium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Silver	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Thallium	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg

REPORTED BY Jo Kreni

Riedel - Peterson
Page 2
J-24480-00

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
Antimony	EPA 200.7	2-1-90	6:27	C.W.	<0.5 mg/kg
Zinc	EPA 200.7	2-1-90	6:27	C.W.	60.0 mg/kg
Mercury	EPA 245.1	2-2-90	8:00	J.K.	<0.05 mg/kg
Total Available H_2S	EPA 376.1	2-12-90	3:00	J.C.	622 mg/kg
Total Cyanide	SM 412 B	2-14-90	16:00	M.M.	<1 mg/kg

Joe Kern

M.B.A LABS

MICROBIOLOGICAL AND BIOCHEMICAL ASSAY

LABORATORIES

P.O.BOX 9461
HOUSTON,TEXAS 77261

340 S.66 TH STREET
TEL (713) 928-2701

SAMPLE SUBMITTED BY:	RIEDEL - PETERSON
DATE RECEIVED:	1-29-90
DATE COMPLETED:	1-31-90
LABORATORY REPORT NUMBER:	J-24480
SAMPLE IDENTIFICATION:	SOIL SAMPLE STA#3 PROJECT CODE-TFA-K (GRANT RD DRUM SITE)

THE SAMPLES WERE ANALYZED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USING HEWLETT-PACKARD MODEL # 5970&5985 GC/MS SYSTEMS.

THE SAMPLES WERE PREPARED FOR ANALYSIS ACCORDING TO THE METHODS DESCRIBED IN:

U.S ENVIRONMENTAL PROTECTION AGENCY
TEST METHODS FOR EVALUATING SOLID WASTE
SW-846

1. METHOD - 8240
2. METHOD - 8270

THE SAMPLES WERE ANALYZED FOR THE FOLLOWING COMPOUNDS:

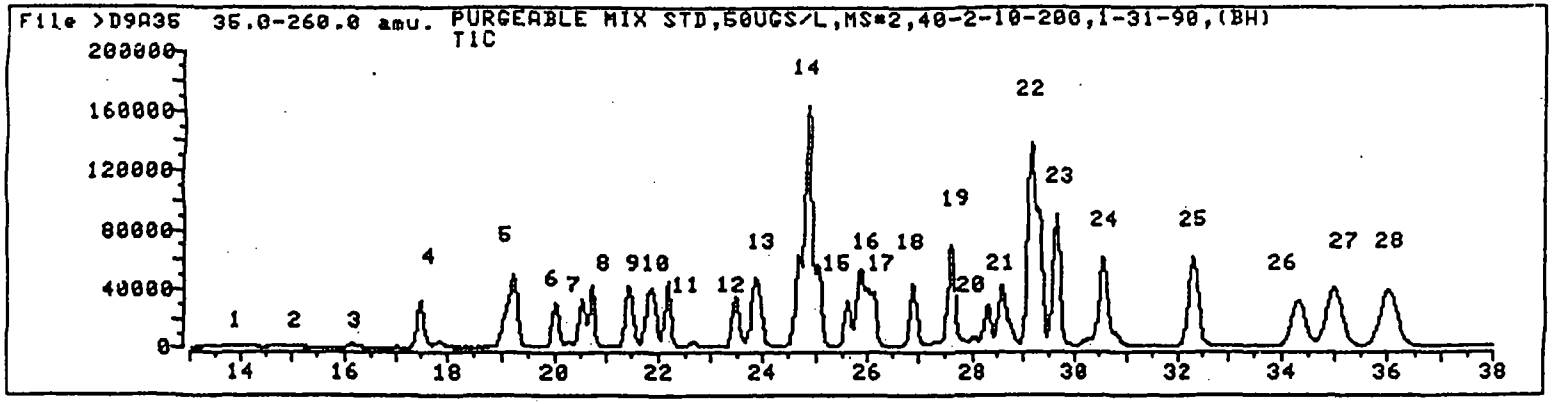
VOLATILE ORGNICS(P.P)
BNA'S EXTRACTABLE ORGANICS(P.P)
GC/MS SCAN

Ben Vossamer

THE GC/MS PARAMETERS WERE AS FOLLOWS

PURGE GAS	HELIUM @ 20 MLS/MIN
PURGE TIME	12 MINUTES
DESORB TIME	04 MINUTES
DESORB TEMP	180 DEGREES
COLUMN	3% SP-1500 ON CARBOPACK B, 80/120 MESH 1/4 INCH X 6 FEED ,PYREX
CARRIER GAS	HELIUM @ 20 CM/SEC (0.9 ML/MIN)
INJECTION TEMP	180 DEGREES
	40 DEGREES FOR 2 MINS, THEN 10 DEGREES PER MINUTES TO 200 DEGREES, HOLD 15 MINS
GC/MS INTERFACE	MOLECULLAR JET SEPARATOR
MASS RANGE	35 TO 260
SCAN TIME	0.9 SEC
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V

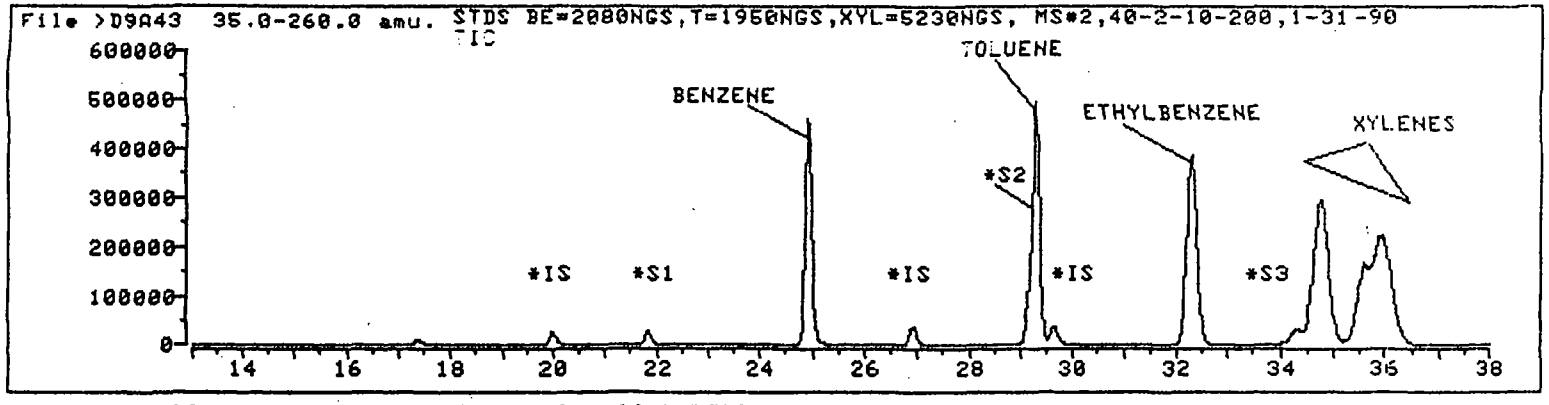
COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/
DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC TAPE.



SAMPLE ID = PURGEABLES STANDARD MIX (A+B+C+HSL)

1. CHLOROMETHANE
2. BROMOMETHANE
   & VINYL CHLORIDE
3. CHLOROETHANE
4. DICHLOROMETHANE
   & ACETONE
5. 1,1-DICHLOROETHENE
   & CARBON DISULFIDE
   & TRICHLOROFLUOROMETHANE
6. BROMOCHLOROMETHANE (INTERNAL STANDARD)
7. 1,1-DICHLOROETHANE
8. 1,2-DICHLOROETHENE
9. CHLOROFORM
   & 2-BUTANONE (METHYL ETHYL KETONE, MEK)
10. 1,2-DICHLOROETHANE
    & 1,2-DICHLOROETHANE-D4 (SURROGATE STANDARD)
11. VINYL ACETATE (ACETIC ACID ETHENYL ESTER)
12. 1,1,1-TRICHLOROETHANE
13. BROMODICHLOROMETHANE
14. 1,2-DICHLOROPROPANE
    & BENZENE
    & TRANS-1,3-DICHLOROPROPENE
    & TRICHLOROETHENE
15. CIS-1,3-DICHLOROPROPENE
16. 1,1,2-TRICHLOROETHANE
    & 2-CHLOROETHYL VINYL ETHER
17. DIBROMOCHLOROMETHANE
18. 2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
19. 4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)
20. 2-HEXANONE
21. BROMOFORM
22. TETRACHLOROETHENE
    & TOLUENE
    & TOLUENE-D8 (SURROGATE STANDARD)
23. 1,4-DICHLOROBUTANE (INTERNAL STANDARD)
    & 1,1,2,2-TETRACHLOROETHANE
24. CHLOROBENZENE
25. ETHYLBENZENE
26. 4-BROMOFLUOROBENZENE (SURROGATE STANDARD)
27. STYRENE
28. O-XYLENE

Ben Casarez



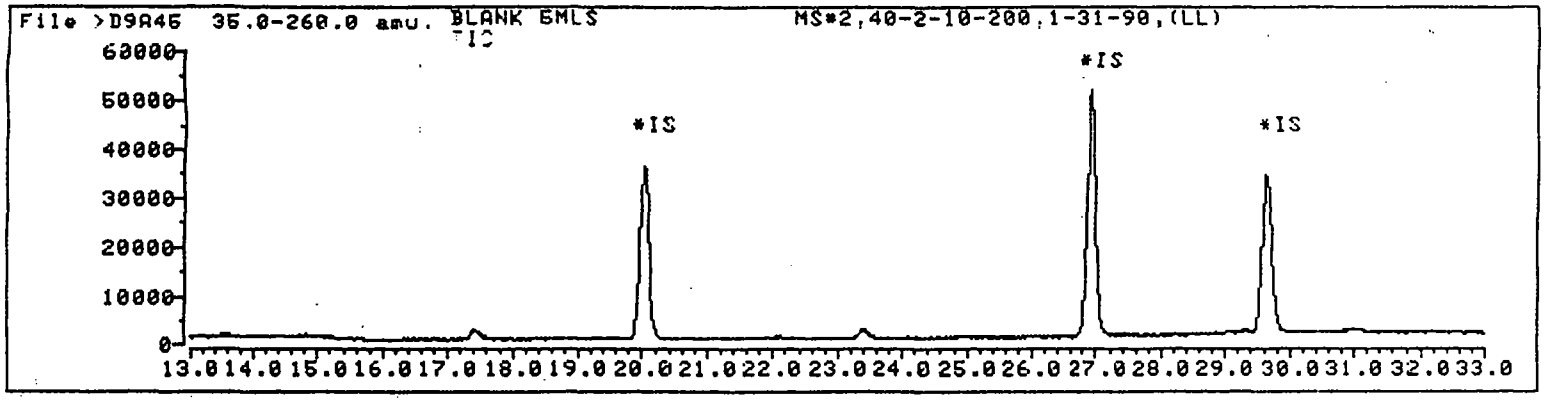
SAMPLE ID = BTEX STANDARDS.

RESULTS

1.	BENZENE	24.90	MINS	2080	NGS
2.	TOLUENE	29.28	MINS	1950	NGS
3.	ETHYLBENZENE	32.27	MINS	2080	NGS
4.	XYLENES	34-36	MINS	5230	NGS

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.34%, S2=103.32, S3=101.20%).

Ben Hassanie



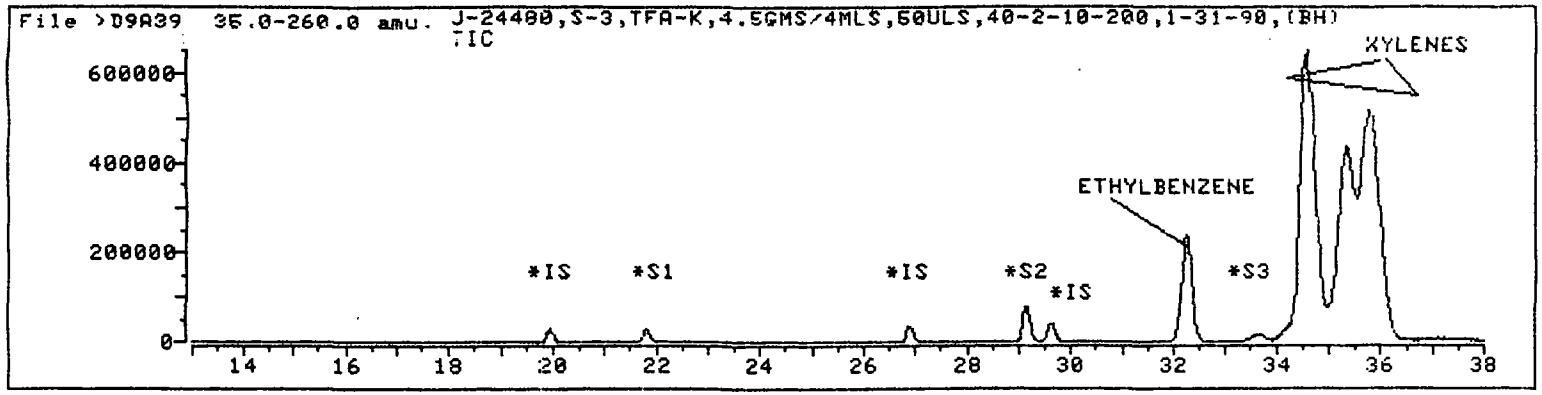
SAMPLE ID = BLANK

RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS	NOT	FOUND	<5	UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Vasanc



SAMPLE ID = J-24480, TFA-K, STATION 3
RESULTS

1. ETHYLBENZENE	32.25	MINS	41	MG/KG
2. XYLENES	34-36	MINS	278	MG/KG
3. OTHER VOA'S (P.P)	NOT	FOUND	<1	MG/KG

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.55%, S2=103.43, S3=98.12%).

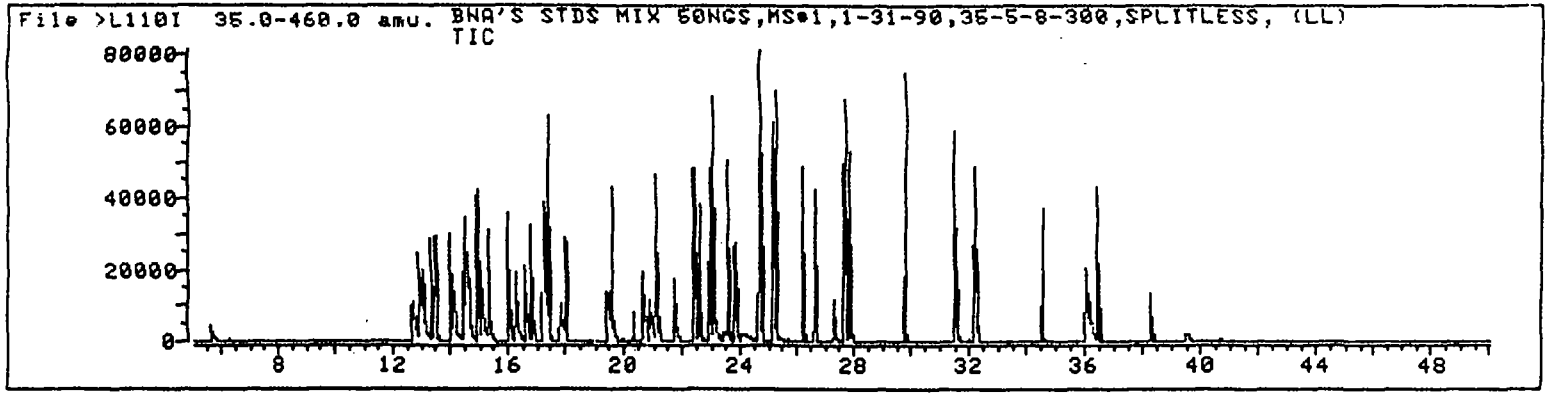
Bo Vessman

BASE NEUTRAL/ACID EXTRACTABLES

THE GC/MS PARAMETERS WERE AS FOLLOWS:

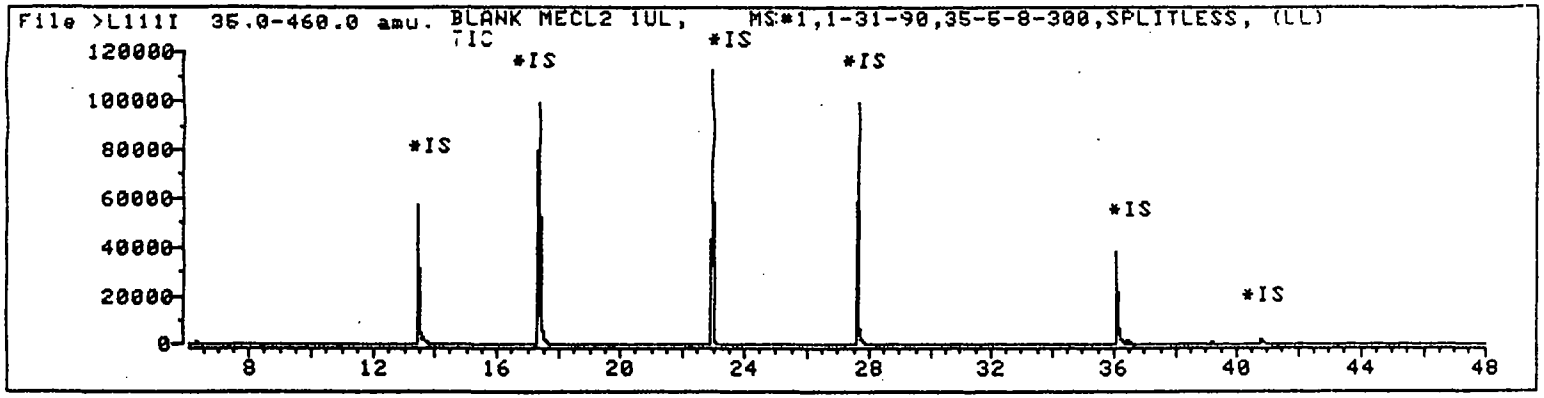
COLUMN	25 METER FUSED SILICA CAPILLARY COATED WITH SE-30
CARRIER GAS	HELIUM @ 30 CM/SEC(0.9 ML/MIN)
INJECTOR TEMP	270 DEGREES
COLUMN TEMP	5 MINUTES @ 35 DEGREES, THEN 8 DEGREES PER MINUTE TO 300 DEGREES, HOLD AT 300 DEGREES.
INJECTION MODE	SPLITLESS
SPLIT RATIO	----
GC/MS INTERFACE	DIRECT
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V
MASS RANGE SCAN	35 TO 450 AMU
SCAN TIME	0.4 SEC

COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/MS DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC MEDIA.



SAMPLE ID = BNA'S STANDARDS MIX.GR

Ben Vossman

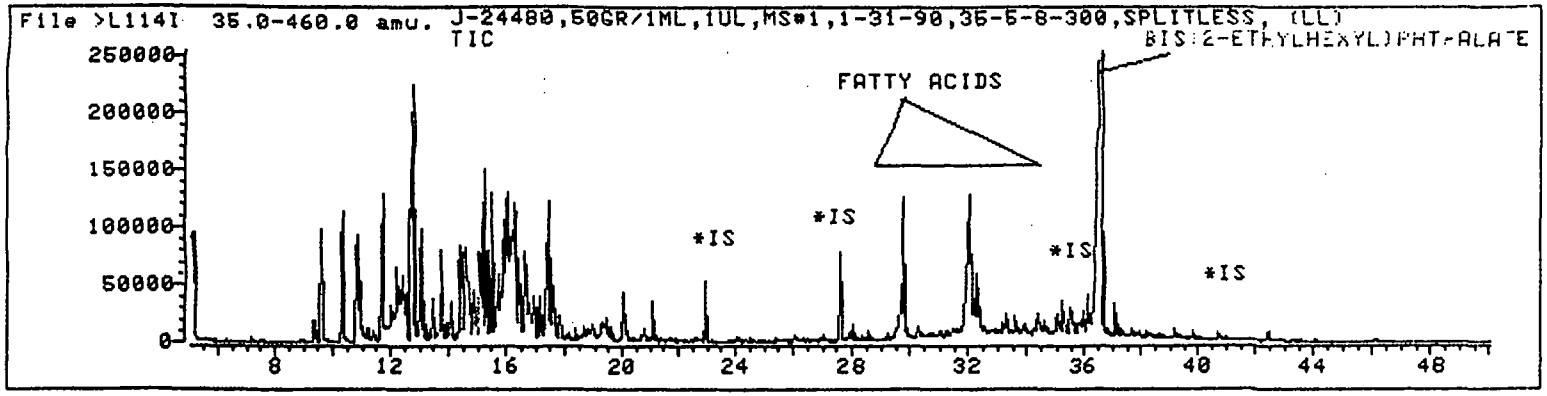


SAMPLE ID = BLANK MECL2 EXTRACT RESULTS

1. BNA'S (EXTRACTABLE ORGANICS) NOT FOUND <5 UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Hassane



SAMPLE ID = J-24480, TFA-K, STATION 3

RESULTS

1. NAPHTHALENE	17.42	MINS	2.3	MG/KG
2. METHYL-NAPHTHALENE	19.59	MINS	0.3	MG/KG
3. BIS(2-ETHYLHEXYL)PHTHALATE	36.49	MINS	12.3	MG/KG
4. DI-N-OCTYLPHTHALATE	38.30	MINS	0.2	MG/KG
5. OTHER BNA'S (EXTRACTABLE ORGANICS)	NOT	FOUND	<1.0	MG/KG
6. PESTICIDES	NOT	FOUND	<10.0	MG/KG
OTHER COMPOUNDS FOUND:				
1. 2-BUTOXY-ETHANOL	10.88	MINS	4.3	MG/KG
2. 3-OCTANONE	11.70	MINS	2.1	MG/KG
3. 2-BUTENOIC ACID, BUTYL ESTER	12.70	MINS	4.8	MG/KG
4. ALKANES (C10 - C12)	13.1-17.5	MINS	2.6	MG/KG
5. ALKYLBENZENES (MW=120 - 148)	12.2-17.8	MINS	22.5	MG/KG
6. PHTHALIC ANHYDRIDE	20.06	MINS	0.7	MG/KG
7. FATTY ACIDS, ESTER (C18-C20)	29.8-32.0	MINS	2.9	MG/KG

*IS THESE ARE INTERNAL STANDARDS.

Ben Kassander

M.B.A. LABS

MICROBIOLOGICAL AND BIOCHEMICAL ASSAY LABORATORIES

P.O. BOX 9461 340 S. 66th STREET HOUSTON, TEXAS 77261
TELEPHONE NO. (713) 928-2701

SAMPLE SUBMITTED BY: Riedel Peterson

DATE RECEIVED: 1-29-1990

DATE COMPLETED: 2-2-1990

LABORATORY REPORT NUMBER: J-24481-00

SAMPLE IDENTIFICATION: Soil Sample Sta.4
Grant Road Drum Site
Product Code: TFA-K

RESULTS

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
PCB's	SW846-8080	2-4-90	10:00	S.L.	<1 mg/kg
Total Cyanide	SM 412 B	2-14-90	16:00	J.C.	<1 mg/kg
Flash Point	SW846-1010	1-29-90	7:00	D.H.	>140°F
Arsenic	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Beryllium	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Cadmium	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Chromium	EPA 200.7	2-1-90	6:33	C.W.	7.6 mg/kg
Copper	EPA 200.7	2-1-90	6:33	C.W.	1.7 mg/kg
Lead	EPA 200.7	2-1-90	6:33	C.W.	16.6 mg/kg
Nickel	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Selenium	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Silver	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Thallium	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg
Antimony	EPA 200.7	2-1-90	6:33	C.W.	<0.5 mg/kg

REPORTED BY Joe Kreus

Riedel Peterson
Page 2
J-24481-00

PARAMETER	METHOD#	DATE	TIME	ANALYST	RESULTS
Zinc	EPA 200.7	2-1-90	6:33	C.W.	13.6 mg/kg
Mercury	EPA 245.1	2-2-90	8:00	J.K.	<0.05 mg/kg
Total Available H_2S	EPA 376.1	2-12-90	3:00	J.C.	<1 mg/kg
pH	EPA 150.1	2-16-90	10:15	H.K.	5.17

Jo Kreu

M.B.A LABS

MICROBIOLOGICAL AND BIOCHEMICAL ASSAY

LABORATORIES

P.O.BOX 9461
HOUSTON,TEXAS 77261

340 S.66 TH STREET
TEL (713) 928-2701

SAMPLE SUBMITTED BY:	RIEDEL - PETERSON
DATE RECEIVED:	1-29-90
DATE COMPLETED:	1-31-90
LABORATORY REPORT NUMBER:	J-24481
SAMPLE IDENTIFICATION:	SOIL SAMPLE STA#4 PROJECT CODE-TFA-K (GRANT RD DRUM SITE)

THE SAMPLES WERE ANALYZED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USING HEWLETT-PACKARD MODEL # 5970&5985 GC/MS SYSTEMS.

THE SAMPLES WERE PREPARED FOR ANALYSIS ACCORDING TO THE METHODS DESCRIBED IN:

U.S ENVIRONMENTAL PROTECTION AGENCY
TEST METHODS FOR EVALUATING SOLID WASTE
SW-846

1. METHOD - 8240
2. METHOD - 8270

THE SAMPLES WERE ANALYZED FOR THE FOLLOWING COMPOUNDS:

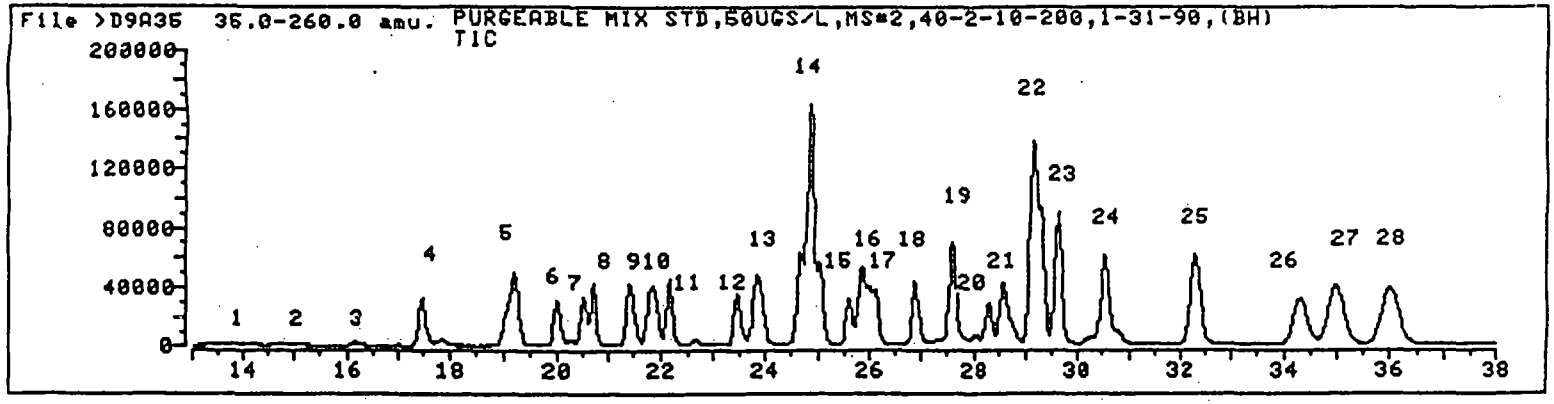
VOLATILE ORGNICS(P.P)
BNA'S EXTRACTABLE ORGANICS(P.P)
GC/MS SCAN

Ben Vossamian

THE GC/MS PARAMETERS WERE AS FOLLOWS

PURGE GAS	HELIUM @ 20 MLS/MIN
PURGE TIME	12 MINUTES
DESORB TIME	04 MINUTES
DESORB TEMP	180 DEGREES
COLUMN	3% SP-1500 ON CARBOPACK B, 80/120 MESH 1/4 INCH X 6 FEED ,PYREX
CARRIER GAS	HELIUM @ 20 CM/SEC (0.9 ML/MIN)
INJECTION TEMP	180 DEGREES
	40 DEGREES FOR 2 MINS, THEN 10 DEGREES PER MINUTES TO 200 DEGREES, HOLD 15 MINS
GC/MS INTERFACE	MOLECULLAR JET SEPARATOR
MASS RANGE	35 TO 260
SCAN TIME	0.9 SEC
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V

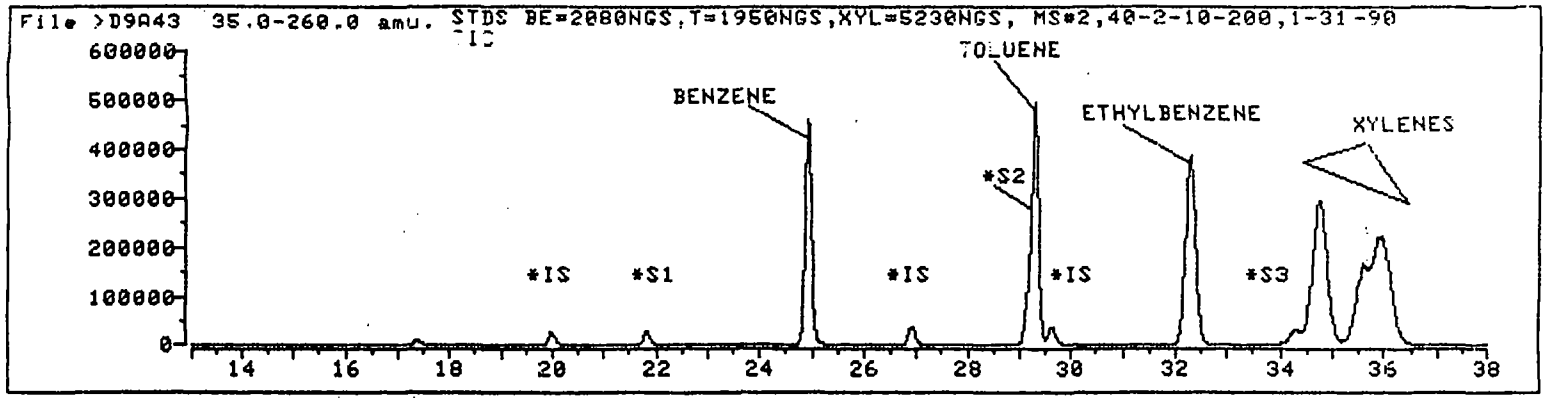
COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/ DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC TAPE.



SAMPLE ID = PURGEABLES STANDARD MIX (A+B+C+HSL)

1. CHLOROMETHANE
2. BROMOMETHANE
   & VINYL CHLORIDE
3. CHLOROETHANE
4. DICHLOROMETHANE
   & ACETONE
5. 1,1-DICHLOROETHENE
   & CARBON DISULFIDE
   & TRICHLOROFLUOROMETHANE
6. BROMOCHLOROMETHANE (INTERNAL STANDARD)
7. 1,1-DICHLOROETHANE
8. 1,2-DICHLOROETHENE
9. CHLOROFORM
   & 2-BUTANONE (METHYL ETHYL KETONE, MEK)
10. 1,2-DICHLOROETHANE
    & 1,2-DICHLOROETHANE-D4 (SURROGATE STANDARD)
11. VINYL ACETATE (ACETIC ACID ETHENYL ESTER)
12. 1,1,1-TRICHLOROETHANE
13. BROMODICHLOROMETHANE
14. 1,2-DICHLOROPROPANE
    & BENZENE
    & TRANS-1,3-DICHLOROPROPENE
    & TRICHLOROETHENE
15. CIS-1,3-DICHLOROPROPENE
16. 1,1,2-TRICHLOROETHANE
    & 2-CHLOROETHYL VINYL ETHER
17. DIBROMOCHLOROMETHANE
18. 2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
19. 4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)
20. 2-HEXANONE
21. BROMOFORM
22. TETRACHLOROETHENE
    & TOLUENE
    & TOLUENE-D8 (SURROGATE STANDARD)
23. 1,4-DICHLOROBUTANE (INTERNAL STANDARD)
    & 1,1,2,2-TETRACHLOROETHANE
24. CHLOROBENZENE
25. ETHYLBENZENE
26. 4-BROMOFLUOROBENZENE (SURROGATE STANDARD)
27. STYRENE
28. O-XYLENE

Bor Chrasamen

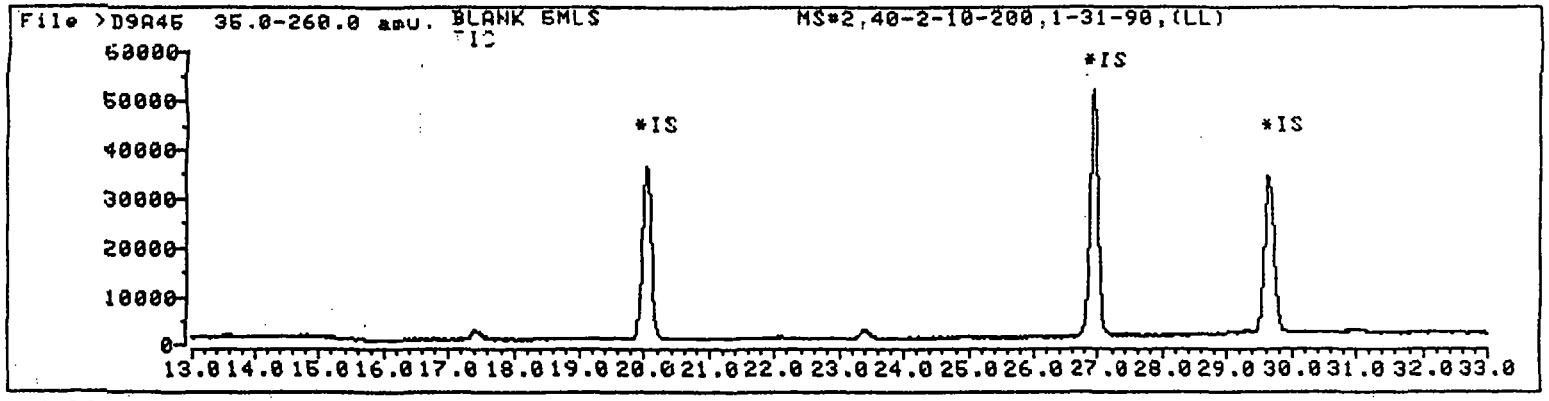


SAMPLE ID = BTEX STANDARDS.

RESULTS

1.	BENZENE	24.90	MINS	2080	NGS
2.	TOLUENE	29.28	MINS	1950	NGS
3.	ETHYLBENZENE	32.27	MINS	2080	NGS
4.	XYLENES	34-36	MINS	5230	NGS

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=99.34%, S2=103.32, S3=101.20%).



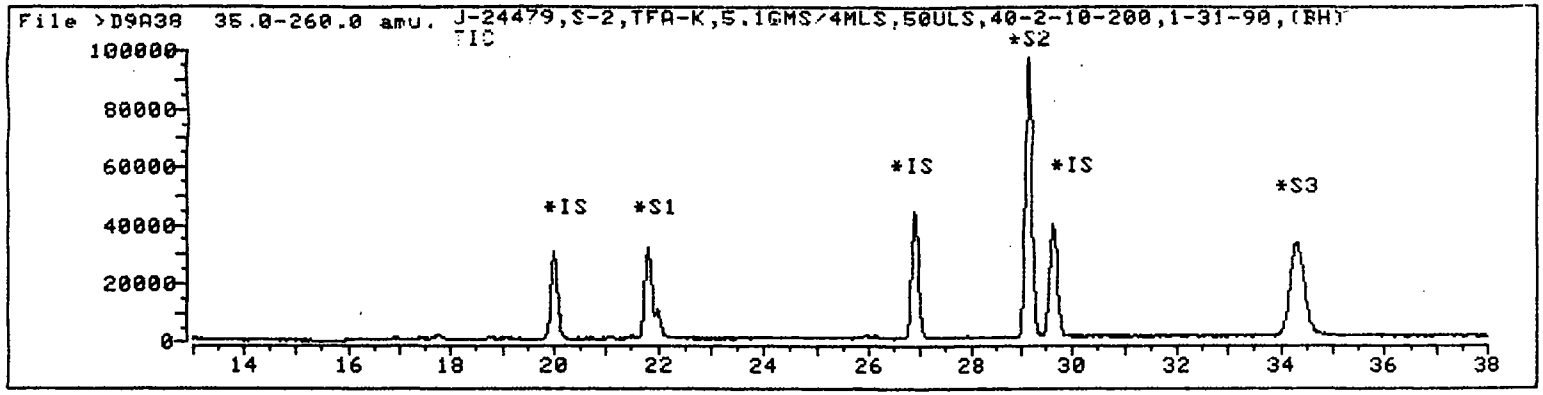
SAMPLE ID = BLANK

RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS	NOT	FOUND	<5	UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Vasconcelos



SAMPLE ID = J-24479, TFA-K, STATION 2
RESULTS

1. PRIORITY POLLUTANT VOLATILE ORGANICS NOT FOUND <20 UG/KG

*IS THESE ARE INTERNAL STANDARDS.
*S THESE ARE SURROGATE STANDARDS (S1=100.18%, S2=106.70%, S3=99.03%).

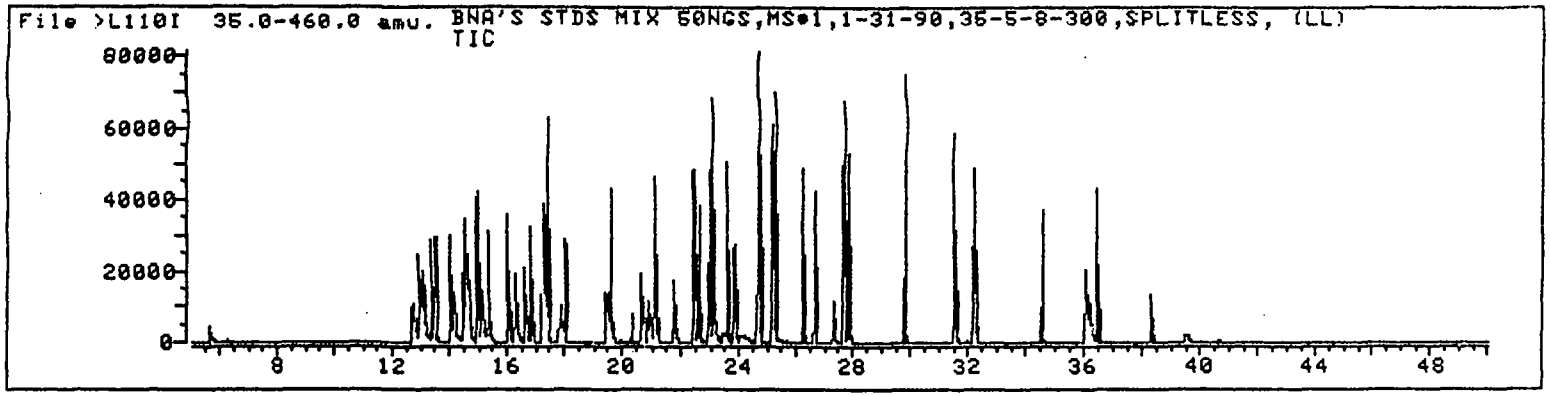
Ben Vasamer

BASE NEUTRAL/ACID EXTRACTABLES

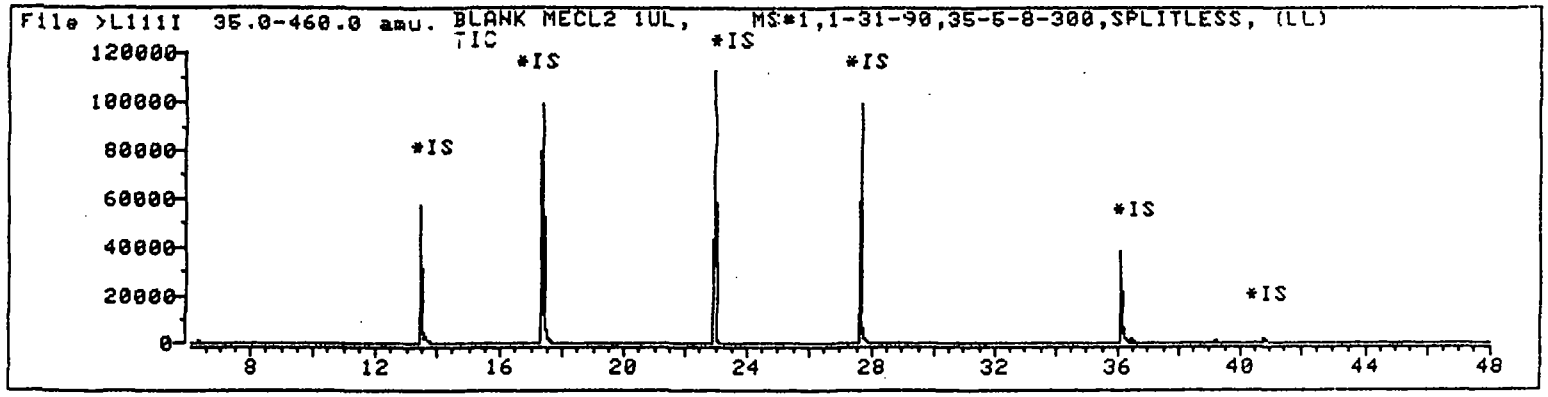
THE GC/MS PARAMETERS WERE AS FOLLOWS:

COLUMN	25 METER FUSED SILICA CAPILLARY COATED WITH SE-30
CARRIER GAS	HELIUM @ 30 CM/SEC(0.9 ML/MIN)
INJECTOR TEMP	270 DEGREES
COLUMN TEMP	5 MINUTES @ 35 DEGREES, THEN 8 DEGREES PER MINUTE TO 300 DEGREES, HOLD AT 300 DEGREES.
INJECTION MODE	SPLITLESS
SPLIT RATIO	----
GC/MS INTERFACE	DIRECT
IONIZATION MODE	ELECTRON IMPACT
ELECTRON ENERGY	70 V
MASS RANGE SCAN	35 TO 450 AMU
SCAN TIME	0.4 SEC

COPIES OF THE TOTAL ION CHROMATOGRAMS ARE INCLUDED WITH THIS REPORT. ALL GC/MS DATA IS PERMANENTLY STORED AT MBA LABORATORIES ON MAGNETIC MEDIA.



SAMPLE ID = BNA'S STANDARDS MIX.GR

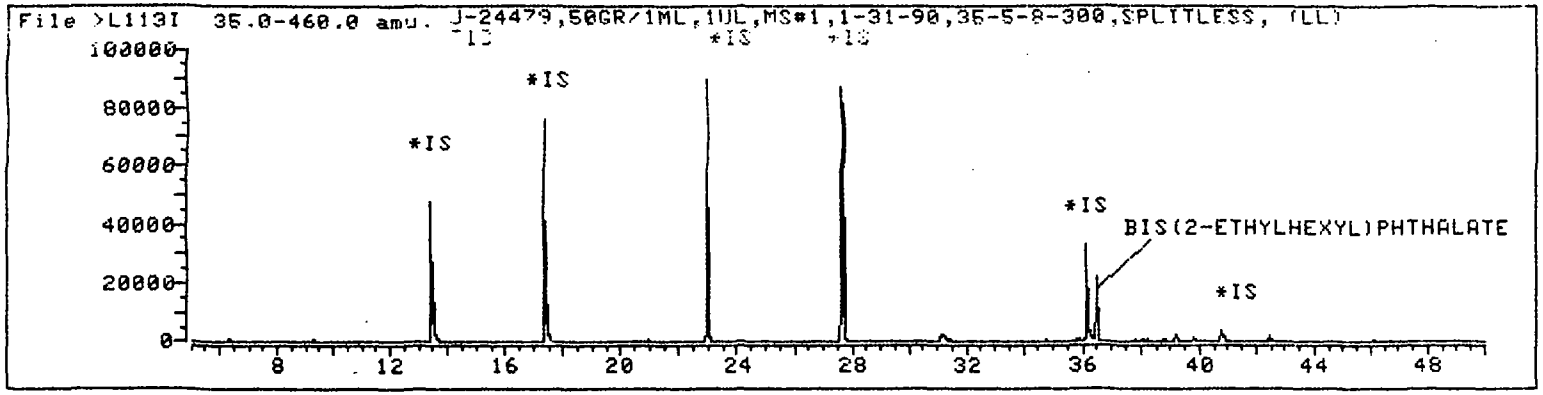


SAMPLE ID = BLANK MECL2 EXTRACT RESULTS

1. BNA'S (EXTRACTABLE ORGANICS) NOT FOUND <5 UG/L

*IS THESE ARE INTERNAL STANDARDS.

Ben Jasaamar



SAMPLE ID = J-24479, TFA-K, STATION 2
RESULTS

1. BIS(2-ETHYLHEXYL)PHTHALATE	36.44	MINS	0.5	MG/KG
2. OTHER BNA'S (EXTRACTABLE ORGANICS)	NOT	FOUND	<0.1	MG/KG
3. PESTICIDES	NOT	FOUND	<1.0	MG/KG

*IS THESE ARE INTERNAL STANDARDS.

Ben Vasania