



January 27, 1994

Ms. Barbara Pope
Southwestern Refining Company, Inc.
P.O. Box 9217
Corpus Christi, Texas 78469-9217

Dear Ms. Pope:

Enclosed is written confirmation of analytical results for the three air samples, numbers 94-007, 94-008, and 94-009, received at our laboratory on Thursday, January 27, 1994.

Calculations of f/cc are based solely on the volume supplied by Southwestern Refining Company. Envirotest Inc. assumes no responsibility for whether the supplied samples accurately represent the regulated area nor for any subsequent use or interpretations of the analytical results.

The air sample analyses were performed in our Houston laboratory by NIOSH 582-certified personnel with a Nikon Alphaphot microscope equipped with 400X magnification, Walton-Beckett graticule, and positive phase contrast. The NIOSH 7400 method was used. Envirotest, Inc. is licensed by the Texas Department of Health (#30-0005) for asbestos laboratory analysis.

This report and the findings contained herein shall not, in whole or in part, be altered, dispersed, or disclosed to any other party. It is provided for your sole use and may not be used or relied upon by any other party, in whole or in part, without prior written consent from Envirotest, Inc.

If you have any questions regarding the sample analyses, please call. We appreciate the opportunity to be of service to Southwestern Refining Company, Inc.

Sincerely,

Daniel J. Gerhardt, C.P.G.
President
Envirotest, Inc.

DJG/tec

SWRf/Asbestos 1270

Envirotest, Inc. Laboratory Air Sample Analysis Report

SOUTHWESTERN REFINING COMPANY INC.-CORPUS CHRISTI

REC'D:
ANALYZED BY : 

SAMPLE #	FLOW L/M	TIME MIN.	VOLUME LITERS	NUMBER FIELDS	NUMBER FIBERS	BLANK COUNT	F/MM2	F/CC
BTX								
94-007	.00	0	47.3	100	2.5	1.00	8.9	< .073
94-008	.00	0	48.0	100	4.0	1.00	8.9	< .071
94-009 FIELD BLANK	.00	0	.0	100	1.0	1.00	.0	< .000

IN ANALYTICAL REQUEST

Client:

Southwestern Refining Company, Inc.

P. O. Box 9217

Corpus Christi, TX 78469

Case No:

Date Recd:

Shipment Method:

Del. agent:

Rec. agent:

Investigation:

BTX

[illegible]

Report Comments:

File Comments:

1B 047141

Dept Insulation
Site Corpus Christi
Area BTX

KERR MCGEE REFINING CORPORATION INDUSTRIAL HYGIENE DATA FORM

Accession _____
File No. 93-0441
Site Use _____

ID CAS Registry Code No. K Yr. Mo. Day Sheet No.									
1 2 3 11 12 13 14 15 16 17 18 19 24 Elapsed S T D Time, Min MFE L/G Concentration U P Parameter Value Prot Equip. No 25 26 27 28 30 31 32 33 37 38 39 40 44 45 46 47 49 X Site Locator Codes SSN 50 51 55 60 65 70 71 75 80									

CODES
K—Monitoring Standard
A—8 Hour TWA
B—12 Hour TWA
C—Short Term TWA
D—Instantaneous Peak
E—Duration of Task
O—Other
S—Sample
A—General Area
B—Breathing Zone
C—Continuous
H—Blood (Z2 only)
O—Other
P—Personal
S—Source Sample
U—Urinalysis (Z2 only)

T—Type
F—Full Period Single
G—Series Grab
L—Full Period, Consecutive
O—Other
P—Partial Period
S—Single Grab

D—Device
A—Absorption Tube
B—Passive Dosimeter
D—Direct Instrument
F—Filter
G—Grab Sample
H—Impinger/Bubbler
O—Other
R—Filter, Respirable Dust
T—Detector Tube

U—Units
B—Percent
C—Fiber/cm
D—Decibels
K— $\mu\text{g}/100 \text{ g (blood Z2 only)}$
L— $\mu\text{g}/\text{mL (urine Z2 only)}$
I— $\mu\text{g}/\text{mL (urine Z2 only)}$
M—Percent/Million
O—Other
P—Percent
U— g/m^3
X— mg/m^3

P—Statistical Parameter
O—Geometric Mean and Geometric Std. Dev
L—50th Percentile and 95th Percentile
O—Other
X—Arithmetic Mean and Std. Deviation

Protective Equipment Affected
A—Air Supplied Respirator, Continuous Flow
B—Air Supplied Respirator, Demand
E—Cover All Goggles
F—Face Shield
G—Impervious Gloves
H—Air Supplied Respirator, Pressure Demand
I—Hearing Protection—Inserts
J—Impervious Suit—Not Air Supplied
M—Hearing Protection—Muffs
N—None Required
O—Other
P—Air Purifying Respirator, Full Face
Q—Air Purifying Respirator, Half Face
R—Air Purifying Respirator, Quarter Face
S—Self-Contained Respirator, Pressure Demand
T—Self-Contained Respirator, Demand
U—Impervious Suit—Air Supplied
Y—Power Air Purifying Respirator
W—Disposable Respirator—Dust

M—Measured Value
E—Estimated Value
L—Less Than
G—Greater Than

FOR SITE USE

Monitoring For: Asbestos fibers

(Common Chemical Name)

IN: _____ Person Sampled Vallejo Victor
(Site Designation) (Last Name First Initial)

DATA/OBSERVATIONS

Protective Equipment Used disposable overalls, gloves, glasses, face mask

Humidity
97

Sample No. 94007 Avg Temp. 66 Avg Atm Press. 30.04 Predominant Wind Direction SE Avg Speed 13

Sampler Pump/Make MSA Model Flow 1, 1e Ser. No. 7961 No. _____

Calibration Method _____ Reference _____ By Nancy Logue Date _____

PUMP SETTING		ELAPSED		CALIBRATED FLOW RATE		VOLUME SAMPLED, LITERS	
Start	Stop	Min.	Strokes	Vol/Min	Vol/Stroke	Uncorrected	Corrected
0907	0937	30		1.575			47.25

1.58 1.57

Sampling Method _____ Reference _____ Precision _____ Accuracy _____

Make _____ Model _____ Adsorbent _____ Lot No. _____

Anal. Method _____ Reference _____ Precision _____ Accuracy _____

Anal. Equip. _____ Manufacturer _____ Model _____ Ser. No. _____

Analytical				Results		
No.	Reference	Analyst	Analyte	Mass/No Particles	Concentration	Units
					8.073	f/cc

CALCULATIONS: (Additional data, remarks, etc.)

Pump Calibration $X = 60 \text{ sec} \times \# \text{ ml}$

sec

Please Retain Pink Copy for Your Records
Please Do Not Pull Form Set Apart

Investigator (Signature) B. P. P. Date 1-25-94

Received by (Signature) _____ Date/Time _____

Completed by (Signature) _____ Date/Time _____

SWRF/Asbestos 1274

1B 047134

Dept Insulation
Site Acipus Creek
Area BTX

KERR MCGEE REFINING CORPORATION
INDUSTRIAL HYGIENE DATA FORM

Accession _____
File No. 93-041
Status _____

ID		CAS Registry Code No.		K	Yr.	Mo.	Day	Sheet No.								
				E	94	01	25									
1	2	3	11			12	13	14	15	16	17	18	19	24		
Elapsed																
S	T	D	Time, Min	MFE	LIG	Concentration	U	P	Parameter Value	Prot Equip.	No	Samp.				
25	26	27	28	30	31	32	33	37	38	39	40	44	45	46	47	49
Site Locator Codes																
X	SSN															
50	51	55	60	65	70	71	75	80								

CODES
K—Monitoring Standard
A—8 Hour TWA
B—12 Hour TWA
C—Short Term TWA
D—Instantaneous Peak
E—Duration of Task
O—Other

S—Sample
A—General Area
B—Breathing Zone
C—Continuous
H—Blood (Z2 only)
O—Other
P—Personal
S—Source Sample
U—Urinalysis (Z2 only)

T—Type
F—Full Period Single
G—Series Grab
L—Full Pct. Consecutive
O—Other
P—Partial Period
S—Single Grab

D—Device
A—Adsorption Tube
B—Passive Dosimeter
D—Direct Instrument
F—Filter
G—Grab Sample
I—Impinger/Bubbler
O—Other
R—Filter, Respirable Dust
T—Detector Tube

U—Units
B—Percent
C—Fiber/cm
D—Decibels
J— $\mu\text{g}/100\text{g}$ (blood Z2 only)
K— $\mu\text{g}/\text{ml}$ (urine Z2 only)
L— $\mu\text{g}/\text{ml}$ (urine Z2 only)
M—Parts/Million
O—Other
P—Percent
U— g/m^3
X— mg/m^3

R—Statistical Parameter
G—Geometric Mean and Geometric Std. Dev
L—50th Percentile and 95th Percentile
O—Other
X—Arithmetic Mean and Std. Deviation

Protective Equipment Used
A—Air Supplied Respirator, Continuous Flow
B—Air Supplied Respirator, Demand
E—Cover All Goggles
F—Face Shield
G—Impervious Gloves
H—Air Supplied Respirator, Pressure Demand
I—Hearing Protection—Inserts
J—Impervious Suit—Not Air Supplied
M—Hearing Protection—Muffs
N—None Required
O—Other
P—Air Purifying Respirator, Full Face
Q—Air Purifying Respirator, Half Face
R—Air Purifying Respirator, Quarter Face
S—Self-Contained Respirator, Pressure Demand
T—Self-Contained Respirator, Demand
U—Impervious Suit—Air Supplied
V—Powered Air Purifying Respirator
W—Disposable Respirator—Dust

M—Measured Value
E—Estimated Value
L—Less Than
G—Greater Than

FOR SITE USE

Monitoring For: Asbestos Fibers
(Common Chemical Name)

IN: _____ Person Sampled Area
(Site Designation) (Last Name) First Initial

DATA/OBSERVATIONS

Protective Equipment Used _____

Humidity 77%
Sample No. 94008 Avg Temp. 66 Avg Air Press. 30.04 Predominant Wind Direction SE Avg Speed 1.3
Sampler Pump/Make MSA Model Flow Lite Ser. No. 8027 No. _____
Calibration Method Bubble Lite Reference _____ By B. P. P. Date _____

PUMP SETTING		ELAPSED		CALIBRATED FLOW RATE		VOLUME SAMPLED, LITERS	
Start	Stop	Min	Strokes	Vol/Min	Vol/Stroke	Uncorrected	Corrected
0907	0940	33		1.455			48.02

1.58 - 1.33

Sampling Method _____ Reference _____ Precision _____ Accuracy _____

Make _____ Model _____ Adsorbent _____ Lot No. _____

Anal. Method _____ Reference _____ Precision _____ Accuracy _____

Anal. Equip. _____ Manufacturer _____ Model _____ Ser. No. _____

Analytical				Results		
No	Reference	Analyst	Analyte	Mass/No Particles	Concentration	Units
					0.071	f/cc

CALCULATIONS: (Additional data, remarks, etc.)

Pump Calibration $X = 60 \text{ sec} \times \# \text{ ml}$

sec

Please Retain Pink Copy for Your Records
Please Do Not Pull Form Set Apart

Investigator (Signature) B. P. P. Date 1-25-94

Received by (Signature) _____ Date/Time _____

Completed by (Signature) _____ Date/Time _____

Dept Insulation
Site Census Christi
Area BTK

KERR McGEE REFINING CORPORATION INDUSTRIAL HYGIENE DATA FORM

Accession _____
File No. 83-0441
Site Use _____

ID										CAS Registry Code No.										K		Yr.		Mo.		Day		Sheet No.					
																				0		94		01		25							
1 2 3						11 12 13 14			15 16 17 18			19			24																		
Elapsed										Time, Min										MFE		L/G		Concentration		U P		Parameter Value		Prot Equip.		No Samp.	
S T D			0 0 F												C																		
25 26 27			28 29 30			31 32 33			37 38 39			40 41 42			44 45 46			47 48 49															
X										Site Locator Codes										SSN													
50			51			55			60			65			70			71			75			80									

FOR SITE USE

Monitoring For: Asbestos Fibers
(Common Chemical Name)

IR: _____ Person Sampled Blank
(Site Designation) (Last Name) First Initial

DATA/OBSERVATIONS

Protective Equipment Used

Sample No. 94009 Avg Temp. 66 Avg Atm Press. 30.04 Predominant Wind Direction SE Avg Speed 13
Sampler Pump Make _____ Model _____ Ser. No. _____ No. _____
Calibration Method _____ Reference _____ By Nancy Logue Date _____

PUMP SETTING		ELAPSED		CALIBRATED FLOW RATE		VOLUME SAMPLED, LITERS	
Start	Stop	Min.	Strokes	Vol/Min	Vol/Stroke	Uncorrected	Corrected

Sampling Method _____ Reference _____ Precision _____ Accuracy _____
Make _____ Model _____ Adsorbent _____ Lot No. _____
Anal. Method _____ Reference _____ Precision _____ Accuracy _____
Anal. Equip. _____ Manufacturer _____ Model _____ Ser. No. _____

Analytical				Results		
No	Reference	Analyst	Analyte	Mass/No Particles	Concentration	Units
					0.000	f/cc

CALCULATIONS: (Additional data, remarks, etc.)

Pump Calibration X = 60 sec x # ml

sec

Please Retain Pink Copy for Your Records
Please Do Not Pull Form Set Apart

Investigator (Signature) B.P. 77 Date 1-25-94
Received by (Signature) _____ Date/Time _____
Completed by (Signature) _____ Date/Time _____

CODES

K-Monitoring Standard
A-8 Hour TWA
B-12 Hour TWA
C-Short Term TWA
D-Instantaneous Peak
E-Duration of Task
O-Other

S-Sample
A-General Area
B-Breathing Zone
C-Continuous
H-Blood (ZZ only)
O-Other
P-Personal
S-Source Sample
U-Urinalysis
(ZZ only)

T-Type
F-Full Period Single
Q-Series Grab
L-Full Pd. Consecutive
O-Other
P-Partial Period
S-Single Grab

D-Device
A-Absorption Tube
B-Passive Dosimeter
D-Direct Instrument
F-Filter
G-Grab Sample
I-Impinger/Bubbler
O-Other
R-Filter, Respirable Dust
T-Detector Tube

U-Units
P-Particulate
C-Fiber/cm
D-Dose/m3
J-µg/100 g (blood ZZ only)
K-µg/ml (urine ZZ only)
L-µg/ml (urine ZZ only)
M-Particulate
O-Other
P-Percent
U-g/m3
X-mg/m3

R-Statistical Parameter
G-Geometric Mean and
Geometric Std. Dev
L-50 Percentile and
95th Percentile
O-Other
X-Arithmetic Mean and
Std. Deviation

Protective Equipment
A-Air Supplied Respirator,
Continuous Flow
B-Air Supplied Respirator,
Demand
E-Cover All Goggles
F-Face Shield
G-Impermeable Gloves
H-Air Supplied Respirator,
Pressure Demand
I-Hearing Protection-
Inserts
J-Impermeable Suit-
Not Air Supplied
M-Hearing Protection-
Muffs
N-None Required
O-Other
P-Air Purifying Respirator,
Full Face
Q-Air Purifying Respirator,
Half Face
R-Air Purifying Respirator,
Quarter Face
S-Self-Contained Respirator,
Pressure Demand
T-Self-Contained Respirator,
Demand
U-Impermeable Suit-
Air Supplied
V-Power Air Purifying
Respirator
W-Disposable Respirator-
Dust

M-Measured Value
E-Estimated Value
L-Less Than
G-Greater Than