



STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001850
DATE: 11-16-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 12-16-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
OCTOBER 2005 / D. A. RUSSELL	6	STAFF HOUR (S)	75.00	\$450.00
			TOTAL AMOUNT DUE	\$450.00

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001803
DATE: 10-24-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 11-23-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
SEPTEMBER 2005 / D. A. RUSSELL	0.5	STAFF HOUR(S)	75.00	\$37.50
TOTAL AMOUNT DUE				\$37.50

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Date: 01-SEP-05

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 328913

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP00001658 40470048	09-AUG-05	06/2005 D.A.RUSSELL	0.00	300.00



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

92-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
01-SEP-05	328913	\$*****300.00

VOID AFTER 90 DAYS

PAY Three Hundred and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

R.M. Wohler
Senior VP & CFO

JACKSON MS 39289-1325

⑈00328913⑈

⑈031100209⑈

38558165⑈

RECEIVED
SEP - 9 2005
MS DEPT. OF ENVIRONMENTAL QUALITY
ACCOUNTS RECEIVABLE



STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001658
DATE: 07-13-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 08-12-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
JUNE 2005 / D. A. RUSSELL	4	STAFF HOUR (S)	75.00	\$300.00
TOTAL AMOUNT DUE				\$300.00

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Date: 01-SEP-05

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 328912

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000160 : 40470048	24-JUN-05	05/2005 D.A.RUSSELL	0.00	337.50



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

82-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
01-SEP-05	328912	\$*****337.50

VOID AFTER 90 DAYS

PAY Three Hundred Thirty-Seven and 50/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

JACKSON MS 39289-1325

R. M. Johnson
Senior VP & CFO

⑈00328912⑈

⑆031100209⑆

38558165⑈

RECEIVED

SEP - 9 2005

MS DEPT. OF ENVIRONMENTAL QUALITY
ACCOUNTS RECEIVABLE



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001606
DATE: 06-14-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

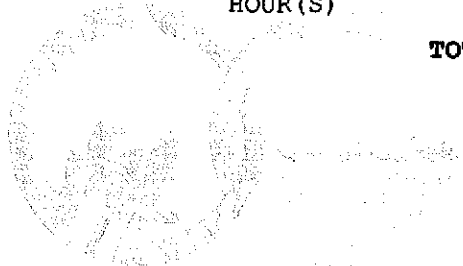
ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 07-14-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
MAY 2005 / D. A. RUSSELL	4.5	STAFF HOUR(S)	75.00	\$337.50
TOTAL AMOUNT DUE				\$337.50



ACCOUNTS RECEIVABLE/FEES

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AN EQUAL OPPORTUNITY EMPLOYER

Date: 29-JUN-05

Vendor No.: 5263 99

MISSISSIPPI DEPT ENV

Check No.: 325947

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000155 *99 4047008	01-JUN-05 RUSH	2832 ANGELA CALL - EXT#	0.00	450.00



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
29-JUN-05	325947	\$*****450.00

VOID AFTER 90 DAYS

PAY Four Hundred Fifty and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

R. M. Johnson
Senior VP & CFO

JACKSON MS 39289-1325

⑈00325947⑈

⑈031100209⑈

38558165⑈





STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001556
DATE: 05-16-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 06-15-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
APRIL 2005 / D. A. RUSSELL	6	STAFF HOUR(S)	75.00	\$450.00
TOTAL AMOUNT DUE				\$450.00

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Date: 13-MAY-05

Vendor No.: 5263 99

MISSISSIPPI DEPT ENV

Check No.: 323538

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000150 *99 4047 0048	26-APR-05 BUSH	2832 ANGELA/VEP-40470048 CALL - EXT#	0.00	487.50



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO	NET AMOUNT
13-MAY-05	323538	\$*****487.50

VOID AFTER 90 DAYS

PAY Four Hundred Eighty-Seven and 50/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

R. M. Wohler
Senior VP & CFO

JACKSON MS 39289-1325

⑈00323538⑈ ⑆031100209⑆ 38558165⑈

MAY 2005
RECEIVED



STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001503
DATE: 04-15-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 05-15-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
MARCH 2005 / D. A. RUSSELL	6.5	STAFF HOUR(S)	75.00	\$487.50
TOTAL AMOUNT DUE				\$487.50

ACCOUNTS RECEIVABLE/FEEES

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Vendor No. : 5263 99

MISSISSIPPI DEPT ENV

Date: 20-APR-05

Check No.: 322370

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP00001451 *99	22-MAR-05 RUSH	2832 ANGELA/VEP-40470048 CALL - EXT#	0.00	1,500.00



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO	NET AMOUNT
20-APR-05	322370	\$*****1,500.00

PAY One Thousand Five Hundred and NO/100 Dollars

VOID AFTER 90 DAYS

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

JACKSON

MS 39289-1325

R. M. Wohler
Senior VP & CFO

⑈00322370⑈

⑈031100209⑈

38558165⑈





STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001451
DATE: 03-14-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 04-13-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
FEBRUARY 2005 / D. RUSSELL	20	STAFF HOUR (S)	75.00	\$1,500.00
TOTAL AMOUNT DUE				\$1,500.00

OFFICE OF ACCOUNT RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

** INVOICE **

** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM **

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001409

DATE: 02-14-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031

ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 03-16-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
JANUARY 2005 / D. A. RUSSELL	2	STAFF HOUR (S)	75.00	\$150.00
PAH SAMPLE ANALYZED #25964- 25966	3	SAMPLE (S)	150.00	\$450.00
TOTAL AMOUNT DUE				\$600.00

OFFICE OF ACCOUNT RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Date: 01-APR-05

Check No.: 321540

Vendor No.: 5263

MISSISSIPPI DEPT ENV

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000140	07-MAR-05	VEP-40470048	0.00	600.00



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
01-APR-05	321540	\$*****600.00

VOID AFTER 90 DAYS

PAY Six Hundred and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

R.M. Johnson
Senior VP & CFO

JACKSON MS 39289-1325

⑈00321540⑈ ⑆031100209⑆ 38558165⑈





Kerr-McGee Corporation
 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

62-20
 311

CHECK DATE	CHECK NO.	NET AMOUNT
17-FEB-05	319539	\$*****825.00

VOID AFTER 90 DAYS

PAY Eight Hundred Twenty-Five and NO/100 Dollars

TO THE
 ORDER
 OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

R. M. Johnson
 Senior VP & CFO

JACKSON MS 39289-1325

YEP-1360

40470048

⑈00319539⑈

⑈031100209⑈

38558165⑈





STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001360
DATE: 01-18-2005

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 02-17-05

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
DECEMBER 2004 / D. A. RUSSELL	11	STAFF HOUR (S)	75.00	\$825.00
TOTAL AMOUNT DUE				\$825.00

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER



Kerr-McGee Corporation
 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

02-20
 311

CHECK DATE	CHECK NO	NET AMOUNT
27-JAN-05	318481	\$*****375.00

VOID AFTER 90 DAYS

PAY Three Hundred Seventy-Five and NO/100 Dollars

TO THE
 ORDER
 OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

M. Walthe
 Assistant Treasurer

JACKSON MS 39289-1325

VEP.40470048

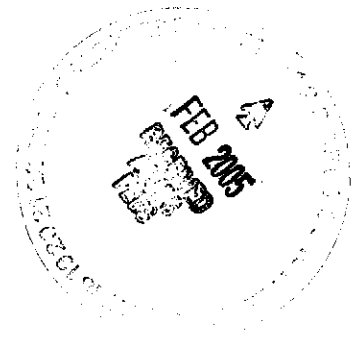
4286

⑈00318481⑈

⑈031100209⑈

38558165⑈

VEP-1312





STATE OF MISSISSIPPI

HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001312
DATE: 12-14-2004

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 01-13-05

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
NOVEMBER 2004 / D. A. RUSSELL	5 STAFF HOUR (S)	75.00	\$375.00
TOTAL AMOUNT DUE			\$375.00

ACCOUNTS RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Date: 23-DEC-04

Vendor No.: 5263 99

MISSISSIPPI DEPT ENV

Check No.: 317047

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000126 *99 40470048	15-DEC-04 RUSH	2856 MARCIA / 10/2004 CALL - EXT#	0.00	75.00



Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

42-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
23-DEC-04	317047	\$*****75.00

VOID AFTER 90 DAYS

PAY Seventy-Five and NO/100 Dollars

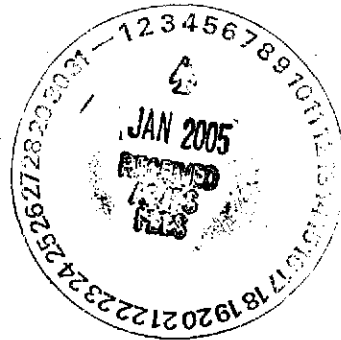
TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

JACKSON MS 39289-1325

M. Walker
Assistant Treasurer

⑈00317047⑈ ⑆031100209⑆ 38558165⑈





STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

INVOICE #: VEP-00001267

DATE: 11-17-2004

FINANCIAL:

AVELEKA MOORE - (601) 961-5031

ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

Date Due: 12-17-04

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
OCTOBER 2004 / D. A. RUSSELL	1 STAFF HOUR(S)	75.00	\$75.00
TOTAL AMOUNT DUE			\$75.00

OFFICE OF ACCOUNT RECEIVABLE/FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 354-6965 • Email: accounts_receivable@deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

Vendor No. : 5263

MISSISSIPPI DEPT ENV

Date: 09-SEP-04

Check No.: 312014

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000112	11-AUG-04		0.00	75.00



Kerr-McGee Corporation
 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

62-20
 311

CHECK DATE	CHECK NO.	NET AMOUNT
09-SEP-04	312014	\$*****75.00

VOID AFTER 90 DAYS

PAY Seventy-Five and NO/100 Dollars

TO THE ORDER OF
 MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Wilkinson
 Vice President & Treasurer

JACKSON MS 39289-1325

VEP-1121

40470088 00312014 031100209





STATE OF MISSISSIPPI
 HALEY BARBOUR
 GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****

**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

INVOICE # VEP-00001121

INVOICE DATE 08-11-2004

DEQ CONTACT

FINANCIAL: AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER: TONY RUSSELL - (601) 961-5318

CUSTOMER # VEP-40470048

TERMS: DUE DATE 09-10-04

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
JULY 2004 / D. A. RUSSELL	1 STAFF HOUR (S)	75.00	\$75.00
TOTAL AMOUNT DUE			\$75.00

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Date: 26-JUL-04

Check No.: 309695

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000103	09-JUN-04		0.00	375.00
			0.00	375.00

JUL 2004
 PROGRESS

Please detach this statement and retain for your records

000057 1220388



Kerr-McGee Corporation
 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

62-20
 311

CHECK DATE	CHECK NO.	NET AMOUNT
26-JUL-04	309695	\$*****375.00

VOID AFTER 90 DAYS

PAY Three Hundred Seventy-Five and NO/100 Dollars

TO THE ORDER OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Wilkinson
 Vice President & Treasurer

JACKSON MS 39289-1325

VEP1037
 40400048
 00309695 031100209



STATE OF MISSISSIPPI
 HALEY BARBOUR
 GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139
CUSTOMER # VEP-40470048

INVOICE # VEP-00001037
INVOICE DATE 06-09-2004
DEQ CONTACT
FINANCIAL: AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US
ENGINEER: TONY RUSSELL - (601) 961-5318
TERMS: DUE DATE 07-09-04

DESCRIPTION	EXT-PRICE
MAY 2004 / D. A. RUSSELL	\$375.00
TOTAL AMOUNT DUE	\$375.00



STATE OF MISSISSIPPI
 HALEY BARBOUR
 GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139
CUSTOMER # VEP-40470048

INVOICE # VEP-00001000
INVOICE DATE 05-11-2004
DEQ CONTACT
FINANCIAL: AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US
ENGINEER: TONY RUSSELL - (601) 961-5318
TERMS: DUE DATE 06-10-04

DESCRIPTION	EXT-PRICE
APRIL 2004 / D. A. RUSSELL	\$525.00
TOTAL AMOUNT DUE	\$525.00

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY

P.O. BOX 20325
JACKSON, MS 39289-1325

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-0000955

INVOICE DATE 04-06-2004

DEQ CONTACT

FINANCIAL: AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER: TONY RUSSELL - (601) 961-5318

TERMS: DUE DATE 05-06-04

DESCRIPTION	EXT-PRICE
MARCH 2004 / D. A. RUSSELL	\$600.00
TOTAL AMOUNT DUE	\$600.00



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139
CUSTOMER # VEP-40470048

INVOICE # VEP-00000916
INVOICE DATE 03-08-2004
DEQ CONTACT
FINANCIAL: AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US
ENGINEER: TONY RUSSELL - (601) 961-5318
TERMS: DUE DATE 04-07-04

DESCRIPTION	EXT-PRICE
FEBRUARY 2004 / D. A. RUSSELL	\$75.00
TOTAL AMOUNT DUE	\$75.00

Date: 17-MAR-04

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 303683

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP00000865	11-FEB-04		0.00	787.50
			0.00	787.50

↑
MAR 2004
RECEIVED
AS/BS
FEES

Please detach this statement and retain for your records

000021 1182868

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Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73125

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

42-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
17-MAR-04	303683	\$*****787.50

VOID AFTER 90 DAYS

PAY Seven Hundred Eighty-Seven and 50/100 Dollars

TO THE ORDER OF MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

Elizabeth J. Wilkerson
Vice President & Treasurer

VEP-40470048

JACKSON MS 39289-1325

00303683 031100209 38558165



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000865

INVOICE DATE 02-11-2004

DEQ CONTACT

FINANCIAL: AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER: TONY RUSSELL - (601) 961-5318

TERMS: DUE DATE 03-12-04

DESCRIPTION	EXT-PRICE
JANUARY 2004 / D. A. RUSSELL	\$787.50
TOTAL AMOUNT DUE	\$787.50

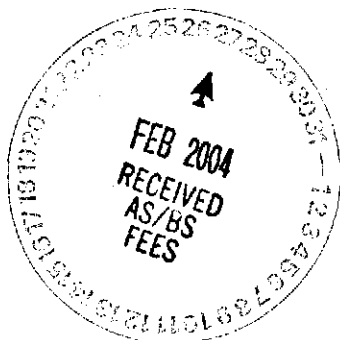
Date: 25-FEB-04

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 302697

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000081	08-JAN-04		0.00	712.50
			0.00	712.50



Please detach this statement and retain for your records

000037 1156992

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Kerr-McGee Corporation
 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

42-20 311

CHECK DATE	CHECK NO.	NET AMOUNT
25-FEB-04	302697	\$*****712.50

VOID AFTER 90 DAYS

PAY Seven Hundred Twelve and 50/100 Dollars

TO THE ORDER OF
 MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Wilkerson
 Vice President & Treasurer

VEP-814 40470048
 JACKSON

MS 39289-1325

Adams & Reese

00302697

031100209

38558165



STATE OF MISSISSIPPI
RONNIE MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

BILL TO: ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000814

INVOICE DATE 01-08-2004

DEQ CONTACT

FINANCIAL: AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER: TONY RUSSELL - (601) 961-5318

TERMS: DUE DATE 02-07-04

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
DECEMBER 2003 / D. A. RUSSELL	9.5 STAFF HOUR (S)	75.00	\$712.50
TOTAL AMOUNT DUE			\$712.50

ACCOUNTS RECEIVABLE / FEES

Date: 16-MAR-04

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 303636

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP00000768	12-DEC-03		0.00	1,125.00
			0.00	1,125.00

MAR 2004
RECEIVED
AS/BS
FEES

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000031 1162818

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Oklahoma City, OK 73125

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One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
16-MAR-04	303636	\$*****1,125.00

VOID AFTER 90 DAYS

PAY One Thousand One Hundred Twenty-Five and NO/100 Dollars

TO THE ORDER OF
MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

Elizabeth J. Wilkerson
Vice President & Treasurer

JACKSON MS 39289-1325

00303636 031100209 38558165

VEP-40476048



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000768

INVOICE DATE 12-12-2003

DEQ CONTACT

FINANCIAL:

AVELEKA MOORE - (601) 961-5031
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - 601-961-5318

TERMS: DUE DATE 01-11-04

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
NOVEMBER 2003/ D. A. RUSSELL	15 STAFF HOUR (S)	75.00	\$1,125.00
TOTAL AMOUNT DUE			\$1,125.00

ACCOUNTS RECEIVABLE / FEES

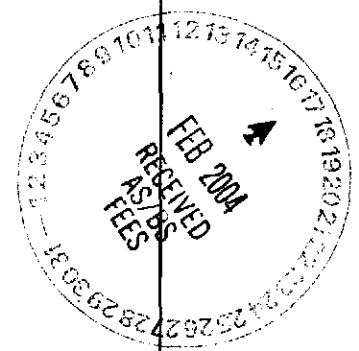
Date: 12-FEB-04

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No.: 302175

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000072	14-NOV-03	CUST #VEP-40470048	0.00	9,000.00
			0.00	9,000.00



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 Kerr-McGee Center
 Oklahoma City, OK 73125

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 One Penn's Way
 New Castle, DE 19720

62-79 311

CHECK DATE	CHECK NO.	NET AMOUNT
12-FEB-04	302175	\$*****9,000.00

VOID AFTER 90 DAYS

PAY Nine Thousand and NO/100 Dollars

TO THE ORDER OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Williams
 Vice President & Treasurer

JACKSON MS 39289-1325

VEP-724
 40470048

Adams & Reese

⑈00302175⑈ ⑆031100209⑆ 38558165⑈



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000724

INVOICE DATE 11-14-2003

DEQ CONTACT

FINANCIAL:

SUZANNE POLANDER - 601-961-5152
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - 601-961-5318

TERMS: DUE DATE 12-14-03

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
OCTOBER 2003 / D. A. RUSSELL	76.5 STAFF HOUR (S)	75.00	\$5,737.50
OCTOBER 2003 / JAMES CRELLIN	39.5 STAFF HOUR (S)	75.00	\$2,962.50
OCTOBER 2003 / P. JOHNSTON	4 STAFF HOUR (S)	75.00	\$300.00
TOTAL AMOUNT DUE			\$9,000.00

ACCOUNTS RECEIVABLE / FEES

POST OFFICE BOX 20325 • JACKSON, MISSISSIPPI 39289-1325 • TEL: (601) 961-5572 • FAX: (601) 961-5743 • accounts_receivable@deq.state.ms.us

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Vendor No.: 5263

MISSISSIPPI DEPT ENV

Date: 12-DEC-03

Check No.: 299062

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000068	20-OCT-03		0.00	4,825.00
			0.00	4,825.00

DEC 2003
RECEIVED
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FEES
25 26 27 28 29 30 31

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Kerr-McGee Center
Oklahoma City, OK 73125

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A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
12-DEC-03	299062	*****4,825.00

VOID AFTER 90 DAYS

PAY Four Thousand Eight Hundred Twenty-Five and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
PO BOX 20325

Elizabeth J. Wilkinson
Vice President & Treasurer

JACKSON

MS

39289-1325

VEP 680
40470048

⑈00299062⑈ ⑆031100209⑆ 38558165⑈



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE ****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM ****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000680

INVOICE DATE 10-20-2003

DEQ CONTACT

FINANCIAL: SUZANNE POLANDER - 601-961-5152
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER: TONY RUSSELL - 601-961-5318

TERMS: DUE 11/3/03

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
SEPTEMBER 2003 / JAMES CRELLIN	1 STAFF HOUR (S)	75.00	\$75.00
SEPTEMBER 2003 / DONALD A RUSSELL	52 STAFF HOUR (S)	75.00	\$3,900.00
ANALYZED SAMPLE # 20465	1 SAMPLE (S)	425.00	\$425.00
ANALYZED SAMPLE # 20466	1 SAMPLE (S)	425.00	\$425.00
TOTAL AMOUNT DUE			\$4,825.00

Invoice	<input type="checkbox"/> OFFICE OF POLLUTION CONTROL <input type="checkbox"/> LABORATORY <input type="checkbox"/> 1542 Old Whitfield Road <input type="checkbox"/> PEARL, MS 39208 <input type="checkbox"/> PHONE: (601) 664-3900
<input type="checkbox"/> Invoice Number: <input type="checkbox"/> Date: October 7, 2003	

<input type="checkbox"/> To: <input type="checkbox"/> DEPARTMENT OF ENVIRONMENTAL QUALITY <input type="checkbox"/> UNCONTROLLED SITES SECTION VOLUNTARY <input type="checkbox"/> EVALUATION PROGRAM <input type="checkbox"/> P. O. BOX 10385 <input type="checkbox"/> JACKSON, MS 39289	<input type="checkbox"/> Ship to (if different address): <input type="checkbox"/> DEPARTMENT OF ENVIRONMENTAL QUALITY <input type="checkbox"/> UNCONTROLLED SITES SECTION <input type="checkbox"/> VOLUNTARY EVALUATION PROGRAM <input type="checkbox"/> 2380 HWY 80 WEST <input type="checkbox"/> JACKSON, MS 39204
--	---

QTY.	DESCRIPTION	UNIT PRICE	TOTAL
2	SVOA SAMPLE ANALYZED, Gulf States Creosote #40470048 Lab numbers 20465 & 20466	\$425.00	\$850.00
	Subtotal (Sheet Total)		\$850.00

Date: 18-NOV-03

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Check No: 298050

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000063	03-OCT-03		0.00	1,875.00
			0.00	1,875.00



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000042 1112336

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 Kerr-McGee Center
 Oklahoma City, OK 73125

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 One Penn's Way
 New Castle, DE 19720

62-20 511

CHECK DATE	CHECK NO.	NET AMOUNT
18-NOV-03	298050	\$*****1,875.00

VOID AFTER 90 DAYS

PAY One Thousand Eight Hundred Seventy-Five and NO/100 Dollars

TO THE ORDER OF
 MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Williamson
 Vice President & Treasurer

JACKSON MS 39289-1325

VEP-630 40470048 Adams & Reese

⑈00298050⑈ ⑆031100209⑆ 38558165⑈



STATE OF MISSISSIPPI
RONNIE MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

BILL TO: ADAMS AND REESE
MR. GLEN PILIE
4500 ONE SHEL SQUARE
NEW ORLEANS, LA 70139

CUSTOMER # VEP-40470048

INVOICE # VEP-00000630

INVOICE DATE 10-03-2003

DEQ CONTACT

FINANCIAL:

SUZANNE POLANDER - 601-961-5152
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

ENGINEER:

TONY RUSSELL - 601-961-5318

TERMS:

DUE 11/3/03

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
August 2003 / TREY HESS	5 STAFF HOUR (S)	75.00	\$375.00
AUGUST 2003 / DONALD A RUSSELL	20 STAFF HOUR (S)	75.00	\$1,500.00
		TOTAL AMOUNT DUE	\$1,875.00

ACCOUNTS RECEIVABLE / FEES



STATE OF MISSISSIPPI
 RONNIE MUSGROVE, GOVERNOR
 MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

BILL TO: ADAMS AND REESE
 MR. GLEN PILIE
 4500 ONE SHEL SQUARE
 NEW ORLEANS, LA 70139

CUSTOMER # 3381-97

INVOICE # VEP-00000583
INVOICE DATE 08-27-2003
DEQ CONTACT
FINANCIAL: SUZANNE POLANDER - 601-961-5152
 ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US
ENGINEER: TONY RUSSELL - 601-961-5318
TERMS: DUE 09/30/03

DESCRIPTION	QTY UNIT	PRICE	EXT-PRICE
July 2003 / DONALD A RUSSELL	25.5 STAFF HOURS	75.00	\$1,912.50
		AMOUNT	\$1,912.50
		LESS ADVANCE USED	-\$1,912.50
		TOTAL AMOUNT DUE	\$.00

ACCOUNTS RECEIVABLE / FEES

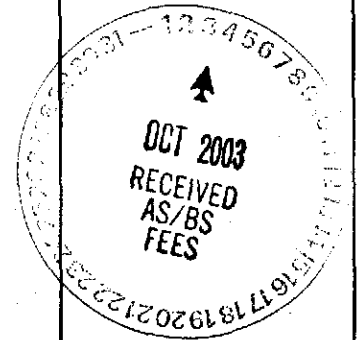
Vendor No.: 5263

MISSISSIPPI DEPT ENV

Date: 30-SEP-03

Check No.: 295179

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000038	25-MAR-03	CUSTOMER #3381-97	0.00	600.00
			0.00	600.00



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000038 1092687

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 Kerr-McGee Center
 Oklahoma City, OK 73125

Citibank, Delaware
 A Subsidiary of Citicorp
 One Penn's Way
 New Castle, DE 19720

62-20 311

CHECK DATE	CHECK NO.	NET AMOUNT
30-SEP-03	295179	\$*****600.00

VOID AFTER 90 DAYS

PAY Six Hundred and NO/100 Dollars

TO THE ORDER OF
 MISSISSIPPI DEPT ENVIRONMENTAL QUALITY
 PO BOX 20325

Elizabeth J. Williamson
 Vice President & Treasurer

JACKSON MS 39289-1325

VED-382

⑈00295179⑈ ⑆031100209⑆ 38558165⑈



MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

OFFICE OF POLLUTION CONTROL
P. O. Box 10385
Jackson, Mississippi 39289-0385

MSD			PROJECT LEADER <i>Tony Russell</i>			REMARKS				Custody Seals Intact at Lab Seals Not Intact Upon Receipt by Lab	LAB USE ONLY	
PROJECT NAME/LOCATION <i>Gulf States Creosote / Hattiesburg</i>			SAMPLER <i>John Miller</i>									DATA TO: <i>T Russell</i>
ESD SAMPLE TYPES 1. SURFACE WATER 6. SOIL/SEDIMENT 2. GROUND WATER 7. SLUDGE 3. POTABLE WATER 8. WASTE 4. WASTEWATER 9. AIR 5. LEACHATE 10. FISH 11. OTHER						TOTAL CONTAINERS		CIRCLE/ADD parameters desired. List no. of containers submitted.		ANALYSIS <i>VOA</i> <i>Semi volatile orgs</i> <i>Pest./PCPs</i> <i>METALS</i> <i>CYANIDE</i>		
STATION NO.	SAMPLE TYPE	DATE	TIME	COMP GRA B	STATION LOCATION/DESCRIPTION							
<i>MW 18</i>	<i>2</i>	<i>12/15</i>	<i>1000</i>	<i>X</i>	<i>Monitor Well 18</i>		<i>2</i>				<i>25904</i>	
<i>MW 12</i>	<i>2</i>	<i>12/15</i>	<i>1330</i>	<i>X</i>	<i>Monitor well 12</i>		<i>2</i>				<i>25905</i>	
<i>MW 22</i>	<i>2</i>	<i>12/15</i>	<i>1415</i>	<i>X</i>	<i>Monitor well 22</i>		<i>2</i>				<i>25906</i>	
<i>cooler temp 1.5°C</i>												

RELINQUISHED BY: (PRINT) <i>Tony Russell</i> (SIGN) <i>Tony Russell</i>	DATE/TIME <i>12/16/04</i> <i>0735</i>	RECEIVED BY: (PRINT) <i>Kathy Farris</i> (SIGN) <i>Kathy Farris</i>	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)
RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)

DISTRIBUTION: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

CHAIN OF CUSTODY RECORD

MSD				PROJECT LEADER <i>Tony Russell</i>				REMARKS															
PROJECT NAME/LOCATION <i>Gulf States Creative / Hattiesburg</i>				SAMPLER <i>John Miller</i>				DATA TO: <i>T Russell</i>															
ESD SAMPLE TYPES				SAMPLER				ANALYSIS															
1. SURFACE WATER 6. SOIL/SEDIMENT 2. GROUND WATER 7. SLUDGE 3. POTABLE WATER 8. WASTE 4. WASTEWATER 9. AIR 5. LEACHATE 10. FISH 11. OTHER				SAMPLER				CIRCLE/ADD parameters desired. List no. of containers submitted. VOA Semi-volatile ORG. CHL PEST/PCBs METALS CYANIDE															
STATION NO.	SAMPLE TYPE	DATE	TIME	COMP	GRAB	STATION LOCATION/DESCRIPTION	TOTAL CONTAINERS	TAG NO./REMARKS															
<i>MW 18</i>	<i>2</i>	<i>12/15</i>	<i>1300</i>	<i>X</i>	<i>X</i>	<i>Monitor Well 18</i>	<i>2</i>	<i>1</i>															
<i>MW 12</i>	<i>2</i>	<i>12/15</i>	<i>1330</i>	<i>X</i>	<i>X</i>	<i>Monitor Well 12</i>	<i>2</i>	<i>2</i>															
<i>MW 22</i>	<i>2</i>	<i>12/15</i>	<i>1400</i>	<i>X</i>	<i>X</i>	<i>Monitor Well 22</i>	<i>2</i>	<i>2</i>															
<i>Temp 15°C</i>																							
RELINQUISHED BY: (PRINT) <i>Tony Russell</i>				DATE/TIME: <i>12/16/09</i>				RECEIVED BY: (PRINT) <i>[Signature]</i>				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN) <i>Tony Russell</i>								(SIGN) <i>[Signature]</i>				(SIGN)								(SIGN)			
RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN)								(SIGN)				(SIGN)								(SIGN)			

DISTRIBUTION: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory; White copy is returned to samplers; Pink copy retained by samplers.

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name USFS Research Lab
County Code 210000 NPDES Permit No. _____
Discharge No. _____ Date Requested 12/16/04
Sample Point Identification New 9
Requested By T. R. ... Data To 7. R. ...
Type of Sample: Grab (x) Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:
Environment Condition old stream Collected By J. Keenum
Where Taken New 9

Type	Parameters	Preservative	Date	Time
1. <u>groundwater</u>	<u>Bacteria</u>	<u>RTM</u>	<u>12/14/04</u>	<u>1:35</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other (x) OPC Vehicle
V. LABORATORY: Received By _____ Date _____ Time _____

Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD ₅	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____

Remarks _____

*Date of Test Initiation 1 * 3858 _____

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Creosote
 County Code Forest NPDES Permit No. _____
 Discharge No. _____ Date Requested 12/16/04
 Sample Point Identification NW # 18
 Requested By T Russell Date To T Russell
 Type of Sample: Grab () Composite (Flow) (Time) Other () _____

II. SAMPLE IDENTIFICATION: Environment Condition Sunnyfield Collected By J Miller
 Where Taken Well # 18

Type	Parameters	Preservative	Date	Time
1. Groundwater	5-VOC		12/15/04	N000
2.				
3.				
4.				
5.				

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other (✓) API Vehicle

V. LABORATORY: Received By _____ Date _____ Time _____
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l		*
COD ₅	(000340)	()	mg/l		
TOC	(000680)	()	mg/l		
Suspended Solids	(099000)	()	mg/l		
TKN	(000625)	()	mg/l		
Ammonia-N	(000610)	()	mg/l		
Fecal Coliform(1)	(074055)	()	colonies/100 ml		*
Fecal Coliform(2)	(074055)	()	colonies/100 ml		*
Total Phosphorus	(000665)	()	mg/l		
Oil and Grease(1)	(000550)	()	mg/l		
Oil and Grease(2)	(000550)	()	mg/l		
Chlorides	(099016)	()	mg/l		
Phenol	(032730)	()	mg/l		
Total Chromium	(001034)	()	mg/l		
Hex. Chromium	(001032)	()	mg/l		
Zinc	(001092)	()	mg/l		
Copper	(001042)	()	mg/l		
Lead	(017501)	()	mg/l		
Cyanide	(000722)	()	mg/l		
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
Remarks	_____				

*Date of Test Initiation

BUREAU OF POLLUTION CONTROL SAMPLE REQUEST FORM

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Cooperative
 County Code Furness NPDES Permit No. _____
 Discharge No. _____ Date Requested 12/16/04
 Sample Point Identification new #12
 Requested By _____ Data To 7/12/05
 Type of Sample: Grab () Composite (Flow) (Time) Other () _____

II. SAMPLE IDENTIFICATION:
 Environment Condition Sunny & Cold Collected By J. Miller
 Where Taken 1102 Well 12

Type	Parameters	Preservative	Date	Time
1. <u>Water</u>	<u>SVOC</u>	<u>ICE</u>	<u>12/15/04</u>	<u>1330</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other () GPC Vehicle

V. LABORATORY: Received By _____ Date 12/24/04 Time 13:35
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD ₅	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
Remarks	_____	_____	_____	_____	_____

*Date of Test Initiation #3047

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. _____

I. **GENERAL INFORMATION:** Facility Name Gulf States Creative
 County Code Forrest NPDES Permit No. _____
 Discharge No. _____ Date Requested 12/16/04
 Sample Point Identification M.W. # 22
 Requested By T. Russell Data To T. Russell
 Type of Sample: Grab (x) Composite (Flow) (Time) Other ()

II. **SAMPLE IDENTIFICATION:**
 Environment Condition Cold Sunny Collected By J. Miller
 Where Taken M.W. well 22

Type	Parameters	Preservative	Date	Time
1. <u>Ground water</u>	<u>S-VOC</u>	<u>ICE</u>	<u>12/15/04</u>	<u>1115</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. **FIELD:**

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. **TRANSPORTATION OF SAMPLE:** Bus () RO Vehicle () Other (x) GPC Vehicle
 V. **LABORATORY:** Received By _____ Date 12/16/04 Time 1135
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD ₅	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
Remarks	_____				

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA25964
Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector JMILLER
Collection date: 12/15/2004
Lab submittal date: 12/16/2004
Due date: 12/16/2004
Matrix: GROUNDWATER

Login record file: 041216075836

Collection time: 10:00
Lab submittal time: 07:55

Division Code: 3047

STUDY COMPLIANCE
PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO MW-18
SAMPLE_LOCATION MW-18
COUNTY_CODE 035 FORREST
REQUESTED_BY TONY RUSSELL

Analyses ordered	Method	Due Date
EPA 8270 SEMIVOL ORG COMPOUNDS Extract For Semi-Volatile Analysis	8270	01/25/2005 12/22/2004

Please refer to the indicated sample I.D. number when making inquiries.

Received by: _____

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA25965
Location code **COMPLIANCE**
Location Description **GULF STATES CREOSOTE**
Sample collector **JMILLER**
Collection date: **12/15/2004**
Lab submittal date: **12/16/2004**
Due date: **12/16/2004**
Matrix: **GROUNDWATER**

Login record file: **041216075836**

Collection time: **13:30**
Lab submittal time: **07:55**

Division Code: **3047**

STUDY COMPLIANCE
PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO **MW-12**
SAMPLE_LOCATION **MW-12**
COUNTY_CODE **035 FORREST**
REQUESTED_BY **TONY RUSSELL**

Analyses ordered

Method

Due Date

EPA 8270 SEMIVOL ORG COMPOUNDS
Extract For Semi-Volatile Analysis

8270

01/25/2005
12/22/2004

Please refer to the indicated sample I.D. number when making inquiries.

Received by: _____

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. **AA25966**
Location code **COMPLIANCE**
Location Description **GULF STATES CREOSOTE**
Sample collector **JMILLER**
Collection date: **12/15/2004**
Lab submittal date: **12/16/2004**
Due date: **12/16/2004**
Matrix: **GROUNDWATER**

Login record file: **041216075836**

Collection time: **14:15**
Lab submittal time: **07:55**

Division Code: **3047**

STUDY COMPLIANCE
PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO **MW-22**
SAMPLE_LOCATION **MW-22**
COUNTY_CODE **035 FORREST**
REQUESTED_BY **TONY RUSSELL**

Analyses ordered

Method

Due Date

EPA 8270 SEMIVOL ORG COMPOUNDS
Extract For Semi-Volatile Analysis

8270

01/25/2005
12/22/2004

Please refer to the indicated sample I.D. number when making inquiries.

Received by: _____

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA25963
Location code COMPLIANCE
Location Description USFS RESEARCH LAB
Sample collector JKEENUM
Collection date: 12/14/2004
Lab submittal date: 12/16/2004
Due date: 12/16/2004
Matrix: GROUNDWATER

Login record file: 041216075836

Collection time: 09:50
Lab submittal time: 07:45

Division Code: 3858

STUDY COMPLIANCE
PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO MW-9
SAMPLE_LOCATION MW-9
COUNTY_CODE 047 HARRISON
REQUESTED_BY TONY RUSSELL

Analyses ordered

Boron, Total (ug/L as B)

Method

200.7

Due Date

01/11/2005

Sample I.D. AA25964
Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector JMILLER
Collection date: 12/15/2004
Lab submittal date: 12/16/2004
Due date: 12/16/2004
Matrix: GROUNDWATER

Login record file: 041216075836

Collection time: 10:00
Lab submittal time: 07:55

Division Code: 3047

STUDY COMPLIANCE
PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO MW-18
SAMPLE_LOCATION MW-18
COUNTY_CODE 035 FORREST
REQUESTED_BY TONY RUSSELL

Analyses ordered

EPA 8270 SEMIVOL ORG COMPOUNDS
Extract For Semi-Volatile Analysis

Method

8270

Due Date

01/25/2005
12/22/2004

Sample I.D. AA25965
Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector JMILLER
Collection date: 12/15/2004
Lab submittal date: 12/16/2004
Due date: 12/16/2004
Matrix: GROUNDWATER

Login record file: 041216075836

Collection time: 13:30
Lab submittal time: 07:55

Division Code: 3047

Sample I.D. AA25965 (continued):

STUDY COMPLIANCE

PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO MW-12
SAMPLE_LOCATION MW-12
COUNTY_CODE 035 FORREST
REQUESTED_BY TONY RUSSELL

Analyses ordered

EPA 8270 SEMIVOL ORG COMPOUNDS
Extract For Semi-Volatile Analysis

Method

8270

Due Date

01/25/2005
12/22/2004

Sample I.D. AA25966

Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector JMILLER
Collection date: 12/15/2004
Lab submittal date: 12/16/2004
Due date: 12/16/2004
Matrix: GROUNDWATER

Login record file: 041216075836

Collection time: 14:15
Lab submittal time: 07:55

Division Code: 3047

STUDY COMPLIANCE

PERMIT_NO _____
DISCHARGE_NO _____
WADES_NO _____
OTHER_NO MW-22
SAMPLE_LOCATION MW-22
COUNTY_CODE 035 FORREST
REQUESTED_BY TONY RUSSELL

Analyses ordered

EPA 8270 SEMIVOL ORG COMPOUNDS
Extract For Semi-Volatile Analysis

Method

8270

Due Date

01/25/2005
12/22/2004

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

To: TONY RUSSELL Sample ID: AA25964 Facility Name: GULF STATES CREOSOTE Sampling Loc: MW-18 Site ID: COMPLIANCE Discharge No: Other No: MW-18 Permit No: Latitude: Longitude: County: 035 FORREST	QA Type: Date Collected: 12/15/2004 Time Collected: 10:00 Sample Collector: JMILLER To Lab: SV Sample Type: GROUNDWATER Received By: KATHY FARRIS LIMS Login Date: 12/16/2004 LIMS Login Time: 07:55 COC Date: 12/16/2004 COC Time: 0735 Project: 3047 Study: COMPLIANCE Reporting Date: 01/13/2005
---	--

ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dimethylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dinitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chloronaphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylnaphthalene	8270	17.0	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

2-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chloroaniline	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Acenaphthene	8270	18.4	ug/L	10.00	JES	12/20/04	1/11/05
Acenaphthylene	8270	TRACE 1.53	ug/L	10.00	JES	12/20/04	1/11/05
Anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzoic Acid	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Benzyl alcohol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Butylbenzylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Carbazole	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Chrysene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Dibenzofuran	8270	37.8	ug/L	10.00	JES	12/20/04	1/11/05
Diethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dimethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-butylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-octylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluorene	8270	22.2	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobutadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

Hexachloroethane	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Isophorone	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Naphthalene	8270	* 227	ug/L	10.00	JES	12/20/04	1/11/05
Nitrobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Pentachlorophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Phenanthrene	8270	16.0	ug/L	10.00	JES	12/20/04	1/11/05
Phenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
z 2,4,6-Tribromophenol	8270	73%	ug/L	10-123	JES	12/20/04	1/11/05
z 2-Fluorobiphenyl	8270	83%	ug/L	43-116	JES	12/20/04	1/11/05
z 2-Fluorophenol	8270	74%	ug/L	21-100	JES	12/20/04	1/11/05
z Nitrobenzene-d5	8270	79%	ug/L	35-114	JES	12/20/04	1/11/05
z Phenol-d5	8270	78%	ug/L	10-194	JES	12/20/04	1/11/05
z Terphenyl-d14	8270	99%	ug/L	33-141	JES	12/20/04	1/11/05

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg:
milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
>: greater than
z: surrogate

COC Date: Date Chain of Custody Signed
COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: COLD AND SUNNY
LOGGED IN LIMS BY TAMMY SAWYER

Semi-Vol:

1) *The instrumental value of Naphthalene exceeded the highest point on the calibration curve and the reported value should therefore be considered an 'estimated concentration.' JES

ed By: 

**BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM**

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Creosote
 County Code Forrest NPDES Permit No. _____
 Discharge No. _____ Date Requested 12/16/04
 Sample Point Identification MW #18
 Requested By T Russell Data To T Russell
 Type of Sample: Grab () Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:
 Environment Condition Sunny & Cold Collected By J Miller
 Where Taken Monitor Well #18

Type	Parameters	Preservative	Date	Time
1. <u>Groundwater</u>	<u>5-VOC</u>	<u>Ice</u>	<u>12/16/04</u>	<u>1000</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other () OPC Vehicle
V. LABORATORY: Received By Kathy Farris Date 12-16-04 Time 0735
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD ₅	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____
_____	()	()	_____	_____	_____

Remarks _____

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

To: TONY RUSSELL	QA Type: Date Collected: 12/15/2004 Time Collected: 13:30 Sample Collector: JMILLER To Lab: SV Sample Type: GROUNDWATER Received By: KATHY FARRIS LIMS Login Date: 12/16/2004 LIMS Login Time: 07:55 COC Date: 12/16/2004 COC Time: 0735 Project: 3047 Study: COMPLIANCE Reporting Date: 01/13/2005
Sample ID: AA25965 Facility Name: GULF STATES CREOSOTE Sampling Loc: MW-12 Site ID: COMPLIANCE Discharge No: Other No: MW-12 Permit No: Latitude: Longitude: County: 035 FORREST	

ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dimethylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dinitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chloronaphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylnaphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

2-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chloroaniline	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Acenaphthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Acenaphthylene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzoic Acid	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Benzyl alcohol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Butylbenzylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Carbazole	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Chrysene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Dibenzofuran	8270	27.1	ug/L	10.00	JES	12/20/04	1/11/05
Diethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dimethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-butylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-octylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluorene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobutadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

Hexachloroethane	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Isophorone	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Naphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Nitrobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Pentachlorophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Phenanthrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Phenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
z 2,4,6-Tribromophenol	8270	40%	ug/L	10-123	JES	12/20/04	1/11/05
z 2-Fluorobiphenyl	8270	73%	ug/L	43-116	JES	12/20/04	1/11/05
z 2-Fluorophenol	8270	32%	ug/L	21-100	JES	12/20/04	1/11/05
z Nitrobenzene-d5	8270	68%	ug/L	35-114	JES	12/20/04	1/11/05
z Phenol-d5	8270	38%	ug/L	10-194	JES	12/20/04	1/11/05
z Terphenyl-d14	8270	100%	ug/L	33-141	JES	12/20/04	1/11/05

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg:
milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
>: greater than
z: surrogate

COC Date: Date Chain of Custody Signed
COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: COLD AND SUNNY
LOGGED IN LIMS BY TAMMY SAWYER

Approved By: 

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

To: TONY RUSSELL Sample ID: AA25966 Facility Name: GULF STATES CREOSOTE Sampling Loc: MW-22 Site ID: COMPLIANCE Discharge No: Other No: MW-22 Permit No: Latitude: Longitude: County: 035 FORREST	QA Type: Date Collected: 12/15/2004 Time Collected: 14:15 Sample Collector: JMILLER To Lab: SV Sample Type: GROUNDWATER Received By: KATHY FARRIS LIMS Login Date: 12/16/2004 LIMS Login Time: 07:55 COC Date: 12/16/2004 COC Time: 0735 Project: 3047 Study: COMPLIANCE Reporting Date: 01/13/2005
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ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dichlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dimethylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,4-Dinitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chloronaphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Chlorophenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylnaphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
2-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

2-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
2-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
3-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chloroaniline	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Methylphenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
4-Nitroaniline	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
4-Nitrophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Acenaphthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Acenaphthylene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]anthracene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[a]pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Benzoic Acid	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Benzyl alcohol	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Butylbenzylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Carbazole	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Chrysene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Dibenzofuran	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Diethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Dimethylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-butylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Di-n-octylphthalate	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluoranthene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Fluorene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorobutadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05

Hexachloroethane	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Isophorone	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Naphthalene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Nitrobenzene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	JES	12/20/04	1/11/05
Pentachlorophenol	8270	ND	ug/L	50.00	JES	12/20/04	1/11/05
Phenanthrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Phenol	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
Pyrene	8270	ND	ug/L	10.00	JES	12/20/04	1/11/05
z 2,4,6-Tribromophenol	8270	51%	ug/L	10-123	JES	12/20/04	1/11/05
z 2-Fluorobiphenyl	8270	82%	ug/L	43-116	JES	12/20/04	1/11/05
z 2-Fluorophenol	8270	37%	ug/L	21-100	JES	12/20/04	1/11/05
z Nitrobenzene-d5	8270	74%	ug/L	35-114	JES	12/20/04	1/11/05
z Phenol-d5	8270	44%	ug/L	10-194	JES	12/20/04	1/11/05
z Terphenyl-d14	8270	100%	ug/L	33-141	JES	12/20/04	1/11/05

ABBREVIATIONS / DEFINITIONS

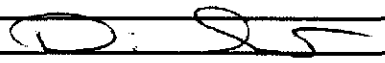
ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg:
milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
>: greater than
z: surrogate

COC Date: Date Chain of Custody Signed
COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: COLD AND SUNNY
LOGGED IN LIMS BY TAMMY SAWYER

Approved By: 

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Creosote
County Code Forrest NPDES Permit No. _____
Discharge No. _____ Date Requested 12/16/04
Sample Point Identification M W # 22
Requested By T Russell Data To T Russell
Type of Sample: Grab () Composite (Flow) (Time) Other () _____

II. SAMPLE IDENTIFICATION:
Environment Condition Cold & Sunny Collected By J. Miller
Where Taken Monitor Well 22

Type	Parameters	Preservative	Date	Time
1. <u>Ground water</u>	<u>5-VOC</u>	<u>ICE</u>	<u>12/15/04</u>	<u>1415</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other () OPC Vehicle
V. LABORATORY: Received By Kathy Farris Date 12-16-04 Time 0735
Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	_____ mg/l	_____	*
COD ₅	(000340)	()	_____ mg/l	_____	_____
TOC	(000680)	()	_____ mg/l	_____	_____
Suspended Solids	(099000)	()	_____ mg/l	_____	_____
TKN	(000625)	()	_____ mg/l	_____	_____
Ammonia-N	(000610)	()	_____ mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	_____ colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	_____ colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	_____ mg/l	_____	_____
Oil and Grease(1)	(000550)	()	_____ mg/l	_____	_____
Oil and Grease(2)	(000550)	()	_____ mg/l	_____	_____
Chlorides	(099016)	()	_____ mg/l	_____	_____
Phenol	(032730)	()	_____ mg/l	_____	_____
Total Chromium	(001034)	()	_____ mg/l	_____	_____
Hex. Chromium	(001032)	()	_____ mg/l	_____	_____
Zinc	(001092)	()	_____ mg/l	_____	_____
Copper	(001042)	()	_____ mg/l	_____	_____
Lead	(017501)	()	_____ mg/l	_____	_____
Cyanide	(000722)	()	_____ mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____

Remarks _____

INVOICE



From: ARGUS ANALYTICAL, INC.
 P.O. BOX 13842
 JACKSON, MS 39236-3842

Invoice Number: 27703

Date: June 3, 2004

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

The following charges are due for the indicated samples which were submitted to this laboratory on 05/27/04:

Lab Sample I.D.: BB68628 BB68629 BB68630 BB68631 BB68632 BB68633
 BB68634 BB68635 BB68636 BB68637 BB68638 BB68639 BB68640 BB68641
 BB68642 BB68643 BB68644 BB68645 BB68646 BB68647 BB68648 BB68649
 BB68650 BB68651 BB68652 BB68653 BB68654 BB68655 BB68656 BB68657
 BB68658 BB68659 BB68660 BB68661 BB68662 BB68663 BB68664 BB68665
 BB68666

Purchase order number:

Parameter Analyzed	Quantity
Polynuclear Aromatic HCs (PAHs)	39
Analysis charges for 39 samples at the quoted price of \$62.50 per sample:	\$2437.50
Total amount due on this invoice:	\$2437.50

Remit payment to: ARGUS ANALYTICAL, INC.
 P.O. BOX 13842
 JACKSON, MS 39236-3842

Questions or Comments? Please call Client Services: 601/957-2676
 For your convenience, VISA, MC, American Express, and Discover are accepted. We appreciate your business.

INVOICE



From: ARGUS ANALYTICAL, INC.
P.O. BOX 13842
JACKSON, MS 39236-3842

Invoice Number: 27733

Date: June 3, 2004

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

The following charges are due for the indicated samples which were submitted to this laboratory on 05/27/04:

Lab Sample I.D.: BB68726 BB68727 BB68728 BB68729 BB68730 BB68731
BB68732 BB68733 BB68734 BB68735 BB68736 BB68737 BB68738 BB68739
BB68740 BB68741 BB68742 BB68743 BB68744 BB68745 BB68746 BB68747
BB68748 BB68749 BB68750 BB68751 BB68752 BB68753 BB68754 BB68755
BB68756 BB68757 BB68758 BB68759 BB68760 BB68761

Purchase order number:

Parameter Analyzed

Quantity

Polynuclear Aromatic HCs (PAHs)

36

Analysis charges for 36 samples at the quoted price of \$62.50 per sample:

\$2250.00

Total amount due on this invoice:

\$2250.00

Remit payment to: ARGUS ANALYTICAL, INC.
P.O. BOX 13842
JACKSON, MS 39236-3842

Questions or Comments? Please call Client Services: 601/957-2676
For your convenience, VISA, MC, American Express, and Discover are accepted. We appreciate your business.

Sample #	Sample Description		Collection	
			Date	Time
BB68628	MLK 175 B	S	05/26/04	09:40
BB68629	MLK 275 A	S	05/26/04	09:46
BB68630	MLK 275 B	S	05/26/04	09:55
BB68631	MLK 375 A	S	05/26/04	10:00
BB68632	MLK 375 B	S	05/26/04	10:05
BB68633	Francis 000A	S	05/26/04	10:12
BB68634	Francis 000B	S	05/26/04	10:18
BB68635	Florence 000-A	S	05/25/04	10:20
BB68636	Florence 000-B	S	05/25/04	10:25
BB68637	Florence-025A	S	05/25/04	10:35
BB68638	Florence 025-B	S	05/25/04	10:40
BB68639	Florence 075-A	S	05/25/04	10:55
BB68640	Florence 075-B	S	05/25/04	11:05
BB68641	Florence 175-A	S	05/25/04	11:15
BB68642	Florence 175-B	S	05/25/04	11:20
BB68643	Florence 275-A	S	05/25/04	11:30
BB68644	Florence 275-B	S	05/25/04	11:35
BB68645	Florence 375-A	S	05/25/04	11:45
BB68646	Florence 375-B	S	05/25/04	11:50
BB68647	Harrell 000A	S	05/25/04	13:50
BB68648	Harrell 000B	S	05/25/04	13:55
BB68649	Harrell 025A	S	05/25/04	14:05
BB68650	Harrell 025B	S	05/25/04	14:10
BB68651	Harrell 075A	S	05/25/04	14:40
BB68652	Harrell 075B	S	05/25/04	14:45
BB68653	Harrell 175 A	S	05/25/04	14:55
BB68654	Harrell 175B	S	05/25/04	15:05
BB68655	Eastside 000A	S	05/25/04	16:30
BB68656	Eastside 025A	S	05/25/04	16:40
BB68657	Eastside 050A	S	05/25/04	16:50
BB68658	Francis 030A	S	05/25/04	15:32
BB68659	Francis 060A	S	05/25/04	15:35
BB68660	MLK 000A	S	05/26/04	08:47
BB68661	MLK 000B	S	05/26/04	09:00
BB68662	MLK 025A	S	05/26/04	09:05
BB68663	MLK 025B	S	05/26/04	09:12
BB68664	MLK 075A	S	05/26/04	09:20
BB68665	MLK 075B	S	05/26/04	09:25
BB68666	MLK 175A	S	05/26/04	09:34
BB68726	BG-7 Eastside Florence	S	05/26/04	17:12
BB68727	BG-8 Eastside Railroad	S	05/27/04	08:00
BB68728	Grid A	S	05/27/04	08:40
BB68729	Grid B	S	05/27/04	08:52
BB68730	Grid C	S	05/27/04	09:00
BB68731	Grid D	S	05/27/04	09:10
BB68732	Grid E	S	05/27/04	09:30
BB68733	Grid F	S	05/27/04	09:40
BB68734	Grid G	S	05/27/04	09:48
BB68735	Grid H	S	05/27/04	10:02
BB68736	Grid I	S	05/27/04	10:10
BB68737	Grid J	S	05/27/04	10:21
BB68738	Grid K	S	05/27/04	10:32
BB68739	Grid L	S	05/27/04	10:42

Sample #	Sample Description		Collection	
			Date	Time
BB68740	Charles 000A	S	05/26/04	11:12
BB68741	Charles 000B	S	05/26/04	11:16
BB68742	Charles 025A	S	05/26/04	11:20
BB68743	Charles 025B	S	05/26/04	11:25
BB68744	Charles 075A	S	05/26/04	11:33
BB68745	Charles 075B	S	05/26/04	11:36
BB68746	FSAPTS000A	S	05/26/04	14:14
BB68747	FSAPTS000B	S	05/26/04	14:20
BB68748	FSAPTS025A	S	05/26/04	14:27
BB68749	FSAPTS025B	S	05/26/04	14:34
BB68750	FSAPTS075A	S	05/26/04	14:43
BB68751	FSAPTS075B	S	05/26/04	14:50
BB68752	FSAPTS175A	S	05/26/04	15:00
BB68753	FSAPTS175B	S	05/26/04	15:17
BB68754	FSAPTS275A	S	05/26/04	15:30
BB68755	FSAPTS275B	S	05/26/04	15:45
BB68756	BG-1 8 (E Of MLK)	S	05/26/04	16:14
BB68757	BG-2 8 (E of MLK)	S	05/26/04	16:16
BB68758	BG-3 (S of Francis)	S	05/26/04	16:50
BB68759	BG-4 (S of Francis)	S	05/26/04	16:55
BB68760	BG-5 (E of Bertha)	S	05/26/04	17:00
BB68761	BG-6 (W of Florence)	S	05/26/04	17:08

Sample #	Sample Description		Collection	
			Date	Time
BB68756	BG-1 8 (E Of MLK)	S	05/26/04	16:14
BB68757	BG-2 8 (E of MLK)	S	05/26/04	16:16
BB68758	BG-3 (S of Francis)	S	05/26/04	16:50
BB68759	BG-4 (S of Francis)	S	05/26/04	16:55
BB68760	BG-5 (E of Bertha)	S	05/26/04	17:00
BB68761	BG-6 (W of Florence)	S	05/26/04	17:08
BB68726	BG-7 Eastside Florence	S	05/26/04	17:12
BB68727	BG-8 Eastside Railroad	S	05/27/04	08:00
BB68740	Charles 000A	S	05/26/04	11:12
BB68741	Charles 000B	S	05/26/04	11:16
BB68742	Charles 025A	S	05/26/04	11:20
BB68743	Charles 025B	S	05/26/04	11:25
BB68744	Charles 075A	S	05/26/04	11:33
BB68745	Charles 075B	S	05/26/04	11:36
BB68655	Eastside 000A	S	05/25/04	16:30
BB68656	Eastside 025A	S	05/25/04	16:40
BB68657	Eastside 050A	S	05/25/04	16:50
BB68746	FSAPTS000A	S	05/26/04	14:14
BB68747	FSAPTS000B	S	05/26/04	14:20
BB68748	FSAPTS025A	S	05/26/04	14:27
BB68749	FSAPTS025B	S	05/26/04	14:34
BB68750	FSAPTS075A	S	05/26/04	14:43
BB68751	FSAPTS075B	S	05/26/04	14:50
BB68752	FSAPTS175A	S	05/26/04	15:00
BB68753	FSAPTS175B	S	05/26/04	15:17
BB68754	FSAPTS275A	S	05/26/04	15:30
BB68755	FSAPTS275B	S	05/26/04	15:45
BB68635	Florence 000-A	S	05/25/04	10:20
BB68636	Florence 000-B	S	05/25/04	10:25
BB68638	Florence 025-B	S	05/25/04	10:40
BB68639	Florence 075-A	S	05/25/04	10:55
BB68640	Florence 075-B	S	05/25/04	11:05
BB68641	Florence 175-A	S	05/25/04	11:15
BB68642	Florence 175-B	S	05/25/04	11:20
BB68643	Florence 275-A	S	05/25/04	11:30
BB68644	Florence 275-B	S	05/25/04	11:35
BB68645	Florence 375-A	S	05/25/04	11:45
BB68646	Florence 375-B	S	05/25/04	11:50
BB68637	Florence-025A	S	05/25/04	10:35
BB68633	Francis 000A	S	05/26/04	10:12
BB68634	Francis 000B	S	05/26/04	10:18
BB68658	Francis 030A	S	05/25/04	15:32
BB68659	Francis 060A	S	05/25/04	15:35
BB68728	Grid A	S	05/27/04	08:40
BB68729	Grid B	S	05/27/04	08:52
BB68730	Grid C	S	05/27/04	09:00
BB68731	Grid D	S	05/27/04	09:10
BB68732	Grid E	S	05/27/04	09:30
BB68733	Grid F	S	05/27/04	09:40
BB68734	Grid G	S	05/27/04	09:48
BB68735	Grid H	S	05/27/04	10:02
BB68736	Grid I	S	05/27/04	10:10
BB68737	Grid J	S	05/27/04	10:21

Sample #	Sample Description		Collection	
			Date	Time
BB68738	Grid K	S	05/27/04	10:32
BB68739	Grid L	S	05/27/04	10:42
BB68647	Harrell 000A	S	05/25/04	13:50
BB68648	Harrell 000B	S	05/25/04	13:55
BB68649	Harrell 025A	S	05/25/04	14:05
BB68650	Harrell 025B	S	05/25/04	14:10
BB68651	Harrell 075A	S	05/25/04	14:40
BB68652	Harrell 075B	S	05/25/04	14:45
BB68653	Harrell 175 A	S	05/25/04	14:55
BB68654	Harrell 175B	S	05/25/04	15:05
BB68660	MLK 000A	S	05/26/04	08:47
BB68661	MLK 000B	S	05/26/04	09:00
BB68662	MLK 025A	S	05/26/04	09:05
BB68663	MLK 025B	S	05/26/04	09:12
BB68664	MLK 075A	S	05/26/04	09:20
BB68665	MLK 075B	S	05/26/04	09:25
BB68628	MLK 175 B	S	05/26/04	09:40
BB68666	MLK 175A	S	05/26/04	09:34
BB68629	MLK 275 A	S	05/26/04	09:46
BB68630	MLK 275 B	S	05/26/04	09:55
BB68631	MLK 375 A	S	05/26/04	10:00
BB68632	MLK 375 B	S	05/26/04	10:05

Gulf States Cresote Sampling Event

May-04

Description	Depth Inchs	Date (May)	Time	Lat (31-)	Long(89-)
Florence 000a	12	25	10:20	18' 44.3"	18' 07.8"
" 000b	6	25	10:25	18 43 7	18 07 5
" 025a	12	25	10:35	18 43 8	18 07 9
" 025b	6	25	10:45	18 43 6	18 07 7
" 075a	12	25	10:55	18 43 5	18 07 6
" 075b	6	25	11:05	18 43 3	18 07 5
" 175 a	9	25	11:15	18 43 2	18 09 3
" 175b	8	25	11:20	18 43 0	18 09 1
" 275a	14	25	11:30	18 42 8	18 10 5
" 275b	7	25	11:35	18 42 7	18 10 4
" 375a	7	25	11:45	18 42 5	18 11 4
" 375b	6	25	11:50	18 42 3	18 11 4
Harrell 000a	14	25	13:50	18 45 3	18 04 7
" 000b	12	25	13:55	18 45 2	18 04 3
" 025a	12	25	14:05	18 44 9	18 04 8
" 025b	6	25	14:10	18 45 1	18 04 6
" 075a	11	25	14:40	18 45 2	18 05 2
" 075b	8	25	14:45	18 44 4	18 05 2
" 175a	8	25	14:55	18 44 3	18 06 3
" 175b	6	25	15:05	18 44 4	18 06 1
Francis 030a	7	25	15:32	18 45 1	18 03 4
" 030b	8	25	15:35	18 45 2	18 03 8
East side 000a	8	25	16:30	18 43 9	18 14 9
" " 025a	8	25	16:40	18 44 0	18 15 1
" " 050a	10	25	16:50	18 44 1	18 15 3
MLK 000a	9	26	8:47	18 46 1	17 58 4
" 000b	8	26	9:00	18 46 2	17 58 5
" 025a	14	26	9:05	18 46 0	17 58 7
" 025b	6	26	9:12	18 46 1	17 58 5
" 075a	12	26	9:20	18 45 9	17 59 2
" 175a	11	26	9:34	18 45 2	18 00 0
" 175b	15	26	9:40	18 45 0	17 59 8
" 275a	9	26	9:46	18 44 6	18 00 8
" 275b	13	26	9:55	18 44 2	18 00 5
" 375a	12	26	10:00	18 44 4	18 01 7
" 375b	8	26	10:05	18 44 8	18 01 8
Francis 000a	6	26	10:12	18 45 3	18 02 3
" 000b	7	26	10:18	18 45 1	18 02 7
Charles 000a	10	26	11:12	18 53 7	17 48 5
" 000b	12	26	11:16	18 53 7	17 48 1
" 025a	12	26	11:20	18 53 8	17 48 6
" 025b	6	26	11:25	18 53 8	17 48 8
" 075a	13	26	11:33	18 53 7	17 49 2
" 075b	14	26	11:36	18 53 7	17 49 2
Fs Apts 000a	14	26	14:14	18 50 8	17 49 8
" 000b	11	26	14:20	18 50 5	17 49 7
" 025a	17	26	14:27	18 50 7	17 49 9
" 025b	12	26	14:34	18 50 3	17 49 9
" 075a	12	26	14:43	18 50 6	17 50 5

" 075b		14	26	14:50	18 50 4	17 50 4
" 175a		13	26	15:00	18 50 2	17 51 6
" 175b		10	26	15:17	18 49 8	17 51 4
" 275a		10	26	15:30	18 50 0	17 52 6
" 275b		13	26	15:43	18 49 8	17 52 6
BG1		8	26	16:14	18 46 8	17 55 6
BG2		8	26	16:16	18 46 5	17 58 8
BG3		8	26	16:50	18 46 6	17 59 8
BG4		8	26	16:55	18 45 8	18 00 5
BG5		8	26	17:00	18 44 0	18 01 6
BG6		8	26	17:08	18 45 0	18 09 1
BG7		8	26	17:12	18 44 2	18 10 5
BG8		8	27	8:00	18 45 5	18 13 6
Grid A	Composite		27	8:40	18 50 7	17 50 0
Grid B	Composite		27	8:52	18 51 3	17 50 0
Grid C	Composite		27	9:00	18 51 8	17 50 1
Grid D	Composite		27	9:10	18 52 3	17 50 1
Grid E	Composite		27	9:30	18 52 8	17 50 1
Grid F	Composite		27	9:40	18 53 3	17 50 0
Grid G	Composite		27	9:48	18 50 6	17 50 1
Grid H	Composite		27	10:02	18 51 0	17 50 6
Grid I	Composite		27	10:10	18 51 5	17 50 5
Grid J	Composite		27	10:21	18 50 7	17 51 1
Grid K	Composite		27	10:32	18 51 1	17 51 1
Grid L	Composite		27	10:42	18 50 3	17 51 9

Cooler Receipt Check List

Sample Number(s): BB68726-68761

Unless otherwise noted, the test results meet all NELAC requirements for the methods listed on Argus' scope of accreditation.

The test results relate only to the items tested or to the sample as received by the laboratory. Reports shall not be reproduced except in full, without the written approval of the laboratory.

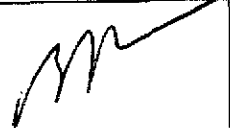
Client: MOEQ

Date Opened: 5/27/04

Opened by: CC

Temperature when opened:	<u>4°(ice)</u> Ambient Measured (1): _____	(1) In < 50% ice, use a thermometer to measure the temperature at the bottom of the cooler.
Type of wrapping material:	<u>None</u> Peanuts Bubblewrap Paper Other	
Cooler custody seals intact?	<u>n/a</u> Y/N	Signed & dated? Y/N
Container custody seals intact?	<u>n/a</u> Y/N	
COC papers received?	<u>Y/N</u>	Receipt properly noted on COC? <u>Y/N</u>
COC papers properly filled in (signed in ink)?	<u>Y/N</u>	Container labels correspond to the COC? <u>Y/N</u>
All containers intact (not broken)?	<u>Y/N</u>	Samples received within holding times? <u>Y/N</u>
Correct containers/preservatives used?	<u>Y/N</u>	Short HT tests: BOD Color Cr6 DissMet DO Fecal MBAS
Container labels filled in?	<u>Y/N</u>	Nitrate or Nitrite OrP pH SS Sulfite TRC Turb
Were Trip Blanks rec'd with VOAs?	<u>Y/N</u>	Lab Notified:
VOA vials - headspace detected?	<u>n/a</u> Y/N	If headspace detected, < 0.25" dia? Y/N
VOA soils - 5035 compliance criteria met?	<u>n/a</u> <u>Y/N</u> (if met, circle the applicable method, below)	
High concentration jar (48 hr)	<u>High concentration pre-weighed vial (methanol - 14 d)</u>	Low conc EnCor samplers (48 hr)
		Low conc pre-weighed vials (sodium bisulfate - 14 d)
Lab Notified (date, time, initials): _____		

<input type="checkbox"/>	If checked, refer to the "Sample Receipt - Notification of Deviation" (attached).
<input type="checkbox"/>	Per previous discussion with the client, thermal preservation not required, and Deviation Notification not required.

Login Checked by: 

Rush	Due: _____	Phone/Fax Numbers	Done: date/initials
Call	Contact: _____ # _____	_____	_____
FAX	Contact: _____ # _____	_____	_____
E-Mail	Contact: _____ # _____	_____	_____

Comments: _____



MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

POLLUTION CONTROL
LABORATORY
121 Fairmont Plaza
Pearl, Mississippi 39208

PROJECT NAME MDEQ					SHIPPED TO: 101 West Capitol St, Jackson, Ms, 39201										LAB USE ONLY									
LOCATION Hattiesburg, MS					DATA TO: Tony Russell																			
SAMPLE TYPES 1. SURFACE WATER 2. GROUND WATER 3. POTABLE WATER 4. WASTEWATER 5. LEACHATE 6. SOIL/SEDIMENT 7. SLUDGE 8. WASTE 9. AIR 10. FISH 11. OTHER					SAMPLES (SIGN) A. Tony Russell B. Andy McCain C. D.					CIRCLE/ADD parameter desired. List no. of containers submitted.						REMARKS								
					ANALYSIS																			
					TOX. NUTRIENTS BOD, SOLIDS METALS (Trace) (TCLP) EXT. ORGANESTR/PCBs (TCLP) PESTICIDES/PCBs (TCLP) HALOGENATED CYANIDE FECAL COLIFORM Oil & Grease/TPH Phenolics																			
					TOTAL CONTAINERS																			
SITE NO.	SAMPLE TYPE	DATE	TIME	COMP GRAB	STATION LOCATION/DESCRIPTION																			
	2004 10																							
	6	5/26	17:12	1	BG-7 Eastside/florence										BB68726									
	6	5/27	8:00	1	BG-8 Eastside/Railroad										68727									
	6	5/27	8:40	1	Grid A										68728									
	6	5/27	8:52	1	Grid B										68729									
	6	5/27	9:00	1	Grid C										68730									
	6	5/27	9:10	1	Grid D										68731									
	6	5/27	9:30	1	Grid E										68732									
	6	5/27	9:40	1	Grid F										68733									
	6	5/27	9:48	1	Grid G										68734									
	6	5/27	10:02	1	Grid H										68735									
	6	5/27	10:10	1	Grid I										68736									
	6	5/27	10:21	1	Grid J										68737									
	6	5/27	10:32	1	Grid K										68738									
	6	5/27	10:42	1	Grid L										68739									
RELINQUISHED BY: (PRINT) Tony Russell (SIGN) [Signature]					DATE/TIME 5/27/04 15:20					RECEIVED BY: (PRINT) Landice Cotton (SIGN) [Signature]					DATE/TIME 5/27/04 15:20					RECEIVED BY: (PRINT) (SIGN)				
RELINQUISHED BY: (PRINT) (SIGN)					DATE/TIME					RECEIVED BY: (PRINT) (SIGN)					DATE/TIME					RECEIVED BY: (PRINT) (SIGN)				

NOTICE: Must use a separate form for each ice chest.

DISTRIBUTION: White and Yellow copies accompany sample shipment to lab; Yellow copy retained by lab; White copy is returned to samplers; Pink copy retained by samplers.



CHAIN OF CUSTODY RECORD

PROJECT NAME M DEQ					SHIPPED TO:							LAB USE ONLY																				
LOCATION HATTIESBURG, MS					DATA TO: Tony Russell																											
SAMPLE TYPES		SAMPLES (SIGN)			CIRCLE/ADD parameter desired. List no. of containers submitted.																											
1. SURFACE WATER 2. GROUND WATER 3. POTABLE WATER 4. WASTEWATER 5. LEACHATE 6. SOIL/SEDIMENT 7. SLUDGE 8. WASTE 9. AIR 10. FISH 11. OTHER		A. Andy McCain B. Tony Russell C. D.			<table border="1" style="width:100%; height: 100%; text-align: center;"> <tr><th colspan="7">ANALYSIS</th></tr> <tr><th>TOC</th><th>NUTRIENTS</th><th>SOLIDS</th><th>HEAVY METALS</th><th>EXT. ORG/PEST/PCBs (TEQP)</th><th>PURE AROMATICS/ HALOCARBONS</th><th>CYANIDE</th></tr> <tr><th>FECAL COLIFORM</th><th>Oil & Grease/TPH</th><th>Phenolics</th><th>PAH</th><th></th><th></th><th></th></tr> </table>								ANALYSIS							TOC	NUTRIENTS	SOLIDS	HEAVY METALS	EXT. ORG/PEST/PCBs (TEQP)	PURE AROMATICS/ HALOCARBONS	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH	Phenolics	PAH		
ANALYSIS																																
TOC	NUTRIENTS	SOLIDS	HEAVY METALS	EXT. ORG/PEST/PCBs (TEQP)	PURE AROMATICS/ HALOCARBONS	CYANIDE																										
FECAL COLIFORM	Oil & Grease/TPH	Phenolics	PAH																													
SITE NO.	SAMPLE TYPE	DATE	TIME	COMP GRAB	STATION LOCATION/DESCRIPTION	TOTAL CONTAINERS						REMARKS																				
		2004 10																														
	6	5/26	1110	✓	CHARLES OODA	1						B8268740																				
	6	"	1116	✓	" 000B	1						68741																				
	6	"	1120	✓	" 025A	1						68742																				
	6	"	1125	✓	" 025B	1						68743																				
	6	"	1133	✓	" 075A	1						68744																				
	6	"	1134	✓	" 075B	1						68745																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>RELINQUISHED BY: (PRINT) Tony Russell (SIGN) [Signature]</td> <td>DATE/TIME 5/27/04 15:20</td> <td>RECEIVED BY: (PRINT) Candice Cotton (SIGN) [Signature]</td> <td>RELINQUISHED BY: (PRINT)</td> <td>DATE/TIME 5/27/04 15:20</td> <td>RECEIVED BY: (PRINT)</td> </tr> <tr> <td>RELINQUISHED BY: (PRINT)</td> <td>DATE/TIME</td> <td>RECEIVED BY: (PRINT)</td> <td>RELINQUISHED BY: (PRINT)</td> <td>DATE/TIME</td> <td>RECEIVED BY: (PRINT)</td> </tr> <tr> <td>(SIGN)</td> <td></td> <td>(SIGN)</td> <td>(SIGN)</td> <td></td> <td>(SIGN)</td> </tr> </table>												RELINQUISHED BY: (PRINT) Tony Russell (SIGN) [Signature]	DATE/TIME 5/27/04 15:20	RECEIVED BY: (PRINT) Candice Cotton (SIGN) [Signature]	RELINQUISHED BY: (PRINT)	DATE/TIME 5/27/04 15:20	RECEIVED BY: (PRINT)	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)	(SIGN)		(SIGN)	(SIGN)		(SIGN)			
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MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

POLLUTION CONTROL
LABORATORY
121 Fairmont Plaza
Pearl, Mississippi 39208

PROJECT NAME MDEQ					SHIPPED TO:										LAB USE ONLY																																																																																																																																																																																																																					
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		5/26	1443	✓	FS APTS 075 A	1																																																																																																																																																																																																																														
		5/26	1450	✓	FS APTS 075 B	1																																																																																																																																																																																																																														
		5/26	1500	✓	FS APTS 175 A	1																																																																																																																																																																																																																														
		5/26	1517	✓	FS APTS 175 B	1																																																																																																																																																																																																																														
		5/26	1530	✓	FS APTS 275 A	1																																																																																																																																																																																																																														
		5/26	1545	✓	FS APTS 275 B	1																																																																																																																																																																																																																														
		5/26	1614	✓	BG-1 8" (E of MLK)	1																																																																																																																																																																																																																														
		5/26	1616	✓	BG-2 8" (E of MLK)	1																																																																																																																																																																																																																														
		5/26	16:50	✓	BG-3 (S of Francis)	1																																																																																																																																																																																																																														
		5/26	6:55	✓	BG-4 (S of Francis)	1																																																																																																																																																																																																																														
		5/26	17:00	✓	BG-5 (E of Bertha)	1																																																																																																																																																																																																																														
		5/26	17:08	✓	BG-6 (W of Florance)	1																																																																																																																																																																																																																														
RELINQUISHED BY: (PRINT) Tony Russell	DATE/TIME 5/27/04	RECEIVED BY: (PRINT) Candice Cotton	RELINQUISHED BY: (PRINT)	DATE/TIME 5/27/04	RECEIVED BY: (PRINT)																																																																																																																																																																																																																															
(SIGN) T. Russell	15:20	(SIGN) Candice Cotton	(SIGN)	15:20	(SIGN)																																																																																																																																																																																																																															
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ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 17:12
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS
Sample Description: BG-7 Eastside Florence
Sample Matrix: SOIL

Project Number:

Sample Number: BB68726
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	16:41
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	16:41
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	16:41
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	16:41
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	16:41
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	16:41
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	16:41

ND = Not Detected



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235 Highpoint Drive
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NELAP Accredited

LELAP 04023

To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/27/04 08:00
 Sampled by: TR/AM

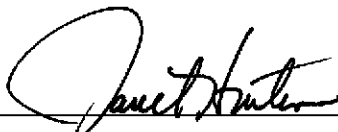
Project ID/Location: MDEQ
 Hattiesburg, MS
 Sample Description: BG-8 Eastside Railroad
 Sample Matrix: SOIL

Project Number:

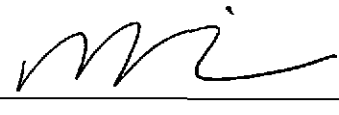
Sample Number: BB68727
 Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	17:08
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	17:08
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	17:08
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	17:08
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	17:08
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	17:08
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:08

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/27/04 08:40
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid A
 Sample Matrix: SOIL

Sample Number: BB68728

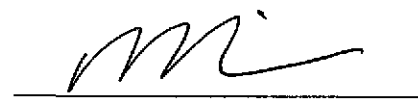
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	17:36
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Benzo(a)pyrene	0.076	0.07	mg/Kg	8270C	RLT	06/01/04	17:36
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	17:36
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	17:36
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	17:36
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	17:36
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	17:36

ND = Not Detected



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Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 08:52
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid B

Sample Number: BB68729

Sample Matrix: SOIL

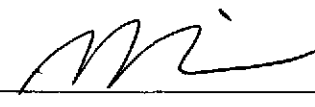
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	18:04
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	18:04
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	18:04
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	18:04
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:04
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:04
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:04

ND = Not Detected



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Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 09:00
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid C

Sample Number: BB68730

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	18:32
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	18:32
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	18:32
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	18:32
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:32
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:32
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:32

ND = Not Detected

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Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 09:10
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid D

Sample Number: BB68731

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	18:59
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	18:59
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	18:59
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	18:59
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:59
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	18:59
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	18:59

ND = Not Detected



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 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 09:30
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid E
Sample Matrix: SOIL


Sample Number: BB68732
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	19:27
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	19:27
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	19:27
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	19:27
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	19:27
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	19:27
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:27

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 09:40
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid F
Sample Matrix: SOIL

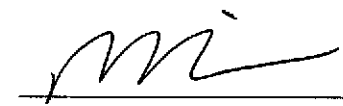
Sample Number: BB68733
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	19:55
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	19:55
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	19:55
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	19:55
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	19:55
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	19:55
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	19:55

ND = Not Detected



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101 West Capitol ST
Jackson, MS 39201

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Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 09:48
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid G
Sample Matrix: SOIL

Sample Number: BB68734

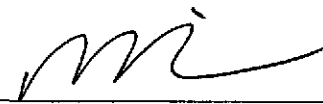
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	20:23
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	20:23
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	20:23
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	20:23
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	20:23
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	20:23
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:23

ND = Not Detected



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To: MDEQ
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 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 10:02
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid H

Sample Number: BB68735

Sample Matrix: SOIL


Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	20:50
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	20:50
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	20:50
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	20:50
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	20:50
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	20:50
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	20:50

ND = Not Detected



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ARGUS ANALYTICAL, INC

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: MDEQ
101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 10:10
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid I

Sample Number: BB68736

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	21:18
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	21:18
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	21:18
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	21:18
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	21:18
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	21:18
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:18

ND = Not Detected



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101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 10:21
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Grid J
Sample Matrix: SOIL

Sample Number: BB68737

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Anthracene	0.091	0.085	mg/Kg	8270C	RLT	06/01/04	21:46
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Benzo(a)pyrene	0.099	0.07	mg/Kg	8270C	RLT	06/01/04	21:46
Benzo(b)fluoranthene	0.129	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	21:46
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Chrysene	0.095	0.09	mg/Kg	8270C	RLT	06/01/04	21:46
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	21:46
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	21:46
Indeno(1,2,3-cd)pyrene	0.172	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	21:46

ND = Not Detected



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Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/27/04 10:32
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid K
Sample Matrix: SOIL

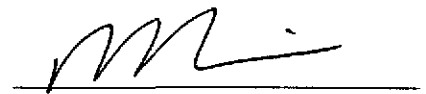
Sample Number: BB68738

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	22:14
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	22:14
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	22:14
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	22:14
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	22:14
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	22:14
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:14

ND = Not Detected


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Attn: Tony Russell

Date Reported: 06/02/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/27/04 10:42
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Grid L
 Sample Matrix: SOIL

Sample Number: BB68739
 Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/01/04	22:42
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/01/04	22:42
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/01/04	22:42
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/01/04	22:42
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	22:42
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/01/04	22:42
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/01/04	22:42

ND = Not Detected



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Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 11:12
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Charles 000A

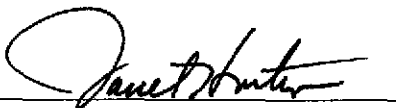
Sample Number: BB68740

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	16:51
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	16:51
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	16:51
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	16:51
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	16:51
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	16:51
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	16:51

ND = Not Detected



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To: MDEQ
101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 11:16
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Charles 000B

Sample Number: BB68741

Sample Matrix: SOIL

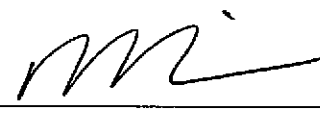
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	17:18
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	17:18
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	17:18
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	17:18
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	17:18
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	17:18
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:18

ND = Not Detected



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Jackson, MS 39201

Attn: Tony Russell

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Date Received: 05/27/04
Date/Time Sampled: 05/26/04 11:20
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Charles 025A

Sample Number: BB68742

Sample Matrix: SOIL


Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	17:45
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	17:45
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	17:45
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	17:45
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	17:45
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	17:45
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	17:45

ND = Not Detected



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101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 11:25
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Charles 025B


Sample Number: BB68743

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	18:12
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	18:12
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	18:12
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	18:12
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	18:12
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	18:12
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:12

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 11:33
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Charles 075A

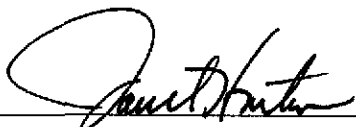
Sample Number: BB68744

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	18:40
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	18:40
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	18:40
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	18:40
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	18:40
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	18:40
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	18:40

ND = Not Detected



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ARGUS ANALYTICAL, INC.

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NELAP Accredited
 LELAP 04023

To: MDEQ
 101 West Captiol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 11:36
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Charles 075B

Sample Number: BB68745


Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	19:07
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	19:07
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	19:07
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	19:07
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	19:07
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	19:07
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:07

ND = Not Detected


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To: MDEQ
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Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 14:14
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: FSAPTS000A

Sample Number: BB68746

Sample Matrix: SOIL

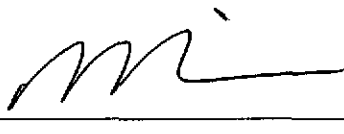
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	19:35
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	19:35
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	19:35
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	19:35
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	19:35
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	19:35
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	19:35

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 14:20
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS000B

Sample Number: BB68747

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	20:02
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	20:02
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	20:02
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	20:02
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	20:02
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	20:02
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:02

ND = Not Detected



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Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 14:27
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS025A

Sample Number: BB68748

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	20:29
Benzo(a)anthracene	0.100	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Benzo(a)pyrene	0.142	0.07	mg/Kg	8270C	RLT	06/02/04	20:29
Benzo(b)fluoranthene	0.227	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	20:29
Benzo(k)fluoranthene	0.121	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Chrysene	0.167	0.09	mg/Kg	8270C	RLT	06/02/04	20:29
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	20:29
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	20:29
Indeno(1,2,3-cd)pyrene	0.211	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:29
Pyrene	0.147	0.10	mg/Kg	8270C	RLT	06/02/04	20:29

ND = Not Detected



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101 West Capitol ST
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Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 14:34
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: FSAPTS025B

Sample Number: BB68749

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Anthracene	0.162	0.085	mg/Kg	8270C	RLT	06/02/04	20:56
Benzo(a)anthracene	0.236	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Benzo(a)pyrene	0.194	0.07	mg/Kg	8270C	RLT	06/02/04	20:56
Benzo(b)fluoranthene	0.241	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	20:56
Benzo(k)fluoranthene	0.200	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Chrysene	0.317	0.09	mg/Kg	8270C	RLT	06/02/04	20:56
Dibenzo(a,h)anthracene	0.075	0.05	mg/Kg	8270C	RLT	06/02/04	20:56
Fluoranthene	0.475	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Fluorene	0.082	0.05	mg/Kg	8270C	RLT	06/02/04	20:56
Indeno(1,2,3-cd)pyrene	0.321	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Phenanthrene	0.299	0.10	mg/Kg	8270C	RLT	06/02/04	20:56
Pyrene	0.421	0.10	mg/Kg	8270C	RLT	06/02/04	20:56

ND = Not Detected



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Attn: Tony Russell

Date Reported: 06/03/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 14:43
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS075A

Sample Number: BB68750

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	21:24
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	21:24
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	21:24
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	21:24
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	21:24
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	21:24
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:24

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 14:50
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS075B

Sample Number: BB68751

Sample Matrix: SOIL

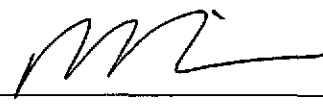
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Anthracene	0.088	0.085	mg/Kg	8270C	RLT	06/02/04	21:52
Benzo(a)anthracene	0.141	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Benzo(a)pyrene	0.126	0.07	mg/Kg	8270C	RLT	06/02/04	21:52
Benzo(b)fluoranthene	0.149	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	21:52
Benzo(k)fluoranthene	0.118	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Chrysene	0.194	0.09	mg/Kg	8270C	RLT	06/02/04	21:52
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	21:52
Fluoranthene	0.172	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	21:52
Indeno(1,2,3-cd)pyrene	0.174	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	21:52
Pyrene	0.210	0.10	mg/Kg	8270C	RLT	06/02/04	21:52

ND = Not Detected



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To: MDEQ
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 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 15:00
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS175A

Sample Number: BB68752

Sample Matrix: SOIL

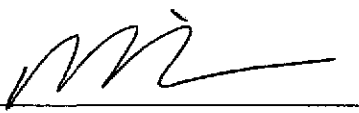
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	22:20
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	22:20
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	22:20
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	22:20
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	22:20
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	22:20
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:20

ND = Not Detected



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To: MDEQ
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Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 15:17
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: FSAPTS175B

Sample Number: BB68753

Sample Matrix: SOIL

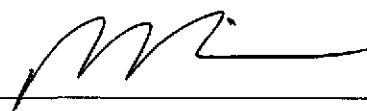
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	22:47
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	22:47
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	22:47
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	22:47
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	22:47
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	22:47
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	22:47

ND = Not Detected



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ARGUS ANALYTICAL, INC

235 Highpoint Drive

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NELAP Accredited

LELAP 04023

To: MDEQ
101 West Capitol ST
Jackson, MS 39201

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 15:30
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: FSAPTS275A

Sample Number: BB68754

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	23:15
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Benzo(a)pyrene	0.221	0.07	mg/Kg	8270C	RLT	06/02/04	23:15
Benzo(b)fluoranthene	0.281	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	23:15
Benzo(k)fluoranthene	0.134	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Chrysene	0.216	0.09	mg/Kg	8270C	RLT	06/02/04	23:15
Dibenzo(a,h)anthracene	0.104	0.05	mg/Kg	8270C	RLT	06/02/04	23:15
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	23:15
Indeno(1,2,3-cd)pyrene	0.401	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:15
Pyrene	0.128	0.10	mg/Kg	8270C	RLT	06/02/04	23:15

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 15:45
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

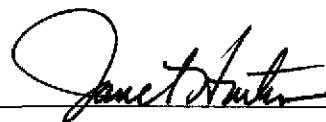
Project Number:

Sample Description: FSAPTS275B
Sample Matrix: SOIL

Sample Number: BB68755
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	23:42
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	23:42
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	23:42
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	23:42
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	23:42
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	23:42
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	23:42

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 16:14
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: BG-1 8 (E Of MLK)

Sample Number: BB68756

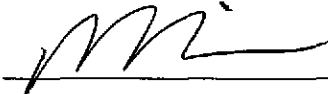
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	00:10
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	00:10
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	00:10
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	00:10
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	00:10
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	00:10
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:10

ND = Not Detected


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101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 16:16
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS
Sample Description: BG-2 8 (E of MLK)
Sample Matrix: SOIL

Project Number:

Sample Number: BB68757
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	00:38
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	00:38
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	00:38
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	00:38
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	00:38
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	00:38
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	00:38

ND = Not Detected



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To: MDEQ
 101 West Capitol ST
 Jackson, MS 39201

Date Reported: 06/03/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 16:50
 Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS
 Sample Description: BG-3 (S of Francis)
 Sample Matrix: SOIL

Project Number:
 Sample Number: BB68758
 Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	01:05
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	01:05
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	01:05
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	01:05
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	01:05
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	01:05
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:05

ND = Not Detected



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To: MDEQ
101 West Capitol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 16:55
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS
Sample Description: BG-4 (S of Francis)
Sample Matrix: SOIL

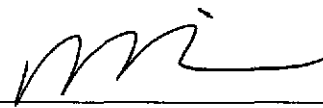
Project Number:

Sample Number: BB68759
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	01:32
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	01:32
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	01:32
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	01:32
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	01:32
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	01:32
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	01:32

ND = Not Detected


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To: MDEQ
101 West Captiol ST
Jackson, MS 39201

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 17:00
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS
Sample Description: BG-5 (E of Bertha)
Sample Matrix: SOIL

Project Number:

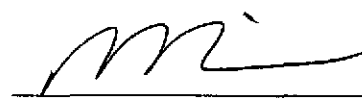
Sample Number: BB68760
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	02:00
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	02:00
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	02:00
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	02:00
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	02:00
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	02:00
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:00

ND = Not Detected



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ARGUS ANALYTICAL, INC

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Ridgeland, Mississippi 39157

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LELAP 04023

To: MDEQ
101 West Capitol ST
Jackson, MS 39201

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 17:08
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
Hattiesburg, MS
Sample Description: BG-6 (W of Florence)
Sample Matrix: SOIL

Project Number:

Sample Number: BB68761
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/03/04	02:28
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/03/04	02:28
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/03/04	02:28
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/03/04	02:28
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	02:28
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/03/04	02:28
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/03/04	02:28

ND = Not Detected



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235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 14:45
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

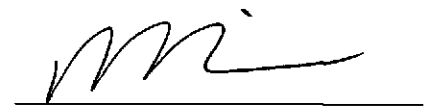
Sample Description: Harrell 075B
Sample Matrix: SOIL

Sample Number: BB68652
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	20:04
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Benzo(a)pyrene	0.088	0.07	mg/Kg	8270C	RLT	05/28/04	20:04
Benzo(b)fluoranthene	0.111	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	20:04
Benzo(k)fluoranthene	0.106	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Chrysene	0.113	0.09	mg/Kg	8270C	RLT	05/28/04	20:04
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	20:04
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	20:04
Indeno(1,2,3-cd)pyrene	0.106	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:04
Pyrene	0.113	0.10	mg/Kg	8270C	RLT	05/28/04	20:04

ND = Not Detected


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ARGUS ANALYTICAL, INC

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 Ridgeland, Mississippi 39157
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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/25/04 14:55
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 175 A

Sample Number: BB68653

Sample Matrix: SOIL

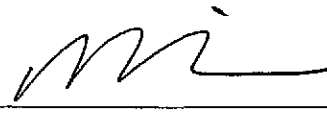
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	20:32
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	20:32
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	20:32
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/28/04	20:32
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	20:32
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	20:32
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	20:32

ND = Not Detected



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 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/25/04 15:05
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 175B

Sample Number: BB68654

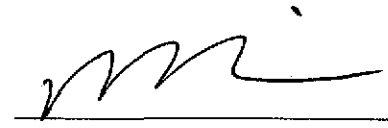
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	21:00
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	21:00
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	21:00
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/28/04	21:00
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	21:00
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	21:00
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	21:00

ND = Not Detected


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LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 16:30
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Eastside 000A

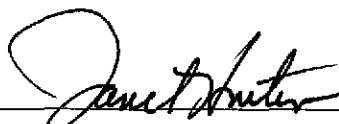
Sample Number: BB68655

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Anthracene	0.310	0.170	mg/Kg	8270C	RLT	06/02/04	14:10
Benzo(a)anthracene	0.480	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Benzo(a)pyrene	0.173	0.14	mg/Kg	8270C	RLT	06/02/04	14:10
Benzo(b)fluoranthene	0.700	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	06/02/04	14:10
Benzo(k)fluoranthene	0.370	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Chrysene	0.780	0.18	mg/Kg	8270C	RLT	06/02/04	14:10
Dibenzo(a,h)anthracene	0.180	0.10	mg/Kg	8270C	RLT	06/02/04	14:10
Fluoranthene	0.510	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Fluorene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:10
Indeno(1,2,3-cd)pyrene	0.730	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	14:10
Pyrene	0.630	0.20	mg/Kg	8270C	RLT	06/02/04	14:10

ND = Not Detected



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 16:40
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Eastside 025A
Sample Matrix: SOIL

Sample Number: BB68656
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	14:37
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	06/02/04	14:37
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	14:37
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Chrysene	ND	0.09	mg/Kg	8270C	RLT	06/02/04	14:37
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	14:37
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	14:37
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37
Pyrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	14:37

ND = Not Detected



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/25/04 16:50
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Eastside 050A

Sample Number: BB68657

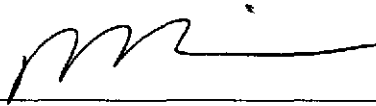
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Acenaphthylene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Anthracene	ND	0.850	mg/Kg	8270C	RLT	05/29/04	23:50
Benzo(a)anthracene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Benzo(a)pyrene	ND	0.70	mg/Kg	8270C	RLT	05/29/04	23:50
Benzo(b)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Benzo(g,h,i)perylene	ND	10.00	mg/Kg	8270C	RLT	05/29/04	23:50
Benzo(k)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Chrysene	ND	0.90	mg/Kg	8270C	RLT	05/29/04	23:50
Dibenzo(a,h)anthracene	ND	0.50	mg/Kg	8270C	RLT	05/29/04	23:50
Fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Fluorene	ND	0.50	mg/Kg	8270C	RLT	05/29/04	23:50
Indeno(1,2,3-cd)pyrene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
2-Methylnaphthalene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Naphthalene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Phenanthrene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50
Pyrene	ND	1.00	mg/Kg	8270C	RLT	05/29/04	23:50

ND = Not Detected


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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 15:32
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

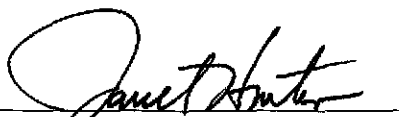
Project Number:

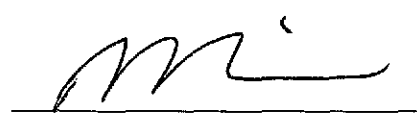
Sample Description: Francis 030A
Sample Matrix: SOIL

Sample Number: BB68658
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Acenaphthylene	0.421	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Anthracene	0.645	0.085	mg/Kg	8270C	RLT	05/30/04	00:17
Benzo(a)anthracene	1.52	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Benzo(a)pyrene	0.876	0.07	mg/Kg	8270C	RLT	05/30/04	00:17
Benzo(b)fluoranthene	1.49	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	00:17
Benzo(k)fluoranthene	1.04	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Chrysene	1.95	0.09	mg/Kg	8270C	RLT	05/30/04	00:17
Dibenzo(a,h)anthracene	0.314	0.05	mg/Kg	8270C	RLT	05/30/04	00:17
Fluoranthene	2.26	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Fluorene	0.063	0.05	mg/Kg	8270C	RLT	05/30/04	00:17
Indeno(1,2,3-cd)pyrene	1.21	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Phenanthrene	0.226	0.10	mg/Kg	8270C	RLT	05/30/04	00:17
Pyrene	2.59	0.10	mg/Kg	8270C	RLT	05/30/04	00:17

ND = Not Detected


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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 15:35
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Francis 060A

Sample Number: BB68659

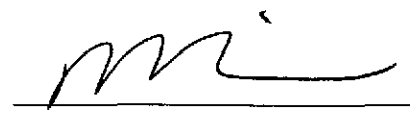
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/30/04	00:45
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/30/04	00:45
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	00:45
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/30/04	00:45
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	00:45
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	00:45
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	00:45

ND = Not Detected


 Quality Assurance/Quality Control


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ARGUS ANALYTICAL, INC.

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 Ridgeland, Mississippi 39157
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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 08:47
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 000A

Sample Number: BB68660

Sample Matrix: SOIL

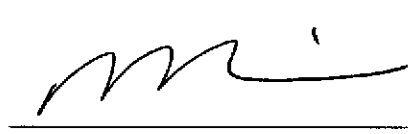
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/30/04	01:13
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Benzo(a)pyrene	0.073	0.07	mg/Kg	8270C	RLT	05/30/04	01:13
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	01:13
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Chrysene	0.115	0.09	mg/Kg	8270C	RLT	05/30/04	01:13
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	01:13
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	01:13
Indeno(1,2,3-cd)pyrene	0.111	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:13
Pyrene	0.109	0.10	mg/Kg	8270C	RLT	05/30/04	01:13

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 09:00
 Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 000B

Sample Number: BB68661

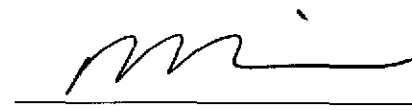
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Anthracene	ND	0.170	mg/Kg	8270C	RLT	05/30/04	01:41
Benzo(a)anthracene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Benzo(a)pyrene	0.164	0.14	mg/Kg	8270C	RLT	05/30/04	01:41
Benzo(b)fluoranthene	0.231	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/30/04	01:41
Benzo(k)fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Chrysene	0.234	0.18	mg/Kg	8270C	RLT	05/30/04	01:41
Dibenzo(a,h)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:41
Fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	01:41
Indeno(1,2,3-cd)pyrene	0.255	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/30/04	01:41
Pyrene	0.206	0.20	mg/Kg	8270C	RLT	05/30/04	01:41

ND = Not Detected


 Quality Assurance/Quality Control


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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:05
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 025A

Sample Number: BB68662

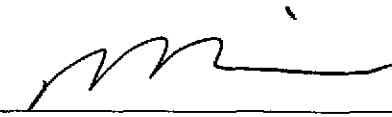
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Anthracene	0.176	0.085	mg/Kg	8270C	RLT	05/30/04	02:09
Benzo(a)anthracene	0.205	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Benzo(a)pyrene	0.116	0.07	mg/Kg	8270C	RLT	05/30/04	02:09
Benzo(b)fluoranthene	0.171	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	02:09
Benzo(k)fluoranthene	0.145	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Chrysene	0.227	0.09	mg/Kg	8270C	RLT	05/30/04	02:09
Dibenzo(a,h)anthracene	0.059	0.05	mg/Kg	8270C	RLT	05/30/04	02:09
Fluoranthene	0.125	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	02:09
Indeno(1,2,3-cd)pyrene	0.188	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:09
Pyrene	0.131	0.10	mg/Kg	8270C	RLT	05/30/04	02:09

ND = Not Detected


 Janet Hunter
 Quality Assurance/Quality Control


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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:12
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 025B

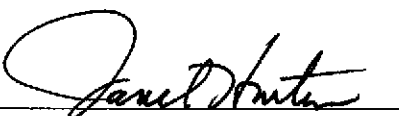
Sample Number: BB68663

Sample Matrix: SOIL

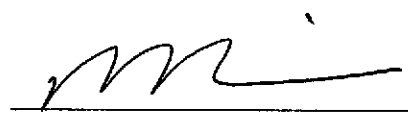
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/30/04	02:37
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/30/04	02:37
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	02:37
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Chrysene	0.094	0.09	mg/Kg	8270C	RLT	05/30/04	02:37
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	02:37
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	02:37
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	02:37

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 09:20
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 075A

Sample Number: BB68664

Sample Matrix: SOIL

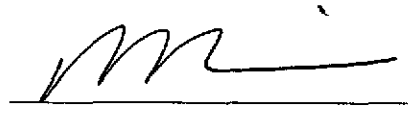
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/30/04	03:05
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Benzo(a)pyrene	0.087	0.07	mg/Kg	8270C	RLT	05/30/04	03:05
Benzo(b)fluoranthene	0.116	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	03:05
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Chrysene	0.104	0.09	mg/Kg	8270C	RLT	05/30/04	03:05
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	03:05
Fluoranthene	0.115	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	03:05
Indeno(1,2,3-cd)pyrene	0.115	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:05
Pyrene	0.130	0.10	mg/Kg	8270C	RLT	05/30/04	03:05

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:25
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 075B

Sample Number: BB68665

Sample Matrix: SOIL

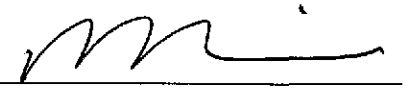
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Acenaphthylene	0.113	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Anthracene	0.206	0.085	mg/Kg	8270C	RLT	05/30/04	03:33
Benzo(a)anthracene	0.180	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Benzo(a)pyrene	0.210	0.07	mg/Kg	8270C	RLT	05/30/04	03:33
Benzo(b)fluoranthene	0.299	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	03:33
Benzo(k)fluoranthene	0.173	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Chrysene	0.281	0.09	mg/Kg	8270C	RLT	05/30/04	03:33
Dibenzo(a,h)anthracene	0.083	0.05	mg/Kg	8270C	RLT	05/30/04	03:33
Fluoranthene	0.197	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	03:33
Indeno(1,2,3-cd)pyrene	0.323	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	03:33
Pyrene	0.244	0.10	mg/Kg	8270C	RLT	05/30/04	03:33

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 09:34
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 175A
 Sample Matrix: SOIL

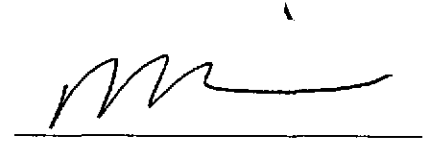
Sample Number: BB68666
 Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/30/04	04:01
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/30/04	04:01
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/30/04	04:01
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/30/04	04:01
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	04:01
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/30/04	04:01
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/30/04	04:01

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited

LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/25/04 14:40
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 075A

Sample Number: BB68651

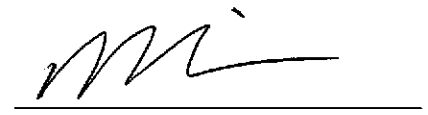
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Anthracene	0.142	0.085	mg/Kg	8270C	RLT	05/28/04	19:36
Benzo(a)anthracene	0.125	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Benzo(a)pyrene	0.129	0.07	mg/Kg	8270C	RLT	05/28/04	19:36
Benzo(b)fluoranthene	0.230	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	19:36
Benzo(k)fluoranthene	0.140	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Chrysene	0.215	0.09	mg/Kg	8270C	RLT	05/28/04	19:36
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	19:36
Fluoranthene	0.220	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	19:36
Indeno(1,2,3-cd)pyrene	0.180	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:36
Pyrene	0.248	0.10	mg/Kg	8270C	RLT	05/28/04	19:36

ND = Not Detected


 Quality Assurance/Quality Control


 B. G. Giessner, Ph.D.

Cooler Receipt Check List

Sample Number(s): B/Bloods - 6866

Unless otherwise noted, the test results meet all NELAC requirements for the methods listed on Argus' scope of accreditation.

The test results relate only to the items tested or to the sample as received by the laboratory. Reports shall not be reproduced except in full, without the written approval of the laboratory.

Client: MDEQ

Date Opened: 5/27/04

Opened by: CC

Temperature when opened:	<u>4°(ice)</u> Ambient	Measured (1):	_____	(1) In < 50% ice, use a thermometer to measure the temperature at the bottom of the cooler.
Type of wrapping material:	None Peanuts Bubblewrap Paper <u>Other</u>			
Cooler custody seals intact?	<u>n/a</u>	Y/N	Signed & dated?	Y/N
Container custody seals intact?	<u>n/a</u>	Y/N		
COC papers received?		<u>Y</u> /N	Receipt properly noted on COC?	<u>Y</u> /N
COC papers properly filled in (signed in ink)?		<u>Y</u> /N	Container labels correspond to the COC?	<u>Y</u> /N
All containers intact (not broken)?		<u>Y</u> /N	Samples received within holding times?	<u>Y</u> /N
Correct containers/preservatives used?		<u>Y</u> /N	Short HT tests: BOD Color Cr6 DissMet DO Fecal MBAS	
Container labels filled in?		<u>Y</u> /N	Nitrate or Nitrite OrP pH SS Sulfite TRC Turb	
Were Trip Blanks rec'd with VOAs?		Y/N	Lab Notified:	
VOA vials - headspace detected?	<u>n/a</u>	Y/N	If headspace detected, < 0.25" dia?	Y/N
VOA soils - 5035 compliance criteria met?	<u>n/a</u>	<u>Y</u> /N (if met, circle the applicable method, below)		
<u>High concentration jar (48 hr)</u>			Low conc EnCor samplers (48 hr)	
High concentration pre-weighed vial (methanol - 14 d)			Low conc pre-weighed vials (sodium bisulfate - 14 d)	
Lab Notified (date, time, initials): _____				

If checked, refer to the "Sample Receipt - Notification of Deviation" (attached).

Per previous discussion with the client, thermal preservation not required, and Deviation Notification **not** required.

Login Checked by: _____

Rush	Due:	Phone/Fax Numbers	Done: date/initials
Call	Contact: _____ # _____	_____	_____
FAX	Contact: _____ # _____	_____	_____
E-Mail	Contact: _____ # _____	_____	_____

Comments: _____



CHAIN OF CUSTODY RECORD

PROJECT NAME <i>MDEQ</i>					SHIPPED TO:										LAB USE ONLY							
LOCATION <i>Hattiesburg, MS</i>					DATA TO: <i>T. RUSSELL</i>																	
SAMPLE TYPES 1. SURFACE WATER 6. SOIL/SEDIMENT 2. GROUND WATER 7. SLUDGE 3. POTABLE WATER 8. WASTE 4. WASTEWATER 9. AIR 5. LEACHATE 10. FISH 11. OTHER					SAMPLES (SIGN) A. <i>Tony Russell</i> B. <i>Andy McCain</i> C. _____ D. _____					TOTAL CONTAINERS CIRCLE/ADD parameter desired. List no. of containers submitted. BOD, TOC, NUTRIENTS BOD, SOLIDS METALS (Total) EXT. ORGANISTICS (TCLP) PURE AROMATICS HALOGENATIONS CYANIDE FORMAL FORMAL CH & Grossa/TH Phenolics						ANALYSIS						
SITE NO.	SAMPLE TYPE	DATE	TIME	COMP GRAB	STATION LOCATION/DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	REMARKS
	2004 19																					
	6	5/25	10:20	✓	Florence 000-A																	68635
	6	5/25	10:25	✓	Florence 000-B																	68636
	6	5/25	10:35	✓	Florence 025-A																	68637
	6	5/25	10:40	✓	Florence 025-B																	68638
	6	5/25	10:55	✓	Florence 075-A																	68639
	6	5/25	11:05	✓	Florence 075-B																	68640
	6	5/25	11:15	✓	Florence 175-A																	68641
	6	5/25	11:20	✓	Florence 175-B																	68642
	6	5/25	11:30	✓	Florence 275-A																	68643
	6	5/25	11:35	✓	Florence 275-B																	68644
	6	5/25	11:45	✓	Florence 375-A																	68645
	6	5/25	11:50	✓	Florence 375-B																	68646
	6	5/25	13:30	✓	Harrell 000A																	68647
	6	5/25	13:35	✓	Harrell 000B																	68648
	6	5/25	14:05	✓	Harrell 025 A																	68649
	6	5/25	14:10	✓	Harrell 025 B																	68650

RELINQUISHED BY: (PRINT) <i>Tony Russell</i>	DATE/TIME <i>5/26/04</i>	RECEIVED BY: (PRINT) <i>GM/Kishk</i>	RECEIVED BY: (PRINT) _____	RELINQUISHED BY: (PRINT) _____	DATE/TIME	RECEIVED BY: (PRINT) _____
(SIGN) <i>[Signature]</i>	<i>1305</i>	(SIGN) <i>[Signature]</i>	(SIGN) _____	(SIGN) _____		(SIGN) _____
RELINQUISHED BY: (PRINT) <i>Andy McCain</i>	DATE/TIME <i>5/27/04</i>	RECEIVED BY: (PRINT) <i>Cudic Cotton</i>	RECEIVED BY: (PRINT) _____	RELINQUISHED BY: (PRINT) _____	DATE/TIME <i>5/27/04</i>	RECEIVED BY: (PRINT) _____
(SIGN) <i>[Signature]</i>	<i>8:30</i>	(SIGN) <i>[Signature]</i>	(SIGN) _____	(SIGN) _____	<i>8:45</i>	(SIGN) _____

NOTICE: Must use a separate form for each ice chest.

DISTRIBUTION: White and Yellow copies accompany sample shipment to lab; Yellow copy retained by lab; White copy is returned to samplers; Pink copy retained by samplers.



MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

POLLUTION CONTROL
LABORATORY
121 Fairmont Plaza
Pearl, Mississippi 39208

PROJECT NAME MDEQ					SHIPPED TO:										LAB USE ONLY																								
LOCATION Hattiesburg, MS					DATA TO: T. RUSSELL																																		
SAMPLE TYPES		SAMPLES (SIGN)			CIRCLE/ADD parameter desired. List no. of containers submitted.																																		
1. SURFACE WATER 2. GROUND WATER 3. POTABLE WATER 4. WASTEWATER 5. LEACHATE 6. SOIL/SEDIMENT 7. SLUDGE 8. WASTE 9. AIR 10. FISH 11. OTHER		A. <i>[Signature]</i> B. <i>[Signature]</i> C. D.			<table border="1"> <tr> <th rowspan="2">TOTAL CONTAINERS</th> <th colspan="10">ANALYSIS</th> </tr> <tr> <th>CO₂</th> <th>TDC</th> <th>NUTRIENTS</th> <th>BOD</th> <th>SOLIDS</th> <th>METALS (Total)</th> <th>EXT. ORGANISMS (TCLP)</th> <th>PDRS</th> <th>AROMATICCS</th> <th>HALOCARBONS</th> <th>CYANIDE</th> <th>FECAL COLIFORM</th> <th>Oil & Grease/TPH</th> <th>Phenolics</th> </tr> </table>											TOTAL CONTAINERS	ANALYSIS										CO ₂	TDC	NUTRIENTS	BOD	SOLIDS	METALS (Total)	EXT. ORGANISMS (TCLP)	PDRS	AROMATICCS	HALOCARBONS	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH
TOTAL CONTAINERS	ANALYSIS																																						
	CO ₂	TDC	NUTRIENTS	BOD	SOLIDS	METALS (Total)	EXT. ORGANISMS (TCLP)	PDRS	AROMATICCS	HALOCARBONS	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH	Phenolics																									
SITE NO.	SAMPLE TYPE	DATE	TIME	COMP GRAB	STATION LOCATION/DESCRIPTION																REMARKS																		
	6	5/25	14:40	1	Harrell 075 A																	686651																	
	6	5/25	14:45	1	Harrell 075 B																	68652																	
	6	5/25	14:55	1	Harrell 175 A																	68653																	
	6	5/25	15:05	1	Harrell 175 B																	68654																	
	6	5/25	16:30	1	Eastside 000A																	68655																	
	6	5/25	16:40	1	Eastside 025A																	68656																	
	6	5/25	16:50	1	Eastside 050A																	68657																	
	6	5/25	15:32	1	Francis 030A																	68658																	
	6	5/25	15:35	1	Francis 060A																	68659																	
	6	5/26	847	1	MLK000A																	68660																	
	6	5/26	900	1	MLK000B																	68661																	
	6	5/26	905	1	MLK025A																	68662																	
	6	5/26	912	1	MLK025B																	68663																	
	6	5/26	920	1	MLK075A																	68664																	
	6	5/26	925	1	MLK075B																	68665																	
	6	5/26	934	1	MLK175A																	68666																	
RELINQUISHED BY: (PRINT) <i>Tom Russell</i>		DATE/TIME: <i>5/27/04 1305</i>		RECEIVED BY: (PRINT) <i>[Signature]</i>		DATE/TIME: <i>5/26/04 1306</i>		RELINQUISHED BY: (PRINT) <i>[Signature]</i>		DATE/TIME: <i>5/27/04 8:45</i>		RECEIVED BY: (PRINT) <i>[Signature]</i>																											
RELINQUISHED BY: (PRINT) <i>[Signature]</i>		DATE/TIME: <i>5/27/04 830</i>		RECEIVED BY: (PRINT) <i>[Signature]</i>		DATE/TIME: <i>5/27/04 8:45</i>		RELINQUISHED BY: (PRINT) <i>[Signature]</i>		DATE/TIME: <i>5/27/04 8:45</i>		RECEIVED BY: (PRINT) <i>[Signature]</i>																											

NOTICE: Must use a separate form for each ice chest.

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MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

POLLUTION CONTROL
LABORATORY
121 Fairmont Plaza
Pearl, Mississippi 39208

PROJECT NAME <u>MDEQ</u>					SHIPPED TO:										LAB USE ONLY																																																																																																																					
LOCATION <u>Hattiesburg, MS</u>					DATA TO: <u>T. RUSSELL</u>																																																																																																																															
SAMPLE TYPES 1. SURFACE WATER 6. SOIL/SEDIMENT 2. GROUND WATER 7. SLUDGE 3. POTABLE WATER 8. WASTE 4. WASTEWATER 9. AIR 5. LEACHATE 10. FISH 11. OTHER					SAMPLES (SIGN) A. <u>Andy McCain</u> B. <u>Tom Russell</u> C. D.					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">TOTAL CONTAINERS</th> <th colspan="10">ANALYSIS</th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>COD, TOC, NUTRIENTS</th> <th>BOD, SOLIDS</th> <th>METALS (Total) (TCLP)</th> <th>EXT. DRUGS/PESTICIDES (TCLP)</th> <th>PURIFIED AROMATICS</th> <th>HALOGENATED PAHs</th> <th>CYANIDE</th> <th>FECAL COLIFORM</th> <th>Oil & Grease/TPH</th> <th>Phenolics</th> </tr> <tr> <td style="text-align: center;">-</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">B968628</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">68629</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">68630</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">68631</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">68632</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">4</td> <td style="text-align: center;">68633</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">1</td> <td style="text-align: center;">68634</td> </tr> </table>						TOTAL CONTAINERS	ANALYSIS										REMARKS	COD, TOC, NUTRIENTS	BOD, SOLIDS	METALS (Total) (TCLP)	EXT. DRUGS/PESTICIDES (TCLP)	PURIFIED AROMATICS	HALOGENATED PAHs	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH	Phenolics	-												1	B968628	1												1	68629	1												1	68630	1												1	68631	1												1	68632	1											4	68633	1											1
TOTAL CONTAINERS	ANALYSIS														REMARKS																																																																																																																					
	COD, TOC, NUTRIENTS	BOD, SOLIDS	METALS (Total) (TCLP)	EXT. DRUGS/PESTICIDES (TCLP)	PURIFIED AROMATICS	HALOGENATED PAHs	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH	Phenolics																																																																																																																										
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SITE NO.	SAMPLE TYPE	DATE	TIME	COMP	GRAB	STATION LOCATION/DESCRIPTION																																																																																																																														
		<u>5/26</u>	<u>940</u>			<u>MLK 175 B</u>																																																																																																																														
		<u>"</u>	<u>946</u>			<u>MLK 275 A</u>																																																																																																																														
		<u>"</u>	<u>955</u>			<u>MLK 275 B</u>																																																																																																																														
		<u>"</u>	<u>1000</u>			<u>MLK 375 A</u>																																																																																																																														
		<u>"</u>	<u>1005</u>			<u>MLK 375 B</u>																																																																																																																														
		<u>"</u>	<u>1012</u>			<u>FRANCIS 000A</u>																																																																																																																														
		<u>"</u>	<u>1018</u>			<u>FRANCIS 000B</u>																																																																																																																														

RELINQUISHED BY: (PRINT) <u>Tom Russell</u>	DATE/TIME <u>5/26/04</u>	RECEIVED BY: (PRINT) <u>Andy McCain</u>	DATE/TIME <u>5/26/04</u>	RELINQUISHED BY: (PRINT)	RECEIVED BY: (PRINT)
(SIGN) <u>Tom Russell</u>	<u>1305</u>	(SIGN) <u>Andy McCain</u>	<u>1306</u>	(SIGN)	(SIGN)
RELINQUISHED BY: (PRINT) <u>Tom Russell</u>	DATE/TIME <u>5/27/04</u>	RECEIVED BY: (PRINT) <u>Kandice Cotton</u>	DATE/TIME <u>5/27/04</u>	RELINQUISHED BY: (PRINT)	RECEIVED BY: (PRINT)
(SIGN) <u>Tom Russell</u>	<u>830</u>	(SIGN) <u>Candice Cotton</u>	<u>8:45</u>	(SIGN)	(SIGN)

NOTICE: Must use a separate form for each ice chest.

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ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:40
Sampled by: AM/TR

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 175 B
Sample Matrix: SOIL

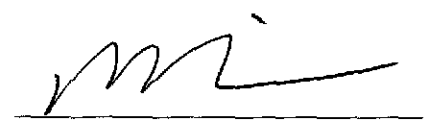
Sample Number: BB68628
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Acenaphthylene	0.656	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Anthracene	1.26	0.170	mg/Kg	8270C	RLT	05/28/04	14:08
Benzo(a)anthracene	2.03	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Benzo(a)pyrene	1.77	0.14	mg/Kg	8270C	RLT	05/28/04	14:08
Benzo(b)fluoranthene	3.01	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/28/04	14:08
Benzo(k)fluoranthene	1.58	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Chrysene	2.51	0.18	mg/Kg	8270C	RLT	05/28/04	14:08
Dibenzo(a,h)anthracene	0.485	0.10	mg/Kg	8270C	RLT	05/28/04	14:08
Fluoranthene	1.74	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	14:08
Indeno(1,2,3-cd)pyrene	1.77	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:08
Pyrene	2.76	0.20	mg/Kg	8270C	RLT	05/28/04	14:08

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:46
Sampled by: AM/TR

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 275 A

Sample Number: BB68629

Sample Matrix: SOIL

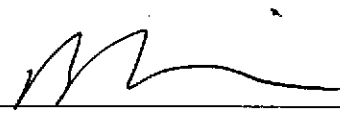
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/27/04	16:13
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/27/04	16:13
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/27/04	16:13
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/27/04	16:13
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/27/04	16:13
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/27/04	16:13
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:13

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 09:55
Sampled by: AM/TR

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 275 B

Sample Number: BB68630

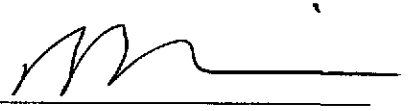
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Anthracene	0.113	0.085	mg/Kg	8270C	RLT	05/27/04	16:40
Benzo(a)anthracene	0.274	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Benzo(a)pyrene	0.473	0.07	mg/Kg	8270C	RLT	05/27/04	16:40
Benzo(b)fluoranthene	0.529	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/27/04	16:40
Benzo(k)fluoranthene	0.351	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Chrysene	0.444	0.09	mg/Kg	8270C	RLT	05/27/04	16:40
Dibenzo(a,h)anthracene	0.116	0.05	mg/Kg	8270C	RLT	05/27/04	16:40
Fluoranthene	0.324	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/27/04	16:40
Indeno(1,2,3-cd)pyrene	0.466	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Phenanthrene	0.101	0.10	mg/Kg	8270C	RLT	05/27/04	16:40
Pyrene	0.320	0.10	mg/Kg	8270C	RLT	05/27/04	16:40

ND = Not Detected


 Quality Assurance/Quality Control


 B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/26/04 10:00
 Sampled by: AM/TR

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: MLK 375 A

Sample Number: BB68631

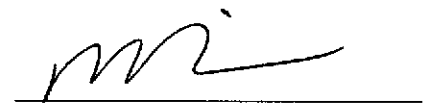
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Acenaphthylene	0.231	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Anthracene	0.465	0.170	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(a)anthracene	0.577	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(a)pyrene	0.480	0.14	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(b)fluoranthene	0.668	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(k)fluoranthene	0.491	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Chrysene	0.755	0.18	mg/Kg	8270C	RLT	05/28/04	14:35
Dibenzo(a,h)anthracene	0.154	0.10	mg/Kg	8270C	RLT	05/28/04	14:35
Fluoranthene	0.577	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	14:35
Indeno(1,2,3-cd)pyrene	0.537	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Pyrene	0.756	0.20	mg/Kg	8270C	RLT	05/28/04	14:35

ND = Not Detected


 Quality Assurance/Quality Control


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ARGUS ANALYTICAL, INC

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 10:05
Sampled by: AM/TR

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: MLK 375 B

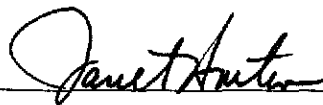
Sample Number: BB68632

Sample Matrix: SOIL

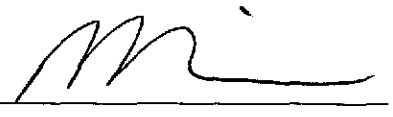
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Acenaphthylene	0.289	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Anthracene	0.427	0.085	mg/Kg	8270C	RLT	05/27/04	17:07
Benzo(a)anthracene	0.632	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Benzo(a)pyrene	0.789	0.07	mg/Kg	8270C	RLT	05/27/04	17:07
Benzo(b)fluoranthene	1.14	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/27/04	17:07
Benzo(k)fluoranthene	0.543	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Chrysene	1.05	0.09	mg/Kg	8270C	RLT	05/27/04	17:07
Dibenzo(a,h)anthracene	0.217	0.05	mg/Kg	8270C	RLT	05/27/04	17:07
Fluoranthene	0.545	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/27/04	17:07
Indeno(1,2,3-cd)pyrene	0.901	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/27/04	17:07
Pyrene	0.780	0.10	mg/Kg	8270C	RLT	05/27/04	17:07

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited

LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 10:12
Sampled by: AM/TR

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Francis 000A

Sample Number: BB68633

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Acenaphthylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Anthracene	ND	0.850	mg/Kg	8270C	RLT	05/28/04	15:02
Benzo(a)anthracene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Benzo(a)pyrene	ND	0.70	mg/Kg	8270C	RLT	05/28/04	15:02
Benzo(b)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Benzo(g,h,i)perylene	ND	10.00	mg/Kg	8270C	RLT	05/28/04	15:02
Benzo(k)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Chrysene	ND	0.90	mg/Kg	8270C	RLT	05/28/04	15:02
Dibenzo(a,h)anthracene	ND	0.50	mg/Kg	8270C	RLT	05/28/04	15:02
Fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Fluorene	ND	0.50	mg/Kg	8270C	RLT	05/28/04	15:02
Indeno(1,2,3-cd)pyrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
2-Methylnaphthalene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Naphthalene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Phenanthrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02
Pyrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:02

ND = Not Detected



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LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/26/04 10:18
Sampled by: AM/TR

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Francis 000B

Sample Number: BB68634

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Acenaphthylene	0.231	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Anthracene	0.465	0.170	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(a)anthracene	0.577	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(a)pyrene	0.480	0.14	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(b)fluoranthene	0.668	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/28/04	14:35
Benzo(k)fluoranthene	0.491	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Chrysene	0.755	0.18	mg/Kg	8270C	RLT	05/28/04	14:35
Dibenzo(a,h)anthracene	0.154	0.10	mg/Kg	8270C	RLT	05/28/04	14:35
Fluoranthene	0.577	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	14:35
Indeno(1,2,3-cd)pyrene	0.537	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	14:35
Pyrene	0.756	0.20	mg/Kg	8270C	RLT	05/28/04	14:35

ND = Not Detected



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 10:20
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Florence 000-A
Sample Matrix: SOIL

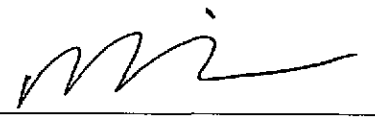
Sample Number: BB68635
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Acenaphthylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Anthracene	ND	0.850	mg/Kg	8270C	RLT	05/28/04	15:56
Benzo(a)anthracene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Benzo(a)pyrene	ND	0.70	mg/Kg	8270C	RLT	05/28/04	15:56
Benzo(b)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Benzo(g,h,i)perylene	ND	10.00	mg/Kg	8270C	RLT	05/28/04	15:56
Benzo(k)fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Chrysene	ND	0.90	mg/Kg	8270C	RLT	05/28/04	15:56
Dibenzo(a,h)anthracene	ND	0.50	mg/Kg	8270C	RLT	05/28/04	15:56
Fluoranthene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Fluorene	ND	0.50	mg/Kg	8270C	RLT	05/28/04	15:56
Indeno(1,2,3-cd)pyrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
2-Methylnaphthalene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Naphthalene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Phenanthrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56
Pyrene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	15:56

ND = Not Detected



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LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 10:25
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Sample Description: Florence 000-B
Sample Matrix: SOIL

Project Number:

Sample Number: BB68636

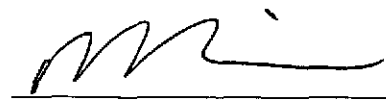
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Anthracene	0.272	0.170	mg/Kg	8270C	RLT	05/28/04	16:23
Benzo(a)anthracene	0.246	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Benzo(a)pyrene	0.216	0.14	mg/Kg	8270C	RLT	05/28/04	16:23
Benzo(b)fluoranthene	0.359	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/28/04	16:23
Benzo(k)fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Chrysene	0.322	0.18	mg/Kg	8270C	RLT	05/28/04	16:23
Dibenzo(a,h)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:23
Fluoranthene	0.234	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:23
Indeno(1,2,3-cd)pyrene	0.279	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/28/04	16:23
Pyrene	0.268	0.20	mg/Kg	8270C	RLT	05/28/04	16:23

ND = Not Detected



Quality Assurance/Quality Control



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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/03/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 10:35
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

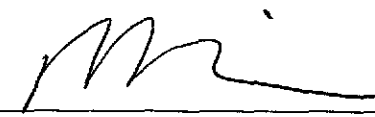
Sample Description: Florence-025A
Sample Matrix: SOIL

Sample Number: BB68637
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	0.885	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Acenaphthylene	0.100	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Anthracene	5.45	0.085	mg/Kg	8270C	RLT	05/27/04	17:34
Benzo(a)anthracene	1.07	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Benzo(a)pyrene	0.299	0.07	mg/Kg	8270C	RLT	05/27/04	17:34
Benzo(b)fluoranthene	0.399	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/27/04	17:34
Benzo(k)fluoranthene	0.283	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Chrysene	1.36	0.09	mg/Kg	8270C	RLT	05/27/04	17:34
Dibenzo(a,h)anthracene	0.066	0.05	mg/Kg	8270C	RLT	05/27/04	17:34
Fluoranthene	4.00	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Fluorene	1.45	0.05	mg/Kg	8270C	RLT	05/27/04	17:34
Indeno(1,2,3-cd)pyrene	0.252	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
2-Methylnaphthalene	0.733	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Naphthalene	0.501	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Phenanthrene	4.05	0.10	mg/Kg	8270C	RLT	05/27/04	17:34
Pyrene	2.87	0.10	mg/Kg	8270C	RLT	05/27/04	17:34

ND = Not Detected


 Quality Assurance/Quality Control


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NELAP Accredited

LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 10:40
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

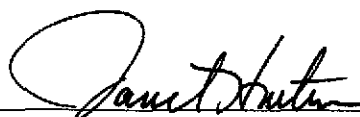
Sample Description: Florence 025-B
Sample Matrix: SOIL


Sample Number: BB68638

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Anthracene	ND	0.170	mg/Kg	8270C	RLT	05/29/04	20:07
Benzo(a)anthracene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Benzo(a)pyrene	ND	0.14	mg/Kg	8270C	RLT	05/29/04	20:07
Benzo(b)fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/29/04	20:07
Benzo(k)fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Chrysene	ND	0.18	mg/Kg	8270C	RLT	05/29/04	20:07
Dibenzo(a,h)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/29/04	20:07
Fluoranthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/29/04	20:07
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07
Pyrene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:07

ND = Not Detected


 Quality Assurance/Quality Control


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NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 10:55
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Florence 075-A
Sample Matrix: SOIL

Sample Number: BB68639
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Acenaphthylene	0.201	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Anthracene	0.516	0.170	mg/Kg	8270C	RLT	05/29/04	20:35
Benzo(a)anthracene	1.36	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Benzo(a)pyrene	0.769	0.14	mg/Kg	8270C	RLT	05/29/04	20:35
Benzo(b)fluoranthene	1.35	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/29/04	20:35
Benzo(k)fluoranthene	0.981	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Chrysene	1.71	0.18	mg/Kg	8270C	RLT	05/29/04	20:35
Dibenzo(a,h)anthracene	0.273	0.10	mg/Kg	8270C	RLT	05/29/04	20:35
Fluoranthene	2.10	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/29/04	20:35
Indeno(1,2,3-cd)pyrene	0.903	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Phenanthrene	0.989	0.20	mg/Kg	8270C	RLT	05/29/04	20:35
Pyrene	1.72	0.20	mg/Kg	8270C	RLT	05/29/04	20:35

ND = Not Detected



Quality Assurance/Quality Control



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ARGUS ANALYTICAL, INC

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:05
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Florence 075-B

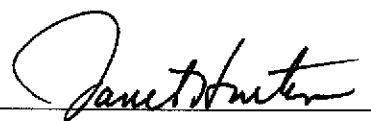
Sample Number: BB68640

Sample Matrix: SOIL

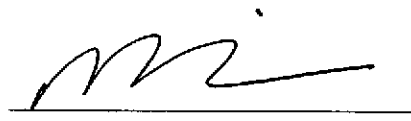
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Anthracene	ND	0.170	mg/Kg	8270C	RLT	05/29/04	21:03
Benzo(a)anthracene	0.331	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Benzo(a)pyrene	0.181	0.14	mg/Kg	8270C	RLT	05/29/04	21:03
Benzo(b)fluoranthene	0.240	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	05/29/04	21:03
Benzo(k)fluoranthene	0.246	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Chrysene	0.414	0.18	mg/Kg	8270C	RLT	05/29/04	21:03
Dibenzo(a,h)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/29/04	21:03
Fluoranthene	0.544	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Fluorene	ND	0.10	mg/Kg	8270C	RLT	05/29/04	21:03
Indeno(1,2,3-cd)pyrene	0.211	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Phenanthrene	0.231	0.20	mg/Kg	8270C	RLT	05/29/04	21:03
Pyrene	0.468	0.20	mg/Kg	8270C	RLT	05/29/04	21:03

ND = Not Detected



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LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:15
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Florence 175-A

Sample Number: BB68641


Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Anthracene	ND	0.085	mg/Kg	8270C	RLT	06/02/04	12:22
Benzo(a)anthracene	0.155	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Benzo(a)pyrene	0.147	0.07	mg/Kg	8270C	RLT	06/02/04	12:22
Benzo(b)fluoranthene	0.221	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	06/02/04	12:22
Benzo(k)fluoranthene	0.153	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Chrysene	0.248	0.09	mg/Kg	8270C	RLT	06/02/04	12:22
Dibenzo(a,h)anthracene	0.062	0.05	mg/Kg	8270C	RLT	06/02/04	12:22
Fluoranthene	0.113	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Fluorene	ND	0.05	mg/Kg	8270C	RLT	06/02/04	12:22
Indeno(1,2,3-cd)pyrene	0.250	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	12:22
Pyrene	0.200	0.10	mg/Kg	8270C	RLT	06/02/04	12:22

ND = Not Detected


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 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:20
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Florence 175-B

Sample Number: BB68642

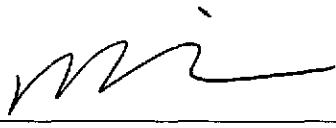
Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	16:50
Benzo(a)anthracene	0.120	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Benzo(a)pyrene	0.146	0.07	mg/Kg	8270C	RLT	05/28/04	16:50
Benzo(b)fluoranthene	0.218	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	16:50
Benzo(k)fluoranthene	0.105	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Chrysene	0.204	0.09	mg/Kg	8270C	RLT	05/28/04	16:50
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	16:50
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	16:50
Indeno(1,2,3-cd)pyrene	0.164	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	16:50
Pyrene	0.224	0.10	mg/Kg	8270C	RLT	05/28/04	16:50

ND = Not Detected


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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:30
Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Sample Description: Florence 275-A

Sample Matrix: SOIL

Project Number:


Sample Number: BB68643

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	17:17
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	17:17
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	17:17
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Chrysene	0.154	0.09	mg/Kg	8270C	RLT	05/28/04	17:17
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	17:17
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	17:17
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:17
Pyrene	0.181	0.10	mg/Kg	8270C	RLT	05/28/04	17:17

ND = Not Detected


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LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:35
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Florence 275-B

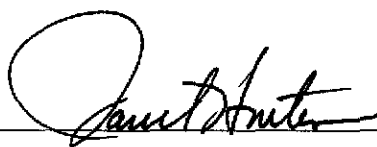
Sample Number: BB68644

Sample Matrix: SOIL

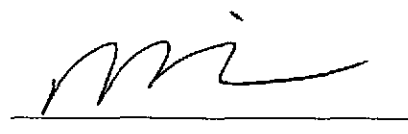
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	17:44
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Benzo(a)pyrene	0.121	0.07	mg/Kg	8270C	RLT	05/28/04	17:44
Benzo(b)fluoranthene	0.162	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	17:44
Benzo(k)fluoranthene	0.115	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Chrysene	0.145	0.09	mg/Kg	8270C	RLT	05/28/04	17:44
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	17:44
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	17:44
Indeno(1,2,3-cd)pyrene	0.143	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	17:44
Pyrene	0.202	0.10	mg/Kg	8270C	RLT	05/28/04	17:44

ND = Not Detected



Quality Assurance/Quality Control



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 11:45
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Florence 375-A

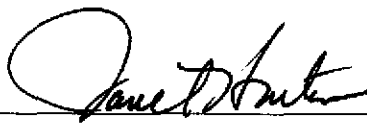
Sample Number: BB68645

Sample Matrix: SOIL

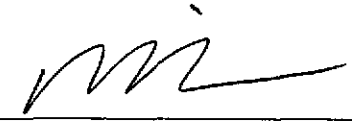
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Acenaphthylene	2.56	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Anthracene	1.79	0.170	mg/Kg	8270C	RLT	06/02/04	12:49
Benzo(a)anthracene	9.10	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Benzo(a)pyrene	7.59	0.14	mg/Kg	8270C	RLT	06/02/04	12:49
Benzo(b)fluoranthene	16.1	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Benzo(g,h,i)perylene	5.47	2.00	mg/Kg	8270C	RLT	06/02/04	12:49
Benzo(k)fluoranthene	4.60	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Chrysene	12.6	0.18	mg/Kg	8270C	RLT	06/02/04	12:49
Dibenzo(a,h)anthracene	3.35	0.10	mg/Kg	8270C	RLT	06/02/04	12:49
Fluoranthene	7.37	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Fluorene	0.165	0.10	mg/Kg	8270C	RLT	06/02/04	12:49
Indeno(1,2,3-cd)pyrene	12.6	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Phenanthrene	0.263	0.20	mg/Kg	8270C	RLT	06/02/04	12:49
Pyrene	16.6	0.20	mg/Kg	8270C	RLT	06/02/04	12:49

ND = Not Detected



Quality Assurance/Quality Control



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/02/04
 Date Received: 05/27/04
 Date/Time Sampled: 05/25/04 11:50
 Sampled by: TR/AM

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Florence 375-B
 Sample Matrix: SOIL

Sample Number: BB68646
 Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Acenaphthylene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Anthracene	ND	0.170	mg/Kg	8270C	RLT	06/02/04	13:16
Benzo(a)anthracene	0.293	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Benzo(a)pyrene	0.187	0.14	mg/Kg	8270C	RLT	06/02/04	13:16
Benzo(b)fluoranthene	0.286	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Benzo(g,h,i)perylene	ND	2.00	mg/Kg	8270C	RLT	06/02/04	13:16
Benzo(k)fluoranthene	0.279	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Chrysene	0.413	0.18	mg/Kg	8270C	RLT	06/02/04	13:16
Dibenzo(a,h)anthracene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	13:16
Fluoranthene	0.259	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Fluorene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	13:16
Indeno(1,2,3-cd)pyrene	0.310	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Phenanthrene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:16
Pyrene	0.342	0.20	mg/Kg	8270C	RLT	06/02/04	13:16

ND = Not Detected



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To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/02/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 13:50
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 000A

Sample Number: BB68647

Sample Matrix: SOIL

Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Acenaphthylene	0.69	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Anthracene	1.82	0.17	mg/Kg	8270C	RLT	06/02/04	13:43
Benzo(a)anthracene	1.10	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Benzo(a)pyrene	7.60	0.14	mg/Kg	8270C	RLT	06/02/04	13:43
Benzo(b)fluoranthene	1.50	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Benzo(g,h,i)perylene	ND	2.0	mg/Kg	8270C	RLT	06/02/04	13:43
Benzo(k)fluoranthene	1.20	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Chrysene	1.40	0.18	mg/Kg	8270C	RLT	06/02/04	13:43
Dibenzo(a,h)anthracene	0.19	0.10	mg/Kg	8270C	RLT	06/02/04	13:43
Fluoranthene	1.00	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Fluorene	ND	0.10	mg/Kg	8270C	RLT	06/02/04	13:43
Indeno(1,2,3-cd)pyrene	2.40	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
2-Methylnaphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Naphthalene	ND	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Phenanthrene	0.256	0.20	mg/Kg	8270C	RLT	06/02/04	13:43
Pyrene	1.10	0.20	mg/Kg	8270C	RLT	06/02/04	13:43

ND = Not Detected



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 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 13:55
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 000B

Sample Number: BB68648

Sample Matrix: SOIL

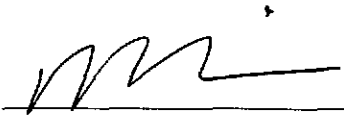
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	18:12
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	18:12
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	18:12
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/28/04	18:12
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	18:12
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	18:12
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:12

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC.

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: MDEQ
121 Fairmont Plaza
Pearl, MS 39208

Attn: Tony Russell

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 14:05
Sampled by: TR/AM

Project ID/Location: MDEQ
Hattiesburg, MS

Project Number:

Sample Description: Harrell 025A

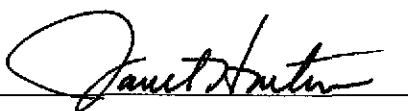
Sample Number: BB68649

Sample Matrix: SOIL

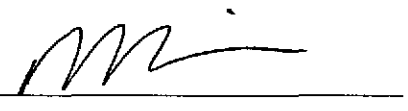
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	18:40
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	18:40
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	18:40
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/28/04	18:40
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	18:40
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	18:40
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	18:40

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.

ARGUS ANALYTICAL, INC.

235 Highpoint Drive
 Ridgeland, Mississippi 39157
 Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited
 LELAP 04023

To: MDEQ
 121 Fairmont Plaza
 Pearl, MS 39208

Date Reported: 06/01/04
Date Received: 05/27/04
Date/Time Sampled: 05/25/04 14:10
Sampled by: TR/AM

Attn: Tony Russell

Project ID/Location: MDEQ
 Hattiesburg, MS

Project Number:

Sample Description: Harrell 025B
Sample Matrix: SOIL

Sample Number: BB68650
Page Number: 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
PAHs							
Acenaphthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Acenaphthylene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Anthracene	ND	0.085	mg/Kg	8270C	RLT	05/28/04	19:08
Benzo(a)anthracene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Benzo(a)pyrene	ND	0.07	mg/Kg	8270C	RLT	05/28/04	19:08
Benzo(b)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Benzo(g,h,i)perylene	ND	1.00	mg/Kg	8270C	RLT	05/28/04	19:08
Benzo(k)fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Chrysene	ND	0.09	mg/Kg	8270C	RLT	05/28/04	19:08
Dibenzo(a,h)anthracene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	19:08
Fluoranthene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Fluorene	ND	0.05	mg/Kg	8270C	RLT	05/28/04	19:08
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
2-Methylnaphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Naphthalene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Phenanthrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08
Pyrene	ND	0.10	mg/Kg	8270C	RLT	05/28/04	19:08

ND = Not Detected



Quality Assurance/Quality Control



B. G. Giessner, Ph.D.



CHAIN OF CUSTODY RECORD

MSD				PROJECT LEADER <i>Tony Russell</i>				REMARKS															
PROJECT NAME/LOCATION <i>Gulf States / Hattiesburg</i>				SAMPLER <i>Tony Russell</i>				DATA TO: <i>T. Russell</i>															
ESD SAMPLE TYPES 1. SURFACE WATER 2. GROUND WATER 3. POTABLE WATER 4. WASTEWATER 5. LEACHATE 6. SOIL/SEDIMENT 7. SLUDGE 8. WASTE 9. AIR 10. FISH 11. OTHER				TOTAL CONTAINERS				CIRCLE/ADD parameters desired. List no. of containers submitted.															
				VOA				ANALYSIS															
				Semi Volatile OR GRB																			
				Pest/PCPs																			
				METALS																			
				CYANIDE																			
STATION NO.	SAMPLE TYPE	DATE	TIME	COMP GRAB	STATION LOCATION/DESCRIPTION	TOTAL CONTAINERS	VOA	Semi Volatile OR GRB	Pest/PCPs	METALS	CYANIDE	TAG NO./REMARKS	Custody Seals Intact at Lab Seals Not Intact Upon Receipt by Lab	LAB USE ONLY									
<i>S-1</i>	<i>13003</i>	<i>10/22</i>	<i>1100</i>	<i>X</i>	<i>Culvert @ east side of Sec 30</i>	<i>1</i>	<i>XX</i>					<i>000K</i>	<i>20575</i>	<i>20575</i>									
<i>Temp. 2.5°C</i>																							
RELINQUISHED BY: (PRINT) <i>Tony Russell</i>				DATE/TIME: <i>10/23/02</i>				RECEIVED BY: (PRINT) <i>Tommy Sauge</i>				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN) <i>Tony Russell</i>				<i>1515</i>				(SIGN) <i>Tommy Sauge</i>				(SIGN)				(SIGN)							
RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN)								(SIGN)				(SIGN)				(SIGN)							

DISTRIBUTION: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

**BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM**

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Swift 1000
 County Code 10000 NPDES Permit No. _____
 Discharge No. _____ Date Requested 10/23/03
 Sample Point Identification 5-1
 Requested By T. Russell Data To T. Russell
 Type of Sample: Grab (X) Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:
 Environment Condition Spring 77' Collected By T. Russell
 Where Taken SWIFT 1000

Type	Parameters	Preservative	Date	Time
<u>SWT</u>	<u>VOC</u>	<u>6 ml</u>	<u>10/23/03</u>	<u>11:00 AM</u>
	<u>Semi-VOCs</u>			
	<u>DDPK</u>			

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()			
D.O.	(000300)	()			
Temperature	(000010)	()			
Residual Chlorine	(050060)	()			
Flow	(074060)	()			

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other (X) via vehicle
V. LABORATORY: Received By Jerry Duggan Date 10/23/03 Time 1515
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l		*
COD ₅	(000340)	()	mg/l		
TOC	(000680)	()	mg/l		
Suspended Solids	(099000)	()	mg/l		
TKN	(000625)	()	mg/l		
Ammonia-N	(000610)	()	mg/l		
Fecal Coliform(1)	(074055)	()	colonies/100 ml		*
Fecal Coliform(2)	(074055)	()	colonies/100 ml		*
Total Phosphorus	(000665)	()	mg/l		
Oil and Grease(1)	(000550)	()	mg/l		
Oil and Grease(2)	(000550)	()	mg/l		
Chlorides	(099016)	()	mg/l		
Phenol	(032730)	()	mg/l		
Total Chromium	(001034)	()	mg/l		
Hex. Chromium	(001032)	()	mg/l		
Zinc	(001092)	()	mg/l		
Copper	(001042)	()	mg/l		
Lead	(017501)	()	mg/l		
Cyanide	(000722)	()	mg/l		
		()			
		()			
		()			
		()			
		()			
		()			
		()			
		()			
		()			
		()			
		()			
		()			

Remarks _____

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA20574
Location code COMPLIANCE
Location Description SEMINARY TRUCK STOP
Sample collector ROY REEVES
Collection date: 10/22/2003
Lab submittal date: 10/23/2003
Due date: 10/23/2003
Matrix: SURFACEWATER

Login record file: 102303153711

Collection time: 08:25
Lab submittal time: 15:22

Project account code: 3858

BASIN _____
PERMIT_NO _____
DISCHARGE_NO _____
STORET_NO _____
OTHER_NO SW-1
SAMPLE_LOCATION SW-1
COUNTY_CODE 031
REQUESTED_BY T. RUSSELL

Analyses ordered

EPA 8260 BTEX IN WATER

Method

8260W

Due Date

10/29/2003

Sample I.D. AA20575
Location code COMPLIANCE
Location Description _____
Sample collector TONY RUSSELL
Collection date: 10/22/2003
Lab submittal date: 10/23/2003
Due date: 10/23/2003
Matrix: SOIL

Login record file: 102303153711

Collection time: 11:00
Lab submittal time: 15:22

Project account code: 3047

BASIN _____
PERMIT_NO _____
DISCHARGE_NO _____
STORET_NO _____
OTHER_NO S-1
SAMPLE_LOCATION S-1
COUNTY_CODE 035
REQUESTED_BY T. RUSSELL

Analyses ordered

EPA 8260 VOLATILE ORGANICS IN SOIL
EXTRACTION FOR ORGANICS

Method

8260S

Due Date

11/05/2003
10/22/2003

Sample I.D. AA20576
Location code COMPLIANCE
Location Description RHONE POULENE
Sample collector D. WOODS
Collection date: 10/23/2003
Lab submittal date: 10/23/2003
Due date: 10/23/2003
Matrix: SOIL

Login record file: 102303153711

Collection time: 11:30
Lab submittal time: 15:22

Project account code: 3047

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

To: TONY RUSSELL Sample ID: AA20575 Facility Name: GULF STATES CREOSOTE Site ID: COMPLIANCE Sampling Loc: S-1 Discharge No: Other No: S-1 Permit No: Latitude: Longitude: County: 035	QA Type: Date Collected: 10/22/2003 Time Collected: 11:00 Sample Collector: TONY RUSSELL To Lab: SV Sample Type: SOIL Received By: TAMMY SAWYER LIMS Login Date: 10/23/2003 LIMS Login Time: 15:22 COC Date: 10/23/04 COC Time: 1515 Project: 3047 Study: COMPLIANCE Reporting Date: 12/03/2003
---	--

ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,1,1,2-Tetrachloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1,1-Trichloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1,2,2-Tetrachloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1,2-Trichloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1-Dichloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1-Dichloroethene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,1-Dichloropropene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2,3-Trichlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2,3-Trichloropropane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2,4-Trichlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2,4-Trichlorobenzene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
1,2,4-Trimethylbenzene	8260S	1370	ug/kg	200	BA	10/30/03	10/30/03
1,2-Dibromo-3-chloropropane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2-Dibromoethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2-Dichlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03

1,2-Dichlorobenzene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
1,2-Dichloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,2-Dichloropropane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,3,5-Trimethylbenzene	8260S	653	ug/kg	200	BA	10/30/03	10/30/03
1,3-Dichlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,3-Dichlorobenzene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
1,3-Dichloropropane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,4-Dichlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
1,4-Dichlorobenzene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2,2-Dichloropropane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
2,4,5-Trichlorophenol	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
2,4,6-Trichlorophenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2,4-Dichlorophenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2,4-Dimethylphenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2,4-Dinitrophenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2,4-Dinitrotoluene	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
2,6-Dinitrotoluene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2-Butanone (MEK)	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
2-Chloronaphthalene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2-Chlorophenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2-Chlorotoluene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
2-Hexanone	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
2-Methylnaphthalene	8270	43000	ug/kg	33000	JES	10/28/03	11/14/03
2-Methylphenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
2-Nitroaniline	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
2-Nitrophenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
3,3'-Dichlorobenzidine	8270	ND	ug/kg	66000	JES	10/28/03	11/14/03
3-Nitroaniline	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
4,6-Dinitro-2-methylphenol	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
4-Bromophenyl-phenylether	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
4-Chloro-3-methylphenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
4-Chloroaniline	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
4-Chlorophenyl-phenylether	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
4-Chlorotoluene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
4-Isopropyltoluene	8260S	2098	ug/kg	200	BA	10/30/03	10/30/03
4-Methyl-2-pentanone (MIBK)	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
4-Methylphenol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
4-Nitroaniline	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
4-Nitrophenol	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
Acenaphthene	8270	399000	ug/kg	33000	JES	10/28/03	11/14/03

Acenaphthylene	8270	TR 29500	ug/kg	33000	JES	10/28/03	11/14/03
Acetone	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Anthracene	8270	275000	ug/kg	33000	JES	10/28/03	11/14/03
Benzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Benzo[a]anthracene	8270	158000	ug/kg	33000	JES	10/28/03	11/14/03
Benzo[a]pyrene	8270	53400	ug/kg	33000	JES	10/28/03	11/14/03
Benzo[b]fluoranthene	8270	87300	ug/kg	33000	JES	10/28/03	11/14/03
Benzo[g,h,i]perylene	8270	TR 15400	ug/kg	33000	JES	10/28/03	11/14/03
Benzo[k]fluoranthene	8270	34000	ug/kg	33000	JES	10/28/03	11/14/03
Benzoic Acid	8270	ND	ug/kg	160000	JES	10/28/03	11/14/03
Benzyl alcohol	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
bis(2-Chloroethoxy)methane	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
bis(2-Chloroethyl)ether	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
bis(2-chloroisopropyl)ether	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
bis(2-Ethylhexyl)phthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Bromobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Bromochloromethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Bromodichloromethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Bromoform	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Bromomethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Butylbenzylphthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Carbazole	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Carbon Tetrachloride	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Chlorobenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Chloroethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Chloroform	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Chloromethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Chrysene	8270	128000	ug/kg	33000	JES	10/28/03	11/14/03
cis-1,2-Dichloroethene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
cis-1,3-Dichloropropene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Dibenz[a,h]anthracene	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Dibenzofuran	8270	138000	ug/kg	33000	JES	10/28/03	11/14/03
Dibromochloromethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Dibromomethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Dichlorodifluoromethane	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03
Diethylphthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Dimethylphthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Di-n-butylphthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Di-n-octylphthalate	8270	ND	ug/kg	33000	JES	10/28/03	11/14/03
Ethylbenzene	8260S	ND	ug/kg	200	BA	10/30/03	10/30/03

Fluoranthene	8270	*	705000	ug/kg	33000	JES	10/28/03	11/14/03
Fluorene	8270		323000	ug/kg	33000	JES	10/28/03	11/14/03
Hexachlorobenzene	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Hexachlorobutadiene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Hexachlorobutadiene	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Hexachlorocyclopentadiene	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Hexachloroethane	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Indeno[1,2,3-cd]pyrene	8270	TR	17500	ug/kg	33000	JES	10/28/03	11/14/03
Isophorone	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Isopropylbenzene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
m & p -Xylene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Methyl tertiary butyl ether	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Methylene Chloride	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Naphthalene	8260S		238	ug/kg	200	BA	10/30/03	10/30/03
Naphthalene	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
n-Butylbenzene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Nitrobenzene	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
N-Nitroso-di-n-propylamine	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
n-Nitrosodiphenylamine	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
n-Propylbenzene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
o - Xylene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Pentachlorophenol	8270		ND	ug/kg	66000	JES	10/28/03	11/14/03
Phenanthrene	8270	*	593000	ug/kg	33000	JES	10/28/03	11/14/03
Phenol	8270		ND	ug/kg	33000	JES	10/28/03	11/14/03
Pyrene	8270		480000	ug/kg	33000	JES	10/28/03	11/14/03
sec-Butylbenzene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Styrene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
tert-Butylbenzene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Tetrachloroethene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Toluene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
trans-1,2-Dichloroethene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
trans-1,3-dichloropropene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Trichloroethene	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Trichlorofluoromethane	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
Vinyl Chloride	8260S		ND	ug/kg	200	BA	10/30/03	10/30/03
z 1,2-Dichloroethane-d4	8260S		100%	ug/kg	80-120	BA	10/30/03	10/30/03
z 2,4,6-Tribromophenol	8270	**	ND	ug/kg	1900	JES	10/28/03	11/14/03
z 2-Fluorobiphenyl	8270	**	ND	ug/kg	3000	JES	10/28/03	11/14/03
z 2-Fluorophenol	8270	**	ND	ug/kg	2500	JES	10/28/03	11/14/03
z Dibromofluoromethane	8260S		104%	ug/kg	86-118	BA	10/30/03	10/30/03

z Nitrobenzene-d5	8270	** ND	ug/kg	2300	JES	10/28/03	11/14/03
z p-Bromofluorobenzene	8260S	105%	ug/kg	8260.5	BA	10/30/03	10/30/03
z Phenol-d5	8270	** ND	ug/kg	2400	JES	10/28/03	11/14/03
z p-Terphenyl-d14	8270	** ND	ug/kg	1800	JES	10/28/03	11/14/03
z Toluene-d8	8260S	120%	ug/kg	88-118	BA	10/30/03	10/30/03

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg:
milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
>: greater than
z: surrogate

COC Date: Date Chain of Custody Signed
COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: SUNNY 77 DEGREES F

WHERE TAKEN: SOIL SAMPLE FROM CULVERT EASTSIDE SCOOPA

*Surrogate compound Toluene-d8 out of range for VOA.

*The instrumental concentrations of Phenanthrene and Fluoranthene exceeded the highest point on the calibration curve and are therefore reported as 'estimated'

Approved By: _____





CHAIN OF CUSTODY RECORD

MSD				PROJECT LEADER <i>Tony Russell</i>				REMARKS															
PROJECT NAME/LOCATION <i>Gulf States Creosote / HATTIESBURG, MS</i>				SAMPLER <i>Chris Fatters Libby Cornell</i>				DATA TO: <i>Tony Russell</i>															
ESD SAMPLE TYPES				CIRCLE/ADD parameters desired. List no. of containers submitted.				ANALYSIS															
1. SURFACE WATER 6. SOIL/SEDIMENT 2. GROUND WATER 7. SLUDGE 3. POTABLE WATER 8. WASTE 4. WASTEWATER 9. AIR 5. LEACHATE 10. FISH 11. OTHER				TOTAL CONTAINERS				VOA SEMI VOLATILE ORG. COMPOUNDS PESTICIDES METALS CYANIDE															
STATION NO.	SAMPLE TYPE	DATE	TIME	COMP	GRA B	STATION LOCATION/DESCRIPTION	TOTAL CONTAINERS	TAG NO./REMARKS															
<i>MW 19</i>	<i>Z</i>	<i>10/7</i>	<i>1320</i>	<i>X</i>		<i>Monitoring Well 19</i>	<i>N</i>	<i>30465</i>															
<i>MW 12</i>	<i>Z</i>	<i>10/7</i>	<i>1450</i>	<i>X</i>		<i>Monitoring Well 12</i>	<i>N</i>	<i>30466</i>															
<i>Temp: 8.7°C TS</i>																							
RELINQUISHED BY: (PRINT) <i>Tony Russell</i>				DATE/TIME <i>10/8/03</i>				RECEIVED BY: (PRINT) <i>Tommy Sneyd</i>				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN) <i>Tony Russell</i>				<i>1420</i>				(SIGN)				(SIGN)				(SIGN)							
RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)				RELINQUISHED BY: (PRINT)				DATE/TIME				RECEIVED BY: (PRINT)			
(SIGN)								(SIGN)				(SIGN)				(SIGN)							

DISTRIBUTION: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA20465
Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector CFETTERS
Collection date: 10/07/2003
Lab submittal date: 10/08/2003
Due date: 10/08/2003
Matrix: GROUNDWATER

Login record file: 100803143158

Collection time: 13:20
Lab submittal time: 14:28

Project account code: 3047

BASIN _____
PERMIT_NO _____
DISCHARGE_NO _____
STORET_NO _____
OTHER_NO MW-19
SAMPLE_LOCATION MW-19
COUNTY_CODE 035
REQUESTED_BY TONY RUSSELL

Analyses ordered	Method	Due Date
EXTRACTION FOR ORGANICS		10/07/2003
EPA 8270 SEMIVOL ORG COMPOUNDS	8270	11/17/2003

Sample I.D. AA20466
Location code COMPLIANCE
Location Description GULF STATES CREOSOTE
Sample collector CFETTERS
Collection date: 10/07/2003
Lab submittal date: 10/08/2003
Due date: 10/08/2003
Matrix: GROUNDWATER

Login record file: 100803143158

Collection time: 14:50
Lab submittal time: 14:28

Project account code: 3047

BASIN _____
PERMIT_NO _____
DISCHARGE_NO _____
STORET_NO _____
OTHER_NO MW-12
SAMPLE_LOCATION MW-12
COUNTY_CODE 035
REQUESTED_BY TONY RUSSELL

Analyses ordered	Method	Due Date
EXTRACTION FOR ORGANICS		10/07/2003
EPA 8270 SEMIVOL ORG COMPOUNDS	8270	11/17/2003

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

<p>To: TONY RUSSELL</p>	<p>QA Type:</p> <p>Date Collected: 10/07/2003</p> <p>Time Collected: 13:20</p> <p>Sample Collector: CFETTERS</p> <p>To Lab: SV</p>
<p>Sample ID: AA20465</p> <p>Facility Name: GULF STATES CREOSOTE</p> <p>Site ID: COMPLIANCE</p> <p>Sampling Loc: MW-19</p> <p>Discharge No:</p> <p>Other No: MW-19</p> <p>Permit No:</p> <p>Latitude:</p> <p>Longitude:</p> <p>County: 035 Forrest</p>	<p>Sample Type: GROUNDWATER</p> <p>Received By: TAMMY SAWYER</p> <p>LIMS Login Date: 10/08/2003</p> <p>LIMS Login Time: 14:28</p> <p>COC Date: 10/08/03</p> <p>COC Time: 1420</p> <p>Project: 3047</p> <p>Study: COMPLIANCE</p> <p>Reporting Date: 11/25/2003</p>

ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4-Dichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4-Dichlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4-Dimethylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03

2,4-Dimethylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4-Dinitrophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
2,4-Dinitrophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Chloronaphthalene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Chloronaphthalene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Chlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Chlorophenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Methylnaphthalene	8270	66.7	ug/L	10.00	JES	10/14/03	11/14/03
2-Methylnaphthalene	8270	66.7	ug/L	10.00	JES	10/14/03	11/14/03
2-Methylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Methylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
2-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
2-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
2-Nitrophenol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
2-Nitrophenol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
3-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
3-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
4-Chloroaniline	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
4-Chloroaniline	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Methylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Methylphenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
4-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4-Nitroaniline	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4-Nitrophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
4-Nitrophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
Acenaphthene	8270	79.2	ug/L	10.00	JES	10/14/03	11/14/03

Acenaphthene	8270	79.2	ug/L	10.00	JES	10/14/03	11/14/03
Acenaphthylene	8270	TR 4.72	ug/L	10.00	JES	10/14/03	11/14/03
Acenaphthylene	8270	TR 4.72	ug/L	10.00	JES	10/14/03	11/14/03
Anthracene	8270	TR 3.43	ug/L	10.00	JES	10/14/03	11/14/03
Anthracene	8270	TR 3.43	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[a]anthracene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[a]anthracene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[a]pyrene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[a]pyrene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Benzoic Acid	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
Benzoic Acid	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
Benzyl alcohol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Benzyl alcohol	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Butylbenzylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Butylbenzylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Carbazole	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Carbazole	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Chrysene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Chrysene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Dibenzofuran	8270	64.9	ug/L	10.00	JES	10/14/03	11/14/03
Dibenzofuran	8270	64.9	ug/L	10.00	JES	10/14/03	11/14/03
Diethylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Diethylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Dimethylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03

Dimethylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Di-n-butylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Di-n-butylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Di-n-octylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Di-n-octylphthalate	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Fluoranthene	8270	TR 1.84	ug/L	10.00	JES	10/14/03	11/14/03
Fluoranthene	8270	TR 1.84	ug/L	10.00	JES	10/14/03	11/14/03
Fluorene	8270	36.2	ug/L	10.00	JES	10/14/03	11/14/03
Fluorene	8270	36.2	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorobutadiene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorobutadiene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Hexachloroethane	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Hexachloroethane	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Isophorone	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Isophorone	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Naphthalene	8270	1100	ug/L	100.00	JES	10/14/03	11/14/03
Naphthalene	8270	1100	ug/L	100.00	JES	10/14/03	11/14/03
Nitrobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Nitrobenzene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	JES	10/14/03	11/14/03
Pentachlorophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
Pentachlorophenol	8270	ND	ug/L	50.00	JES	10/14/03	11/14/03
Phenanthrene	8270	36.6	ug/L	10.00	JES	10/14/03	11/14/03
Phenanthrene	8270	36.6	ug/L	10.00	JES	10/14/03	11/14/03
Phenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Phenol	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Pyrene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
Pyrene	8270	ND	ug/L	10.00	JES	10/14/03	11/14/03
z 2,4,6-Tribromophenol	8270	% 99	ug/L	10-123	JES	10/14/03	11/14/03
z 2,4,6-Tribromophenol	8270	% 99	ug/L	10-123	JES	10/14/03	11/14/03
z 2-Fluorobiphenyl	8270	% 103	ug/L	43-116	JES	10/14/03	11/14/03

z 2-Fluorobiphenyl	8270	% 103	ug/L	43-116	JES	10/14/03	11/14/03
z 2-Fluorophenol	8270	% 99	ug/L	21-100	JES	10/14/03	11/14/03
z 2-Fluorophenol	8270	% 99	ug/L	21-100	JES	10/14/03	11/14/03
z Nitrobenzene-d5	8270	% 94	ug/L	35-114	JES	10/14/03	11/14/03
z Nitrobenzene-d5	8270	% 94	ug/L	35-114	JES	10/14/03	11/14/03
z Phenol-d5	8270	% 94	ug/L	10-194	JES	10/14/03	11/14/03
z Phenol-d5	8270	% 94	ug/L	10-194	JES	10/14/03	11/14/03
z Terphenyl-d14	8270	% 89	ug/L	33-141	JES	10/14/03	11/14/03
z Terphenyl-d14	8270	% 89	ug/L	33-141	JES	10/14/03	11/14/03

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg:
milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

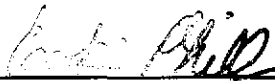
<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
>: greater than
z: surrogate

COC Date: Date Chain of Custody Signed
COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: CLOUDY 85 DEGREES F

Approved By: _____



MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control
1542 Old Whitfield Road
Pearl, MS 39208
601-664-3900

COMPLIANCE MONITORING REPORT

<p>To: TONY RUSSELL</p>	<p>QA Type:</p> <p>Date Collected: 10/07/2003</p> <p>Time Collected: 14:50</p> <p>Sample Collector: CFETTERS</p> <p>To Lab: SV</p>
<p>Sample ID: AA20466</p> <p>Facility Name: GULF STATES CREOSOTE</p> <p>Site ID: COMPLIANCE</p> <p>Sampling Loc: MW-12</p> <p>Discharge No:</p> <p>Other No: MW-12</p> <p>Permit No:</p> <p>Latitude:</p> <p>Longitude:</p> <p>County: 035 Forrest</p>	<p>Sample Type: GROUNDWATER</p> <p>Received By: TAMMY SAWYER</p> <p>LIMS Login Date: 10/08/2003</p> <p>LIMS Login Time: 14:28</p> <p>COC Date: 10/08/03</p> <p>COC Time: 1420</p> <p>Project: 3047</p> <p>Study: COMPLIANCE</p> <p>Reporting Date: 11/25/2003</p>

ANALYTE	METHOD	RESULT	UNIT	MDL	ANALYST	ANALYSIS START DATE	ANALYSIS END DATE
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,2,4-Trichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,2-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,3-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
1,4-Dichlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4,5-Trichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4,6-Trichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4-Dichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4-Dichlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4-Dimethylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03

2,4-Dimethylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4-Dinitrophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
2,4-Dinitrophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,4-Dinitrotoluene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2,6-Dinitrotoluene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Chloronaphthalene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Chloronaphthalene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Chlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Chlorophenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Methylnaphthalene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Methylnaphthalene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Methylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Methylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
2-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
2-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
2-Nitrophenol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
2-Nitrophenol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
3,3'-Dichlorobenzidine	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
3-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
3-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4,6-Dinitro-2-methylphenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Bromophenyl-phenylether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
4-Chloro-3-methylphenol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
4-Chloroaniline	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
4-Chloroaniline	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Chlorophenyl-phenylether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Methylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Methylphenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
4-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4-Nitroaniline	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4-Nitrophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
4-Nitrophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
Acenaphthene	8270	TR 2.42	ug/L	10.00	ES	10/14/03	11/14/03

Acenaphthene	8270	TR 2.42	ug/L	10.00	ES	10/14/03	11/14/03
Acenaphthylene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Acenaphthylene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Anthracene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Anthracene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[a]anthracene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[a]anthracene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[a]pyrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[a]pyrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[b]fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Benzo[g,h,i]perylene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzo[k]fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Benzoic Acid	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
Benzoic Acid	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
Benzyl alcohol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Benzyl alcohol	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-Chloroethoxy)methane	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-Chloroethyl)ether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-chloroisopropyl)ether	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
bis(2-Ethylhexyl)phthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Butylbenzylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Butylbenzylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Carbazole	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Carbazole	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Chrysene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Chrysene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Dibenz[a,h]anthracene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Dibenzofuran	8270	34.9	ug/L	10.00	ES	10/14/03	11/14/03
Dibenzofuran	8270	34.9	ug/L	10.00	ES	10/14/03	11/14/03
Diethylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Diethylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Dimethylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03

Dimethylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Di-n-butylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Di-n-butylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Di-n-octylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Di-n-octylphthalate	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Fluoranthene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Fluorene	8270	TR 2.26	ug/L	10.00	ES	10/14/03	11/14/03
Fluorene	8270	TR 2.26	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorobutadiene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorobutadiene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachlorocyclopentadiene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Hexachloroethane	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Hexachloroethane	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Indeno[1,2,3-cd]pyrene	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Isophorone	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Isophorone	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Naphthalene	8270	11.6	ug/L	10.00	ES	10/14/03	11/14/03
Naphthalene	8270	11.6	ug/L	10.00	ES	10/14/03	11/14/03
Nitrobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Nitrobenzene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
N-Nitroso-di-n-propylamine	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
n-Nitrosodiphenylamine	8270	ND	ug/L	20.00	ES	10/14/03	11/14/03
Pentachlorophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
Pentachlorophenol	8270	ND	ug/L	50.00	ES	10/14/03	11/14/03
Phenanthrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Phenanthrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Phenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Phenol	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Pyrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
Pyrene	8270	ND	ug/L	10.00	ES	10/14/03	11/14/03
z 2,4,6-Tribromophenol	8270	% 73	ug/L	10-123	ES	10/14/03	11/14/03
z 2,4,6-Tribromophenol	8270	% 73	ug/L	10-123	ES	10/14/03	11/14/03
z 2-Fluorobiphenyl	8270	% 89	ug/L	43-116	ES	10/14/03	11/14/03

z 2-Fluorobiphenyl	8270	% 89	ug/L	43-116	ES	10/14/03	11/14/03
z 2-Fluorophenol	8270	% 57	ug/L	21-100	ES	10/14/03	11/14/03
z 2-Fluorophenol	8270	% 57	ug/L	21-100	ES	10/14/03	11/14/03
z Nitrobenzene-d5	8270	% 90	ug/L	35-114	ES	10/14/03	11/14/03
z Nitrobenzene-d5	8270	% 90	ug/L	35-114	ES	10/14/03	11/14/03
z Phenol-d5	8270	% 57	ug/L	10-194	ES	10/14/03	11/14/03
z Phenol-d5	8270	% 57	ug/L	10-194	ES	10/14/03	11/14/03
z Terphenyl-d14	8270	% 93	ug/L	33-141	ES	10/14/03	11/14/03
z Terphenyl-d14	8270	% 93	ug/L	33-141	ES	10/14/03	11/14/03

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
 mg/L: milligrams/Liter
 mg/kg:
 milligrams/kilogram
 ug/g: micrograms/gram
 ppm: parts per million
 ppb: parts per billion

<: less than
 MCL: Maximum Contaminant Level
 MDL: Method Detection Limit
 LSPC: result less than lower specification
 USPC: result greater than upper specification
 TIE: Tentatively Identified or Estimated
 >: greater than
 z: surrogate

COC Date: Date Chain of Custody Signed
 COC Time: Time Chain of Custody Signed

SAMPLE COMMENTS:

ENVIRONMENT CONDITION: CLOUDY 85 DEGREES F

Approved By: _____

Conf: Phil

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Creosote
County Code Forest NPDES Permit No. _____
Discharge No. _____ Date Requested 10/8/03
Sample Point Identification MW 12
Requested By Tony Russell Data To T Russell
Type of Sample: Grab Composite (Flow) (Time) Other () _____

II. SAMPLE IDENTIFICATION:
Environment Condition Cloudy 85° Collected By C. Fetters
Where Taken Monitoring Well 12

Type	Parameters	Preservative	Date	Time
1. <u>GW</u>	<u>Semivolatiles</u>	<u>None</u>	<u>10/7/03</u>	<u>1450</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other OPC Vehicle
V. LABORATORY: Received By [Signature] Date 10/8/03 Time 1420
Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
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Remarks _____

Thursday, October 16, 2003, at Whitesburg Gardens Health Care Center. Visitation is 10-11 a.m. Monday at Wright & Ferguson Funeral Home in Clinton. Services are 1 p.m. Monday at Lakewood South Funeral Home in Jackson. Breeland Funeral Home of Canton is handling arrangements.

John E. 'Buck' Manley Valparaiso, FL.

John E. "Buck" Manley, 75, died Monday, October 13, 2003 at a local hospital. Memorial services and burial were Saturday at St. Jude's Episcopal Church in Niceville, FL. McLaughlin Twin City Funeral Home of Niceville handled arrangements.

John was born in Burgaw, N.C. on August 24, 1928. He moved to this area in 1988 from Madison, MS., and was a member of St. Jude's Episcopal Church in Niceville. He retired from the United States Air Force CMSgt. He also worked with the U. S. Forestry Service. John was a 32-degree Mason in Panama, a Shriner, and a member of the American Legion. He was an avid golfer and a member of the Fort Walton Beach Golf Club and he also enjoyed fishing.

Norma Irwin Nettles, 75, died Saturday, October 18, 2003, at home. Visitation is 5-8 p.m. today and 12:30 p.m. Monday at Wright & Ferguson Funeral Home in Clinton. Services are 2 p.m. Monday at the funeral home with burial in Flora City Cemetery.

Mrs. Nettles was a member of Beulah Memorial Baptist Church. She enjoyed spending time with her family, grandchildren and great-grandchildren.

She is survived by her husband, Mr. Luther Nettles and daughters, Donna Trotter and Kathy Robertson, all of Brownsville; five grandchildren, Shawn Olson of Brownsville, Michelle Hawkins of New Whiteland, IN, Leslie Robertson of Brownsville, Lisa Neal of Clinton, and Justin Trotter of Brownsville; stepgrandchildren, Glenn Trotter and Wilson Trotter of Brownsville and three great-grandchildren, Paige Olson, Mitch Olson, and Kellie Robertson.

Memorials may be made to Beulah Memorial Baptist Church Building Fund, Hwy. 22, Bolton MS 39041.

Rev. W.E. Odom Ovett

Rev. William Edward Odom, 56, a minister with Great United Baptist Church,

vived by two cousins, Nancy S. Robertson and husband Lewis Brooks Robertson of Jackson, MS., and Celia Summer Filgo and husband Hal Filgo of Baton Rouge, LA., and a niece, Margaret Robertson of Nashville, TN, as well as nieces and nephews of the Robertson family.

Memorials may be made to St. Jude Children's Research Hospital, 505 N. Parkway, Memphis, TN. 38105.

Clara Scruggs Petal

Clara Myrtle Scruggs, 97, a homemaker died Friday, October 17, 2003, at Bedford Care Center. Services are 3 p.m. today at County Line Baptist Church with burial in County Line Baptist Church Cemetery. Jones Funeral Home in Moselle is handling arrangements.

Alma L. Posey Sylvester Vanceleave

Alma Lee Posey Sylvester, 92, a retired cafeteria manager, Thursday, October 16, 2003, at Ocean Springs Hospital. Services are 2 p.m. today at Jones Funeral Home in Beaumont with

Creosote: Harsh substance can burn skin

From 1B

DEQ officials said Gulf States Creosote began producing the substance to treat telephone poles and railroad ties in the early 1900s, and it may have stayed in the ground for decades. The DEQ was only notified of the problem in the late 1980s, when it was discovered during a U.S. Army Corps of Engineers flood control project, Russell said.

Creosote is made up of 13 compounds, among them Benzo(a)pyrene, which has been linked to cancer in animals, Russell said. The substance can, however, burn the skin.

After initial assessments and testing, DEQ searched for more than four years to find the owner of the land. In 1994, the agency determined the company that owned

the land had merged with Kerr-McGee Chemical, an Oklahoma City-based energy and chemical corporation.

"Because of that, we're voluntarily working with MDEQ to remediate the land," said Kerr-McGee spokesperson Debbie Schramm.

It took another eight years for DEQ to find the source of the contamination and conduct risk-assessment evaluations to figure out how to remove the substance.

Russell, who has been working on the project since 1998, said the length of time it took to begin the cleanup is not unusual, especially because of the age of the site.

"The cleanup so far has gone well. I've talked to people on the ditch, and they seem to be appreciative of what's going on," he said.

"Certainly, we would like to start sooner, but it depends on so many factors," said Jerry Banks, DEQ's chief of groundwater assessment and remediation. "We had to get so much done first."

Now the site is alive with cranes digging out creosote, storing it in large trucks and carrying it to a landfill in Alabama.

Brad J. Nix, 66, who has lived near the site his entire life and now lives on Eastside Avenue, about 75 yards from the contamination source.

"Word has gotten out around here," he said. "And now, the property value is low because of this. I'd like to get out of here and move, honestly."

"I'm just glad they're doing what they're supposed to do — getting that stuff out of here."

A toxic culprit



Greg Jenson/The Clarion-Ledger

Orange fencing, a backhoe and a wide swath of disturbed ground obscure a home on Florence Street in Hattiesburg on Friday as workers install a new drainage ditch, part of efforts by the Mississippi Department of Environmental Quality to clean up decades-old creosote contamination.

State begins creosote cleanup

By Ryan Clark
ryanclark@jackson.gannett.com

HATTIESBURG — Will Harris always thought it was odd how, over the years, three family members developed skin rashes whenever the weather got warm.

And sometimes the 70-year-old noticed a strange smell coming from the ditch on his property.

"It smelled like a gas leak," said Harris, who has lived on Townsend Street in Hattiesburg for more than 30 years. "I guess I never really gave the rashes much thought. We'd just take them to the doctor, get them some ointment and it would go away. We never thought to call anyone about it."

Years later he discovered the smells and rashes could have been caused by creosote, a toxic chemical left in the ground by a company that had been out of business since the 1960s.

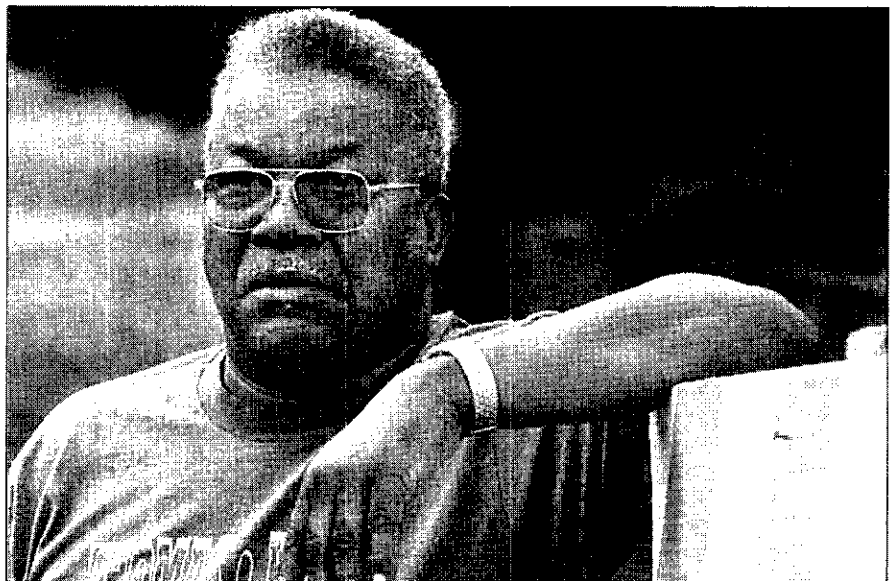
The state Department of Environmental Quality is in the middle of the first phase of cleanup of the former Gulf States Creosote site in southwest Hattiesburg.

Residents will smell the strange, gas-like odor during the cleanup. But the department is monitoring air quality, and nobody should experience any ill effects, officials said.

"There should be no exposure," said Tony Russell, the project officer and supervisor for the DEQ assessment remediation branch. "All of the substance is being taken care of."

But over the years, the creosote could have caused some health problems, officials said, and the DEQ is encouraging all residents with specific health questions to visit the health department.

"The possibility (for health problems) does exist," said DEQ attorney



Greg Jenson/The Clarion-Ledger

Hattiesburg resident Will Harris, 70, lives near a drainage ditch that has been contaminated with creosote for more than four decades from the former Gulf States Creosote site. Harris said his family likely suffered some ill effects over the years, including skin rashes.

Kelly Riley. "We're not going to dispute what people are saying. If they have questions, they need to get them answered at the health department."

Sometime prior to 1960, the creosote seeped into the ground of an old industrial park in the area, which then drained, contaminating several blocks up to half

a mile away in the residential area near the plant. More drained into a 5-foot-wide ditch along Townsend Street.

See CREOSOTE, 3B

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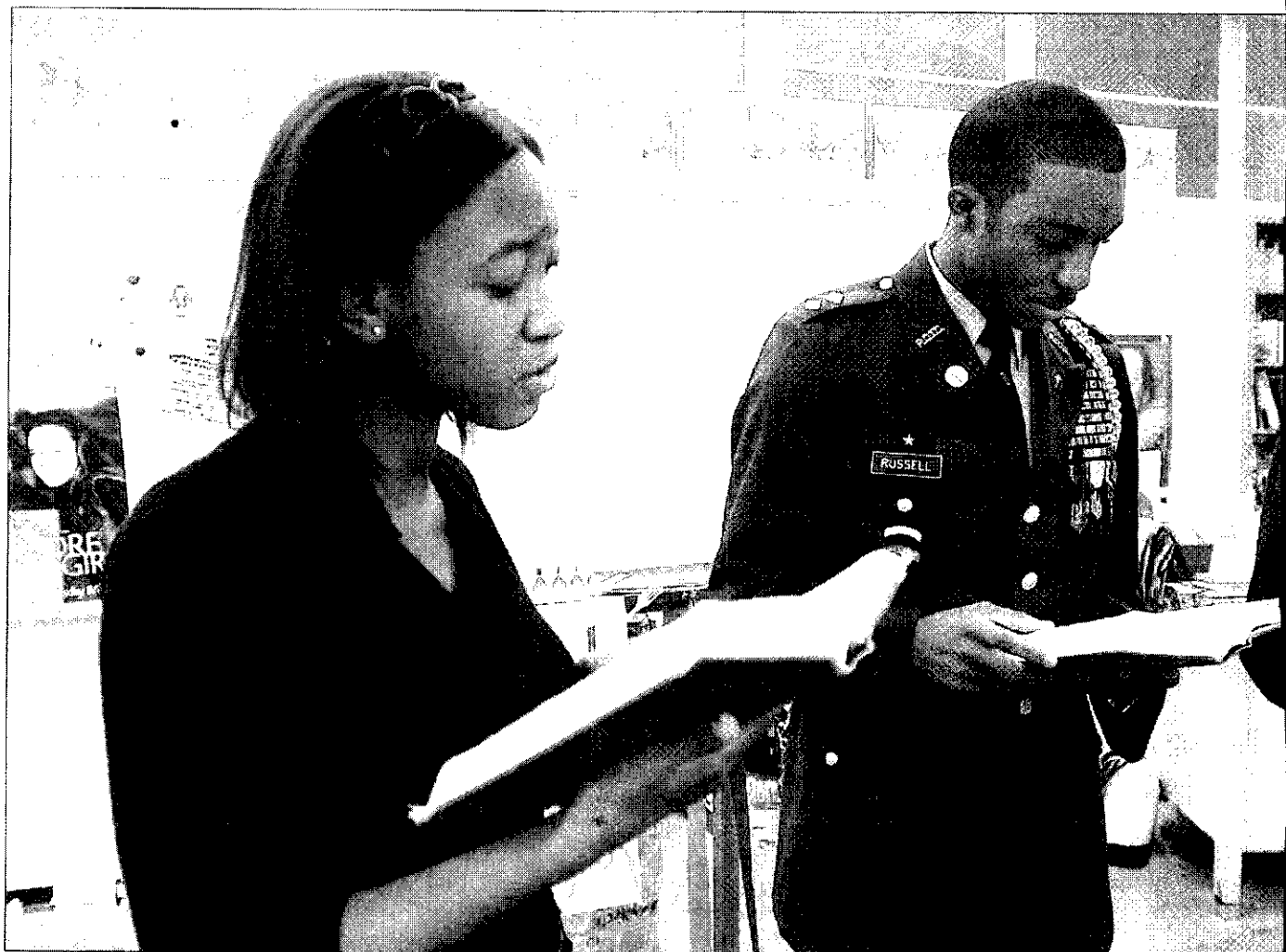
Hall says TRAC connects stu-
dents to the work world of trans-
portation and inspires them to
consider careers in transporta-

training seminars in various
locations across the state," Hall
said. "After teachers have com-
pleted training, their school
receives eight TRAC learning

learning tools.
The TRAC curriculum famil-
iarizes students in areas ranging
from basic algebra, calculus, and
geometry, to urban planning,

Among those attending
recent training in Jackson we
Byram Middle School career di-
covery teachers Lisa White and

'Semifinalist' status



Brian Albert Broom/The Clarion-Le

Chaffron McCarty, 16, and Joel Russell, 17, are two of three semifinalists in the National Achievement Scholarship competition from Murrah High Sch

Dozen Miss. teens make the cu

By Ruth Ingram
r Ingram@clarionledger.com

RIDGELAND

Ernest Sanders' senior year is shaping up to be a busy one.

The 16-year-old Ridgeland High student serves in student government as senior class treasurer. He's duking it out with other stellar scholars on his school's academic competition team, and his math prowess has been recognized by his membership in Mu Alpha Theta and the Beta Club.

He can add one more accolade to that list: Sanders is his school's sole semifinalist in the National Achievement Scholarship competition.

He's one of a dozen high-achieving black students in Mississippi who advanced to semifinalist status in the National Achievement Scholarship Program, an arm of the Evanston, Ill.-based National Merit Scholarship Program.

seniors this month were named semifinalists. They advance in a competition to share in about \$2.7 million in scholarships to be awarded in the spring to program finalists.

"Based on the statistics, I feel pretty good that I will advance to make finalist," said Sanders, who's mulling over whether to attend Georgia Tech University or Mississippi State University next fall as a mechanical engineering major.

To vie for semifinalist status, more than 120,000 high school juniors last year took the Preliminary Scholarship Aptitude Test. Semifinalists were named based on the high-scoring program entrants in their state.

"I felt like I would be a semifinalist, but I wasn't totally counting on it," said Murrah High senior Chaf-

fron McCarty, 16, who is also one of three finalists from her school. "It was a real honor."

- National Achievement will award 450 \$2,500 scholarships in the spring, while another 125 scholarships will be awarded to finalists from corporations, foundations and professional associations.
- Mississippi's 2003 National Achievement Scholarship Program semifinalists include:
 - Clinton High — Arian E. Thompson.
 - Columbus — Jamie M. Reed and Nicholas A. Robey, Mississippi School for Mathematics and Science.
 - Gulfport — Christopher D. France, St. John High.
 - Iuka — Quitman W.

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In her school's concert madri-

Alexander, Tishomingo County High.

- Jackson — Eboni J. Sullivan, Jim Hill High; David Dennis, Chaffron L. McCarty and Joel H. Russell, Murrah High.
- Madison — Jarvis Kererson and Perry Williams, Madison Central High.
- Ridgeland — Ernest Sanders, Ridgeland High.

also is an academic competition team member. She's a year leader, choir member and pageant member at her church's Horizon. Making finalist

be a scholarship boon at her top college choices, University in Jackson, Tennessee and Emory University in Atlanta. "I've worked hard, so her

If you have any additional questions,
please contact:

Mississippi Department of Environmental Quality
Uncontrolled Sites Section

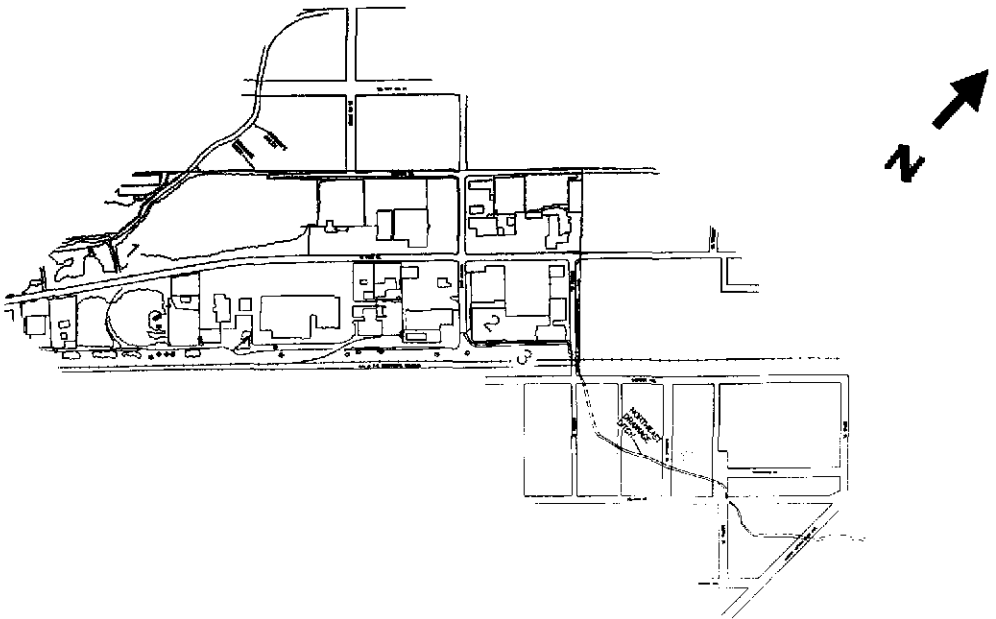
(601) 961-5318

Mississippi Department of Environmental Quality
Field Services Division

(601) 961-5011

Mississippi Department of Environmental Quality
Legal Division

(601) 961-5369



Mississippi
Department

of ENVIRONMENTAL QUALITY

**PROPOSED
CLEANUP PLANS**
for the former Gulf
States Creosote
site in Hattiesburg

november 2002

MDEQ

strives to help
the people protect Mississippi's air,

land, and water through fair
and responsible regulation.



P.O. Box 10385
Jackson, MS 39289
www.deq.state.ms.us

The Mississippi Department of Environmental Quality (MDEQ) is publishing this notice to inform the citizens of Hattiesburg and the surrounding area about the proposed cleanup of the former creosote plant located in and around Courtesy Motors on West Pine Street.

The former creosote plant operated from the early 1900's to approximately 1960. Since the plant operated prior to the creation of MDEQ, the agency never regulated this site. In 1962, the site was redeveloped for commercial and light industrial use.

(see map on back)

Former Fill Area (between West Pine St. & Gordon's Creek)
Proposed Cleanup: Install sheet-piling wall along the creek bank to eliminate seepage into the creek, install monitoring and recovery wells along the wall to monitor and recover any free product that may collect, install concrete culvert from West Pine Street to Creek, cover the area with a liner, and plant trees to prevent mounding of groundwater along the sheet-piling wall.

(see map on back)

Former Process Area (between Scooba St. & Timothy Ln)
Proposed Cleanup: Remove creosote contaminated soil from the wooden substructure and the concrete sump area, backfill with compacted clay fill material, regrade the surface and cap the area with a liner and asphalt.

(see map on back)

Southern Railroad Track Area
Proposed Cleanup: Remove creosote contaminated sediment and soils from within and beneath the drainage ditch. Depending on the effects of the integrity of the railroad tracks, the soils will either be capped in place or removed.

(see map on back)

Northeast Ditch from Scooba Street to Katie Street
Proposed Cleanup: Remove contaminated sediment and soils, install a liner and sand bed in the ditch, install culvert and surface drains, and then backfill around culverts with clean soil.

In an effort to address some of your concerns, MDEQ has listed answers to the most frequently asked questions about the proposed cleanup. If you have any other questions, please contact Tony Russell at (601) 961-5318.

Question 1. Has the City's drinking water been contaminated by creosote or other wood treating chemicals?

No. There is no threat to the City of Hattiesburg's drinking water supply, but MDEQ will require monitoring on a semi-annual basis for two years to watch for any possible migration of groundwater contamination. After two years, the monitoring will be performed on an annual basis for an indefinite period of time.

Question 2. Have the citizens or residents in the area been exposed to creosote contamination at the surface?

No. MDEQ is not aware of any direct exposure at this time. The limited amount of contamination that exists is below the surface. Although creosote contamination exists in the drainage ditch that runs from Scooba Street to Katie Street, there is no direct exposure because the contamination has been covered by sediment that has been deposited over time.

Question 3. How does MDEQ know that the shallow groundwater contamination will not impact the City of Hattiesburg's drinking water supply or a private well?
Extensive groundwater monitoring will allow MDEQ to watch the location of the groundwater contamination and ensure that any migration does not threaten drinking water in the area. A private water well search was conducted in October 2000 in the residential area surrounding the site, and no private wells were identified. Also, the City of Hattiesburg has an ordinance that prohibits the drilling of private wells within the city limits.

Question 4. What is the possibility that contamination will continue to migrate in the future?
The remedies proposed should eliminate the possibility for migration in the fill area, process area, and drainage ditch.

Question 5. How long will the remediation take place?

The remedies proposed for the process area and the fill area will be accomplished within one year. The remedy for the northeast drainage ditch may take more than one year due to size of the project and weather conditions.

Question 6. Does MDEQ know if the contaminants have migrated from the site to the soils in the residential yards in the area?

Soil samples have been collected in the residential area, and no contamination was found above the target remediation goal levels established by MDEQ.

Question 7. When the company begins the cleanup of the site, will this create exposure to residents in the area?

No. But there will be odors associated with the removal of contaminated soils from the process area and the Northeast drainage ditch. Citizens will not be exposed to harmful levels of contaminants from the site.

Question 8. What is being done about the creosote in Gordon's Creek?

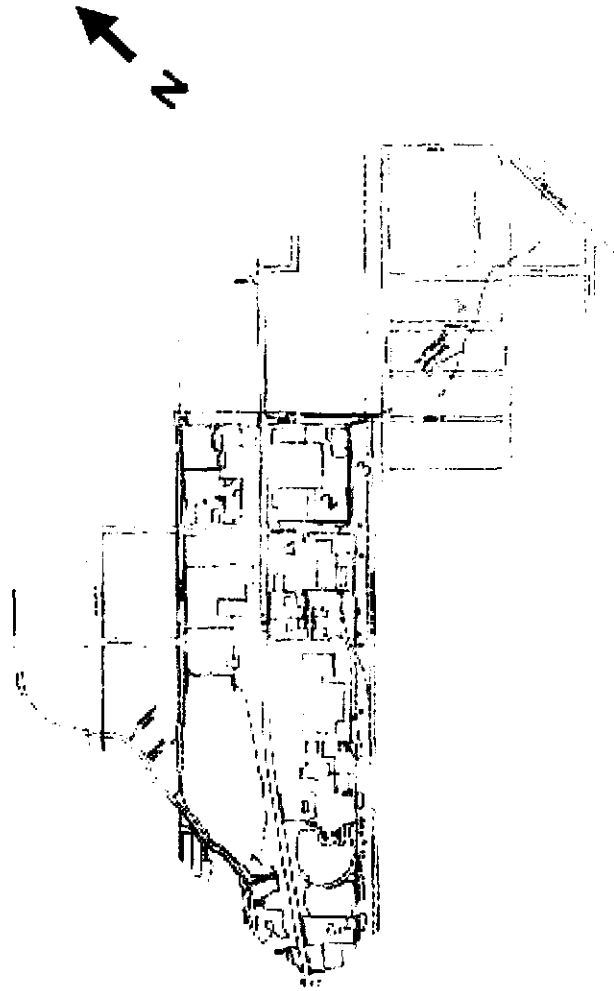
MDEQ knows there are occasional seepages from the old fill area into Gordon's Creek, but an ecological assessment conducted by the Corp of Engineers indicated that there are no environmental impacts to the creek. A sheet-piling barrier wall will be installed to eliminate further discharges to the creek.

If you have any additional questions,
please contact:

Mississippi Department of Environmental Quality
Assessment and Remediation Branch
(601) 961-5318

Mississippi Department of Environmental Quality
Field Services Division
(601) 961-5011

Mississippi Department of Environmental Quality
Legal Division
(601) 961-5369



Mississippi Department of ENVIRONMENTAL QUALITY

*STATUS of
CLEANUP ACTIVITY
for the former Gulf
States Creosote
site in Hattiesburg*

october 2003

MDEQ strives to preserve
and protect Mississippi's air,
land, and water through fair
and responsible regulation.



P.O. Box 10385
Jackson, MS 39289-0385
www.deq.state.ms.us

The Mississippi Department of Environmental Quality (MDEQ) is publishing this fact sheet to inform the citizens of Hattiesburg and the surrounding area about the status of cleanup activities at the former creosote plant located in and around Courtesy Motors on West Pine Street.

The former creosote plant operated from the early 1900's to approximately 1960. The contamination at the former Gulf States Creosote site occurred prior to 1960, long before the creation of the Mississippi Department of Environmental Quality. In 1962, the site was redeveloped for commercial and light industrial use.

YELLOW TEXT indicates work completed

Location #1:

Former Fill Area

Proposed Cleanup: Install sheet-piling wall along the creek bank to eliminate seepage into the creek. install monitoring and recovery wells along the wall to monitor and recover any free product that may collect, install concrete culvert from West Pine Street to Creek, cover the area with a liner, and plant trees to prevent mounding of groundwater along the sheet-piling wall.

Location #2:

Former Process Area

Proposed Cleanup: Remove creosote contaminated soil from the wooden substructure and the concrete sump area, backfill with compacted clay fill material, regrade the surface and cap the area with a liner and asphalt.

Location #3:

Southern Railroad Track Area

Proposed Cleanup: Remove creosote contaminated sediment and soils from within and beneath the drainage ditch. Depending on the effects on the integrity of the railroad tracks, the soils will either be capped in place or removed.

Location #4:

Northeast Ditch from Scooba Street to Katie Street

Proposed Cleanup: Remove contaminated sediment and soils, install a liner and sand bed in the ditch, install culvert and surface drains, and then backfill around culverts with clean soil. The drainage ditch project is complete except for replacing the culverts beneath Martin Luther King Avenue, Florence Avenue and Eastside Avenue, and completing inlet boxes, grading and seeding. Additional potential areas of concern along the drainage ditch have been identified and will be assessed and remediated over the next few months as needed.

In an effort to answer your questions, MDEQ has listed answers to the most frequently asked questions about the status of the cleanup. If you have any other questions, please contact Tony Russell at (601) 961-5318.

Question 1. Will the City's drinking water be contaminated by the contamination in the shallow water table?

There is approximately 150 to 200 feet of Hattiesburg Clay between the contaminated shallow water table and drinking water. The City of Hattiesburg's wells are screened in the Catahoula Formation. The Catahoula Formation is a geologic formation, approximately 660 feet thick, that extends from 530 feet to 1190 feet below ground surface, from which the City of Hattiesburg obtains its drinking water.

Question 2. Is the soil that is stockpiled along the drainage ditch contaminated? No. This soil came from either clean areas of the drainage ditch or from areas outside the drainage ditch pathway and will be used for backfill. When installing the larger drainage pipe, a lot of excess soil was generated from the excavations. This non-contaminated soil was stockpiled until needed for backfill.



Question 3. What happened to the excavated contaminated soil from the drainage ditch? All the contaminated soil was loaded directly into trucks for disposal and sent to permitted landfills. Each truck that leaves the site is covered to

further insure that soil is not spilled enroute to the landfill.



Question 4. Is dust a concern? The Health and

Safety Plan requires that the dust be controlled. The only dust noticed during the unannounced site inspections was on Martin Luther King Drive where vehicle traffic was stirring up dust. The dust is generated from truck traffic across the non-contaminated soil that is being brought in as backfill material. The soil excavated from the ditch is moist and is being loaded directly into covered trucks for disposal. Even though the dust is from non-contaminated soil, the area is being sprayed with water from the City's potable water supply system to minimize the nuisance effect caused by the dust.

Question 5. Is air pollution a concern?

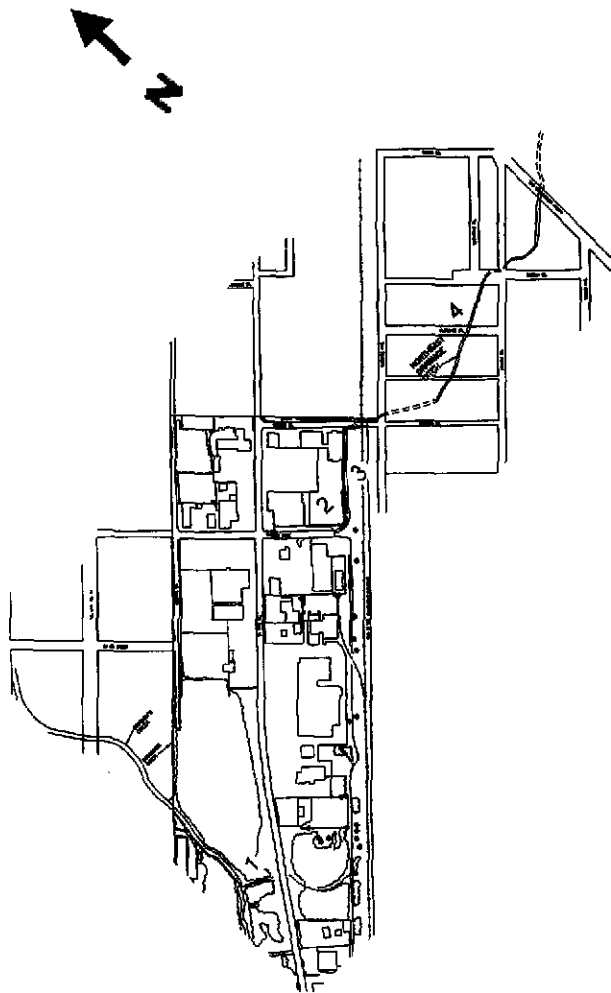
No. The air is being monitored as required in the Health and Safety Plan for both the process area and the drainage ditch removal projects. There are both stationary and mobile units being used for monitoring purposes. The readings are being documented on a daily basis and recorded in a permanent file as required in the Health and Safety Plan. There are odors associated with the creosote as it is removed, but none of the permissible exposure limits for the creosote compounds have been exceeded in the work zone. Therefore, although workers and residents may smell the creosote as it is excavated, there is no associated health risk because the air is being closely monitored.

If you have any additional questions,
please contact:

Mississippi Department of Environmental Quality
Uncontrolled Sites Section
(601)961-5318

Mississippi Department of Environmental Quality
Field Services Division
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Mississippi Department of ENVIRONMENTAL QUALITY

PROPOSED CLEANUP PLANS for the former Gulf States Creosote site in Hattiesburg

november 2002

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and protect Mississippi's air,
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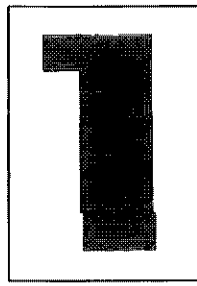
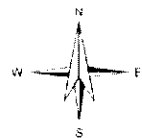
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FILE COPY

Legend

- BG Sites
- Charles Sites
- East Side Site
- Florence Sites
- Francis Sites
- Fs Apts Sites
- Grid Sites
- Harrell Sites
- MLK Sites
- US Highway
- Road
- Stream
- Contours



Forrest County

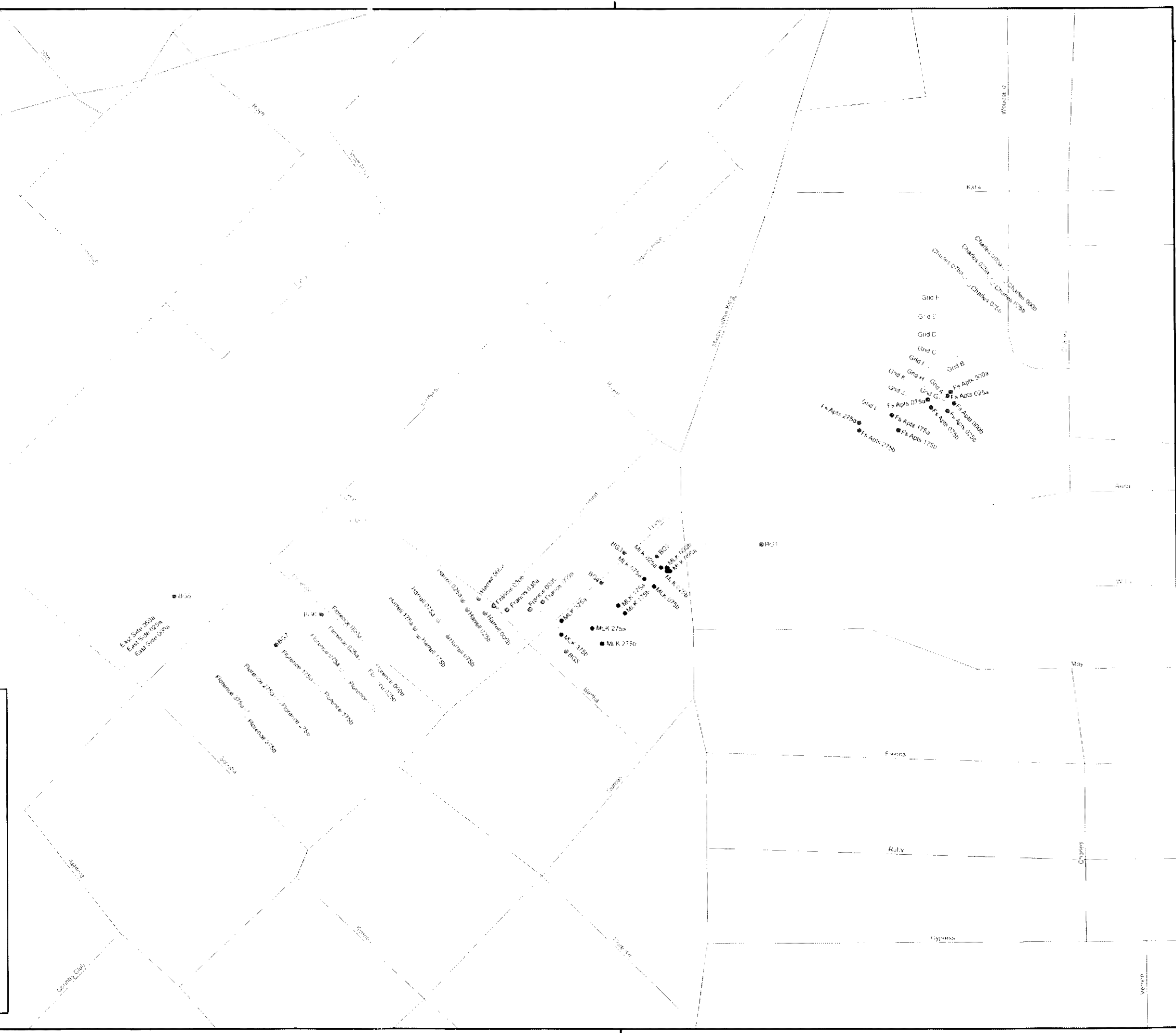
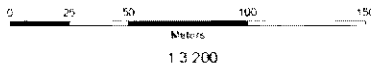


This map produced by the Department of Environmental Quality (DEQ), Office of Pollution Control, Groundwater Assessment and Remediation Division (GAR), on 3 November 2004.

The sources for the layers shown are from the Mississippi Automated Resource Information System (MARIS) and MDEQ.

Map Projection: Mississippi Transverse Mercator

The Mississippi Department of Environmental Quality makes no warranties, expressed or implied, as to the accuracy, completeness, currentness, reliability or suitability for any particular purpose, of the data contained on this map.





David Upthegrove
<dupthegrove@ix.netcom.com>

To: Tony Russell <tony_russell@deq.state.ms.us>
Subject: Northeast drainage ditch project contacts

09/02/2003 04:55 PM
Please respond to
dupthegrove

Tony:

Here's the contact information I promised you:

City of Hattiesburg Public Services Department
Contact: Bennie Sellers, P.E., P.L.S.
P.O. Box 1898
Hattiesburg, MS 39403-1898
601.545.4640 (phone)
601.545.4642 (fax)
pubser@hattiesburgms.com

Shows, Dearman & Waits (Resident Inspection and Contract Administration)
Contact: Mike Waits, P.E., P.L.S.
P.O. Box 1711
Hattiesburg, MS 39403-1711
601.544.1821 (phone)
601.544.0501 (fax)
precallstat@aol.com

Lampkin Construction Company
Contact: John Sparks, P.E.
P.O. Box 1313
Vicksburg, MS 39181
601.638.9890 (phone)
601.638.0110 (fax)
johns@lampkinconstruction.com

Singley Construction Company (Environmental Subcontractor)
Contact: Richard Ellis
P.O. Box 389
Columbia, MS 39249
601.736.6393 (phone)
601.736.7304 (fax)
rellis@netdoor.com

Should you have any questions or require additional information, please contact me.

Regards,

Dave

--



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Home | Mississippi News | Story

Jackson, Mississippi

October 19, 2003

State begins creosote cleanup

By Ryan Clark

ryanclark@jackson.gannett.com

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HATTIESBURG — Will Harris always thought it was odd how, over the years, three family members developed skin rashes whenever the weather got warm.

And sometimes the 70-year-old noticed a strange smell coming from the ditch on his property.

"It smelled like a gas leak," said Harris, who has lived on Townsend Street in Hattiesburg for more than 30 years. "I guess I never really gave the rashes much thought. We'd just take them to the doctor, get them some ointment and it would go away. We never thought to call anyone about it."

Years later he discovered the smells and rashes could have been caused by creosote, a toxic chemical left in the ground by a company that had been out of business since the 1960s.

The state Department of Environmental Quality is in the middle of the first phase of cleanup of the former Gulf States Creosote site in southwest Hattiesburg.

Residents will smell the strange, gas-like odor during the cleanup. But the department is monitoring air quality, and nobody should experience any ill effects, officials said.

"There should be no exposure," said Tony Russell, the project officer and supervisor for the DEQ assessment remediation branch. "All of the substance is being taken care of."

But over the years, the creosote could have caused some health problems, officials said, and the DEQ is encouraging all residents with specific health questions to visit the health department.

"The possibility (for health problems) does exist," said DEQ attorney Kelly Riley. "We're not going to dispute what people are saying. If they have

questions, they need to get them answered at the health department."

Sometime prior to 1960, the creosote seeped into the ground of an old industrial park in the area, which then drained, contaminating several blocks up to half a mile away in the residential area near the plant. More drained into a 5-foot-wide ditch along Townsend Street.

DEQ officials said Gulf States Creosote began producing the substance to treat telephone poles and railroad ties in the early 1900s, and it may have stayed in the ground for decades. The DEQ was only notified of the problem in the late 1980s, when it was discovered during a U.S. Army Corps of Engineers flood control project, Russell said.

Creosote is made up of 13 compounds, among them Benzo(a)pyrene, which has been linked to cancer in animals, Russell said. The substance can, however, burn the skin.

After initial assessments and testing, DEQ searched for more than four years to find the owner of the land. In 1994, the agency determined the company that owned the land had merged with Kerr-McGee Chemical, an Oklahoma City-based energy and chemical corporation.

"Because of that, we're voluntarily working with MDEQ to remediate the land," said Kerr-McGee spokesperson Debbie Schramm.

It took another eight years for DEQ to find the source of the contamination and conduct risk-assessment evaluations to figure out how to remove the substance.

Russell, who has been working on the project since 1998, said the length of time it took to begin the cleanup is not unusual, especially because of the age of the site.

"The cleanup so far has gone well. I've talked to people on the ditch, and they seem to be appreciative of what's going on," he said.

"Certainly, we would like to start sooner, but it depends on so many factors," said Jerry Banks, DEQ's chief of groundwater assessment and remediation. "We had to get so much done first."

Now the site is alive with cranes digging out creosote, storing it in large trucks and carrying it to a landfill in Alabama.

Brad J. Nix, 66, who has lived near the site his entire life and now lives on Eastside Avenue, about 75 yards from the contamination source.

"Word has gotten out around here," he said. "And now, the property value is low because of this. I'd like to get out of here and move, honestly."

"I'm just glad they're doing what they're supposed to do — getting that stuff out of here."

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Local News - Tuesday, October 14, 2003

SUBSCRIBE TO THE HATTIESBURG AMERICAN

Creosote site cleanup nears completion

By David Tisdale

Special to the American

Officials with the Mississippi Department of Environmental Quality and the city of Hattiesburg say cleanup of the former Gulf States Creosote plant site is about 85 percent complete.

At a public hearing attended by about 65 people Monday night at the Jackie Dole Sherrill Community Center, DEQ personnel said they are confident that any debris left from the plant has not contaminated drinking water in the neighborhoods in and around the affected area.

The Gulf States plant, which operated from the 1930s to about 1960, covered about 20 acres along West Pine Street, including Broadway Drive and west to Scooba Street.

"We feel extremely confident that the drinking water is safe," said Phil Bass, director of DEQ's Office of Pollution Control.

DEQ officials said that 100 to 200 feet of clay acts as a buffer between the contaminated shallow water at the surface of the site and drinking water. The city gets its drinking water from wells in the Catahoula Formation, he said. The geologic formation extends from 530 feet to 1,190 feet below ground.

Still, some of those at the hearing said they're not certain they are safe and aren't satisfied with how the cleanup is being handled.

James Rogers, who lives near the area where the plant was located, said that crews conducting cleanup work have not strictly adhered to rules regarding environmental cleanup projects.

He produced a photo that he claimed showed workers who were not wearing protective gear, such as helmets and gloves, required for the project, according to public documents he had obtained.

Rogers said he had appealed to Gov. Ronnie Musgrove in a personal meeting back in August to take measures to make sure the work was being conducted properly.

"My concern is for the safety of the neighborhoods, and the elderly people that live there," he said.

Rogers said his father worked for several years at the plant and during that time

suffered a variety of ailments. Rogers himself is a cancer survivor and said his mother and brother died of the disease. He suspects that there is a connection between his family's health history and creosote exposure.

The family lived near the plant and Rogers also owns property near the site.

City Public Services Director Bennie Sellers said that Kerr-Magee purchased the leasing rights to the property and voluntarily paid for the cleanup. The site is on 16th Section land owned by the Hattiesburg Public School District.

Kerr-Magee, a multinational corporation with petroleum, natural gas and chemical interests, eventually purchased the creosote plant from Union Camp, the owner of Gulf States, but was never involved in its operation.

Sellers said Kerr-Magee's action showed the company wanted to do the right thing and act responsibly, if the potential for a health hazard existed.

But Rogers believes Kerr-Magee must have known the contamination existed.

"They wouldn't have spent \$1 million (on cleanup work) if they didn't think something was wrong," he said.

Creosote plants like Gulf States were common in the early part of the last century and a few are still in operation across the country, Bass said, including one in Columbus.

"There were a lot of creosote operations across the South," Bass said, including what he described as "tons and tons of (smaller) mom and pop" operations, some of which have not been located.

"There will be more of them that we dig up in our lifetime, and beyond," he said.

Now, fewer are opening because of the health risks linked to creosote and the ones that are in operation are more tightly regulated since the advent of stricter environmental laws.

Technology and medical advancements have allowed what Bass calls the current "chemical generation" to learn more about the dangerous products it was exposed to by industries.

"Our environmental protection programs are only about 30 years old," Bass said. "Before that, environmental regulations were sparse."

Bass said that personnel from DEQ are in Hattiesburg once a week to check on the cleanup operations. He said recent testing showed some "hot spots" that could be creosote deposits and that monitoring of the project will continue.

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Hattiesburg battles environmental hazards

• Local activists say incidence of chronic illness well above normal rates. 321

By Barbara Harris

Jackson Advocate News Service

Hattiesburg -- Community activists say contaminated sites in two southeast Mississippi counties are causing a multitude of chronic illnesses for residents living in those areas.

Hattiesburg activist James Rogers said at one of the contaminated sites, formerly a Kerr-McGhee Corp. facility in the Forrest County seat, cleanup is underway. However, he does not believe the cleanup is being handled effectively.

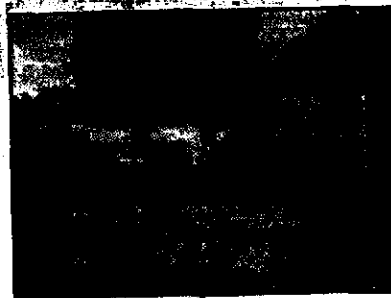
Kerr-McGhee is the same company named as the corporate perpetrator in the Karen Silkwood case.

"The contaminated site is being cleaned up, but it is not being done properly," Rogers told the *Advocate* this week.

Rogers said the site has been left accessible to children and piles of contaminated soil have been unsecured, much of it dumped near residences.

"After I met with Gov. Ronnie Musgrove on Aug. 16, they put an orange fence around the site, but

See Hazards on page 10A



This pile of contaminated soil has been left unattended on the side of an occupied house near a playground in Hattiesburg for more than three weeks. Activists say children have been playing in the pile.



Creosote from overflowing holding ponds in Richton, Miss. has contaminated ground water and soil, and numerous residents are chronically ill.

Hazards

that's not keeping the children out," Rogers said. "A dirt pile at one lady's house has been there for three weeks; it's right beside a playground and children are playing in it."

"The governor has pictures of the contaminated area," he added.

Rogers suggests the entire area be covered to prevent contaminants from becoming airborne and to keep children out.

He said a representative of one of the companies that provided equipment for the cleanup told him the cleanup was not being conducted properly and could have deadly consequences.

"The guy from Jackson Pump Co. that leased them the pump they're using said the pipes are 20 feet in the ground, pumping ground surface water. He told me they would destroy the pipes after they finish because the pipes will be contaminated," Rogers explained.

"If the pipes are contaminated, that means the ground surface water and the soil are contaminated, too."

Rogers says the environmental situation is critical.

"We have legal matters to address, of course, but our main concern is the safety of our property and the surrounding area," he said.

"What we want is our environment safe of hazard for our children and families; and we want to be compensated for our losses and future suffering," Rogers said, explaining that the area surrounding the contaminated site is wrought with chronic illnesses.

"People are very sick and dying all around the place," he said.

Not far away in neighboring Perry County, another contaminated site in Richton is apparently propelling hundreds of residents into poor health and premature death.

"Part of the problem is lack of education or understanding" of what can be the results of being exposed to these contaminants, activist Yvonne Powell of Richton said Monday.

Powell said the perpetrators of the contamination are American Wood-Jostyn Mfg.-Danaher Corp.

"They made creosote poles," Powell explained. "The holding ponds they dipped the poles into filled up and escaped into the ground water causing a lot of illness."

Powell said the companies also "sold creosote pole ends as firewood" to residents. "That's just as hazardous, with the contaminants getting into the air," she said.

"We have all the rare diseases. You name it; we have it — lupus,

multiple melanomas, empty cell syndrome, non-Hodgkins lymphoma, Graves disease, Gallatin's disease...

"I have lupus and disconnection tissue disease," Powell said, "and my sister has Graves disease. Lupus is not a hereditary disease, so there is no other explanation."

Though Powell, 46, was just recently diagnosed, lupus predominantly affects younger women and teenage girls, according to the Mississippi Lupus Foundation.

And she's right. Lupus is not hereditary.

Rogers said Trey Hess of the Mississippi Department of Environmental Quality was expected to view the Hattiesburg site Wednesday. However, Hess cancelled the tour by letter Tuesday, as did governor's aide Michael Boyd.

"We want the governor to order a full detailed report from DEQ," declared Sherri Jones of Marion County, one of the activists working with Powell and Rogers. "We have proof. We have documents we have collected over 12 years to prove we have this critical situation."

"I called the governor's office to see if they didn't have somebody out of all the people they have they could send," Jones said. "All I got was rude responses and no solutions."

In the last two decades, numerous complaints have been filed against and Environmental Protection Agency citations issued to large companies operating in southern and southeast Mississippi for environmental contamination, including in Marion County.

Cleanup is slow and often substandard; and many times, irreparable damage has already been done, a Jesus People Against Pollution report contends. JPAP is an environmental action/watchdog group based on the Mississippi Gulf Coast.

Both Powell and Rogers said they will attend the annual Southern States Environmental Conference and Exhibit Sept. 23-25 at the Gulf Coast Coliseum and Convention Center in Biloxi.

Sponsored by the Mississippi Department of Environmental Quality in cooperation with the EPA Region 4, other states, and other federal and state regional organizations, the conference will address current environmental concerns, among other issues.

Those interested in attending the conference can find registration and exhibit information at www.ssec.ms.state.edu.

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To: November 9, 2005

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<dupthegrove@ix.netcom.com>
m>

11/07/2005 12:54 PM

To "Tony Russell" <tony_russell@deq.state.ms.us>
cc "Keith Watson" <kwatson@kmg.com>, "Nick Bock"
<nbock@kmg.com>

bcc

Subject FW: Hattiesburg Environmental Access

Tony - Jane received the email below from the RR's outside counsel.

David C. Upthegrove, P.G.
Michael Pisani & Associates, Inc.
13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
(281) 242-5700 (phone)
(281) 242-1737 (fax)
(504) 481-6470 (cellular)
dupthegrove@ix.netcom.com

-----Original Message-----

From: Jane Raiford [mailto:Jane.Raiford@arlaw.com]
Sent: Wednesday, November 02, 2005 3:28 PM
To: T. L. Cabbage (E-mail); Nick Bock (E-mail); Keith Watson (E-mail);
Upthegrove (E-mail)
Subject: FW: Hattiesburg Environmental Access

for your information from RR attorney- jane

-----Original Message-----

From: David P. Minvielle [mailto:dminvielle@lemle.com]
Sent: Wednesday, November 02, 2005 3:19 PM
To: Jane Raiford
Subject: Hattiesburg Environmental Access

Jane,

The following are some of Alabama Great Southern's concerns with the cap design, operation, and maintenance, along with AGS' revision of the Land Use Restrictions. Of course, the concerns with the Environmental Access Agreement that existed two years ago still remain.

(1) The 4-inch crushed limestone cover is too thin. It will rut and crack under heavy equipment, resulting in the destruction of the underlying thin liner.

(2) The liner is thinner than any that I have known to be placed even where heavy equipment loads were not expected. Typically, 30-mils is considered to be the minimum installable thickness of an HDPE liner. I can find almost no information on the proposed liner system. It appears to be Huesker's "GEOSafe System," which is two non-woven permeable geotextiles sandwiching an impermeable liner. PEVA is a packaging material. I can find no indication that PEVA has been used as a liner in similar applications.

(3) The liner system might tend to stretch down the slope, either under the weight of the rock or mobile equipment. While the plastic liner can stretch, the compacted crushed limestone cannot, causing cracks in the limestone cover through which surface water will readily flow.

(4) Is a 4-inch crushed limerock cover constructible? How could a 4-inch layer of crushed limestone be spread over a synthetic liner? How will the contractor compact only 4 inches of limestone without destroying the underlying liner? Even though the limestone is "crushed," that does not mean it is free of sharp rocks that could be pushed down through the liner.

(5) The bottom of the liner ties into the concreted ditch and the top of the liner ends 20 feet from the track. How will water pressure from surface water or embankment seepage under the liner be relieved at the concrete-liner interface?

(6) The embankment strength is affected by how much the soil is saturated with water. Too much water weakens the soil. The ditch has already cut off some embankment drainage. The liner has the potential to cut off additional drainage above the concreted ditch.

(7) The plan shows that the bottom of the north drainage ditch will be covered with rip-rap on the opposite side of Scooba Street. AGS cannot spray weed killer in the ditch, and so vegetation control will occur through "weed whackers." This rip rap needs to be large enough (i.e., 8 - 12 inches in diameter) so that it is not thrown up by the weed whackers.

(8) AGS has the right to install underground communication lines on the ROW. This would necessarily require deep excavation, including the cap and underlying soil. There is already a Wilmut buried natural gas pipeline. That line might some day require maintenance or replacement. Who will be responsible for removing and replacing Kerr-McGee's cap and possibly disposing of excavated soil?

David P. Minvielle
LEMLE & KELLEHER, L.L.P.
Pan American Life Center, 21st Floor
601 Poydras Street
New Orleans, Louisiana 70130-6097

Direct Dial: (504) 584-9180

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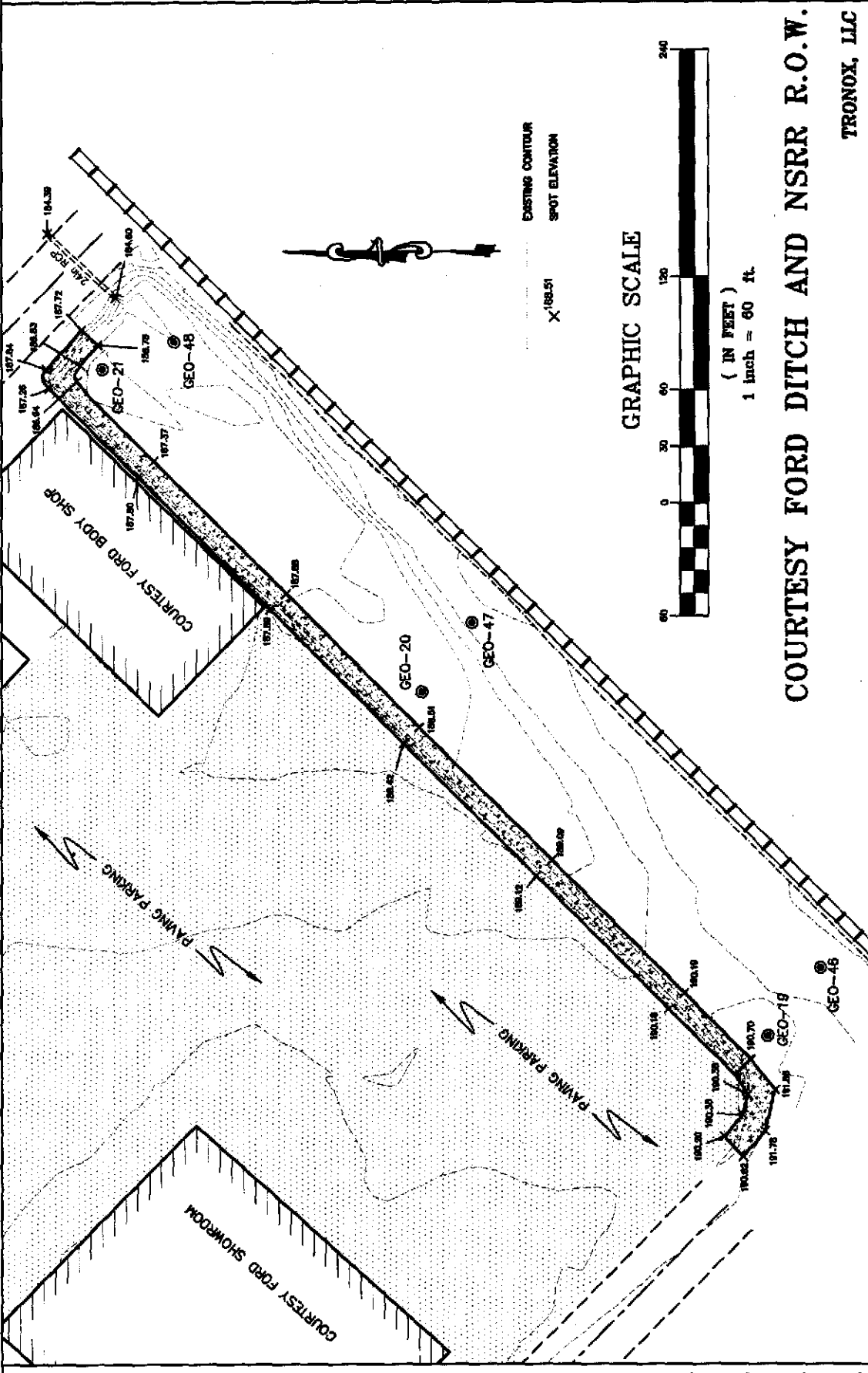
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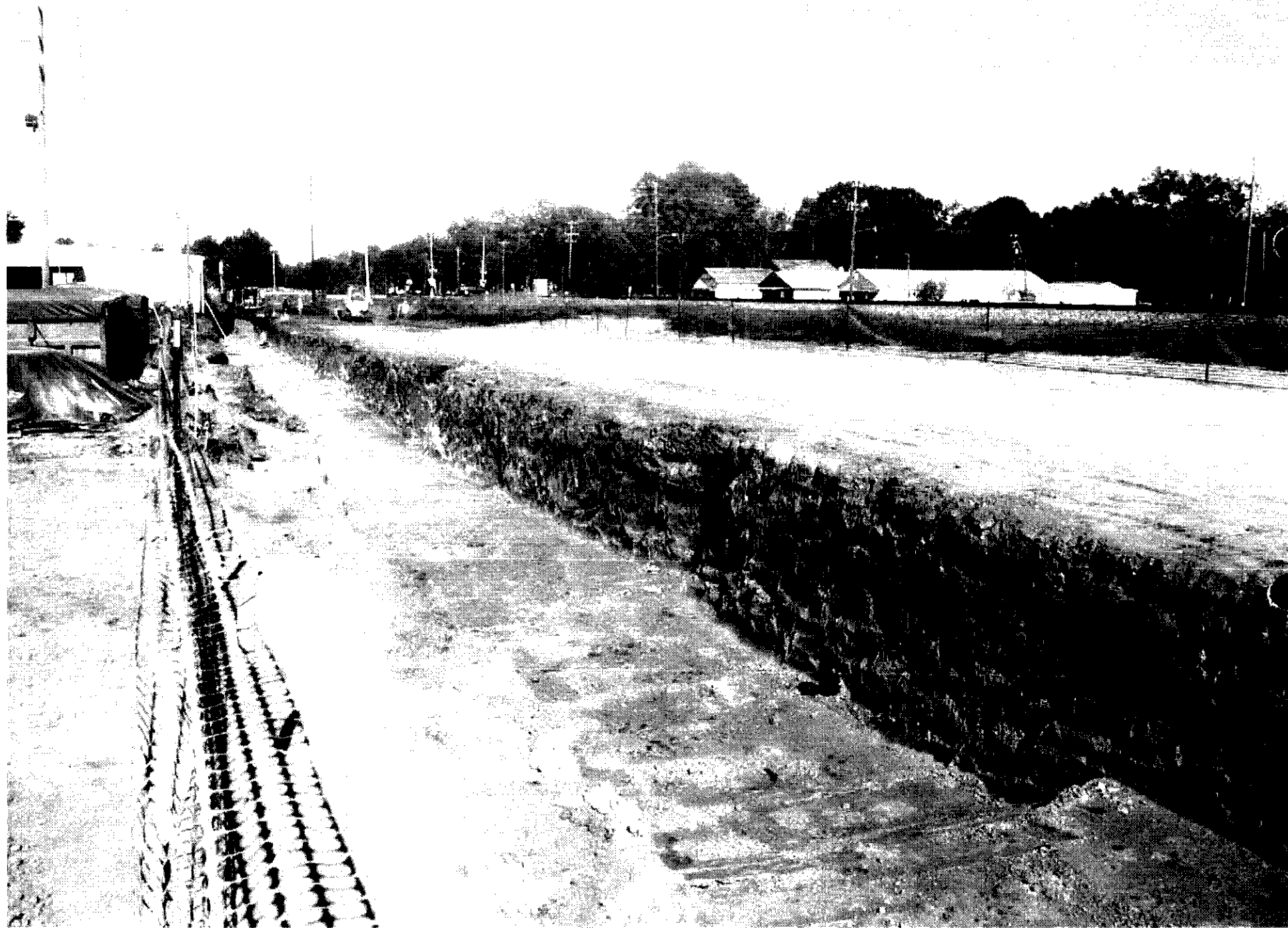
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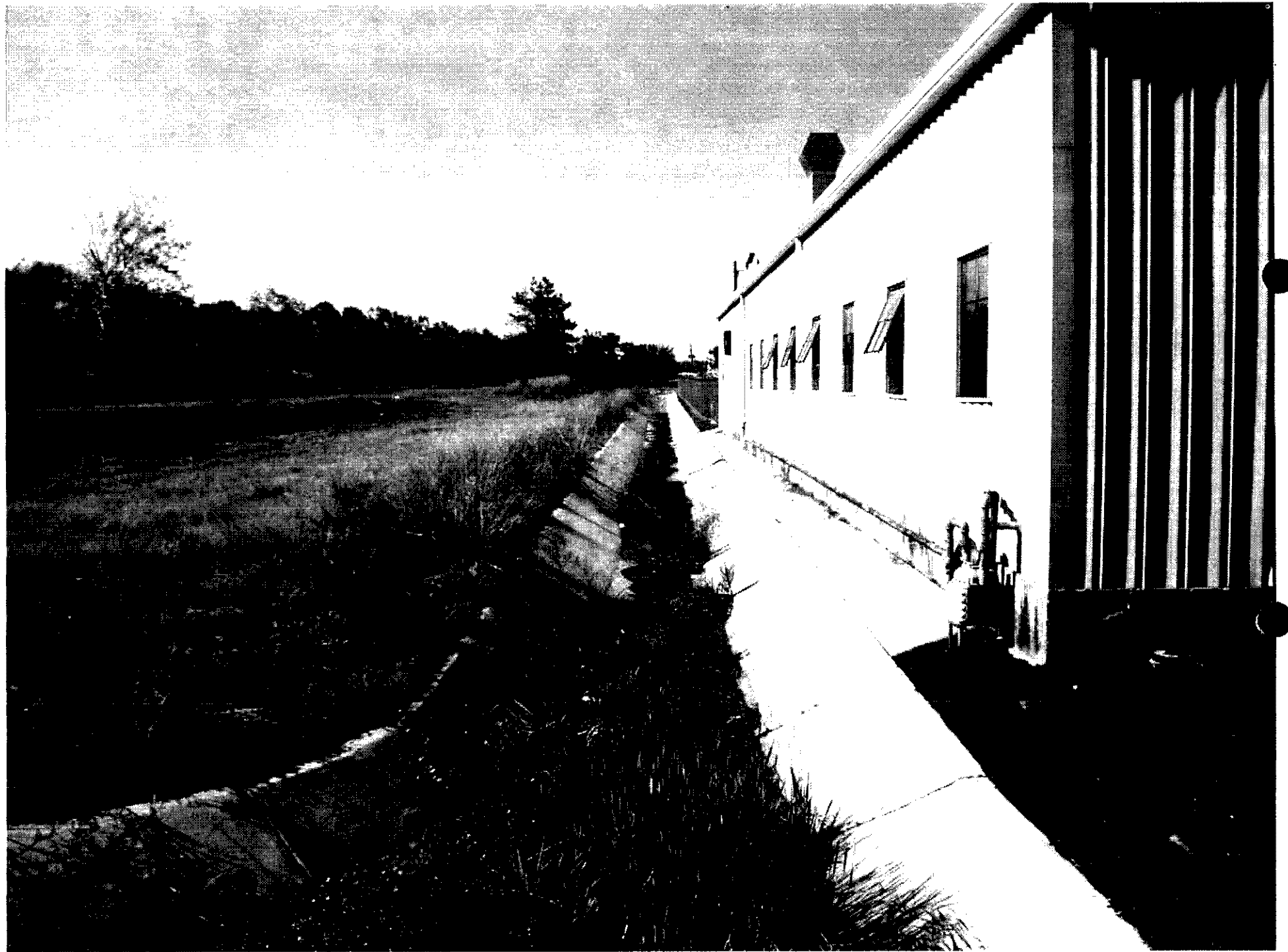


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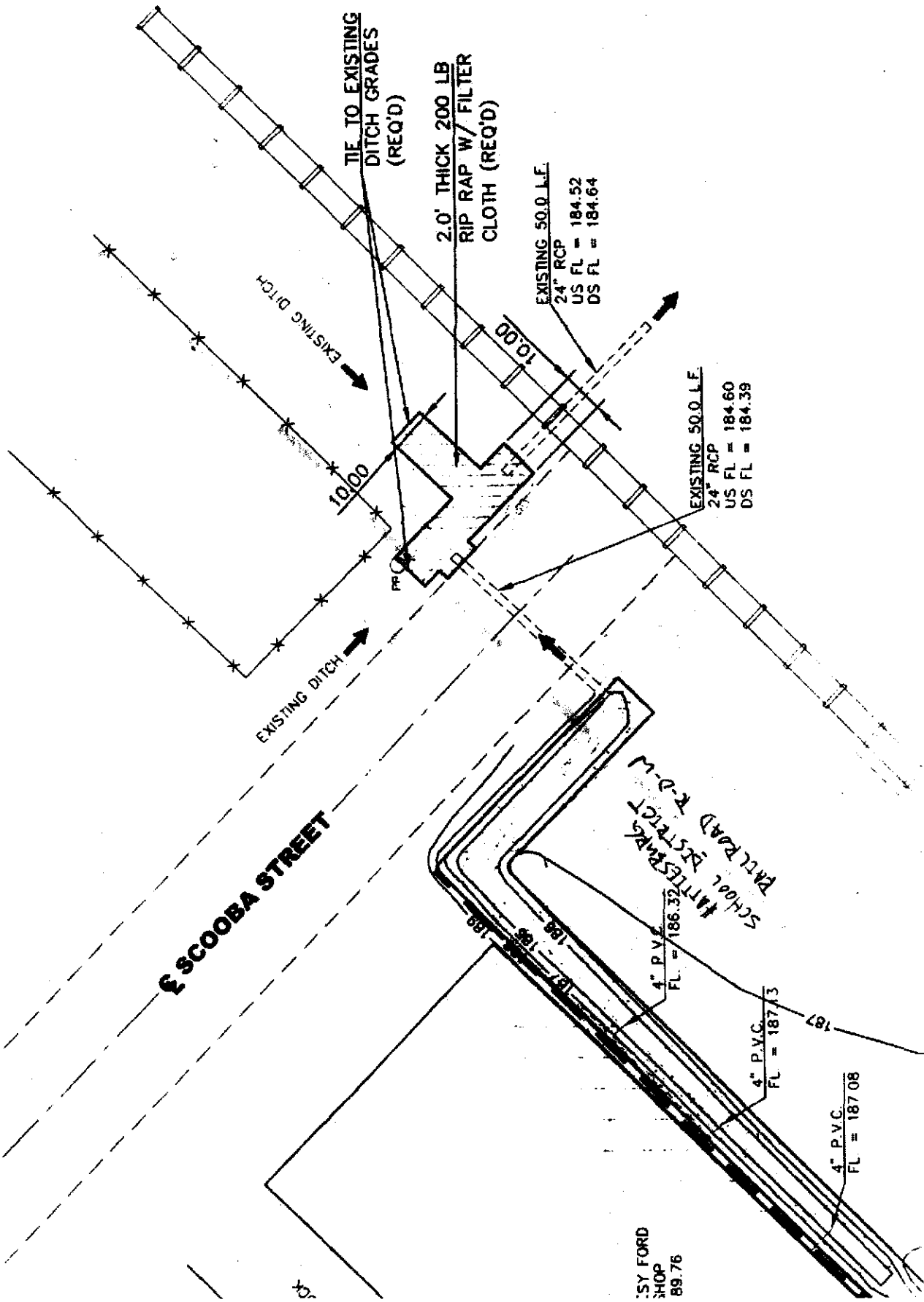




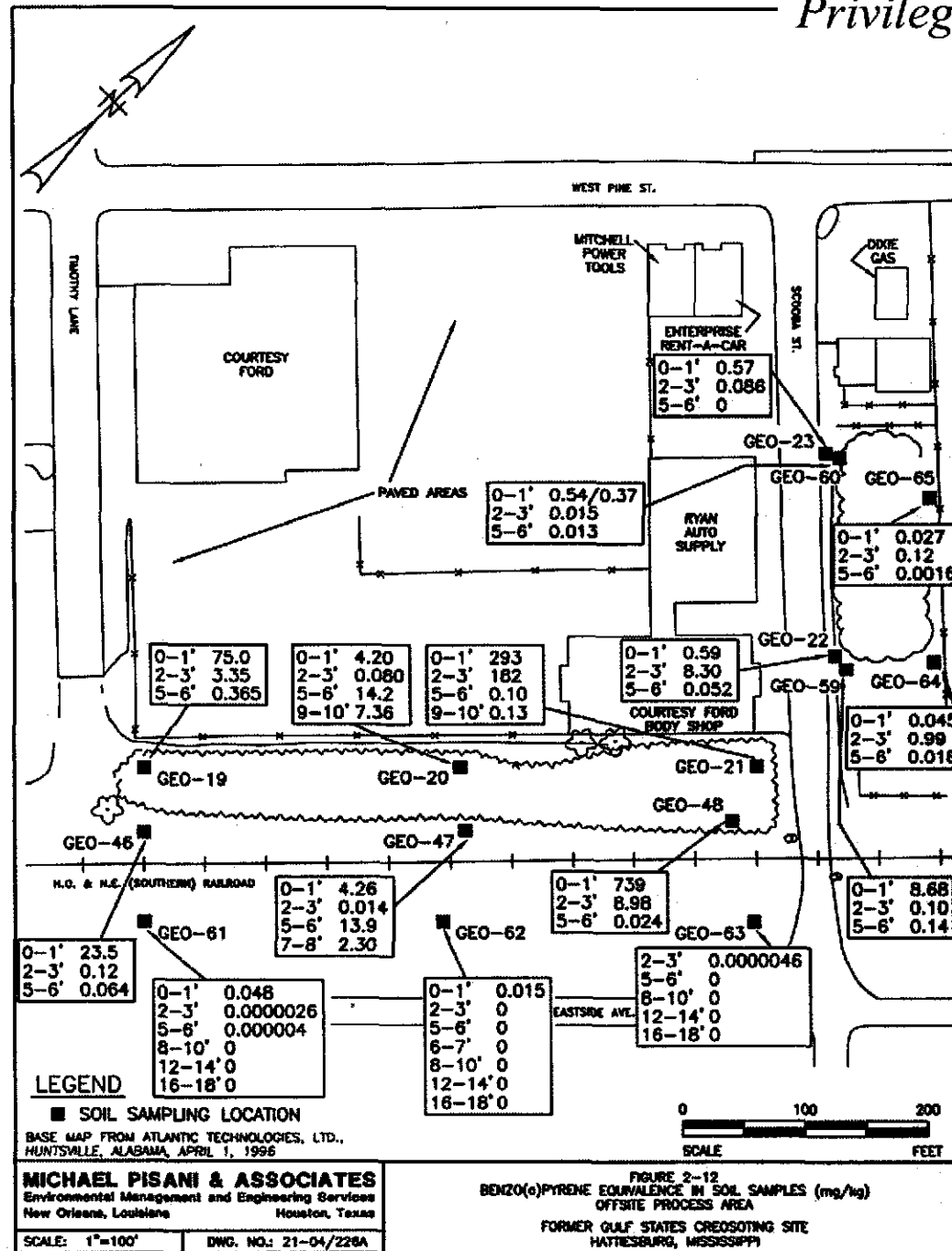








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Tony Russell/HW/OPC/DEQ
10/31/2005 02:49 PM

To dupthegrove@ix.netcom.com
cc
bcc Tony Russell/HW/OPC/DEQ
Subject Removal Action Work Plan

Dave,

MDEQ comments/requirements on the work plan for 116 Townsend Street and Harrell Street Sewer Line:

1. MDEQ requires confirmation samples be collected to show that contamination above 1 ppm BAP has been removed down to 6 feet below ground surface.
2. In the area around the sewer line, all obvious (visible and odor) contamination below 6 feet will have to be removed due to construction worker scenario.
3. Trucks must be covered when they leave the site with no loose material visible.
4. Air monitoring will be required during the removal process.
5. There shall be no contaminated soils stock-piled at any time during the removal process.
6. Who will handle replacing the old sewer line as it is removed? As I recall it was very brittle.
7. If it is known ahead of time that the material to be excavated will contain free liquids, then the stabilizing agent should be onsite.

Dave, I am leaving for Denver in the morning and will not return to the office until next Monday. You should be able to reach me by cell phone.

Tony Russell
Mississippi Department of Environmental Quality
Assessment Remediation Branch Chief
101 West Capitol Street
Jackson, MS 39201
Phone 601-961-5318
Fax 601-961-5300



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

October 18, 2005

Mr. Ben R. Slater III, Esq.
Lemle & Kelleher
401 Edwards Street, 10th Floor
Shreveport, Louisiana 71101

Jane C. Raiford
Adams and Reese LLP
338 Florida Street
Second Floor
Baton Rouge, Louisiana 70801

*RE: Remediation of Norfolk Southern track crossing by Kerr McGee,
Hattiesburg, Mississippi*

Dear Counsel:

Thank you for agreeing to meet with Tony Russell and me at the offices of the Mississippi Department of Environmental Quality Assessment Remediation Branch, 101 Capitol Centre, 101 West Capitol Street, Jackson, Mississippi, on November 9, 2005, at 1:30 p.m. The meeting will be held in the second floor conference room. We hope for a productive meeting that will result in resolving any disagreement standing in the way of immediate remediation of the Norfolk Southern Railroad track area.

Tony and I look forward to seeing you in Jackson on November 9. Please let me know if you need directions or additional information.

Sincerely,

Mary Jacq Easley
Senior Attorney

MJE:lmj

cc: Tony Russell ✓
Roy Furrh

Removal Action Work Plan

**116 Townsend Street and
Harrell Street Sewer Line
Hattiesburg, Mississippi**

October 24, 2005

Project No. 21-04

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street

1430 Energy Centre

New Orleans, Louisiana 70163

(504) 582-2468

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116 Townsend Street and Harrell Street Sewer Line
Hattiesburg, Mississippi

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Removal Action Work Plan

116 Townsend Street and Harrell Street Sewer Line Hattiesburg, Mississippi

1.0 Introduction

1.1 Project Background

In 2003, Tronox LLC (formerly known as Kerr-McGee Chemical LLC) funded a project that included the installation of approximately 3,700 feet of culvert pipe to replace an open ditch ("the northeast drainage ditch") in Hattiesburg, Mississippi. The purpose of the project was to improve existing drainage in the project area and to address ditch sediments and soils containing polycyclic aromatic hydrocarbons (PAHs). Approximately 95 percent of the activities described in the MDEQ-approved *Removal Action Work Plan* for the northeast drainage ditch were completed during 2003; the remainder of the work is being held up by site access issues.

During implementation of the MDEQ-approved plan, affected soils were observed in several areas outside of the boundaries of the approved project. At 116 Townsend Street, a seam of visibly-affected soil was observed extending beneath the driveway toward the residence. A review of historical aerial photography revealed that prior to residential development of the area, the ditch actually ran through the property at 116 Townsend Street, entering on the Harrell Street side and exiting on the Francis Street side of the lot. At some time, a culvert was installed along Harrell Street, and the segment of the ditch crossing the lot for 116 Townsend Street was backfilled. Tronox has reached an agreement with the residents at 116 Townsend Street, who own the improvements and hold the lease for the property, to remove affected soils from the subsurface.

In addition, visibly-affected soil was observed surrounding a sanitary sewer line beneath Harrell Street and immediately adjacent to the property at 116 Townsend Street. During the 2003 removal action, the affected soils were removed and the sanitary sewer line was replaced within the boundaries ditch and culvert project. Tronox committed to the City of Hattiesburg and MDEQ to remove additional impacted soils and replace additional sewer line at a later date.

1.2 Removal Action Objectives

The activities described in this work plan are designed to address impacted media within and adjacent to the completed portions of the northeast drainage ditch project. The specific objectives of this removal action are to:

- eliminate the potential for exposure to affected soils; and
- eliminate or greatly reduce the potential for infiltration of precipitation and leaching of constituents from affected soils to shallow ground water.

2.0 Waste Characterization, Classification and Handling

During the Remedial Investigation (RI), sediment samples were collected and analyzed to determine the offsite extent of site constituents in the northeast drainage ditch. In addition, samples were analyzed to determine if ditch sediments and soils contained leachable constituents at levels that could result in these materials being classified as hazardous. The analyses demonstrated that ditch soils and sediments were not hazardous by characteristic. Furthermore, Tronox does not possess specific process knowledge with respect to how PAHs came to be present in the northeast drainage ditch. For these reasons, MDEQ agreed that the wastes should be considered industrial solid waste, which could be managed at a Subtitle D landfill.

Most of the materials generated during the 2003 removal action were transported by trucks to Waste Management's Central Landfill in McNeill, Mississippi for offsite disposal. However, out of an abundance of caution, heavily-impacted materials (i.e., sediment and soils containing free product or saturated with hydrocarbon) were sent to Waste Management's Subtitle C landfill in Emelle, Alabama. Tronox plans to handle materials in the same manner during the additional work to be undertaken.

3.0 Pre-Construction Activities

Certain tasks must be completed prior to mobilizing to the field for construction activities. These tasks include the following:

- coordinating with the City of Hattiesburg;
- coordinating the clearance of subsurface and overhead utilities;
- designating exclusion zones and other work areas; and
- coordinating with the City of Hattiesburg on traffic control issues.

Details regarding these tasks are provided in this section.

3.1 Utilities Clearance

Michael Pisani & Associates, Inc. (MP&A) will be responsible for identifying all subsurface and overhead utility lines located within the boundaries of the project. This will consist of requesting utilities clearance from Mississippi One-Call and coordinating with the City of Hattiesburg Public Services Department. The construction contractor will take precautions to protect utilities from damage during construction. Should the relocation of utility lines be required, the contractor will coordinate with the utility owner regarding the scope, schedule, and payment for such relocation.

3.2 Demolition and Clearing

In order to excavate affected materials from the former ditch, the house on the property will first need to be removed. Tronox has reached an agreement with the current homeowner to demolish the existing structure, and to fund the building of a replacement home once the removal action has been completed. The demolition and clearing of the house is not considered to be remedial in nature, especially since the house is raised and constructed on piers and not on a slab. The only intrusive clearing work will be the possible removal of a large tree stump at the back of the property. As during other remedial activities at the site, any materials removed from the subsurface will be sent to a secure landfill, while those from above grade (construction materials, trees and branches, etc.) will be sent to a construction and demolition landfill.

3.3 Temporary Fencing

Temporary fencing will be installed at the perimeter of work areas prior to commencing construction. This will include the lot line for the property at 116 Townsend and the edges of the anticipated excavation area for the City of Hattiesburg sanitary sewer beneath Harrell Street.

3.4 Designation of Work Areas

The temporarily fenced area will be considered an exclusion zone, with access limited to construction workers, MP&A personnel, MDEQ personnel, and City of Hattiesburg Public Works Department personnel only. Additional details regarding specific work areas will be provided to MDEQ and the City prior to field mobilization, as necessary.

3.5 Traffic Control

During the removal action, trucks loaded with material bound for offsite disposal will result in increased vehicular traffic in the project area. MP&A will coordinate with the City of Hattiesburg Public Works Department to address street closings, rerouting of traffic, and appropriate routes for truck traffic.

4.0 Construction Activities

Procedures for conducting the actual removal action are established in this section.

4.1 Mobilization

Once all pre-construction tasks are completed, and upon receipt of written approval of this plan from MDEQ, the construction contractor will mobilize to the field all equipment, materials, and personnel required to complete the project. Prior to commencing construction, a start-of-job meeting will be conducted at the site to discuss the sequence of project tasks and to establish clear lines of communications between MP&A, the construction contractor, MDEQ and City of Hattiesburg personnel.

4.2 Excavation and Loading

Procedures for the removal and handling of affected materials will be the identical to those in the *Removal Action Work Plan* for the northeast drainage ditch, which were approved by MDEQ prior to the 2003 removal action. Excavation will be conducted using a trackhoe, with soil loaded directly into trucks for immediate transportation and offsite disposal. Soils within the historical ditch will be removed to a depth of six feet below land surface (i.e., MDEQ's definition of surface soils). Any creosote-saturated soils and/or free product encountered at depths greater than six feet below land surface will also be removed. However, in no instance will excavation proceed past the first encountered ground water.

As documented in the original *Removal Action Work Plan*, ditch sediments and soils have been tested and determined to be nonhazardous. However, should materials containing free-phase hydrocarbon be encountered during excavation, such materials will be sent to a Subtitle C landfill as nonhazardous waste. Materials containing free liquids, if encountered, will be mixed with a sufficient amount of stabilizing agent to meet transportation and disposal requirements for free liquid content.

4.3 Transportation and Disposal

Loaded trucks will proceed directly to Waste Management's Central Landfill in McNeill, Mississippi (a Subtitle D industrial solid waste landfill). The best route for truck traffic will be determined during discussions with City of Hattiesburg personnel. The construction contractor will be responsible for keeping up with waste manifests and other transportation and disposal records, as appropriate.

4.4 Backfilling and Seeding/Paving

Backfilling will proceed as soil removal progresses so that the excavation does not remain open longer than necessary. Backfilled materials will be compacted to 90% of standard proctor density. Backfilled areas on the property at 116 Townsend Street will be planted with common Bermuda grass seeding. Backfilled areas beneath Harrell Street will be paved with asphalt. MP&A will coordinate with the City of Hattiesburg Public Services Department to ensure that pavement meets the City's standards for use on roadways.

5.0 Health and Safety

The contractor selected to provide construction services will be responsible for developing a comprehensive Health and Safety program for the project. All workers involved in the removal and handling of impacted materials must be HAZWOPER trained in accordance with OSHA regulation 40 CFR 1910.120. The contractor to perform removal and handling of impacted materials will be responsible for the development of a Health and Safety Plan for the removal action. This plan will address, at a minimum, physical and chemical hazards, safe work practices, hazard communications, worker personal protective equipment, and key health and safety personnel. All persons working at or visiting the site, including but not limited to MP&A, MDEQ and City of Hattiesburg personnel, will adhere to the provisions of the relevant contractor's Health and Safety Plan.

6.0 Reporting

Upon completion of the entire northeast drainage ditch project, a *Removal Action Report* will be submitted to MDEQ for review and approval. This report will document field activities, including any deviations from the approved *Removal Action Work Plan* and the reasons for any such deviations. Copies of the as-built drawings will be provided with the report.

7.0 Schedule

The schedule for the removal action is largely dependent upon site access. Work will begin as soon as practicable after the current residents of 116 Townsend Street are temporarily relocated. It is anticipated that mobilization will occur within one to two weeks from the date when the premises are vacated.



"Cubbage, T L"
<TCubbage@kmg.com>
10/14/2005 10:40 AM

To "David Upthegrove" <dupthegrove@ix.netcom.com>, "Tony
Russell" <tony_russell@deq.state.ms.us>
cc "Watson, Keith" <KWATSON@kmg.com>

bcc

Subject RE: Status of Harris Agreement

As a follow up to Dave's note, I have just this morning received by email a pdf file from Mike Fenasci, with a copy of the access agreement signed by the Harrises.

T.L. Cubbage
Kerr-McGee Law Department
(405) 270-2741 voice
tcubbage@kmg.com

-----Original Message-----

From: David Upthegrove [mailto:dupthegrove@ix.netcom.com]
Sent: Friday, October 14, 2005 10:40 AM
To: Tony Russell
Cc: Watson, Keith; Cubbage, T L
Subject: Status of Harris Agreement

Last week, the management of Tronox Inc. (formerly Kerr-McGee Chemical LLC) signed and transmitted the Harris access agreement to Kathleen Smiley and Mike Fenasci, with the request that they obtain the notarized execution of the Harrises and return the agreement to Tronox. Once Tronox receives the executed agreement, we can determine the timing of the demolition and remediation.

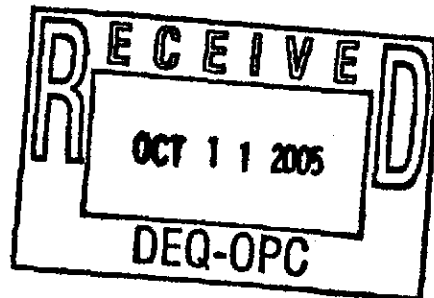
David C. Upthegrove, P.G.
Michael Pisani & Associates, Inc.
13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
(281) 242-5700 (phone)
(281) 242-1737 (fax)
(504) 481-6470 (cellular)
dupthegrove@ix.netcom.com

Important Notice!!

If you are not the intended recipient of this e-mail message, any use, distribution or copying of the message is prohibited.

Please let me know immediately by return e-mail if you have received this message by mistake, then delete the e-mail message.

Thank you.



October 4, 2005

Mr. Tony Russell
MDEQ
P.O. Box 10385
Jackson, MS 39289-0385

Re: Name Change Of Kerr-McGee Chemical LLC To Tronox LLC

Dear Mr. Russell:

This is to inform you that on September 12, 2005, Kerr McGee Chemical LLC's name was changed to Tronox LLC. Should you have any questions please contact Keith Watson at (405) 270-3747.

Sincerely,

On Behalf of
Tronox LLC

A handwritten signature in cursive script that reads "Keith Watson".


Keith Watson
Project Manager



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell 

DATE: October 6, 2005

SUBJECT: Site Inspection conducted October 4, 2005

I met with Dave Upthegrove on October 4, 2005, to observe the abandonment of some of the monitoring wells. Since the monitoring wells were completed with bentonite grout only, the driller was able to pull all the well casing. Once the casing is pulled, the bore hole is reamed out with hollow stem and then grouted from the bottom of the hole to the surface.

Dave also showed me three monitoring wells along Martin Luther King Drive that were covered with concrete when the side walk was repaired. When City workers poured the new side walks, they poured over the well covers. The drill crew will break up the concrete around the wells and then raise the riser up to be flush with the new side walk, and then repour the concrete.


A sign repair crew working on the big bill-board sign in the fill area started a fire on Monday while welding which damaged some of the trees. The extent of the damage to the willow and poplars will not be known until next spring.

There was some damage to homes in the Northeast Drainage Ditch area from Hurricane Katrina. Several roofs were covered with blue tarps provided by FEMA. None of the monitoring wells were damaged except for those covered up with concrete along Martin Luther King Drive.

Chain Electric had concreted the drainage ditch adjacent to their property on Scooba Street down to the railroad ROW.

Pictures were not taken during this site visit.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC site inspection memo well abandonment 10-4-05.doc



Mary Jacq
Easley/Legal/Admin/DEQ
09/27/2005 03:24 PM

To gayle.jordan@nscorp.com
cc [Tony Russell/HW/OPC/DEQ@DEQ](mailto:Tony.Russell/HW/OPC/DEQ@DEQ)
bcc
Subject Kerr McGee

Gayle:

Tony and I have spoken, and we feel it would be best at this point to get everybody around a table again and work this thing out face-to-face. When would you be available to come to Jackson for a conference on this? Since you are farther away, we'll give you first shot at choosing dates. Then I will offer those dates to Jane and see which one is best for her. It's really time to resolve this or else move on to an administrative order. Please let me know what works best for you. Thanks.

Mary Jacq Easley
Senior Attorney
Mississippi Department of Environmental Quality Legal Division
P. O. Box 20305
Jackson, Mississippi 39289-1325
Telephone: (601) 961-5369
Fax: (601) 961-5349



"Jordan, A. Gayle"
<Gayle.Jordan@nscorp.com>

To Tony_Russell@deq.state.ms.us
cc Mary_Jacq_Easley@deq.state.ms.us

09/27/2005 01:03 PM

bcc

Subject RE: No contact

History: ➔ This message has been forwarded.

This is not true. I called Raiford's "temporary" office last week after I opened your email and left word with a female secretary for her to call me. She said she would convey the message. In my last contact with Ms. Raiford I asked her to revise the language of the right of entry I had prepared to her absolute bottom line satisfaction. That was sometime ago. Perhaps I should be dealing with Kerr McKee directly or its contactor. Give me their contact names. I have worked with Mike Pisani before on another project. I cannot enter into an agreement if there is no one to talk to.

While the track supervisor said he had no problem with the scope of the work, he was not addressing future liability problems that could arise to the extent Kerr McKee leaves contamination "capped" in waste. I will remind you when Kerr McKee first approached NSRC it said it could remove the contamination or leave some of it in place but it was up to us but it would indemnify NSRC. It was the liability indemnity language which caused a stalemate. Seems like to me this is a matter of Kerr McKee trying to save money on remediation costs (was it \$1 or 2 Million) without the requisite quid pro quo.

-----Original Message-----

From: Tony_Russell@deq.state.ms.us [mailto:Tony_Russell@deq.state.ms.us]
Sent: Tuesday, September 27, 2005 8:43 AM
To: Gayle Jordan
Cc: Mary_Jacq_Easley@deq.state.ms.us
Subject: Fw: No contact

According to my contact with Michael Pisani & Associates you have not attempted to reach Jane Raiford. As previously stated, MDEQ is prepared to place the Railroad under adm order to get the work completed as soon as possible. It has been several months now since I met with your track foreman at the site and he indicated that he had no problem with the proposed scope of work. Unless we hear something soon (by October 15), Mary Jacq and I will be contacting you as the direction MDEQ will proceed with.

Tony Russell
Mississippi Department of Environmental Quality
Assessment Remediation Branch Chief
101 West Capitol Street
Jackson, MS 39201
Phone 601-961-5318
Fax 601-961-5300

----- Forwarded by Tony Russell/HW/OPC/DEQ on 09/27/2005 07:33 AM -----

"David
Upthegrove"
<dupthegrove@ix.n
etcom.com>

<Tony_Russell@deq.state.ms.us>

To

09/26/2005 05:36
PM

cc

Subject

No contact

Jane says she hasn't heard a thing from Norfolk Southern. I checked my emails, and saw that I provided you with Jane's contact info on September 16th.

David C. Upthegrove, P.G.
Michael Pisani & Associates, Inc.
13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
(281) 242-5700 (phone)
(281) 242-1737 (fax)
(504) 481-6470 (cellular)
dupthegrove@ix.netcom.com



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

July 8, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this status report regarding access to those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

The Harris property. As previously reported, KMC and Mr. William Harris have agreed in principle to a plan that will provide KMC with access to the Harris leasehold for remediation purposes. Draft written documents concerning the proposed agreement have been exchanged between lawyers for both parties. At this time, some uncertainty remains concerning what conditions, if any, should be specified concerning future use of the property. With the ongoing cooperation of Mr. Harris and his attorney, and resolution of that uncertainty, completion of a final agreement likely could be completed within 21 days.

The Bevon property. During June 2005, Mr. Bevon agreed orally to provide KMC with access to his leasehold for remediation purposes. A written document will be provided for his execution to memorialize that access agreement.

The Florence 375a property. As previously reported, KMC determined that the sample collected by MDEQ at a point identified as "Florence 375a" is located on Lot 6, Block 3 of the D.D. McInnis Third Survey to the City of Hattiesburg. KMC has not been able to contact the owner of that leasehold (a Mrs. McCarthy), but KMC has contacted her adult daughter. The daughter indicated that her mother was temporarily out of state, but she believes it likely that her mother will agree to provide KMC with access to the leasehold for remediation purposes. The mother is expected to return to Hattiesburg by the week of July 18. At that time, KMC will contact Mrs. McCarthy to request the execution of an access agreement. At this time, it appears that MDEQ intervention is not likely to be necessary.

The Norfolk Southern right-of-way. In June 2005, KMC's representative met with David Bankston, Norfolk Southern's Track Supervisor for the Hattiesburg area, and yourself. KMC's

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

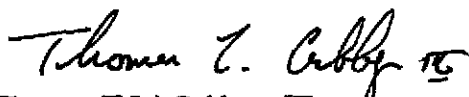
Mr. Tony Russell
July 8, 2005
Page 2

proposed remedy for the railroad right-of-way was discussed. Mr. Bankston expressed his understanding of the proposal. Mr. Bankston agreed to forward information provided by KMC to Norfolk Southern's corporate office. Following that meeting, Jane Raiford, outside counsel for KMC, attempted to call Gayle Jordan, in-house counsel at Norfolk Southern's corporate office. Ms. Jordan was on vacation during part of June, but Ms. Raiford eventually spoke briefly to Ms. Jordan. Ms. Jordan indicated that she had not yet spoken with Mr. Bankston, but she expressed interest in further discussions with KMC after doing so. At this time, it is not clear to KMC whether the recent meeting and expected future discussions with Norfolk Southern will resolve the access issue for the right-of-way without further MDEQ intervention.

The Woods and American Legion Auxiliary properties. As previously reported, in April 2005, KMC received a letter from the "Forrest County Environmental Support Team," a group that includes Ms. Woods and Ms. McDougle. That letter demanded the payment of millions of dollars in exchange for the group's cooperation, including access to properties for remediation. On May 16, Ms. Woods and Ms. McDougle filed a legally-improper and factually-erroneous motion in federal court, requesting that the court re-open the previously settled and dismissed lawsuits between KMC and the businesses that currently occupy the former Gulf States plant site. That motion makes plain Ms. Woods' and Ms. McDougle's refusal to cooperate with the remediation work plan approved by MDEQ.¹ On June 10, KMC received a letter from Byron Perkins, an attorney in Alabama, stating that he now represents the group. As a result, KMC's communications with Ms. Woods and Ms. McDougle now must occur through Mr. Perkins. On June 14, KMC informed Mr. Perkins that his clients' demands were unreasonable and unacceptable. At this time, given the unreasonable positions taken by Ms. Woods and Ms. McDougle, KMC believes it is likely that impassable hurdles to access exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,


Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Jerry Banks (MDEQ)
Hon. Johnny Dupree (City of Hattiesburg)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)

¹ The federal court has scheduled a hearing for July 20, 2005, to address the motion.



KERR-McGEE CORPORATION

Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

September 16, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this status report regarding access to those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

As you know, the effects of Hurricane Katrina have had a tremendous disruptive effect on many activities. With regard to KMC's participation in efforts in Hattiesburg:

- KMC's environmental consultant is David Upthegrove of Michael Pisani & Associates in New Orleans. Mr. Upthegrove has been displaced by the hurricane and resulting flood in New Orleans, although he has now resumed his work in his firm's Houston, Texas office;
- KMC's principal environmental attorney for this matter is Jane Raiford of Adams & Reese in New Orleans. Ms. Raiford also has been displaced, although she is resuming her work in her firm's newly-established Baton Rouge ("New Orleans West") office; and
- Mr. Will Harris is represented by Kathleen Smiley of Gulfport and Michael Fenasci of New Orleans. Since the hurricane, KMC has failed in efforts to contact Ms. Smiley and Mr. Fenasci.

The Harris property. As previously reported, KMC and Mr. Harris agreed in principle to a plan that will provide KMC with access to the Harris leasehold for remediation purposes. Draft written documents concerning the proposed agreement have been exchanged between lawyers for both parties over weeks of time. Although KMC has not received definite guidance from MDEQ concerning what conditions, if any, should be specified concerning future use of the property, the parties negotiated terms to accommodate that uncertainty. KMC now is prepared to execute a final agreement memorializing the agreement in principle. As noted above, Mr. Harris's two attorneys

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

Mr. Tony Russell
September 16, 2005
Page 2

appear to have been displaced by Hurricane Katrina and KMC has been unable to re-establish contact with either one. KMC is endeavoring to provide the final agreement to Mr. Harris's attorneys for his execution.

The Bevon property. As previously reported, Mr. Bevon has agreed to provide KMC with access to his leasehold for remediation purposes. A written agreement memorializing that agreement will be obtained when KMC is prepared to remediate this property in conjunction with work on other properties.

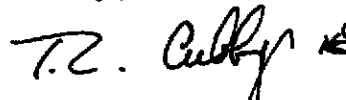
The McCarthy (Florence 375a) property. As previously reported, KMC has been unable to contact Mrs. McCarthy, but has spoken to her adult daughter. Based on that discussion, it appears an access agreement with Mrs. McCarthy will be obtained and that MDEQ intervention is not likely to be necessary.

The Norfolk Southern right-of-way. Since meeting with Norfolk Southern's local supervisor in June, KMC had difficulty getting Norfolk Southern's in-house legal counsel to engage in substantive discussion. Eventually, Norfolk Southern's counsel informed KMC that the railroad continues to condition its consent to access on contractual terms that are unacceptable to KMC. At this time, given the position taken by Norfolk Southern, KMC believes it is likely that impassable hurdles to access exist that will require MDEQ intervention to resolve.

The Woods and American Legion Auxiliary properties. As previously reported, a group that includes Ms. Woods and Ms. McDougle has demanded the payment of millions of dollars in exchange for the group's cooperation, including access to properties for remediation. Ms. Woods and Ms. McDougle have filed numerous papers with the federal court in Hattiesburg, as recently as September 13, 2005, requesting that the court re-open the previously settled and dismissed lawsuits between KMC and the businesses that currently occupy the former Gulf States plant site and, in effect, take judicial action disapproving or criticizing the MDEQ-approved remediation work plan. (The federal court has not ruled on their requests.) At this time, given the unreasonable positions taken by Ms. Woods and Ms. McDougle, KMC believes it is likely that impassable hurdles to access exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,



Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Jerry Banks (MDEQ)
Hon. Johnny Dupree (City of Hattiesburg)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)



David
<dupthegrove@ix.netcom.com>
m>

09/09/2005 05:25 PM

Please respond to
David
<dupthegrove@ix.netcom.com>

To tony_russell@deq.state.ms.us
cc kwatson@kmg.com, tcubbage@kmg.com

bcc

Subject Former Gulf States Creosoting Site

History: This message has been replied to.

Tony:

Thanks for calling to check in earlier this week. I know MDEQ is swamped with emergency response work, and I appreciate your concern regarding our well-being.

As I told you, I'll be working out of our Houston office for at least the next several weeks, and more likely several months. My contact information here is as follows:

MP&A
13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
281/242-5700 (phone)
281/242-1737 (fax)
281/639-4312 (temporary cell phone)

We're also opening a Baton Rouge office early next week, which will serve as our main office until we're able to re-open in New Orleans. The contact info there is:

18163 East Petroleum Drive
Baton Rouge, Louisiana 70809
225/755-2550 (phone)

As for our Hattiesburg site, here's an update on where we stand:

Harris Property - As we've discussed, Kerr-McGee has reached an agreement in principal to demolish the Harris' house, remove affected soil, and pay for the construction of a new home at the same location. Unfortunately, Kerr-McGee has not been able to re-establish contact with Kathleen Smiley, the Harris' attorney, since Hurricane Katrina. Kerr-McGee's legal counsel believes that the agreement may need to be re-evaluated/ renegotiated to reflect post-Katrina construction costs.

Norfolk Southern Railroad R-O-W - Kerr-McGee looks forward to meeting with Norfolk Southern and MDEQ to work toward reaching an agreement acceptable to all parties.

Fill Area - We will continue with quarterly well gauging and recovery efforts, and will notify you in advance of these events. We also plan to visit Hattiesburg in the near future to see what damage the storm may have done to the trees.

Monitoring Well Abandonments - Next week, I plan to check with Walker-Hill on the availability of a rig to P&A all wells approved for abandonment by MDEQ except for MW-13. Until we can re-establish contact with Kathleen Smiley, we

cannot have discussions with the owners of the Ramada Inn.

Should you need additional information or wish to discuss the site, please contact me. Good luck in all your emergency response efforts - I know it'll be a long road to recovery.\\Regards,

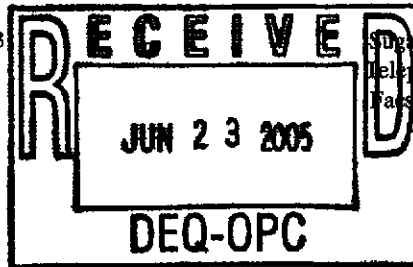
Dave

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
angle@alltel.net



June 16, 2005

Mr. Tony Russell, Chief
Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Plugging and Abandonment of Ground Water Monitoring Wells
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

Kerr-McGee Chemical, LLC (KMC LLC) is in receipt of your May 17, 2005 letter regarding ground water monitoring at the referenced site. In accordance with your request, Michael Pisani & Associates, Inc. (MP&A), on behalf of KMC LLC, is pleased to submit this work plan for the abandonment of six monitoring wells.

Project Background

In our March 16, 2005 report documenting the results of the initial eight quarterly ground water monitoring events, MP&A requested that MDEQ approve the plugging and abandonment (P&A) of eight existing ground water monitoring wells. The rationale for abandonment is that all of these well are located either upgradient or along gradient of affected ground water, and that no samples from any of the wells have historically contained target constituents at levels above Tier 1 TRGs. In your May 17, 2005 letter, you approved the P&A of wells MW-01, MW-03, MW-04, MW-05, MW-10 and MW-13. You also stated that MDEQ considers the other two wells we proposed to abandon (i.e., MW-20 and MW-21) sentinel wells, which must remain in place at this time.

We have reviewed the procedures for wells abandonment specified in the following documents:

- *Surface Water and Groundwater Use and Protection Regulations*, MDEQ, June 1988 (amended April 1990, July 1993, and December 1994); and
- *Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOP)*, U.S. EPA Region 4, November 2001.

The well plugging and abandonment procedures proposed herein comply with the requirements of those two documents.

Proposed Plugging and Abandonment Procedures

In Section 6.9 (Well Abandonment) of the Region 4 *EISOP*, EPA states that:

“the preferred method is to completely remove the well casing and screen from the borehole, clean out the borehole, and backfill with a cement or bentonite grout, neat cement, or concrete.”

MP&A proposes the following steps to properly abandon wells:

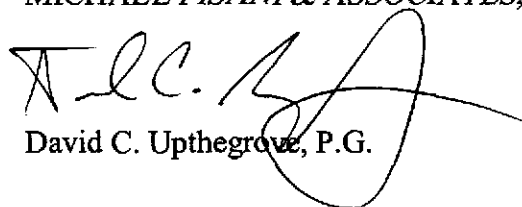
1. Notify MDEQ of the schedule for well abandonment no less than five working days before commencing work.
2. Run sampling rods and bit to the bottom of the well and pour sand into the well to “sand lock” the well.
3. Remove the entire well casing and screen, if possible.
4. Whether or not the entire length of the well is removed, overdrill the borehole to the total depth of the well to remove grout, bentonite seal, and filter pack material.
5. Pressure grout the resulting borehole by running a tremie pipe to the bottom of the borehole and pumping cement-bentonite grout from the bottom up.
6. At locations in paved areas, backfill the upper two feet of boreholes with concrete. In unpaved areas, backfill the upper 6 to 12 inches with topsoil so native vegetation can grow in.

As all six wells to be abandoned are in areas where the subsurface is not impacted with site constituents, materials generated during overdrilling will be disposed offsite at a licensed solid waste landfill.

Should you have any questions or require additional information, please call me. Depending upon the availability of a driller, we anticipate that we can complete the P&As within two to four weeks from receipt of your approval.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.



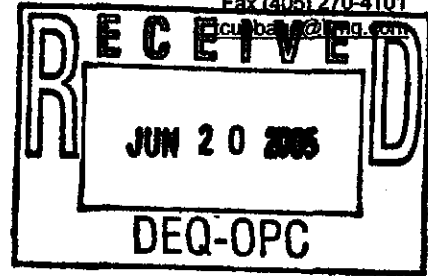
David C. Upthegrove, P.G.

cc: Keith Watson – Kerr-McGee



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101



June 14, 2005

Byron R. Perkins, Esq.
Perkins & Associates
1205 N. 19th Street
Birmingham, AL 35243

Re: Gulf States Creosote Site
Hattiesburg, Mississippi

Dear Mr. Perkins:

I am writing in response to your letter addressed to me dated June 10, 2005. Because you reportedly represent members of the Forrest County Environmental Support Team ("FCEST"), I will include comments in response to FCEST's letter to Kerr-McGee Corporation and Kerr-McGee Chemical LLC dated April 12, 2005.

Your letter was copied to Ms. Dorothy Lamar (author of FCEST's letter of April 12) as well as Mr. Sherri Jones, and so I presume they are among your clients. To ensure that all appropriate communications are directed to you, would you please identify which other individuals you represent? In particular, please let me know whether you represent Ms. Clevester Woods or Ms. Pearlie McDougle. It appeared that FCEST's letter might speak on their behalf, but it was not clear.

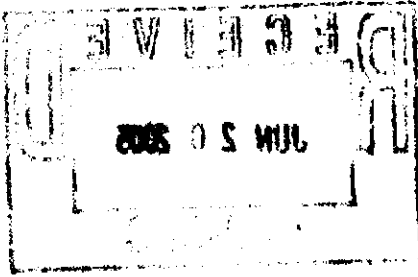
History of the Gulf States Creosote Site

The Hattiesburg wood treatment plant was operated historically by two corporations, neither of which was affiliated with Kerr-McGee Corporation. In 1920, Hattiesburg Creosoting Corporation built the plant on a 16th section lease. In 1933, Hattiesburg Creosoting Corporation conveyed the plant to Gulf States Creosoting Corporation ("Gulf States"). Gulf States owned and operated the plant until 1958. Today, neither of those corporations still exists. In 1958, Gulf States took the legal steps necessary to dissolve. The Hattiesburg plant closed at about that time and, in 1960, developers bought the 16th section lease for use as commercial property.

In 1993, the School District sued Kerr-McGee Corporation, Kerr-McGee Chemical Corporation, and Union Camp Corporation, alleging that they were responsible for cleanup of the plant operated by Gulf States. Later, several businesses also filed lawsuits against the same defendants. Kerr-McGee Corporation and Kerr-McGee Chemical defended themselves on the bases, among other things, that they never operated the Hattiesburg wood treatment plant and are not responsible for the actions of Gulf States.

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125



Kerr-McGee Chemical made a business decision to settle that litigation and agreed to participate in remediation to protect public health and the environment, subject to approval by MDEQ. Because the remediation plan required the businesses who today occupy the former plant site to accept legal restrictions on the use of their leases, Kerr-McGee Chemical agreed to compensate those businesses for such restrictions, as well as paying for remediation expenses. That settlement does not constitute an admission that Kerr-McGee Chemical otherwise would be responsible for any results of Gulf States' operations.

Most of the material of potential concern – in terms of both volume and concentration – was located on the former plant site. Extensive evidence demonstrates that the only pathway by which surface water left the plant in the direction of the residential neighborhood was through a drainage ditch that crossed under the railroad at Scooba Street (“the Northeast Drainage Ditch”). To address that, the remediation plan included removal of impacted sediments from the Northeast Drainage Ditch, which was accomplished in conjunction with the replacement of that open ditch with a buried culvert drainage system. This dual-purpose project was conducted by a contractor for the City of Hattiesburg, with funding provided through the settlement by Kerr-McGee Chemical.

Remediation work began in 2003 and, as of today, all remediation work in the plan approved by MDEQ has been completed, except in segments of the Northeast Drainage Ditch where a railroad and a few 16th section leaseholders have refused to give access. Kerr-McGee Chemical has had discussions with such leaseholders about obtaining access. In one case, we have reached acceptable terms; in other cases, we have not.

Information Shared with the Community

Kerr-McGee Chemical has been open to sharing information about the remediation project with the community and to listening to the community's concerns. Contrary to FCEST's assertion that the existence of environmental issues and the nature of the remediation project have been concealed from the public, Kerr-McGee Chemical and other participants in the investigation and remediation such as MDEQ have taken steps to share relevant information with the community.

For example, in 2000, a contractor for Kerr-McGee Chemical went door to door in the neighborhood near the Northeast Drainage Ditch to inquire whether any residents were using well water from the shallow groundwater aquifer. During that survey, a flyer was left at each household, which stated the following:

... In the early 1990s, tests disclosed residues of a wood treating chemical, creosote, still existed on certain areas of the [former plant] site. Residues have also been detected in the sediment of a small drainage ditch northeast of the site.

* * *

More information about the property is available from MDEQ, whose files contain all relevant reports and data gathered at the site. ...

Information about creosote is available from the U.S. Government's Agency for Toxic Substances and Disease Registry (ATSDR). You can contact ATSDR at their web site at <http://www.atsdr.cdc.gov/> or you can contact the ATSDR Information Center at 1-800-447-1544.

Before approving the proposed remediation plan for the plant site and the Northeast Drainage Ditch, the MDEQ invited the public to attend public meetings to learn about the plan and provide comments on it. For example, on three dates in October 2002, MDEQ published a notice in the *Hattiesburg American* that invited the public to a meeting at the Jackie Dole Sherrill Community Center. The published notice stated the following:

PLEASE TAKE NOTE that the [MDEQ] is considering the formal approval of a Final Remedial Action Work Plan and Removal Action Work Plan for the old Gulf States Creosote facility ("Gulf States") submitted by Kerr-McGee Chemical ("Kerr-McGee"). Kerr-McGee has worked with the Department to develop a cleanup plan for the Hattiesburg site

* * *

... Kerr-McGee now proposes to perform cleanup activities pursuant to the Final Remedial Action Work Plan and the Removal Action Work Plan. The plans include cleanup activities to address affected media in the following areas:

- A. The Gordon's Creek Fill Area
- B. Subsurface features within the former Process Area ...
- C. The area situated between the former Process Area and the Southern railroad tracks
- D. The northeast drainage ditch ...

* * *

... The public is invited to attend, to ask questions, and gain information regarding the proposed plans.

A meeting was held on November 6, 2002, at the Sherrill Center to explain the proposed remediation project. At that meeting, MDEQ distributed a flyer with information about the project, including the proposed remediation of sediments in the Northeast Drainage Ditch. On October 13, 2003, MDEQ held yet another public meeting to discuss the status of the remediation project, which by that time already had begun. MDEQ distributed yet another flyer with information about the project at the second meeting.

Moreover, reports containing information about the investigation of environmental conditions at and around the former Gulf States plant site, and detailing the proposed remediation efforts, have been available to the public at the Hattiesburg Public Library.

These many public statements made it clear that the work in the Northeast Drainage Ditch was primarily an environmental remediation project, although it was done in conjunction with improving the City's drainage by replacing the open ditch with a buried culvert. The remedial nature of the project was not concealed. FCEST's suggestion that there was some sort of "cover up" is totally inconsistent with the fact that accurate information was spoken at public meetings, distributed in flyers, and published in the newspaper.

Representatives of Kerr-McGee Chemical also traveled to Hattiesburg several times over the past year to meet with interested residents to hear their concerns about the project. Kerr-McGee Chemical presented information to address the questions and concerns we heard, such as the mistaken assertions that the remedial nature of the Northeast Drainage Ditch project had been concealed and that residential areas other than the ditch still need remediation.

The Demands in FCEST's Letter of April 12, 2005

According to FCEST's letter, that group's demands include two requests:

First, Kerr-McGee Chemical is asked to hire C&B Enterprise, Inc. ("C&B") of Madison, Mississippi, as an environmental consultant. According to the proposal attached to FCEST's letter, C&B appears to consist of a single person with a Ph.D. in environmental science (Dr. Ousby), who proposes to investigate the environmental conditions and provide recommendations to the group.

Second, Kerr-McGee Chemical is asked to pay a settlement of millions of dollars to unspecified members of the community, apparently to be (a) distributed as cash payments, (b) used to establish a "community health center," (c) pooled to underwrite prescription drug costs of community residents, (d) applied to construction of new low- or moderate income ("Habitat for Humanity") housing in the community, and (e) paid toward community beautification.

Kerr-McGee Chemical's Response to FCEST's Demands

Kerr-McGee Chemical is not responsible for the environmental consequences of Gulf States's historic operations. Although Kerr-McGee Chemical has chosen to settle in some instances to resolve disputes in Hattiesburg, Kerr-McGee Chemical has no legal obligation to agree to anyone's demands. Even putting aside Kerr-McGee Chemical's lack of liability, however, FCEST's demands are unacceptable.

It is neither necessary nor appropriate to hire C&B to conduct further investigation of Hattiesburg's environment. The site has been thoroughly investigated, with the involvement of several experts engaged by Kerr-McGee Chemical and by the businesses who now occupy the former plant site. The work of those experts has been supervised by the environmental experts

of MDEQ, whose role is to oversee the remediation project on behalf of the public and to ensure that adequate steps are taken to protect the community. Moreover, Dr. Ousby does not have relevant expertise concerning the investigation and remediation of substances associated with historic wood treatment operations; none of her professional or educational experience dealt with such sites.

FCEST's demand that Kerr-McGee Chemical pay millions of dollars for cash distributions, public health programs, and general civic improvement of the neighborhood is unreasonable and has no legal basis. Unlike the former plant site, where wood treatment actually occurred and substantial amounts of creosote-related materials were deposited – which now have been removed or contained – the residential neighborhood was not similarly affected. Furthermore, FCEST appears to look to Kerr-McGee Chemical to remedy a host of social ills and economic disadvantages in the community that are wholly unrelated to the environmental impacts of the historic wood treatment plant.

Finally, we strongly disagree with the accusations of racism in FCEST's letter.

In the first place, the former wood treatment plant's presence near what is now a predominantly African-American community is an accident of history that has nothing to do with Kerr-McGee Chemical. The plant was built and operated in rural countryside on the outskirts of town. For decades its only neighbors were a few rural homesteads and a nearby golf course. The present-day residential community arose almost entirely after the plant closed in the late 1950s.

Second, the varied terms of Kerr-McGee Chemical's settlements with the School District and certain businesses, and with certain plaintiffs in lawsuits filed in 2002 and 2003, have nothing to do with the ethnicity of the persons involved. On one hand, the terms of Kerr-McGee Chemical's settlements with the School District and businesses stemmed from the nature of their interests in the former plant site, and the remedy deemed appropriate by MDEQ to address the environmental conditions within that site. The settlement terms secured their consent to and cooperation with excavation within their properties and to permanent legal restrictions on the uses of those properties. On the other hand, the terms of Kerr-McGee Chemical's settlements with other persons stemmed from the very different nature of those persons' claims – that is, tort claims by persons who either have no injury, or have an illness that no scientific evidence can link to wood treatment operations that ended almost 50 years ago.

Conclusion

Kerr-McGee Chemical has attempted to have a useful and informative dialogue with your clients. That discussion, however, has culminated in demands to Kerr-McGee Chemical that are unreasonable. In light of those demands, it does not appear to my clients that further discussions with FCEST would be useful.

Kerr-McGee Chemical intends to take appropriate steps within its control to complete the remediation plan approved by MDEQ in January 2003. As noted above, those obligations have

Byron R. Perkins, Esq.

June 14, 2005

Page 6

been fulfilled except where third parties have blocked access to property needed to do the work. When access can be obtained, either on reasonable and mutually-agreeable terms or perhaps through the intervention of MDEQ, Kerr-McGee Chemical will continue to pursue the completion of appropriate remediation.

Sincerely,



Thomas L. Cabbage III

Counsel for Kerr-McGee Chemical LLC

cc: Hon. Johnny L. DuPree (City of Hattiesburg)
Mr. Tony Russell (MDEQ)



FILE COPY

STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

June 17, 2005

Mr. Dave Upthegrove, P.G.
Michael Pisani & Associates, Inc.
1100 Poydras Street
1430 Entergy Centre
New Orleans, LA 70163

Re: Gulf States Creosote Site
Plugging & Abandonment of Ground Water Monitoring Wells
Hattiesburg, Mississippi

Dear Mr. Upthegrove:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your letter dated June 16, 2005, regarding approval to plug and abandon groundwater monitoring wells. MDEQ approval of the proposed scope of work is contingent on incorporation of the following requirements:

1. In unpaved areas, backfill with 18 to 24 inches of clean topsoil.
2. The grout should be allowed to set over night prior to placing clean topsoil in case additional grout needs to be added due to settling.

Please call me at 601-961-5318 with any questions you may have.

Sincerely,

Tony Russell, Chief
Assessment Remediation Branch

cc: Keith Watson Kerr McGee Chemical

K:\Common\UCSS\Tony\Gulf States Creosote\GSC cond approval to plug wells 6-17-05.doc



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *JRR*

DATE: June 13, 2005

SUBJECT: Meeting with David Bankston - NSRR

I met with David Bankston (NSRR) and Dave Upthegrove (KM consultant) on June 7, 2005 at the intersection of the Norfolk Southern Rail line and Scooba Street. Dave discussed the remediation activities that were going to take place within the rail road ROW. Mr. Bankston did not have any concerns with the remediation activities discussed with him.


Dave and I then drove over to the fill area to observe the maintenance activities (grass cutting) being conducted at this site. The recovery wells will be checked for free product. We then stopped by Billy Waits office to get a survey plat of the phyto area. Dave had the phyto area surveyed to show the areas with the dead trees. These areas will be replanted in the Spring of 2006.

An attempt to contact Bennie Sellers regarding the Scooba Street/Norfolk Southern Railroad remediation project was unsuccessful as he was in a City Counsel meeting.

Photos were taken of the phyto remediation area of the fill area.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC meeting with David Bankston -NSRR 6-7-05.doc

FAX

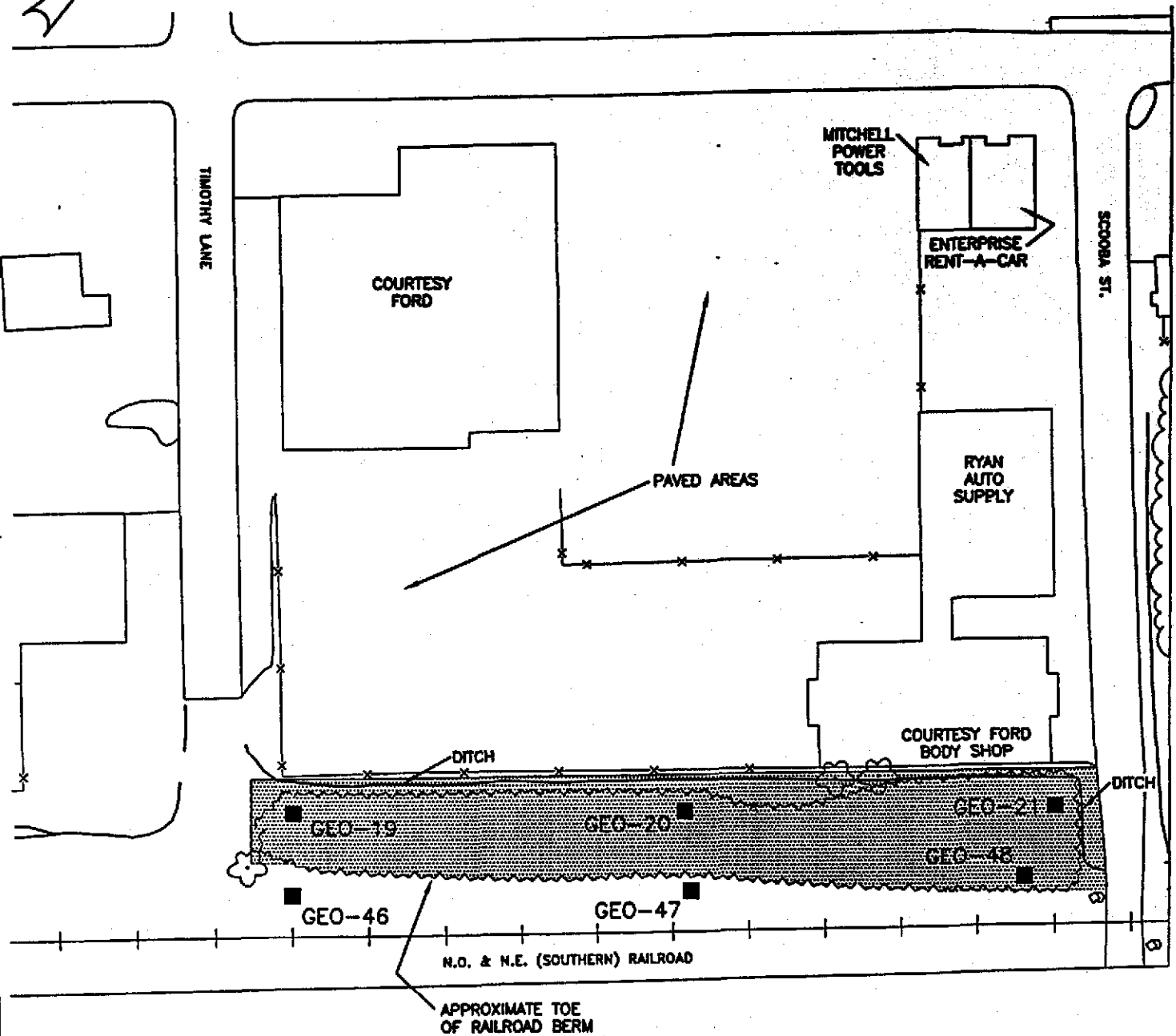
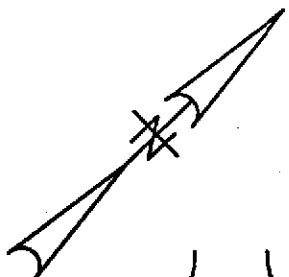
To: Gayle Jordan Norfolk Southern RR	From: TONY RUSSELL  Office of Pollution Control P. O. Box 10385 Jackson, MS 39289-0385
Phone: <u>757-629-2814</u> <u>2607</u>	Phone: (601) 961- <u>5318</u>
Fax: <u>757-629-2814</u>	Fax: (601) 961- 5300

Date: May 18, 2005 X Routine Priority

Number of pages, including this one: 6

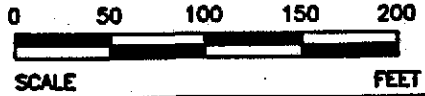
Messages: The borings are GEO-46, GEO-47 & GEO-48.
These three borings are on the RR ROW. It is my understanding
that the three borings are about 20 feet from the tracks.

Thanks, Tony



LEGEND

■ SOIL SAMPLING LOCATION



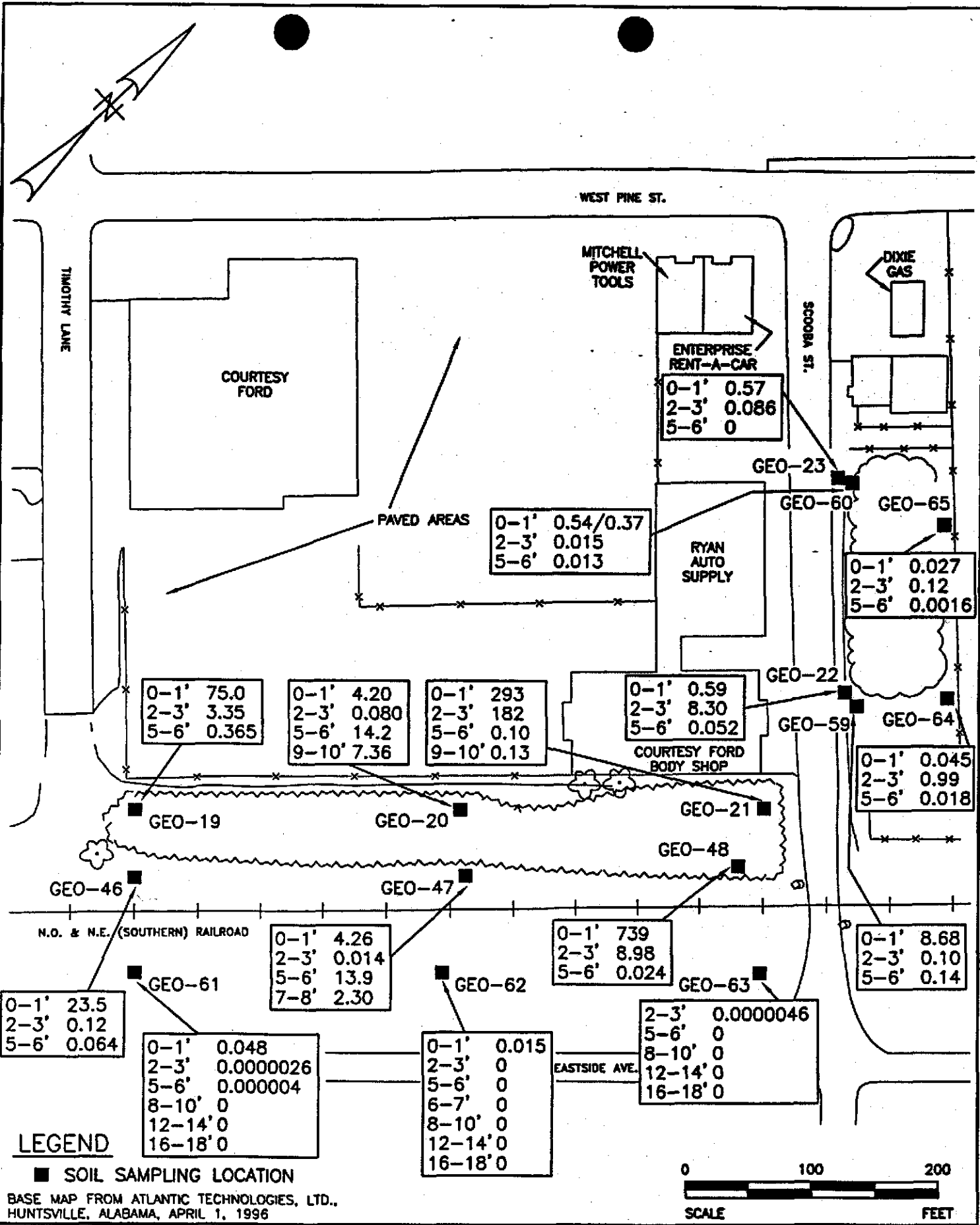
BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD.,
HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

FIGURE 5-10
APPROXIMATE EXTENT OF SOIL TO BE REMOVED AND/OR CAPPED
SOUTHERN RAILROAD TRACK AREA.
FORMER GULF STATES CREOSOTING SITE
HATTIESBURG, MISSISSIPPI

SCALE: 1"=100'

DWG. NO.: 21-04/277A



LEGEND

■ SOIL SAMPLING LOCATION

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
 Environmental Management and Engineering Services
 New Orleans, Louisiana Houston, Texas

SCALE: 1"=100' DWG. NO.: 21-04/226A

FIGURE 2-12
 BENZO(a)PYRENE EQUIVALENCE IN SOIL SAMPLES (mg/kg)
 OFFSITE PROCESS AREA

FORMER GULF STATES CREOSOTING SITE
 HATTIESBURG, MISSISSIPPI

Table 4-2

**Summary of Soil Analytical Results
Process Area**

**Gulf States Creosoting Site
Hattiesburg, Mississippi**

<u>Analytical Parameter</u>	<u>CAS Number</u>	<u>Units</u>	<u>GEO-46/0-1'</u>	<u>GEO-46/2-3'</u>	<u>GEO-46/5-6'</u>
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>					
Naphthalene	91-20-3	mg/kg	ND (12.0)	ND (0.15)	ND (0.15)
Acenaphthylene	208-96-8	mg/kg	ND (12.0)	ND (0.15)	ND (0.15)
Acenaphthene	83-32-9	mg/kg	ND (12.0)	ND (0.15)	ND (0.15)
Fluorene	86-73-7	mg/kg	1.50 J	ND (0.014)	ND (0.014)
Phenanthrene	85-01-8	mg/kg	8.20	0.041 J	0.0061 J
Anthracene	120-12-7	mg/kg	24.0	0.130	ND (0.0029)
Fluoranthene	206-44-0	mg/kg	37.0	0.190	0.045
Pyrene	129-00-0	mg/kg	54.0	0.250	0.056 J
Benz(a)anthracene	56-55-3	mg/kg	20.0	0.094	0.032
Chrysene	218-01-9	mg/kg	20.0	0.100	0.033 J
Benzo(b)fluoranthene	205-99-2	mg/kg	21.0	0.096	0.053
Benzo(k)fluoranthene	207-08-9	mg/kg	11.0	0.052	0.026
Benzo(a)pyrene	50-32-8	mg/kg	16.0	0.083	0.045
Dibenz(a,h)anthracene	53-70-3	mg/kg	2.30	0.011 J	0.0069 J
Benzo(g,h,i)perylene	191-24-2	mg/kg	7.80	0.035 J	0.030 J
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	9.70	0.046 J	0.034 J
<i>Other Parameters</i>					
Moisture		%	8.46%	10.80%	12.80%

Notes:

ND denotes "not detected" at reporting limit shown in parentheses.

Values shown are dry-weight concentrations.

J data validation qualifier denotes estimated value.

B data validation qualifier denotes constituent was detected in corresponding laboratory blank.

U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinsate blanks.

Table 4-2
(Continued)

Summary of Soil Analytical Results
Process Area

Gulf States Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Number	Units	GEO-47/0-1'	GEO-47/2-3'	GEO-47/5-6'	GEO-47/7-8'
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>						
Naphthalene	91-20-3	mg/kg	ND (2.8)	ND (0.14)	190	12.00 J
Acenaphthylene	208-96-8	mg/kg	ND (2.8)	ND (0.14)	ND (3.40) U*	ND (3.2)
Acenaphthene	83-32-9	mg/kg	ND (2.8)	ND (0.14)	45.0	8.80 J
Fluorene	86-73-7	mg/kg	ND (0.26)	ND (0.013)	43.0	9.70
Phenanthrene	85-01-8	mg/kg	0.31 J	0.0053 J	110	31.00
Anthracene	120-12-7	mg/kg	ND (0.053)	ND (0.0026)	6.6	1.90
Fluoranthene	206-44-0	mg/kg	2.80	0.01 J	65.0	16.00
Pyrene	129-00-0	mg/kg	5.10	0.016 J	69.0	16.00
Benz(a)anthracene	56-55-3	mg/kg	2.10	0.0049 J	15.0	3.40
Chrysene	218-01-9	mg/kg	2.70	ND (0.0051)	14.0	2.00
Benzo(b)fluoranthene	205-99-2	mg/kg	3.50	0.011	8.90	1.40
Benzo(k)fluoranthene	207-08-9	mg/kg	1.80	0.0056 J	4.80	0.78
Benzo(a)pyrene	50-32-8	mg/kg	3.00	0.011 J	9.60	1.50
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.48 J	ND (0.0026)	1.40	0.25 J
Benzo(g,h,i)perylene	191-24-2	mg/kg	1.60 J	0.0089 J	3.30	0.39 J
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	2.00	0.009 J	4.90	0.65 J
<i>Other Parameters</i>						
Moisture		%	5.17%	2.67%	20.9%	15.4%

Notes:

ND denotes "not detected" at reporting limit shown in parentheses.

Values shown are dry-weight concentrations.

J data validation qualifier denotes estimated value.

B data validation qualifier denotes constituent was detected in corresponding laboratory blank.

U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinsate blanks.

Table 4-2
(Continued)

Summary of Soil Analytical Results
Process Area

Gulf States Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Number	Units	GEO-48/0-1'	GEO-48/2-3'	GEO-48/5-6'	GEO-59/0-1'	GEO-59/2-3'	GEO-59/5-6'
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>								
Naphthalene	91-20-3	mg/kg	2,200 J	80	0.17 J	4.8 J	ND (0.16)	ND (0.16)
Acenaphthylene	208-96-8	mg/kg	ND (1500)	ND (3.4) U*	ND (0.16) U*	ND (2.4)	ND (0.16)	ND (0.16) U*
Acenaphthene	83-32-9	mg/kg	ND (1500)	36	ND (0.16)	ND (2.4)	ND (0.16)	ND (0.16)
Fluorene	86-73-7	mg/kg	1,800	43	0.16 J	0.95 J	0.026 J	ND (0.015)
Phenanthrene	85-01-8	mg/kg	6,400	130	0.6	10	0.12	0.054 J
Anthracene	120-12-7	mg/kg	3,000	8.4	0.12	ND (0.044)	ND (0.003) U*	ND (0.003) U*
Fluoranthene	206-44-0	mg/kg	4,600	64	0.22	15	0.13	0.049
Pyrene	129-00-0	mg/kg	4,400	61	0.2	16	0.13 J	0.081 J
Benzo(a)anthracene	56-55-3	mg/kg	930	12	0.022	5.8	0.042	0.026
Chrysene	218-01-9	mg/kg	690	20	0.0099 J	4.8	0.037 J	0.057 J
Benzo(b)fluoranthene	205-99-2	mg/kg	530	5.2	0.014	5.7	0.071	0.087 J
Benzo(k)fluoranthene	207-08-9	mg/kg	290	3.0	0.0075 J	2.8	0.032	0.038 J
Benzo(a)pyrene	50-32-8	mg/kg	500	6.1	0.017 J	6.1	0.072	0.1 J
Dibenz(a,h)anthracene	53-70-3	mg/kg	64 J	0.85	0.0038 J	0.94	0.011 J	0.021 J
Benzo(g,h,i)perylene	191-24-2	mg/kg	130 J	1.4 J	0.013 J	3.7	0.036 J	0.087
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	250 J	2.6	ND (0.006)	4.6	0.051 J	0.095
<i>Other Parameters</i>								
Moisture		%	29.7%	20.6%	17.2%	8.55%	16.7%	16.0%

Notes:

ND denotes "not detected" at reporting limit shown in parentheses.

Values shown are dry-weight concentrations.

J data validation qualifier denotes estimated value.

B data validation qualifier denotes constituent was detected in corresponding laboratory blank.

U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinse blanks.



"David Upthegrove"
<dupthegrove@ix.netcom.com>
m>

05/12/2005 11:57 AM

Please respond to
<dupthegrove@ix.netcom.com>
>

To <Tony_Russell@deq.state.ms.us>

cc <kwatson@kmg.com>

bcc

Subject RE: status of trees

Billy Waits has completed his surveying of the tree planting locations. We are taking measures to mark all locations where trees are less than 3 feet tall to ensure that no more trees are accidentally run over during mowing.

We're currently in the process of formulating a "tree maintenance" program. Included will be items such as mowing, weeding around trees, application of time-release fertilizer, eradication of fire ants, and watering. We'll run it past you as soon as it's completed.

The approved plan calls for tree replacement every other year for the first four years, should tree mortality exceed 15 percent. Although we haven't done the calculations based on our initial inventory yet, I'd estimate that first-year mortality was probably around 20 percent. If our calculations confirm this, we'll be replacing trees at the end of the next dormant season, probably in February or March 2006.

-----Original Message-----

From: Tony_Russell@deq.state.ms.us [mailto:Tony_Russell@deq.state.ms.us]

Sent: Thursday, May 12, 2005 11:09 AM

To: dupthegrove@ix.netcom.com

Subject: status of trees

What have you all decided to do since you were at the site evaluating the trees on April 30?

Tony Russell
Mississippi Department of Environmental Quality
Assessment Remediation Branch Chief
101 West Capitol Street
Jackson, MS 39201
Phone 601-961-5318
Fax 601-961-5300



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

May 17, 2005

Mr. Keith Watson
Kerr McGee Chemical LLC
P. O. Box 25861
Oklahoma City, OK 73125

FILE COPY

Re: Gulf States Creosote Site
Ground Water Monitoring Report Initial Eight Quarterly Events dated
March 16, 2005
Hattiesburg, Mississippi

Dear Mr. Watson:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the above referenced revised plan submitted by Michael Pisani & Associates, Inc. The review revealed the following concern:

Section 4.2 Monitoring Well Network

MDEQ can not approve the abandonment of monitoring wells MW-20 and MW-21 at this time. These two wells are considered sentinel wells and therefore have to remain in place. The other monitoring wells (MW-01, MW-03, MW-04, MW-05, MW-10 and MW-13) can be abandoned. MDEQ requires a work plan to abandon the wells be submitted for approval by June 17, 2005.

MDEQ approves the proposal for the wells to be sampled on an annual basis. MDEQ prefers the wells be sampled in November or December.

Please call me at 601-961-5318 with any questions you may have.

Sincerely,

Tony Russell, Chief
Assessment Remediation Branch

cc: Dave Upthegrove Michael Pisani & Associates

K:\Common\UCSS\Tony\Gulf States Creosote\GSC - DEQ req WP to abandon MWs 5-13-05.doc



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi
FROM: Tony Russell *DR*
DATE: May 11, 2005
SUBJECT: Site Inspection conducted April 30, 2005

I met with Dave Upthegrove and Brad Blalock on April 30, 2005 for an evaluation of the phytotechnologies program. The hybrid poplars and black willows were planted in the fall of 2004. The trees were to be evaluated for survival rate, size, height and overall appearance.

It was apparent that some of the trees had been mowed down during the grass cutting phase. Fluorescent green ribbons were tied to the poplars and pink ribbons were tied to the black willow so they could be better identified.

After the information they gather has been evaluated, Dave will submit a maintenance plan for the trees.

Pictures were taken during this site visit.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC site inspection memo FA phyto proj 4-30-05.doc



Tony Russell/HW/OPC/DEQ
05/10/2005 08:32 AM

To "Cubbage, T L" <TCubbage@kmg.com>@INETDEQ
cc
bcc
Subject Re: Gulf States Creosote Site - NE Drainage Ditch Project - Hattiesburg - Status Report

MDEQ is currently working on getting a conference call with the railroad legal representative .

Would like to see more movement on the Bevon and Florence 375a properties.

Tony Russell
Mississippi Department of Environmental Quality
Assessment Remediation Branch Chief
101 West Capitol Street
Jackson, MS 39201
Phone 601-961-5318
Fax 601-961-5300

"Cubbage, T L" <TCubbage@kmg.com>



"Cubbage, T L"
<TCubbage@kmg.com>
05/09/2005 05:54 PM

To <Tony_Russell@deq.state.ms.us>
cc <Jerry_Banks@deq.state.ms.us>, <dupthegrove@ix.netcom.com>, "Watson, Keith" <KWATSON@kmg.com>
Subject Gulf States Creosote Site - NE Drainage Ditch Project - Hattiesburg - Status Report

Please see attached, which is being sent on behalf of Kerr-McGee Chemical LLC.

<<Hattiesburg_Cubbage to Russell_May 9 2005.pdf>>

T.L. Cubbage
Kerr-McGee Law Dept.
405-270-2741
tcubbage@kmg.com

Important Notice!!

If you are not the intended recipient of this e-mail message, any use, distribution or copying of the message is prohibited.

Please let me know immediately by return e-mail if you have received this message by mistake, then delete the e-mail message.



Thank you. Hattiesburg_Cubbage to Russell_May 9 2005.pdf



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: April 15, 2005

SUBJECT: Site Inspection conducted March 31, 2005

I met with Brad Blalock on March 31, 2005 to observe the measurement and collection of any free phase creosote product that may be present in the recovery wells adjacent to Gordon's Creek. Only three recovery wells had measurable amounts of creosote present (2 inches). A variable speed peristaltic pump was used to extract the creosote from the recovery wells. The total amount of creosote and water recovered from the three wells was approximately two gallons with water being the majority of the fluid recovered.

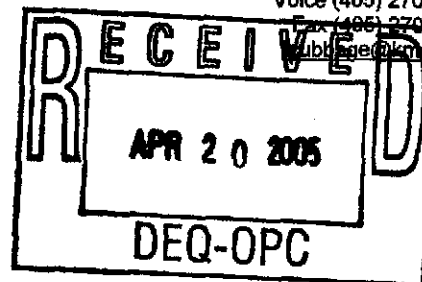
One photo was taken showing the amount of fluid recovered in the five gallon bucket.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC site inspection memo FA product recovery 3-31-05.doc



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmc.com



April 11, 2005

Via Fax and U.S. Mail

Mr. Robert S. Hammond, Jr.
Ramsay & Hammond, PLLC
P.O. Box 16567
106 Madison Plaza
Hattiesburg, MS 39404-6567
(601) 264-5588 fax

Re: Ryan Motors, Inc. Expansion
Former Gulf States Creosote Site, Hattiesburg, MS

Dear Mr. Hammond:

In accordance with Section (iii) of the Notice of Use Restrictions dated effective January 29, 2003, recorded on January 29, 2003, in Book 902, Page 400 of the land records of the Chancery Clerk, Forrest County, Mississippi; and, based on the approvals granted by the Mississippi Department of Environmental Quality ("MDEQ"), dated February 7, 2005, and the Mississippi Secretary of State, dated March 4, 2005, of the Ryan Motors, Inc. expansion project ("approved expansion project"), Kerr-McGee Chemical LLC hereby gives its consent and approval to the approved expansion project, so long as Ryan Motors, Inc. complies with the guidelines established by MDEQ, and so long as the approved expansion project will not result in the imposition of costs or any additional obligations on Kerr-McGee Chemical LLC.

Sincerely,

A handwritten signature in black ink that reads 'Thomas C. Cabbage III'.

Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Tony Russell (MDEQ)
William G. Cheney, Jr. (MSOS)
Keith Watson (Kerr-McGee)

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

May 9, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this monthly status report regarding access to those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

The Harris property. As previously reported, KMC and Mr. William Harris have agreed in principle to a plan that will provide KMC with access to the Harris leasehold for remediation purposes. A draft written document concerning the proposed agreement is under review. With the ongoing cooperation of Mr. Harris and his attorney, completion of such an agreement likely could be completed within 21 days.

The Woods and American Legion Auxiliary properties. As previously reported, in March 2005, representatives of KMC met with Ms. Clevester Woods and with Ms. Pearlie McDougle to discuss granting KMC access to their respective properties for remediation purposes. KMC has been considering the proposals made by those leaseholders in the context of KMC's dialogue with other members of the community. On April 12, 2005, KMC received a communication from a group of community residents that appears to include Ms. Woods and Ms. McDougle. That communication included, among other things, a certain proposal that Ms. McDougle's family previously had raised in March and about which KMC had been awaiting further information from that family. KMC intends to respond in writing to the group's communication on or before May 15, 2005. KMC's decision regarding the pending proposals of Ms. Woods and Ms. McDougle will be made by that time, and in the context of the proposals of the larger group. At this time, pending further discussions, the timetable for reaching access agreements for these properties, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Bevon and Florence 375a properties. At this time, pending further discussions, the timetable for reaching an access agreements for these properties, and whether any impassable hurdles may arise that will block such agreements, cannot be determined by KMC.

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

Mr. Tony Russell
May 9, 2005
Page 2

The Norfolk Southern right-of-way. Since KMC's report of April 7, no events have occurred to alter KMC's conclusion that impassable hurdles to access to the Norfolk Southern right-of-way exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,



Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Jerry Banks (MDEQ)
Hon. Johnny Dupree (City of Hattiesburg)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)

City Council

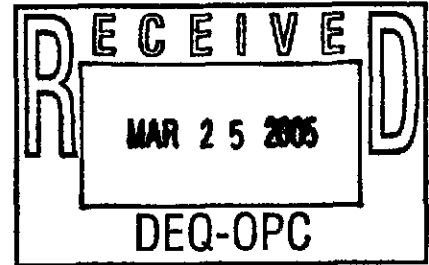
Betsy M. Rowell.....Ward One
Deborah L. Denard.....Ward Two
Carter Carroll.....Ward Three
C. B. "Red" Bailey.....Ward Four
Henry E. Naylor.....Ward Five



Post Office Box 1898
Hattiesburg, Mississippi 39403-1898

Johnny L. DuPree, Mayor

March 22, 2005



Pastor Carlos Wilson
Ebenezer Baptist Church
900 E. 8th St.
Hattiesburg, MS 39401

Dear Pastor Wilson:

Enclosed please find copy of Mississippi Department of Environmental Quality's response to the issues raised by the Mobile-Bouie Street Community Group. I meet with Gloria Tatum, a representative for MDEQ, today to discuss their responses. I am satisfied that MDEQ has made a diligent effort to address the concerns of the Mobile-Bouie Street Community Group.

We must continue to work together to find ways for the businesses and the community to co-exist. I will continue to look for federal and state funds to address these issues on a permanent basis.

Thank you for your commitment to a better community and I am thankful to MDEQ for responding to our concerns for the community in a timely manner.

Sincerely,

Johnny L. DuPree
Mayor, City of Hattiesburg

JLD/msc

Enclosure

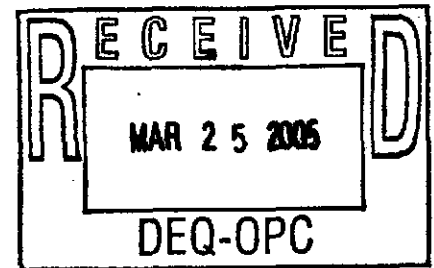
cc Gloria Tatum, MDEQ
Jerry Banks, MDEQ

City Council

Betsy M. Rowell.....Ward One
Deborah L. Denard.....Ward Two
Carter Carroll.....Ward Three
C. E. "Red" Bailey.....Ward Four
Henry E. Naylor.....Ward Five



Post Office Box 1898
Hattiesburg, Mississippi 39403-1898



Johnny L. DuPree, Mayor

March 22, 2005

Councilwoman Deborah Delgado
City Council
P.O. Box 1898
Hattiesburg, MS 39403

Dear Councilwoman Delgado:

Enclosed please find copy of Mississippi Department of Environmental Quality's response to the issues raised by the Mobile-Bouie Street Community Group. I meet with Gloria Tatum, a representative for MDEQ, today to discuss their responses. I am satisfied that MDEQ has made a diligent effort to address the concerns of the Mobile-Bouie Street Community Group.

We must continue to work together to find ways for the businesses and the community to co-exist. I will continue to look for federal and state funds to address these issues on a permanent basis.

Thank you for your commitment to a better community and I am thankful to MDEQ for responding to our concerns for the community in a timely manner.

Sincerely,

Johnny L. DuPree
Mayor, City of Hattiesburg

JLD/msc

Enclosure

cc Gloria Tatum, MDEQ
Jerry Banks, MDEQ



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

April 7, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this monthly status report regarding access to those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

The Harris property. As previously reported, it appears that KMC and Mr. William Harris have agreed in principle to a plan that will provide KMC with access to the Harris leasehold for remediation purposes. Mr. Harris's attorney has agreed to prepare a written document concerning the proposed agreement for further review and discussion. KMC has not yet received the proposed written agreement. With the ongoing cooperation of Mr. Harris and his attorney, completion of such an agreement likely could be completed within 45 days.

The Woods property. On March 3, 2005, representatives of KMC met with Ms. Clevester Woods (and members of her family) in Hattiesburg to discuss granting KMC access to her property for remediation purposes. At that meeting, Ms. Woods informed KMC of her requests in connection with granting access. KMC still is considering Ms. Woods's requests and whether to accept them or to make another proposal to her. At this time, pending further deliberation and discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The American Legion Auxiliary property. On March 3, 2005, representatives of KMC also met with Ms. Pearlle McDougle (and members of her family) in Hattiesburg to discuss remediation of the American Legion Auxiliary leasehold. At that meeting, Ms. McDougle's family made a proposal for an interim step that KMC could take toward reaching a potential agreement on access and remediation. KMC still is considering that proposal and whether to accept it or to make another proposal to her. At this time, pending further deliberation and discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

Mr. Tony Russell
April 7, 2005
Page 2

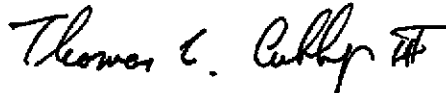
The Bevon property. Given KMC's recent focus on discussions with Ms. Woods and Ms. McDougle, no further communication has occurred with Mr. T.J. Bevon since KMC's report of February 7. At this time, pending further discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Florence 375a property. KMC has determined that the sample collected by MDEQ at a point identified as "Florence 375a" is located on Lot 6, Block 3 of the D.D. McInnis Third Survey to the City of Hattiesburg. That leasehold is not occupied by a residence; it is a vacant lot transected by the City of Hattiesburg drainage right of way (formerly an open ditch). Since KMC's report of March 7, KMC has identified the leaseholder of record for this tract. At this time, pending discussion with the lease owner, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Norfolk Southern right-of-way. Since KMC's report of March 7, no events have occurred to alter KMC's conclusion that impassable hurdles to access to the Norfolk Southern right-of-way exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,



Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

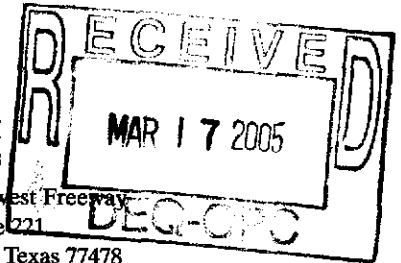
cc: Jerry Banks (MDEQ)
Hon. Johnny Dupree (City of Hattiesburg)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@alltel.net



March 16, 2005

Mr. Tony Russell, Chief
Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Ground Water Monitoring Report
Initial Eight Quarterly Events
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

Enclosed are two copies of the referenced document for your review. Should you have any questions or comments, please contact me or Keith Watson at (405) 270-3747.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "D. Upthegrove". The signature is stylized and somewhat cursive, with a large loop at the end. It is positioned above the printed name of the signatory.

David C. Upthegrove, P.G.

cc: Keith Watson – Kerr-McGee



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmc.com

March 8, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this monthly status report regarding access to those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

The Harris property. As reported on February 7, 2005, it appears that KMC and Mr. William Harris have agreed in principle to a plan that will provide KMC with access to the Harris leasehold for remediation purposes. Based on more recent discussions, Mr. Harris's attorney is preparing a written document concerning the proposed agreement for further review and discussion. With the ongoing cooperation of Mr. Harris and his attorney, completion of such an agreement likely could be completed within 45 days.

The Woods property. On March 3, 2005, representatives of KMC met with Ms. Clevester Woods (and members of her family) in Hattiesburg to discuss granting KMC access to her property for remediation purposes. At that meeting, KMC made a proposal to Ms. Woods for the terms of an access agreement. Ms. Woods did not accept that proposal, and responded by informing KMC of her requests in connection with granting access. KMC will consider Ms. Woods's requests and determine whether to accept them or to make another proposal to her. At this time, pending further deliberation and discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The American Legion Auxiliary property. On March 3, 2005, representatives of KMC also met with Ms. Pearl McDougle (and members of her family) in Hattiesburg to discuss remediation of the American Legion Auxiliary leasehold. Ms. McDougle informed KMC that she is the President and lawful representative of the American Legion Auxiliary #225, which owns the leasehold occupied by Down Home Cooking. (Ms. McDougle also is the proprietress of Down Home Cooking.) KMC and Ms. McDougle discussed her concerns and objectives in connection with the remediation project. No agreement resulted from the discussion. Ms. McDougle's family made a proposal for an interim step

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

Mr. Tony Russell
March 8, 2005
Page 2

that KMC could take toward reaching a potential agreement on access and remediation. KMC will consider that proposal and determine whether to accept it or to make another proposal to her. At this time, pending further deliberation and discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Bevon property. Given KMC's recent focus on discussions with Ms. Woods and Ms. McDougle, no further communication has occurred with Mr. T.J. Bevon since KMC's report of February 7. At this time, pending further discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Florence 375a property. Since KMC's report of February 7, KMC has determined that the sample collected by MDEQ at a point identified as "Florence 375a" is located on Lot 6, Block 3 of the D.D. McInnis Third Survey to the City of Hattiesburg. That leasehold is not occupied by a residence; it is a vacant lot transected by the City of Hattiesburg drainage right of way (formerly an open ditch). KMC has requested that its real estate attorney in Hattiesburg identify the current owner of that leasehold and determine how to contact that owner. At this time, pending identification of the lease owner and discussions with that owner, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Norfolk Southern right-of-way. Since KMC's report of February 7, no events have occurred to alter KMC's conclusion that impassable hurdles to access to the Norfolk Southern right-of-way exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,



Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Jerry Banks (MDEQ)
Hon. Johnny Dupree (City of Hattiesburg)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

March 4, 2005

FILE COPY

Mr. Keith Watson
Kerr McGee Chemical LLC
P. O. Box 25861
Oklahoma City, OK 73125

Re: Gulf States Creosote Site
Summary of 2004DNAPL Recovery Activities Dated January 21, 2005
Hattiesburg, Mississippi

Dear Mr. Watson:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the above referenced report and concurs with the recommendation to proceed with a quarterly monitoring and recovery frequency.

MDEQ requires a minimum of two notice prior to conducting the monitoring/recovery events. Please call me at 601-961-5318 with any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

K:\Common\UCSS\Tony\Gulf States Creosote\GSC modify sampling freq at fill area 3-4-05.doc

**Summary of 2004 DNAPL Recovery Activities
Gordon's Creek Fill Area
January 21, 2005**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

DNAPL Monitoring and Recovery System

In late 2003, Michael Pisani & Associates (MP&A) installed a system of 17 recovery wells (FARW-01 through FARW-17) behind the Waterloo Barrier at the western edge of the Gordon's Creek Fill Area containment area (the barrier now forms the eastern bank of the creek adjacent to the containment area). The recovery wells were installed at 25-foot intervals to allow for the collection and removal of dense non-aqueous phase liquids (DNAPLs) accumulating behind the barrier, where present. MP&A also installed 12 monitoring wells (FAMW-01 through FAMW-12) at 50-foot intervals to monitor for the presence of DNAPLs at the contact between the Fill Area sands and the underlying Hattiesburg clay.

The locations of Fill Area monitoring and recovery wells are shown on attached Figure 1. Well completion information is summarized in Table 1.

DNAPL Gauging and Recovery Operations

In the spring of 2004, a concrete road was constructed along the top of the Waterloo Barrier. The construction of this road was necessary to access the recovery and monitoring wells during wet weather conditions. Shortly thereafter, in May 2004, Kerr-McGee began to gauge and recover DNAPL from the system on a monthly basis.

Regular procedures for DNAPL gauging and recovery are as follows:

- Remove manhole covers and well caps.
- Measure the depth to water level from top of casing in each recovery and monitoring well using an electronic water level indicator.
- Check for the presence of DNAPL in each recovery and monitoring well using weighted cotton string.
- If wells contain measurable free product (i.e., 0.1 foot or more), install copper drop tubes extending from the base of each recovery well to land surface. Drop tubes are connected directly to silicon tubing to allow recovery of DNAPL using a peristaltic pump.
- Pump all recovery wells containing free DNAPL (either measurable or trace amounts) into sealable containers. Wells are pumped until only a sheen is present.
- Transport product/water mixture to Kerr-McGee's Columbus, Mississippi recovery system for recycle/reuse.

**Summary of NAPL Recovery Activities
Gordon's Creek Fill Area
January 21, 2005**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

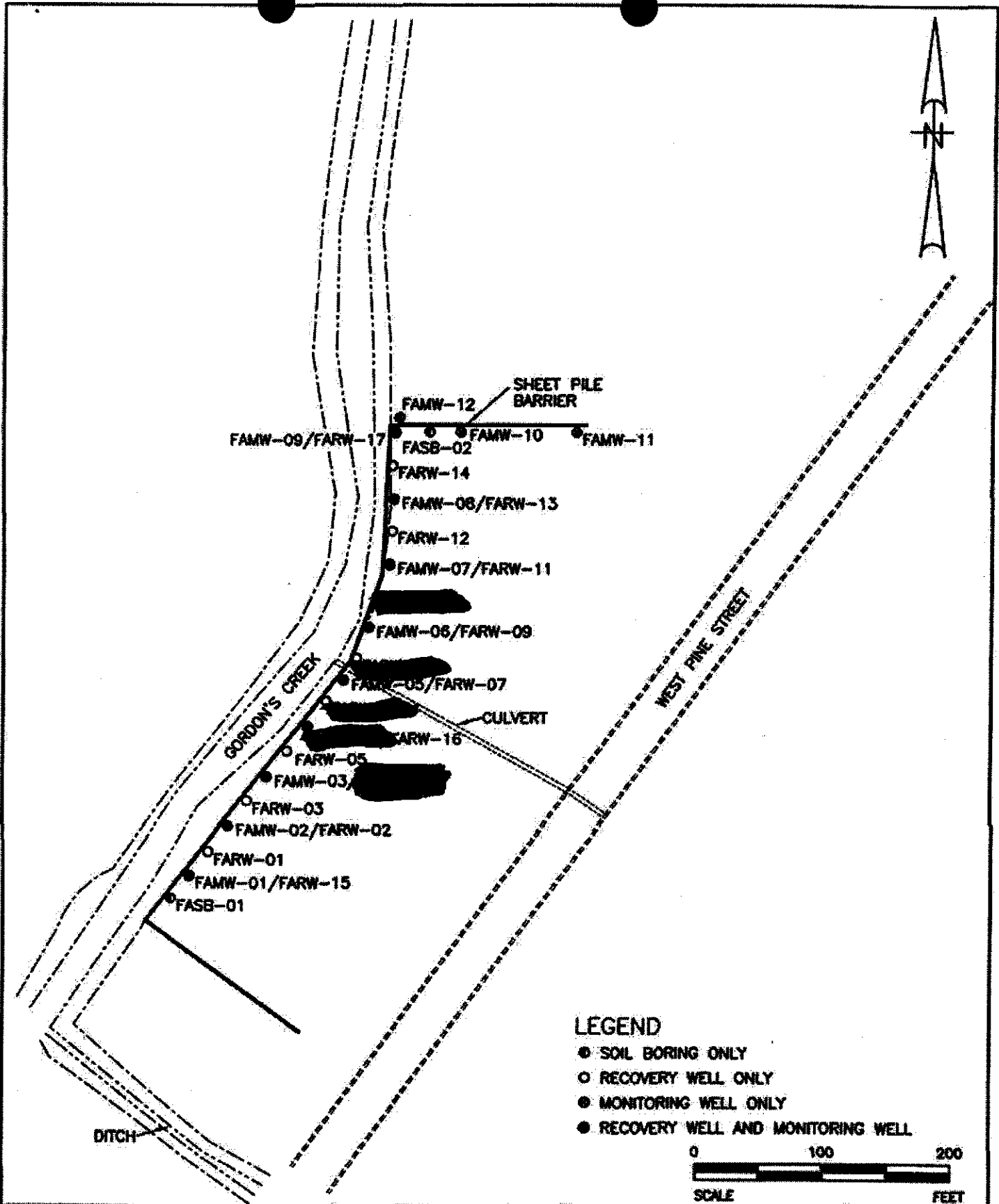
Summary of Gauging and Recovery Activities to Date

Kerr-McGee visited the site seven times between May and December 2004 to perform well gauging and DNAPL recovery. The results well gauging and recovery are summarized in Tables 2 through 4. To date, measurable DNAPL has been encountered in four recovery wells: FARW-04, FARW-06, FARW-08 and FARW-10. As shown on Table 4, a total of four gallons of DNAPL was removed from the system in 2004.

Future Gauging and Recovery

The MDEQ-approved *Final Remedial Action Work Plan* states that during the first six months after installation of the system, recovery wells and monitoring wells will be gauged monthly for the presence of DNAPL. The plan further states that if after six months it is apparent that monthly DNAPL gauging and recovery are unnecessary, the program will be modified to gauge and recover DNAPLs at an appropriate frequency. Kerr-McGee believes that quarterly monitoring and recovery would be sufficient to address the relatively small volumes of product being recovered from the system. However, gauging and recovery will continue to be performed on a monthly basis until approval of a reduction to quarterly monitoring/recovery is received from MDEQ. In the future, Kerr-McGee will coordinate all gauging and recovery events with MDEQ as far in advance as possible.

If MDEQ approves Kerr-McGee's request for decreased gauging and recovery frequency, events will be performed at approximate three-month intervals (e.g., February, May, August and November of each year). Kerr-McGee will submit annual reports summarizing the results of gauging and recovery activities no later than March 1 of the following year.



LEGEND

- SOIL BORING ONLY
- RECOVERY WELL ONLY
- MONITORING WELL ONLY
- RECOVERY WELL AND MONITORING WELL



MICHAEL PISANI & ASSOCIATES
 Environmental Management and Engineering Services
 New Orleans, Louisiana Houston, Texas

SCALE: 1"=100' DWG. NO.: 21-04/322A

FIGURE 1
 RECOVERY WELL AND MONITORING WELL LOCATIONS
 FILL AREA
 FORMER GULF STATES CREOSOTING SITE
 HATTIESBURG, MISSISSIPPI

Table 1

**Well Completion Data
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

<u>Well #</u>	<u>Installation Date</u>	<u>Construction Materials</u>	<u>Distance from Upstream Wingwall (ft.)</u>	<u>Boring Depth</u>	<u>Screened Interval</u>	<u>Depth to Top of Filter Pack</u>	<u>Depth to Top of Bentonite Seal</u>
FAMW-01	11/3/2003	2" PVC	50	28.0	21.3-26.3	19.0	17.0
FAMW-02	11/4/2003	2" PVC	100	26.0	19.0-24.0	17.0	15.0
FAMW-03	11/4/2003	2" PVC	150	24.0	17.0-22.0	15.0	13.0
FAMW-04	11/4/2003	2" PVC	200	24.0	17.0-22.0	15.0	13.0
FAMW-05	11/6/2003	2" PVC	250	24.0	18.0-23.0	16.0	14.0
FAMW-06	11/4/2003	2" PVC	300	22.0	16.0-21.0	14.0	12.0
FAMW-07	11/6/2003	2" PVC	350	24.0	18.0-23.0	16.0	14.0
FAMW-08	11/6/2003	2" PVC	400	22.0	16.0-21.0	14.0	12.0
FAMW-09	11/5/2003	2" PVC	450	22.0	16.0-21.0	14.0	12.0
FAMW-10	11/5/2003	2" PVC	Wing Wall	24.0	18.0-23.0	16.0	14.0
FAMW-11	11/5/2003	2" PVC	Wing Wall	28.0	22.5-27.5	20.5	18.5
FAMW-12	11/5/2003	2" PVC	Outside WW	22.0	16.0-21.0	14.0	12.0
FARW-01	11/7/2003	4" SS	75	10.0	5.0-10.0	4.0	3.5
FARW-02	11/7/2003	4" SS	100	12.0	5.0-10.0	4.0	3.5
FARW-03	11/7/2003	4" SS	125	12.0	6.5-11.5	5.5	4.5
FARW-04	11/10/2003	4" SS	150	12.0	6.5-11.5	5.5	4.5
FARW-05	11/10/2003	4" SS	175	12.0	6.5-11.5	5.5	4.5
FARW-06	11/10/2003	4" SS	225	12.0	6.0-11.0	5.0	4.0
FARW-07	11/10/2003	4" SS	250	13.5	8.5-13.5	6.5	4.5
FARW-08	11/10/2003	4" SS	275	12.0	6.0-11.0	5.0	4.0
FARW-09	11/11/2003	4" SS	300	10.5	5.5-10.5	4.5	3.5
FARW-10	11/11/2003	4" SS	325	24.0	6.0-21.0	5.0	4.0
FARW-11	11/12/2003	4" SS	350	22.0	7.0-22.0	5.0	4.0
FARW-12	11/11/2003	4" SS	375	14.0	3.0-8.0	2.5	2.0
FARW-13	11/12/2003	4" SS	400	10.5	5.5-10.5	4.5	3.5
FARW-14	11/12/2003	4" SS	425	10.0	5.0-10.0	4.0	3.5
FARW-15	11/20/2003	4" SS	50	9.0	4.0-9.0	3.0	2.0
FARW-16	11/20/2003	4" SS	200	8.5	3.5-8.5	3.0	2.0
FARW-17	11/20/2003	4" SS	450	8.5	3.5-8.5	3.0	2.0

Note:

All depths are reported in feet below land surface.

Table 2**Water Levels
Fill Area Gauging and Recovery Project****Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	Date						
	5/13/2004	6/15/2004	7/27/2004	8/23/2004	9/20/2004	10/18/2004	12/1/2004
FAMW-01	5.17	4.41	2.88	3.24	3.40	3.29	3.00
FAMW-02	3.93	3.32	2.90	3.30	3.34	3.37	3.01
FAMW-03	3.97	3.25	2.34	2.74	2.95	3.00	2.50
FAMW-04	3.42	2.96	1.89	1.75	2.20	2.33	1.67
FAMW-05	2.79	2.46	2.02	2.03	2.43	2.95	2.12
FAMW-06	2.75	2.10	2.00	2.38	2.69	2.99	2.48
FAMW-07	2.37	2.30	2.17	2.37	2.72	3.02	2.54
FAMW-08	2.88	2.42	2.46	2.58	2.87	3.25	2.94
FAMW-09	3.53	3.12	4.83	5.42	5.86	6.20	5.88
FAMW-10	6.18	5.31	9.90	7.55	8.00	8.34	8.13
FAMW-11	8.25	7.30	9.06	6.29	6.79	6.90	6.60
FAMW-12	6.24	6.14	4.05	4.40	4.62	4.61	4.20
FARW-01	3.16	2.50	2.04	2.52	2.67	2.74	1.25
FARW-02	2.03	1.49	1.87	1.52	1.70	1.72	0.04
FARW-03	2.63	1.38	0.75	1.40	1.40	1.42	1.10
FARW-04	2.60	1.80	1.99	1.53	1.47	1.50	1.46
FARW-05	2.29	1.45	0.99	1.67	1.69	1.96	0.81
FARW-06	1.78	0.98	0.60	1.10	1.35	1.40	0.75
FARW-07	2.15	1.34	0.10	1.29	1.63	1.68	0.88
FARW-08	2.34	1.81	1.68	1.80	2.15	2.03	1.41
FARW-09	2.69	2.31	2.19	2.00	2.12	2.58	2.00
FARW-10	2.42	1.87	1.68	1.79	2.26	2.44	1.72
FARW-11	2.37	1.78	1.38	1.84	2.04	2.39	1.87
FARW-12	3.07	0.04	0.20	0.03	0.77	0.85	0.89
FARW-13	0.10	0.01	0.05	0.01	1.12	1.35	0.71
FARW-14	1.35	0.95	0.56	0.70	0.89	1.10	0.03
FARW-15	3.38	2.64	2.04	2.51	2.65	2.62	1.35
FARW-16	1.50	1.19	1.22	1.50	1.60	1.63	0.05
FARW-17	0.98	0.90	0.74	0.50	0.83	0.90	0.31

Note:

Water levels are reported in feet below top of casing.

Table 3

**Ground Water Elevations
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	TOC Elev.	Date						
		5/13/2004	6/15/2004	7/27/2004	8/23/2004	9/20/2004	10/18/2004	12/1/2004
FAMW-01	183.90	178.73	179.49	181.02	180.66	180.50	180.61	180.90
FAMW-02	182.72	178.79	179.40	179.82	179.42	179.38	179.35	179.71
FAMW-03	182.78	178.81	179.53	180.44	180.04	179.83	179.78	180.28
FAMW-04	182.72	179.30	179.76	180.83	180.97	180.52	180.39	181.05
FAMW-05	181.99	179.20	179.53	179.97	179.96	179.56	179.04	179.87
FAMW-06	181.64	178.89	179.54	179.64	179.26	178.95	178.65	179.16
FAMW-07	181.75	179.38	179.45	179.58	179.38	179.03	178.73	179.21
FAMW-08	181.74	178.86	179.32	179.28	179.16	178.87	178.49	178.80
FAMW-09	181.93	178.40	178.81	177.10	176.51	176.07	175.73	176.05
FAMW-10	184.43	178.25	179.12	174.53	176.88	176.43	176.09	176.30
FAMW-11	186.11	177.86	178.81	177.05	179.82	179.32	179.21	179.51
FAMW-12	182.96	176.72	176.82	178.91	178.56	178.34	178.35	178.76
FARW-01	183.74	180.58	181.24	181.70	181.22	181.07	181.00	182.49
FARW-02	182.77	180.74	181.28	180.90	181.25	181.07	181.05	182.73
FARW-03	182.30	179.67	180.92	181.55	180.90	180.90	180.88	181.20
FARW-04	182.35	179.75	180.55	180.36	180.82	180.88	180.85	180.89
FARW-05	182.36	180.07	180.91	181.37	180.69	180.67	180.40	181.55
FARW-06	181.51	179.73	180.53	180.91	180.41	180.16	180.11	180.76
FARW-07	181.53	179.38	180.19	181.43	180.24	179.90	179.85	180.65
FARW-08	181.33	178.99	179.52	179.65	179.53	179.18	179.30	179.92
FARW-09	181.23	178.54	178.92	179.04	179.23	179.11	178.65	179.23
FARW-10	181.40	178.98	179.53	179.72	179.61	179.14	178.96	179.68
FARW-11	181.14	178.77	179.36	179.76	179.30	179.10	178.75	179.27
FARW-12	181.22	178.15	181.18	181.02	181.19	180.45	180.37	180.33
FARW-13	181.29	181.19	181.28	181.24	181.28	180.17	179.94	180.58
FARW-14	181.30	179.95	180.35	180.74	180.60	180.41	180.20	181.27
FARW-15	183.78	180.40	181.14	181.74	181.27	181.13	181.16	182.43
FARW-16	182.58	181.08	181.39	181.36	181.08	180.98	180.95	182.53
FARW-17	181.33	180.35	180.43	180.59	180.83	180.50	180.43	181.02

Note:

Ground water elevations are reported in feet above mean sea level.

Table 4

**Product Measurements
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	Date						
	5/13/2004	6/15/2004	7/27/2004	8/23/2004	9/20/2004	10/18/2004	12/1/2004
FAMW-01	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-03	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-04	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-05	Clean	Clean	Clean	Clean	Clean	Trace	Trace
FAMW-06	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-07	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-08	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-09	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean
FAMW-10	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-11	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-01	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-03	Clean	Clean	Clean	Clean	Clean	Clean	Clean
[REDACTED]	Trace	0.1	Trace	Trace	Trace	Trace	Trace
FARW-05	Clean	Clean	Clean	Clean	Clean	Clean	Clean
[REDACTED]	0.31	0.27	Clean	Trace	0.35	0.1	Trace
FARW-07	Clean	Clean	Clean	Clean	Clean	Clean	Clean
[REDACTED]	0.05	Trace	Trace	Trace	Trace	0.2	0.1
FARW-09	Clean	Clean	Clean	Clean	Clean	Clean	Clean
[REDACTED]	0.5	0.38	Trace	Clean	0.8	Trace	0.1
FARW-11	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean
FARW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-13	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean
FARW-14	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean
FARW-15	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean
FARW-16	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-17	Clean	Clean	Clean	Clean	Clean	Clean	Clean
Product							
Recovered (gals)	1.25	0.25	0.25	1.25	0.5	0.25	0.25

Note:

Product thickness is reported in feet, where present.

(a) Sheen reported



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: February 22, 2005

SUBJECT: Soil Removal Along Scooba Street

I met with Dave Upthegrove on Thursday, February 16, 2005, to observe the removal of creosote contaminated soil from the Scooba Street ditch. The work was delayed due to creosote contaminated soil being discovered on Chain Electric leased property located adjacent to the Scooba Street ditch and the railroad ROW.

Since the contaminated layer (8 to 10 inches thick) was perched on a clay layer about 2 to 3 feet below the surface, the overburden clean soil was loaded into trucks and hauled to a nearby borrow pit. As the contaminated soil was encountered, it was loaded into dump trucks for disposal at the Central Landfill in McNeill, MS. The dump beds were lined and covered to eliminate spillage during transport. Any soil that was observed to have odors or visually impacted was loaded into the dump trucks.

Some creosote contaminated soil was observed to be beneath Scooba Street and on the railroad ROW. The soil beneath Scooba Street may be removed if Scooba Street is shut down in the future but at present the contaminated soil does not pose a risk as there is no exposure route for human contact. The contaminated soil on railroad ROW will be excavated and removed as soon as access is granted by the Norfolk Southern Railroad.

The contaminated soil along Scooba Street ditch was limited to the ditch itself in front of the Courtesy Ford Body Shop. Since the City of Hattiesburg has a 25 foot easement from the center of Scooba Street, the removal of the clean soil in the ditch was conducted by the City. Approximately half a dump truck of contaminated soil was encountered in front of the body shop. This soil was loaded into the lined dump truck beds along with the other contaminated soil.

Photos were taken during the soil removal event.



FILE COPY

STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

February 16, 2005

Mr. Dave Upthegrove, P.G.
Michael Pisani & Associates, Inc.
1100 Poydras Street
1430 Entergy Centre
New Orleans, LA 70163

Re: Gulf States Creosote Site
City of Hattiesburg Scooba Street Easement
Hattiesburg, Mississippi

Dear Mr. Upthegrove:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your letter dated February 9, 2005, regarding approval to construct a drainage ditch along Scooba Street. MDEQ approval of the proposed scope of work is contingent on incorporation of the following requirement:

1. If the soil exhibits any odors other any natural soils, then the soils shall be loaded directly into trucks for disposal at the Central Landfill. Therefore, if the soils appear **visually impaired or have odors**, then the soils shall be **immediately** loaded into trucks for disposal at the Central Landfill.
2. The excavated material shall be covered immediately upon loading prior to transportation to the landfill.
3. The undercut must be a minimum of 10 inches. MDEQ requires a minimum of 10 inches of clean material.
4. If the excavated material is saturated to the extent that liquids could drain from the dump bed, the dump bed must be lined prior to loading to eliminate any leakage during transportation to the landfill.

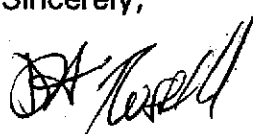
Mr. Dave Upthegrove

February 16, 2005

Page 2

Please call me at 601-961-5318 with any questions you may have.

Sincerely,



Tony Russell, Chief
Assessment Remediation Branch

cc: Keith Watson Kerr McGee Chemical

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STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

February 14, 2005

Mr. A.J. Payton
121 Tuscan Avenue
Hattiesburg, MS 39401

Dear Mr. Payton:

Your letter to Governor Barbour has been forwarded to our Office for response. First, let me apologize for the delay in getting back to you. Our goal is always an expeditious response, and we simply failed to do that in this case. I want to assure you, however, that our staff has been working tirelessly on this site for several years. We have spent more time and effort on this site, relative to its size and level of contamination, than any other site in the State.

In the second paragraph of your letter you mention the lawsuit, and the settlement. MDEQ was not a party of the suit and has no jurisdiction to broker settlements for any of the parties. Our responsibility is to evaluate the clean-up plan and make recommendations to assure that all-unacceptable risks to the public and the environment are removed.

The type and location of any remedial action was based on thorough investigation and sampling. The remaining removal of contaminated soils is awaiting access to residential property.

Our agency has held two public meetings, numerous on-site visits with concerned citizens and several briefings with local officials. Fact sheets were prepared and handed out, questions were answered and input was received. We asked any resident with information about potentially contaminated sites to give us specifics, and many did. All were investigated and if necessary remediated.

If you have specific information about contaminated sites, please let Jerry Banks, (601/961-5221) or Gloria Tatum (601/961-5011) of my staff know and we will look into it.

Sincerely,

Phil Bass, Director
Office of Pollution Control

PB:PI

cc: Governor Haley Barbour
Gloria Tatum
Jerry Banks

2014/9/3

A. J. Payton
121 Tuscan Avenue
Hattiesburg, Mississippi 39401
(601) 544-3550

RECEIVED
SEP 13 2004
GOVERNOR'S OFFICE

Governor Haley Barbour
State of Mississippi
P.O. Box 139
Jackson, MS 39205

Dear Governor Barbour,

I am a resident of Hattiesburg, Mississippi. The people in my community have a problem that I would like to have addressed. Years ago Kerr McGee Chemical Company, a wood treatment plant, was operating in the middle of this community.

In 1993 a law suit was filed on behalf of the Hattiesburg school board which included all the businesses on the West side of the track, when in fact the East side community should have been included in the law suit. The company settled out of court with everybody on the West side of the track.

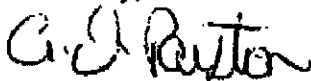
Nothing has been done for this community. The same contaminated dirt they dug up on the West side is the same dirt that was removed from the East side community. The dirt was hauled to a special land fill. I firmly believe that the East side community was left out intentionally because we are Black and that's a clear violation of our Civil Rights. The bad part about it is that the contamination is still here and we still live here. I grew up on County Club Road, reside at 121 Tuscan Ave and own and operate a business on East Side Avenue.

Sir, I know you are a busy man but we need your help in this matter. The best way to see what has happened to this community is to personally see it for your self. Sir, you are the voice for the people in this state. We need representing. The people are crying out for help, but nobody seems to care. Sir, I hope you don't feel the same way. The people have gotten a raw deal and documentation proves it. Documents clearly show that the community is contaminated across a quarter of a mile radius, but justice stopped at the track for this community. That just shows that this company does not care much for the Black people.

I have set down with Mayor Dupree to discuss this matter and he has tried to make contact with this company to resolve this matter but of course the company refuses to return his calls. I would like to set up a meeting with you to discuss this matter at your earliest convenience. Sir, please give this community a hand in this matter!

I can be reached at the shop at (601) 583-6100 or at my residence at (601) 544-3550.

Sincerely,



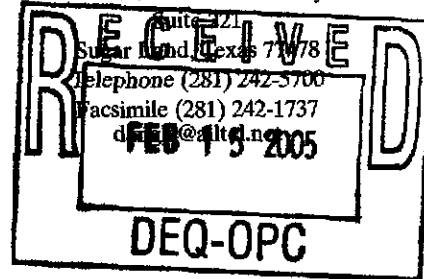
A. J. Payton

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway



February 9, 2005

Mr. Tony Russell, Chief
Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Management of Visibly-Affected Soils
City of Hattiesburg Scooba Street Easement
Hattiesburg, Mississippi

Dear Mr. Russell:

On February 4, 2005, Keith Watson of Kerr-McGee Chemical, LLC (KMC LLC) and I spoke with you regarding ongoing construction activities on Scooba Street in Hattiesburg, Mississippi. Specifically, we discussed the management of affected materials that may be generated during the construction of a drainage ditch on the City of Hattiesburg easement for Scooba Street, in the area between the edge of the pavement and the surface lease currently being developed by Chain Electric. As you requested, this letter documents our proposed procedures for management of visibly-affected soils generated during construction of the ditch.

Project Background

In December 2004, Lane Smith Dozer Service, a contractor for Chain Electric, encountered stained soils near a culvert crossing beneath Scooba Street. KMC LLC agreed to take responsibility for transportation and offsite disposal of these materials, since they may potentially have been associated with historical operations at the Gulf States Creosoting site. On December 14 and 15, 2004, Singley Construction transported 125 tons of affected soil to the Waste Management Central Landfill in McNeil, Mississippi, a permitted Subtitle D industrial waste landfill.

In January 2005, Lane Smith Dozer Service completed the majority of the prep work for expansion of Chain Electric's operations. The prep work consisted of undercutting fill material, debris, and soil to a depth of approximately 4 feet below existing grade in an area approximately 250 feet wide (along Scooba Street) by 100 feet deep. Kyle Wallace, the project engineer for Shows, Dearman & Waits, reported that no visibly-affected soils or odors were encountered during site prep work.

Upon completion of undercutting, fill material was brought in, placed in lifts, and compacted to 95% proctor throughout the excavated area. The final grade of the Chain Electric improved area will be approximately two to three feet lower in elevation than the Scooba Street pavement.

Additional Affected Materials and Proposed Handling Procedures

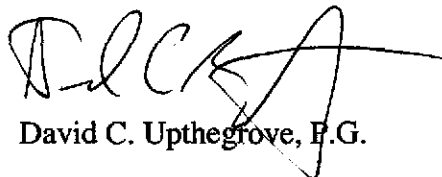
To provide adequate drainage for the improved area, the City of Hattiesburg now plans to construct a drainage ditch on the City easement for Scooba Street, in the area between the edge of the pavement and the improved area. Construction of the ditch will require the removal of several hundred in-place cubic yards of material. Most of the material is anticipated to be unaffected native soil. However, due to its proximity to historical operations at the former Gulf States Creosoting site, some visibly-affected materials may be encountered.

Should visibly-affected materials be encountered during construction of the ditch, they will be loaded directly into trucks for transportation and disposal at the Central Landfill. In areas where affected soils are still exposed after the ditch is cut to proposed final grade, an additional 6 inches will be undercut, then replaced with clean, compacted backfill materials. The entire excavated area will be seeded with a mixture of rye and Bermuda seed. In areas where additional undercutting and backfilling are required, erosion control mat will be secured in place to prevent washout of backfill until seed germination takes place.

Should you have any questions or require additional information, please call me. We look forward to hearing back from you with your approval of our proposed procedures.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

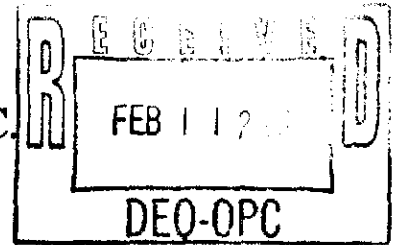


David C. Upthegrove, F.G.

cc: Keith Watson – Kerr-McGee
Bennie Sellers – Director, City of Hattiesburg Public Services

RAMSAY & HAMMOND, P.L.L.C.

ATTORNEYS AT LAW



P. O. Box 16567
106 Madison Plaza
Hattiesburg, Mississippi 39404-6567
Telephone: 601-264-4499
Facsimile: 601-264-5588

S. ROBERT HAMMOND, JR.
bhammond@megagate.com

February 9, 2005

Mr. Tony Russell
Chief, Uncontrolled Sites Branch
Mississippi DEQ
101 West Capitol Street
Jackson, MS 39201

Re: Ryan Motors, Inc. Expansion

Dear Tony:

I have and thank you for your letter of February 7, 2005. We would like to thank you for your assistance in this matter.

The conditions stated in your letter are certainly accepted and the work will proceed pursuant to those conditions. I understand that the work is scheduled to commence on or about February 28, 2005. The contractor is Billy Hanberry and his phone number and address are 601-296-2000; Hanco, Corp., P.O. box 17678, Hattiesburg, MS 39404. You are certainly free to contact Mr. Hanberry if you so desire.

Once again thank you for your assistance. With warm, personal regards, I remain

Sincerely yours,

A handwritten signature in black ink, appearing to be "S. Robert Hammond, Jr.", written over a horizontal line.

S. Robert Hammond, Jr.

SRHjr/lc

cc: Mr. Mickey Ryan



Thomas (T.L.) Cabbage III
Senior Counsel
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

February 7, 2005

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to the request of the Mississippi Department of Environmental Quality in the letter dated December 21, 2004, Kerr-McGee Chemical LLC (KMC) is providing this status report regarding those parcels of land that may require further attention pursuant to the MDEQ-approved Work Plan for the Northeast Drainage Ditch.

The Harris property. On November 9, 2004, representatives of KMC met with Mr. William Harris and his attorney (Kathleen Smiley) to discuss terms under which Mr. Harris would allow KMC access to his leasehold to perform investigation and potential remediation work. On December 1, Ms. Smiley sent KMC a letter outlining a proposed agreement. There have been further telephonic discussions since then to explore alternatives to that proposal. The last communication occurred when KMC called Ms. Smiley's office on February 3, 2005; a brief message was left because Ms. Smiley was out of town. As a result of these negotiations, it appears that KMC and Mr. Harris agree in broad principle to a plan that will provide KMC with access to the Harris leasehold, but before becoming effective that agreement in principle must become a final written agreement that specifies the terms. With the cooperation of Mr. Harris and his attorney, completion of such an agreement likely could be completed within 60 days.

The Woods property. KMC wrote to Ms. Clevester Woods on November 2, 2004, and representatives of KMC met with Ms. Woods on November 9. When asked about her needs concerning an agreement to provide KMC with access to her leasehold, Ms. Woods said that she needed to consult with all of her adult children. On November 23, KMC received a letter from Ms. Woods, indicating her desires in connection with granting KMC access. KMC is attempting to schedule a meeting in Hattiesburg between its representatives and Ms. Woods during the weeks of February 7 or February 14, 2005 to discuss further the potential for an access agreement with mutually-agreeable terms. At this time, pending those further discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

Mr. Tony Russell
February 7, 2005
Page 2

The American Legion Auxiliary property. According to Forrest County records, the parcel at the eastern corner of Scooba Street and Eastside Avenue is leased by "American Legion Auxiliary #225 d/b/a Down Home Cooking Restaurant." It is not certain that "American Legion Auxiliary #225" is an actual legal entity or, if so, who has lawful authority to act on its behalf. The proprietress of Down Home Cookin' is Ms. Pearlle McDougal. KMC received a letter dated December 6, 2004, from Ms. McDougal expressing her desire to communicate directly with KMC. KMC is attempting to schedule a meeting in Hattiesburg between its representatives and Ms. McDougal during the weeks of February 7 or February 14 to discuss the potential for an access agreement with mutually-agreeable terms. (This presumes that Ms. McDougal will be able to show that she has authority to represent the leaseholder.) At this time, pending those discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

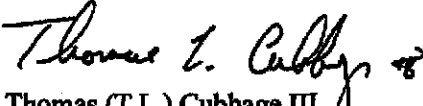
The Bevon property. KMC's representative exchanged telephonic messages in late 2004 with Mr. T.J. Bevon. KMC will make further efforts in February 2005 to contact Mr. Bevon concerning his leasehold. At this time, pending those discussions, the timetable for reaching an access agreement, and whether any impassable hurdles may arise that will block such an agreement, cannot be determined by KMC.

The Florence 375a property. In 2004, MDEQ conducted testing that included a sample collected at a point identified by MDEQ as "Florence 375a." According to information provided by MDEQ, that data point is located between Florence and Scooba Streets, in the block between Eastside Avenue and Francis Street. KMC will undertake efforts in February 2005 to determine the appropriate leaseholder to contact concerning access to this site.

The Norfolk Southern right-of-way. As MDEQ is aware, KMC's representatives held telephonic and face-to-face negotiations with representatives of the Norfolk Southern Railroad on several occasions in 2003 and 2004. During those discussions, Norfolk Southern conditioned access on certain terms that are unacceptable to KMC. KMC has received no indication that Norfolk Southern's position has changed and therefore, at this time, KMC believes that impassable hurdles to access exist that will require MDEQ intervention to resolve.

Your ongoing attention and assistance towards completion of the Northeast Drainage Ditch Work Plan is much appreciated.

Sincerely yours,


Thomas (T.L.) Cabbage III
Counsel for Kerr-McGee Chemical LLC

cc: Jerry Banks (MDEQ)
David Upthegrove (Pisani & Assoc.)
Keith Watson (Kerr-McGee)



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

February 7, 2005

Mr. Bob Hammond, Esquire
Ramsay & Hammond, PLLC
P. O. Box 16567
Hattiesburg, MS 39404-6567

Re: Ryan Motors, Inc. Expansion
Hattiesburg, Mississippi

Dear Mr. Hammond:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your letter dated January 26, 2005 regarding the above referenced site. MDEQ approval to proceed with the project is contingent on incorporation of the following requirements:

1. MDEQ must be notified immediately of any soil that is grossly impacted with creosote by either visual or odors so that it may be handled properly.
2. MDEQ be given a two week notice prior to implementation of the proposed scope of work so a State representative can be present during site activities if warranted.
3. Even though it is stated that no soil will be removed from the site; should any soil be removed, please notify MDEQ prior to removal so that the soil can be properly characterized for disposal.

Please call me with any questions you may have concerning this matter at 601-961-5318.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

K:\Common\UCSS\Tony\Gulf States Creosote\GSC Ryan motor expansion approval w-reg 2-7-05.doc



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMO TO FILE

February 4, 2005

**Gulf States Creosote
Hattiesburg, Miss.**

**EVALUATION
OF
CONFIRMATORY SAMPLING DATA
ALONG DRAINAGE DITCH**

The staff conducted confirmatory sampling along the drainage ditch after most of the removal of contaminated sediments and culverting of the drainage ditch (several pieces of property are yet to be remediated due to access problems) to determine the risk to the public from any remaining contamination. The staff submitted the data collected to Kerr-McGee Chemical for their review and comment. Kerr-McGee subsequently submitted a report on their analysis of the data that the staff submitted to EPA for comment. EPA commented that they did not concur with Kerr-McGee's comparison to some other urban runoff contamination studies, however, EPA did concur that the data revealed that the confirmatory sample concentrations were within the acceptable risk range of 1:10,000 (10^{-4}) to 1:1,000,000 (10^{-6}).

During this time the staff conducted a statistical analysis of the confirmatory sampling data after converting the individual polycyclic aromatic hydrocarbons data to benzo(a) pyrene equivalents. The statistical analysis revealed that one particular sample, the highest concentration observed at sample point Florence 375A, with a benzo (a) pyrene equivalent concentration of 15.306 mg/kg had a pronounced effect on the statistical analysis. When you remove this sample concentration from the statistical analysis the benzo (a) pyrene equivalent mean concentration of all samples decreases from 1.244 mg/kg to 0.832 mg/kg. This concentration is below the concentration of 0.97mg/kg benzo (a) pyrene calculated in the human health risk assessment report as protective of human health. The staff recommended to Kerr-McGee that the area around this sample point be further excavated and they have agreed.

A handwritten signature in black ink, appearing to be "J. Barbour".

K:/common/cercla/Gulf States Creosote -Confirm Sample Report Memo

01/31/05 MON 16:25 FAX 601 545 4608

601 545 4608
CITY OF HATTIESBURG

002

The University of
Southern Mississippi

Anthropology & Sociology

118 College Drive #5074
Hattiesburg, MS 39406-0001
Tel: 601.266.4306
Fax: 601.266.6373
www.usm.edu

January 27, 2005

Mayor Johnny L. DuPree
City of Hattiesburg
P.O. Box 1898
Hattiesburg, MS 39403-1898cc: Mrs. Debra Denard Delgado
Mr. Bennie Sellers
Rev. Carlos Wilson

Dear Honorable Mayor DuPree:

We are writing to file a complaint over the lack of action by either Shemper Inc. or MDEQ on the sorry state of pollution around Shemper's scrap yard in East Hattiesburg. We most humbly implore you to help us convince the egregious parties address the shamefully poor quality of life that has resulted from living near Shemper Inc on Bouie Street.

As you may recall, on January 9, 2004, the Mobile-Bouie Neighborhood Association alerted MDEQ by letter of several potentially dangerous sites of pollution in the neighborhood. This followed an earlier petition campaign in which we collected over 200 signatures of residents in the community who were concerned about the Hercules ditch, the Compress, and Shemper Inc. Mrs. Gloria Tatum responded forthrightly to our concerns and spent MDEQ resources in testing several areas for contaminants and helping us involve Hercules Hattiesburg Plant in a community relations event.

However, for over a year now, there has been a blanket of silence over the polluted area now occupied by Shemper Inc. We suspect, based on Mrs. Tatum's explanation to us last year, that Shemper Inc. is dragging its feet and not cooperating with MDEQ. This must stop. Residents living around Shemper Inc are bombarded by airborne industrial pollution, seeping battery acid and antifreeze from the salvage yard, and the acetylene torch cutting and welding of iron and steel. Soot on plant leaves, which may have led to residential plants dying, are a recurring problem. Moreover, a number of potential hazards exist in the subsurface, when the Mississippi Central railroad occupied the area. We are concerned about lead contamination from the boxcar repair and paint yard (lead paint was used) and the diesel engine repair yard (spillage, dumping, burying of contaminants).

Is there a timeline to test what is emanating from Shemper Inc, and is there another Brownfield site in our midst? Mr. Sellers had no answers to a recent inquiry about these matters posed to him by Mr. Charles Davis. Perhaps you, our City's leader, can help. If not, our next course of action will be a petition and negative publicity (against Shemper Inc.) campaigns.

Yours truly,

Jeffrey Kaufmann, PhD
Anthropology

Mrs. Vivian Dyess
Pres. Mobile-Bouie Association

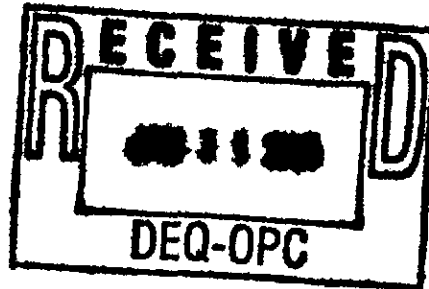
Mr. Charles Davis
Resident Activist

RAMSAY & HAMMOND, P.L.L.C.

ATTORNEYS AT LAW

P. O. Box 16567
106 Madison Plaza
Hattiesburg, Mississippi 39404-6567
Telephone: 601-264-4499
Facsimile: 601-264-5588

S. ROBERT HAMMOND, JR.
bhammond@megagate.com



January 26, 2005

Mr. Tony Russell
Chief, Uncontrolled Sites Branch
Mississippi DEQ
101 West Capitol Street
Jackson, MS 39201

Re: Ryan Motors, Inc. Expansion

Dear Tony:

Enclosed please find an aerial photograph prepared by Billy Waites. He has drawn the restricted area. Please see the drawing of the proposed addition to the parking area 350 feet down West Pine by 150 feet deep. Also, we have shown the 70 foot by 25 foot extension of the existing building.

From our meeting on site a week or two ago, Mr. Ryan and I understand that no dirt from the restricted area is to be removed from the property.

I would appreciate your reviewing the enclosed and advising us as to whether we could proceed with this project. Thank you for your assistance in this matter.

With warm, personal regards, I remain

Sincerely yours,

A handwritten signature in black ink, appearing to be "S. Robert Hammond, Jr." written in a cursive style.

S. Robert Hammond, Jr.

SRHjr/lc
Enclosure

cc: Jane Raiford, Esquire (w/enc.)
Mr. Mickey Ryan (w/o enc.)



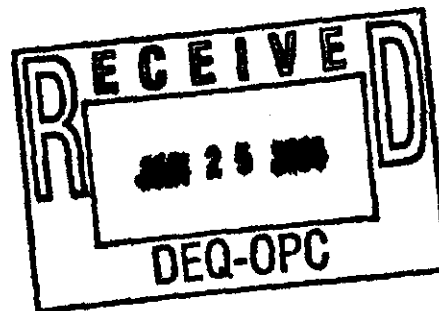
WAITS ENGINEERING CONSULTANTS, LLC
 3100 Faby St., Suite C
 Harrisburg, PA 17104
 Phone: (610) 444-0000



KERR-McGEE CHEMICAL LLC

KERR-McGEE CENTER • P.O. BOX 25861 • OKLAHOMA CITY, OKLAHOMA 73125

January 19, 2005



Tony Russell, Chief
Assessment Remediation Branch
Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

Re: MDEQ Soil Samples Adjacent to the Northeast Ditch
Gulf States Creosote Site
Hattiesburg, Mississippi

Dear Mr. Russell:

I am writing in response to your letters of December 8 and December 21, 2004, which resulted in a conference call between Kerr-McGee and MDEQ representatives on January 7, 2005. We have discussed your requests regarding proposed action with respect to MDEQ soil samples adjacent to the Northeast Ditch.

In our teleconference, we discussed your Dec. 21st request for monthly reports on access issues for several properties. Kerr-McGee's will provide the required reports under separate cover on the schedule you proposed.

Your December 8, 2004 letter requested the conference call for the purpose of discussing the results of MDEQ's 2004 sampling of soils near the Northeast Ditch. As we discussed, KMC LLC considers that, except for several parcels where we were denied access, we have completed the approved NE Ditch remediation as provided by our MDEQ-approved work plan

In the conference call, Jerry Banks requested that the KMC LLC perform some additional remediation. Mr. Banks noted that the average benzo(a)pyrene equivalence (BaP) concentration for all the soil samples was 1.25 mg/kg. He noted that if Florence 375A were remediated, the average for the remaining samples would be 0.83 mg/kg.

KMC LLC has considered MDEQ's request and offers to perform a voluntary removal action, outside of the requirements of our approved work plan. We will perform this work along with remediation planned for nearby properties, when all the aforementioned access issues are resolved. We propose to excavate and backfill an area 10'x10'x 1.0' around the location of the Florence 375A sample. This location was selected as it is nearest to the former Gulf States site and has, by far, the highest BaP concentration. Removal of the soils at the Florence 375A location will lower the average concentration for the remaining 70+ locations to less than the 10⁻⁵ risk level.

Mr. Tony Russell
January 19, 2005
Page 2

If you have any questions or comments, please call me at 405/270-3747.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Keith Watson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

A. Keith Watson
Project Manager

Copy: J. Banks - MDEQ
T.L. Cabbage
N. Bock
G. Pilie' - Adams & Reese
D. Upthegrove - Michael Pisani & Assoc.



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

FILE COPY

January 7, 2005

Mr. Keith Watson
Kerr McGee Chemical LLC
P. O. Box 25861
Oklahoma City, OK 73125

Re: Gulf States Creosote Site
*Proposed Use of Trees to Update Affected Ground Water Gordon's
Creek Fill Area Containment Cell* dated November 12, 2004
Hattiesburg, Mississippi

Dear Mr. Watson:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the above referenced revised plan submitted by Michael Pisani & Associates, Inc. MDEQ formally approves the revised plan.

According to Section 5.1.4 of the RAP, the wells were to be checked monthly for the first six months and then if warranted the frequency would be changed from monthly to an appropriate frequency. MDEQ has yet to be notified when a Kerr McGee representative will be onsite to gauge the monitor wells for free product so that a State representative may be present to observe. Mr. Dave Upthegrove was verbally instructed some months back to make sure MDEQ was notified prior to the wells being checked for product. Therefore, we have to assume the wells are not being gauged according to the approved RAP. Please submit a report documenting that the wells are being gauged as required by the RAP. Also indicate the amount of free product present in each well and the amount that has been removed to date and a schedule for gauging the wells.

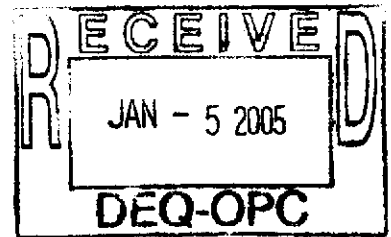
Mr. Keith Watson
January 7, 2005
Page 2

Please call me at 601-961-5318 with any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell". The signature is stylized with a large initial "T" and "R".

Tony Russell, Chief
Assessment Remediation Branch



MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@alltel.net

January 3, 2005

Mr. Tony Russell, Chief
Groundwater Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Cover Page for Final Phytoremediation Plan
Gordon's Creek Fill Area
Hattiesburg, Mississippi

Dear Mr. Russell:

Pursuant to your request, we have revised the enclosed cover page for the referenced plan to indicate that the document is final. Should you have any questions or require additional information, please call me.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

David C. Upthegrove, P.G.

cc: Keith Watson - Kerr-McGee

-Final Document-
**Proposed Use of Trees to Uptake
Affected Ground Water
Gordon's Creek Fill Area Containment Cell**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

November 12, 2004

Project No. 21-04

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street

1430 Energy Centre

New Orleans, Louisiana 70163

(504) 582-2468



FILE COPY

STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

December 21, 2004

Mr. Keith Watson
Kerr McGee Chemical LLC
P. O. Box 25861
Oklahoma City, OK 73125

Re: Gulf States Creosote Site
Northeast Drainage Ditch Project
Hattiesburg, Mississippi

Dear Mr. Watson:

It has been a year since the remediation of the Northeast Drainage Ditch was halted due to access problems with certain properties. Therefore, the Mississippi Department of Environmental Quality (MDEQ) requires the following actions be implemented:

1. Submit a status report on a monthly basis to MDEQ outlining the following regarding each parcel of land that requires further assessment or remediation:
 - a. Any correspondence or interaction with the parcel owner, trustee, lessee or their attorney,
 - b. Timeline for reaching an access agreement with each lessee,
 - c. Progress on reaching an access agreement with each lessee,
 - d. Any impassible hurdles that may need MDEQ involvement, and
 - e. Any other relevant conversations/correspondence pertaining to these properties.

The parcels of land that should be included in this response are: Will Harris property, Clevester Woods property, Bevon property, American Legion property and the railroad right-of-way.

Mr. Keith Watson
December 21, 2004
Page 2

The initial status report shall be submitted by February 7, 2005 and each subsequent report is due by the 7th day of the following month. Please call either of us with any questions you may have concerning this matter.

Sincerely,



Tony Russell, Chief
Assessment Remediation Branch



Jerry Banks, Chief
Groundwater Assessment & Remediation Division

cc: Bill Cheney Secretary of States Office
Roy Furrh MDEQ Legal Division



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell

DATE: December 16, 2004 *TR*

SUBJECT: GW Sampling Event Conducted 12-15-04

I met with Brad Blalock on December 15, 2004, to observe and collect splits on monitor well samples. Once the wells were purged using a peristaltic pump, the samples were collected using the pump. I collected splits on monitoring wells 12, 18, and 22. The samples will be delivered to the OPC lab for PAH analysis.

I also confirmed that the small area of creosote contaminated soil along Scooba Street was excavated and disposed of properly. This is the area that was uncovered back on December 1, 2004, by the contractor for Chain Electric. Some contamination was left adjacent to the roadway, as it would have jeopardized the integrity of the roadway to remove at this time. It will be dealt with at a later date.

Fly-ash was used to solidify the moist soil for transport to McNeill landfill. As soon as the material was removed, the excavation was backfilled with red sand fill material.

One of the grates over the drain inlets below Martin Luther King Drive and monitoring well 22 had been lifted out of place. Brad and I replaced the grate due to safety concerns. It appeared kids had removed the grate so they could enter the under ground drainage culverts.

No photos were taken during this groundwater monitoring event.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC memo to file on GW sampling event 12-15-04.doc



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: December 2, 2004

SUBJECT: Site Visit

I conducted a site visit after receiving a call that a contractor had found creosote in the ditch along side Scooba Street. Upon arrival at the site, I did verify that a small amount creosote was present in the ditch. Which was no surprise as this is the same area that was to be dealt with when access was granted by the railroad.

The contractor for Chain Electric was cleaning out the ditch so that rainwater could discharge more effectively from the property. I called Bennie Sellers, as this contamination was on the City of Hattiesburg ROW just adjacent to the railroad ROW. Bennie indicated he would contact Dave Upthegrove (Michael Pulsani & Associates) about handling and disposal. I had tried to reach Dave Upthegrove myself but he was out of the office at the time of my call. I told Bennie that all they needed was a container to put the material in, as a trackhoe was onsite.

I instructed the contractor and Cal Wallace (Shows, Dearman & Waits) to load the material into a roll-off box until it could be profiled for disposal at a permitted landfill.

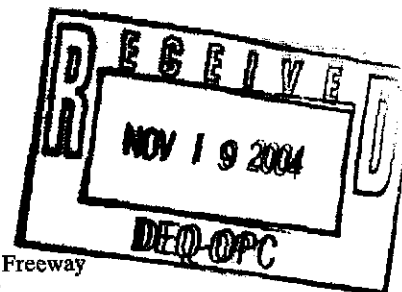
K:\Common\UCSS\Tony\Gulf States Creosote\GSC visit for creosote in Scooba ditch 12-1-04.doc

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
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13313 Southwest Freeway
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Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@alltel.net



November 15, 2004

Mr. Tony Russell, Chief
Groundwater Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Revised Phytoremediation Plan
Gordon's Creek Fill Area
Hattiesburg, Mississippi

Dear Mr. Russell:

We have revised the enclosed plan to address your comments regarding monitoring frequency and replacement of dead trees. Should you have any questions or require additional information, please call me.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "D. Upthegrove". The signature is written in a cursive style and is positioned above the printed name of the signatory.

David C. Upthegrove, P.G.

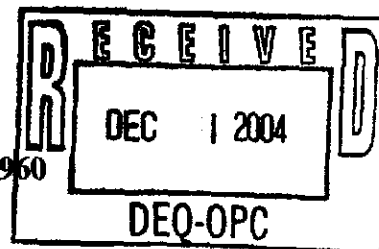
cc: Keith Watson – Kerr-McGee



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960



November 10, 2004

R4WD-TSS

MEMORANDUM

SUBJECT: Review of "The Nature of PAH in Soils from the Northeast Drainage Ditch, Hattiesburg Mississippi"

FROM: Janine Dinan, Environmental Health Scientist *JAD*
Technical Services Section
Waste Management Division

TO: Tony Russell, Chief
Assessment Remediation Branch
Mississippi Department of Environmental Quality

Per your request, I have reviewed the report titled, "The Nature of PAH in Soils from the Northeast Drainage Ditch, Hattiesburg Mississippi" dated September 13, 2004.

The report asserts that the majority of samples from the Northeast Drainage Ditch contain PAH compounds that can be attributed to "urban background" contamination as opposed to creosote contamination. The author of the report relies heavily on information obtained from ATSDR's 1995 Toxicological Profile for PAHs. In fact, Table 2 of the report is an exact duplicate of a table presented in the toxicological profile available on-line. However, I don't believe that any of the data presented in the tox profile was obtained from Hattiesburg, Mississippi; thus, its relevance to this particular site is unclear. Likewise, the author compares ditch sample results to the PAH distribution in U.S. National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) 1649A *Urban Dust*. According to the NIST website, SRM 1649A "was prepared from atmospheric particulate material collected in the Washington, DC area in 1976-1977." I question whether data obtained in the mid-1970s from Washington, DC are representative of conditions in Hattiesburg, Mississippi.

The assertions made in the report would certainly be stronger if PAH fingerprinting was done on background samples obtained in Hattiesburg; however, it is my understanding that the background samples for the site did not contain measurable levels of PAHs.

Our approach would be to evaluate the risk posed by the contamination (regardless of its source) and address the areas found to have significant risk. As a conservative screen, I compared the data to generic Preliminary Remediation Goals (PRGs) published by US EPA Region IX. Although generic PRGs are not available for all the PAH compounds listed, values are available for the following:

Acenaphthene
Anthracene
Benz(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene
Dibenz(a,h)anthracene
Fluoranthene
Fluorene
Indeno(1,2,3-c,d)pyrene
Naphthalene
Pyrene

Upon comparing the sample results listed in the report to generic PRGs for residential land use, I found the levels for the contaminants listed fall within our risk range of 10^{-6} to 10^{-4} for carcinogens or below a Hazard Quotient of 1 for noncarcinogens.

If you should have any questions please feel free to contact me at 404-562-8491.

REFERENCES:

1. Region 9 Preliminary Remediation Goals, available at:
<http://www.epa.gov/region09/waste/sfund/prg/index.htm>.

cc: Scott Sudweeks, Chief of Technical Services Section



ENVIRONMENTAL PROTECTION AGENCY

Donna K. Seadler Webster

Remedial Project Manager

North-Superfund Branch **ONE 6**

11th Floor
61 Forsyth St SW
Atlanta, GA 30303

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E-mail: webster.donna@epa.gov

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 21 2003

Mr. James Rogers
Concerned Citizens of Hattiesburg, MS
1001 E. 7th Street
Hattiesburg, MS 39401

Dear Mr. Rogers:

We have received your letter of September 14, 2003, which was sent to Marianne Horinko at USEPA Headquarters. We appreciate your concern regarding the contamination at the former Gulf States Creosoting facility. We hope the following response, coordinated between EPA, the Agency for Toxic Substances Disease Registry (ATSDR), and the Mississippi Department of Environmental Quality (MDEQ), is of help to you.

Gulf States Creosoting Company and then American Creosoting Corporation operated a creosote wood preservation facility on 16th Section Land in Hattiesburg, MS. As you may be aware, 16th Section Land in Mississippi is land which is owned by the state. This particular land was held in trust by the state for the Hattiesburg Public School District and leased to various businesses. American Creosote ceased wood-treating operations around 1960. In 1964, Kerr-McGee Chemical Corporation purchased the assets and liabilities of the American Creosoting Corporation.

EPA became aware of the site around 1989. In 1990, MDEQ conducted a Preliminary Assessment (PA), for EPA, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as the Superfund program. The PA, which does not include any sampling, recommended a high priority for additional investigation. In 1991, MDEQ then conducted a Site Inspection (SI), which includes sampling, and determined that no further remedial action under CERCLA was necessary. The basis for this determination is the Hazard Ranking System, or HRS. The HRS is a federal regulation, found at 40 C.F.R. §300, that provides a standard framework for evaluating the hazards at sites, and assigning a numerical score. Factors evaluated include level of contamination, extent of contamination, toxicity and bio-accumulation potential of contaminants, population and land use, drinking water sources, and more. Sites with numerical scores greater than 28.5 are then recommended for placement on the National Priorities List (NPL). NPL sites are those which are typically referred to as Superfund Sites and which are then cleaned up through either the use of the Superfund or, preferably, through legal action which requires the Potentially Responsible Party (PRP) to conduct the cleanup. The inability of a site to obtain a sufficient score for HRS ranking does not mean the site may not pose a concern to local residents or state and local governments. The former Gulf States Creosoting site, which is of concern to you, did not score greater than 28.5, and so was not recommended for placement on the NPL.

The site was then referred to the EPA Emergency Response and Removal Program (ERRB) to determine if any immediate action was necessary. ERRB assessed the property, in conjunction with ATSDR, and determined that the site was of low priority for a removal action and should be addressed by MDEQ.

After determining that Kerr-McGee was the responsible party, MDEQ began negotiations with Kerr-McGee for a voluntary cleanup. EPA does not oversee the states' voluntary cleanup programs but does provide technical assistance upon request. At the request of MDEQ, EPA reviewed the human health risk assessment prepared by Kerr-McGee's contractor. These comments were sent to MDEQ in June 2000. For each of the areas being remediated, Kerr-McGee submitted work plans and health and safety plans to MDEQ. Cleanup levels are set at the levels established in the risk assessment for the different exposure scenarios which are protective of human health and the environment. Attached are two fact sheets issued by MDEQ at public meetings in November 2002 and October 2003. These fact sheets detail the areas being remediated and address many of your concerns regarding exposure and groundwater.

The lawsuit which you mentioned in your letter, as well as various other lawsuits, were brought against Kerr-McGee by in the United States District Court regarding this issue. These were settled after MDEQ approved the Remedial Action Workplan, which is the basis for the cleanup. Note that MDEQ was not a party to the lawsuit, but the resolution of the case did hinge on approval of the cleanup plan by MDEQ. Once approved, MDEQ and Kerr-McGee entered into an Agreed Order which states that Kerr-McGee will execute the cleanup plan as approved. A Judgement of Dismissal was then signed by Judge Pickering regarding these cases. If any compensation was paid as a result of these cases, EPA is not aware.

We appreciate your concern for the health of the local citizens during the cleanup. Although short-term exposure to creosote is not generally harmful, it does have an unpleasant odor which can be nauseating, and it can aggravate existing difficulties such as asthma. The City of Hattiesburg, who has contracted the North East Drainage Ditch project, which is being funded by Kerr McGee, has agreed to move one of the elderly residents to a hotel during the time of the remediation. We are unaware of additional residents who may require special accommodations.

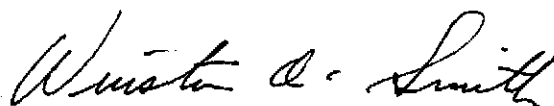
You noted your concern that some workers were being told to abandon the site when creosote was encountered. The reason for this is that there are two crews of workers. One crew is removing the contamination by excavating the drainage ditch, and the other crew is following to install a new and upgraded drainage ditch in its place. The crew removing the contamination has been trained in hazardous waste operations per federal Occupational Health and Safety Administration (OSHA) regulations. Because the construction crew has not had this training, they have been asked to leave the area when the creosote is encountered, so that the properly trained workers can handle the creosote removal.

You mentioned that Davis Timber Company was a Superfund site but did not feel it posed as great a risk as the former Gulf States Creosoting Company location. As you stated, the toxicity, persistence and bioaccumulation of the chemicals of concern are all considered under the Hazard Ranking System. Davis Timber used pentachlorophenol (PCP) in their wood treating process. PCP is far more toxic than creosote which may explain why the Davis Timber Company received a higher HRS score and was referred to the NPL. The HRS scoring information is available in the file for both sites.

The ATSDR has received a request to conduct a health assessment in the area surrounding the former Gulf States Creosote site, and is currently investigating whether this is necessary. EPA relies on ATSDR's expertise in evaluating health concerns and is awaiting their decision.

We hope this response has been helpful in addressing your concerns about the former Gulf States Creosote wood treating operation in Hattiesburg, MS. If EPA may be of further assistance, please feel free to contact Donna Webster, in the Waste Division, at (404) 562-8870. If you have questions regarding ATSDR's investigation, you may contact Carl Blair at (404) 562-1786. If you would like more specific information about the work plans and agreements made with MDEQ, please contact Tony Russell at (601) 961-5318.

Sincerely,



Winston A. Smith, Director
Waste Management Division

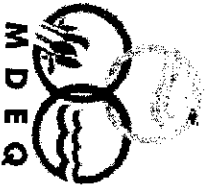
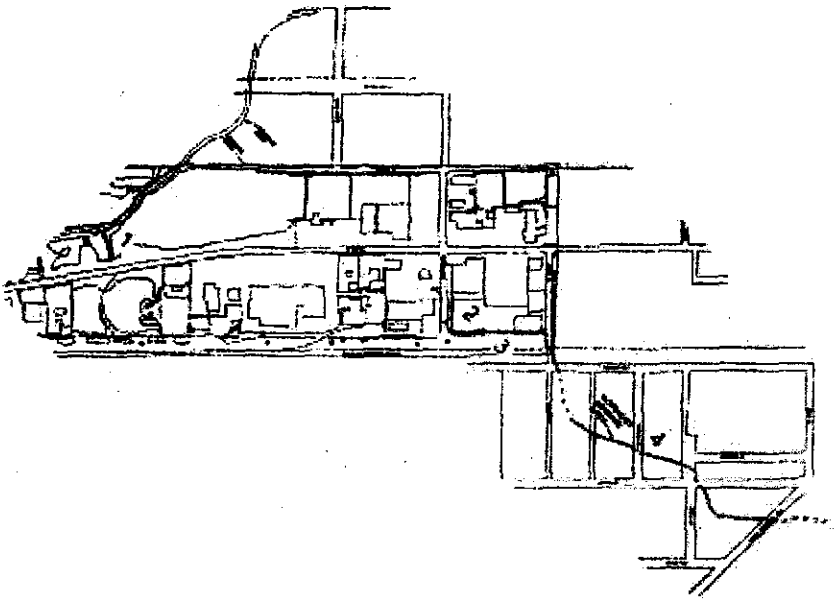
Enclosures

If you have any additional questions,
please contact:

Mississippi Department of Environmental Quality
Uncontrolled Sites Section
(601) 961-5318

Mississippi Department of Environmental Quality
Field Services Division
(601) 961-5011

Mississippi Department of Environmental Quality
Legal Division
(601) 961-5369



Mississippi Department of **ENVIRONMENTAL QUALITY**

PROPOSED CLEANUP PLANS
for the former Gulf States Creosote site in Hattiesburg
October 2003

MDEQ strives to preserve and protect Mississippi's air, land, and water through fair and responsible regulation.

P.O. Box 20305
Jackson, MS 39289
www.doeq.state.ms.us



If you have any additional questions,
please contact:

Mississippi Department of Environmental Quality
Uncontrolled Sites Section

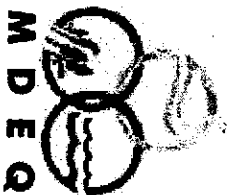
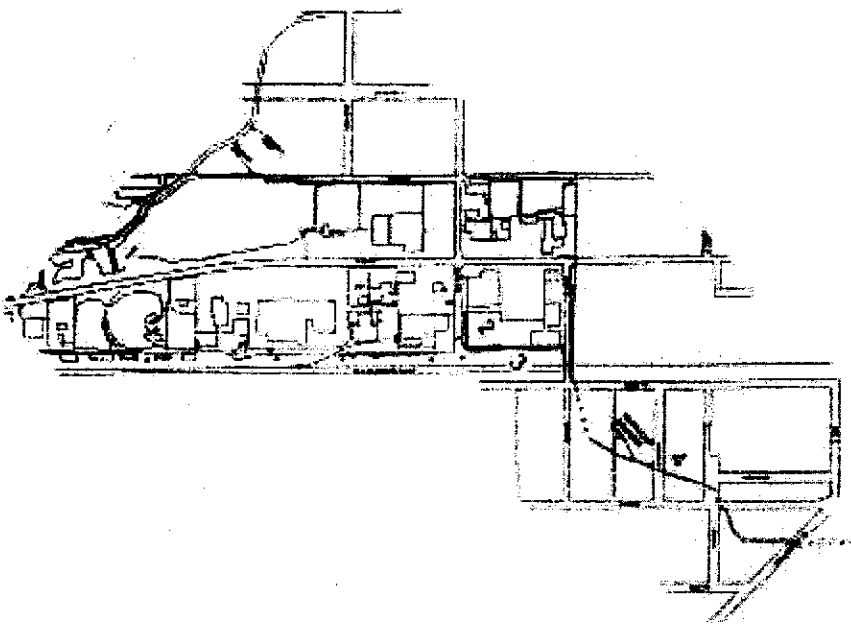
(601) 961-5318

Mississippi Department of Environmental Quality
Field Services Division

(601) 961-5011

Mississippi Department of Environmental Quality
Legal Division

(601) 961-5369



Mississippi
Department

of ENVIRONMENTAL QUALITY

**PROPOSED
CLEANUP PLANS
for the former Gulf
States Creosote
site in Hattiesburg**

November 2002

MDEQ strives to preserve
the subject Mississippi's air,
land, and water through fair
and responsible regulation.

P.O. Box 10385
Jackson, MS 39289
www.deq.state.ms.us



The Mississippi Department of Environmental Quality (MDEQ) is publishing this notice to inform the citizens of Hattiesburg and the surrounding area about the proposed cleanup of the former creosote plant located in and around Courtesy Motors on West Pine Street.

The former creosote plant operated from the early 1900's to approximately 1960. Since the plant operated prior to the creation of MDEQ, the agency never regulated this site. In 1962, the site was redeveloped for commercial and light industrial use.

(see map on back)

Former Fill Area (between West Pine St. & Gordon's Creek)
Proposed Cleanup: Install sheet-piling wall along the creek bank to eliminate seepage into the creek, install monitoring and recovery wells along the wall to monitor and recover any free product that may collect, install concrete culvert from West Pine Street to Creek, cover the area with a liner, and plant trees to prevent mounding of groundwater along the sheet-piling wall.

(see map on back)

Former Process Area (between Scooba St. & Timothy Ln)
Proposed Cleanup: Remove creosote contaminated soil from the wooden substructure and the concrete sump area, backfill with compacted clay fill material, regrade the surface and cap the area with a liner and asphalt.

(see map on back)

Southern Railroad Track Area

Proposed Cleanup: Remove creosote contaminated sediment and soils from within and beneath the drainage ditch. Depending on the effects of the integrity of the railroad tracks, the soils will either be capped in place or removed.

(see map on back)

Northeast Ditch from Scooba Street to Katie Street

Proposed Cleanup: Remove contaminated sediment and soils, install a liner and sand bed in the ditch, install culvert and surface drains, and then backfill around culverts with clean soil.

In an effort to address some of your concerns, MDEQ has listed answers to the most frequently asked questions about the proposed cleanup. If you have any other questions, please contact Tony Russell at (601) 961-5318.

Question 1. Has the City's drinking water been contaminated by creosote or other wood treating chemicals?

No. There is no threat to the City of Hattiesburg's drinking water supply, but MDEQ will require monitoring on a semi-annual basis for two years to watch for any possible migration of groundwater contamination. After two years, the monitoring will be performed on an annual basis for an indefinite period of time.

Question 2. Have the citizens or residents in the area been exposed to creosote contamination at the surface?

No. MDEQ is not aware of any direct exposure at this time. The limited amount of contamination that exists is below the surface. Although creosote contamination exists in the drainage ditch that runs from Scooba Street to Katie Street, there is no direct exposure because the contamination has been covered by sediment that has been deposited over time.

Question 3. How does MDEQ know that the shallow groundwater contamination will not impact the City of Hattiesburg's drinking water supply or a private well?

Extensive groundwater monitoring will allow MDEQ to watch the location of the groundwater contamination and ensure that any migration does not threaten drinking water in the area. A private water well search was conducted in October 2000 in the residential area surrounding the site, and no private wells were identified. Also, the City of Hattiesburg has an ordinance that prohibits the drilling of private wells within the city limits.

Question 4. What is the possibility that contamination will continue to migrate in the future?

The remedies proposed should eliminate the possibility for migration in the fill area, process area, and drainage ditch.

Question 5. How long will the remediation take place?

The remedies proposed for the process area and the fill area will be accomplished within one year. The remedy for the northeast drainage ditch may take more than one year due to size of the project and weather conditions.

Question 6. Does MDEQ know if the contaminants have migrated from the site to the soils in the residential yards in the area?

Soil samples have been collected in the residential area, and no contamination was found above the target remediation goal levels established by MDEQ.

Question 7. When the company begins the cleanup of the site, will this create exposure to residents in the area?

No. But there will be odors associated with the removal of contaminated soils from the process area and the Northeast drainage ditch. Citizens will not be exposed to harmful levels of contaminants from the site.

Question 8. What is being done about the creosote in Gordon's Creek?

MDEQ knows there are occasional seepages from the old fill area into Gordon's Creek, but an ecological assessment conducted by the Corp of Engineers indicated that there are no environmental impacts to the creek. A sheet-piling barrier wall will be installed to eliminate further discharges to the creek.

The Mississippi Department of Environmental Quality (MDEQ) is publishing this fact sheet to inform the citizens of Hattiesburg and the surrounding area about the status of the proposed cleanup of the former creosote plant located in and around Courtesy Motors on West Pine Street.

The former creosote plant operated from the early 1900's to approximately 1960. The contamination at the former Gulf States Creosote site occurred prior to 1960, long before the creation of the Mississippi Department of Environmental Quality. In 1962, the site was redeveloped for commercial and light industrial use.

YELLOW TEXT indicates work completed

Former Fill Area

Proposed Cleanup: Install sheet-piling wall along the creek bank to eliminate seepage into the creek, install monitoring and recovery wells along the wall to monitor and recover any free product that may collect, install concrete culvert from West Pine Street to Creek, cover the area with a liner, and plant trees to prevent mounding of groundwater along the sheet-piling wall.

Former Process Area

Proposed Cleanup: Remove creosote contaminated soil from the wooden substructure and the concrete sump area, backfill with compacted clay fill material, regrade the surface and cap the area with a liner and asphalt.

Southern Railroad Track Area

Proposed Cleanup: Remove creosote contaminated sediment and soils from within and beneath the drainage ditch. Depending on the effects of the integrity of the railroad tracks, the soils will either be capped in place or removed.

Northeast Ditch from Scooba Street to Katie Street

Proposed Cleanup: Remove contaminated sediment and soils, install a liner and sand bed in the ditch, install culvert and surface drains, and then backfill around culverts with clean soil. The drainage ditch project is complete except for replacing the culverts beneath Martin Luther King Avenue, Florence Avenue and Eastside Avenue, and completing inlet boxes, grading and seeding. Additional potential areas of concern along the drainage ditch have been identified and will be assessed and remediated over the next few months as needed.

In an effort to answer your questions, MDEQ has listed answers to the most frequently asked questions about the proposed cleanup. If you have any other questions, please contact Tony Russell at (601) 961-5318.

Question 1. Will the City's drinking water be contaminated by the contamination in the shallow water table?

No. There is approximately 150 to 200 feet of Hattiesburg Clay between the contaminated shallow water table and drinking water. The City of Hattiesburg's wells are screened in the Catahoula Formation. The Catahoula Formation is a geologic formation, approximately 660 feet thick, that extends from 530 feet to 1190 feet below ground surface, from which the City of Hattiesburg obtains its drinking water.

Question 2. Is the soil that is stockpiled along the drainage ditch contaminated? No. This soil came from either clean areas of the drainage ditch or from areas outside the drainage ditch pathway and will be used for backfill. When installing the larger drainage pipe, a lot of excess soil was generated from the excavations. This non-contaminated soil was stockpiled until needed for backfill.



Question 3. What happened to the excavated contaminated soil from the drainage ditch? All the contaminated soil was loaded directly into trucks for disposal and sent to a permitted landfill. Each truck that leaves the site is covered to

further insure that soil is not spilled enroute to the landfill.



Question 4. Is dust a concern? The Health and

Safety Plan requires that the dust be controlled. The only dust noticed during the unannounced site inspections was on Martin Luther King Drive where vehicle traffic was stirring up dust. The dust is generated from truck traffic across the non-contaminated soil that is being brought in as backfill material. The soil excavated from the ditch is moist and is being loaded directly into covered trucks for disposal. Even though the dust is from non-contaminated soil, the area is being sprayed with water from the City's potable water supply system to minimize the nuisance effect caused by the dust.

Question 5. Is air pollution a concern?

No. The air is being monitored as required in the Health and Safety Plan for both the process area and the drainage ditch removal projects. There are both stationary and mobile units being used for monitoring purposes. The readings are being documented on a daily basis and recorded in a permanent file as required in the Health and Safety Plan. There are odors associated with the creosote as it is removed, but none of the permissible exposure limits for the creosote compounds have been exceeded in the work zone. Therefore, although workers and residents may smell the creosote as it is excavated, there is no associated health risk because the air is being closely monitored.

11/9/04

PLEASE SIGN IN

NAME	ADDRESS	TELEPHONE	FAX	EMAIL
Thomas Culbage	Kerr-McGee - Okla. City	405-270-2741	405-270-4101	tculbage@kmg.com
LEARNARD DICKERSON	Kerr McGEE - Hamilton, MS	662-343-8504	662-343-2053	ldickerson@kmg.com
Dorothy Jamal	Hattiesburg, MS	601-584-7182 H 601 270-5240	—	—
Alicia Banks	H. burg miss	601 584-2433		
Bud J. Pitts	" " " "	594-7545		
Carolee Reed	" " "	584-4125		
Gloria Tatum	P.O. Box 10385 Jackson, MS. 39201-0087	601-961-5011	601-961-5372	Gloria-Tatum@deg.state.ms.us
Tony Russell	101 West Capitol Jackson, MS, 39201	601-961-5388	601-961-5300	Tony-Russell@deg.state.ms.us
Jerry Banks	" "	601-961-5221	" "	Jerry-Banks@deg.state.ms.us
C. Levester Woods				
Charles McDougall	504 Tuscan Lane	601 582 7193		
Johnny White	P.O. Box 588 H. Burg	601-585-8501	601-585-4608	mayor@hattiesburg.ms.com
Charles E. Lawrence Jr	P.O. Box 1624, H. burg	(601) 582-4157	(601) 582-4150	celawjr@AOL.com
Carolyn Jordan	P.O. Box 831 P.O. Box 831 MS 39465	601-583-1449		

11/9/04

NAME	ADDRESS	TELEPHONE	FAX	EMAIL
A. J. Payton	1212 East Side	583-6100 544-3550		
Brad Nix	712 East Side Dr	544-7505		
James Rogers	1001 East 7th St	58-4611		
David Upthegrove	290 Indian NOLA	504 582-2162	504 582-2470	dupthegrove@ix.netcom.com
Calvin E. Phillips	100 Baxter St	264-8298		
John Pruitt	321 Scobee St	544-4237		
Raymond Phillips	109 Scobee	5746082		
Sherri Jones	Columbia			
Mr. & Mrs. Will Harris				
Kathleen Smiley	Gulfport			attorneys for Will Harris
Mille Koussci	New Orleans			



KERR-McGEE CHEMICAL LLC
KERR-McGEE CENTER • P.O. BOX 25861 • OKLAHOMA CITY, OKLAHOMA 73125

SEP 16 2004

September 14, 2004

Tony Russell
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

Re: Former Gulf States Creosoting Site, Hattiesburg, MS
Nature of Polycyclic Aromatic Hydrocarbons In Soils In the Vicinity Of The
Northeast Ditch

Dear Mr. Russell:

Kerr-McGee Chemical LLC (KMCLLC) is providing you with a report prepared by Allen D. Uhler, Ph.D. of NewFields Environmental Forensics Practice, LLC of soil samples collected along the Northeast ditch in Hattiesburg, MS. Soil samples were collected by Mississippi Department of Environmental Quality personnel on May 25-27, 2004, after implementation of the MDEQ approved Removal Action Work Plan along the North East Ditch. The samples were analyzed by MDEQ's contract laboratory, Argus Analytical, and the results were forwarded to KMCLLC by MDEQ.

Dr. Uhler concludes with the exception of one sample, based on his expert opinion, that the low concentration of Polycyclic Aromatic Hydrocarbons (PAH) observed in the vicinity of the North East ditch are consistent with urban background PAH's. KMCLLC is very encouraged by the conclusions of this report.

Should you have comments or questions please contact me at (405) 270-3747.

Sincerely,

On Behalf of
KERR-McGEE CHEMICAL LLC

A. Keith Watson
Project Manager

cc: Nick Bock
John Dixon
T.L. Cabbage
David Upthegrove – Michael Pisani & Assoc.
Glen Pilie' – Adams & Reese



July 9, 2004

Mr. Tony Russell
Office of Pollution Control
Mississippi Department of Environmental Quality
101 West Capital Street
Jackson, MS 39201

Re: Gulf States Creosote Site
Sight Layout, Soil Sampling, and Remediation Work Plan dated October 15, 2003
East Portion, of the drainage ditch on Parcel #5
West Pine Street
Hattiesburg, MS

Mr. Russell,

We would like to address your concerns/comments set forth in your letter dated January 16, 2004 regarding the work plan and processes for Phase II soil sampling and possible remediation. If you have any further questions or concerns after your review of this letter please let me know and I will provide a response as soon as possible.

Ref: Section 2.0, Scope of Work

- 1) Walker Hill Company of Foxworth, MS would sample the cores required from the east side of the site. , using a Geoprobe.
- 2) The core samples would be extracted and analyzed per the recommendations set forth in your letter dated January 16, 2004 shown in item# 1. Which are:

Core locations	Set in a grid per MDEQ guidelines and regulations,
Core depth	Surface to six feet depth, on a two foot intervals,
Soil sample	Collected from each interval, and if any contamination is found in the surface sample the adjoining samples will also be analyzed until no contamination is found,
Results	If no contamination is found the core samples will be discarded. If any contamination is found MDEQ will be notified immediately, Control standards would be followed to contain the contamination for collection and removal from the sight per MDEQ guidelines.

Ref: Section 4.0, Health & Safety Plan

- 1) Main telephone contact numbers for safety organizations such as area Hospitals, Clinics, Ambutals, Medical Transportation companies, Municipal Law Enforcement agencies, Fire Department, and the Forrest County Sheriff will be compiled and distributed to all personnel. A copy will be kept on site at all times by the Site Safety Officer with the full ten-digit contact numbers shown.
 - 2) All personnel on site will be advised not to use the abbreviated call numbers for emergency services, such as 911, etc. All personnel will be advised to use the full text of the main contact numbers.
 - 3) If any core samples are found to be contaminated, MDEQ will be notified immediately. The boundary of all contamination will be clearly identified, Once the landowners make a decision as to leave the property as is, or to remove the contaminated soil, we will then advise MDEQ and proceed as per the outline in the October 15th, 2003 Work Plan. The removal of the contaminated material will be done in accordance with all regulatory measures to encapsulate any dust, or airborne particulate matter during the extraction of the contaminated materials. This will include, but not be limited to, the enclosure of the extraction and transfer of contaminated materials to the transporting equipment, which will be fully covered for the intra-state and/or inter-state hauling of the contaminated materials.
 - 4) Any, and all, heavy hauling equipment used to transport the contaminated material(s) off site will have fully covered boxes and/or trailers.
 - 5) All "Toolbox" safety-meeting reports, with attendee signatures, will be submitted as part of the permanent report to MDEQ.
 - 6) The HASP will include guidelines regarding the transition from Level D to the next level of personal protection, and will be submitted to MDEQ prior to the job start date.
 - 7) An enclosed decon pad will be formed on site to capture all loose materials and the rinsate of the contaminated materials for transportation off site.
- Item #3, The Sample Grid will be prepared by Bill Waits Engineering Firm, ~~per the TRG requirements set forth by MDEQ.~~ The Grid Plan will be submitted to you prior to the work start up for your review and approval.
- Item #4 The soil samples will be collected by Walker Hill, Co., Foxworth, MS with a Geoprobe. The analytical test will be performed by Culpepper Test Laboratories, Hattiesburg, MS., using a ~~Photo Ionization Device (PID)~~ *screening method*.
- Item #5 The analytical guidelines will adhere to the method detection limits set forth in DEQ's target remediation goals (TRG's) of being equal to, or less than.
- Add about analytical cost method*

- Item #6 The Work Plan, and any Addendums submitted in reference to the October 15, 2003 Work Plan, will identify the contractors and sub-contractors with the specific certificates of training for their personnel who will be performing the work and on the job sight.
- Item #7 At this time we would like to request that the October 15, 2003 Work Plan be used for the Phase II operation. Section 4.3 Work Activities specifies a coordinated work process in the event that any contamination is, or is not, found.

I will be in Mississippi this weekend and will call you next week to see if you would have some time to meet with me to discuss any details or concerns you might have.

Regards,

Joe Ford

Joe Ford

* Original sent via U.S. Mail

SEP 16 2004

**THE NATURE OF POLYCYCLIC AROMATIC HYDROCARBON
(PAH) IN SOILS FROM THE NORTHEAST DRAINAGE DITCH,
HATTIESBURG MISSISSIPPI**

Prepared for

**Kerr McGee Chemical LLC
123 R.S. Kerr Avenue
Oklahoma City, OK 73125**

September 13, 2004

Prepared by

**Allen D. Uhler, Ph.D.
NewFields Environmental Forensics Practice LLC
100 Ledgewood Place
Rockland, MA 02367**

NEWFIELDS

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LIST OF ATTACHMENTS

- Attachment 1. Summary of MDEQ Northeast Drainage Ditch Soil PAH Analytical Data
- Attachment 2. Qualifications of Author

1.0 INTRODUCTION

A wood treating facility, referred to today as the former Gulf States Creosoting Site, operated in Hattiesburg, Mississippi from the early 1900s to the early 1960s, after which the property was redeveloped for commercial and light industrial use. In January 1997, Kerr-McGee Chemical LLC (KMCLLC), the Mississippi Department of Environmental Quality (MDEQ) and the Mississippi Commission on Environmental Quality entered into an agreement for the investigation and remediation of the Gulf States Creosoting Site in Hattiesburg, Mississippi, pursuant to the Uncontrolled Site Voluntary Evaluation Program. To date, significant progress has been made on cleanup efforts at the site¹.

As part of the agreement, KMCLLC investigated the Northeast Drainage Ditch, an unlined ditch and culvert system running through an urban residential area. Investigation of the Ditch was completed in May 2001; KMCLLC submitted a *Removal Action Work Plan* to address affected sediment and soils within and beneath the Ditch in August 2001. The specific objectives of the removal action were to:

- eliminate the potential for exposure to impacted sediments and soils in the Ditch;
- eliminate the potential for surface runoff to come in contact with impacted sediments and soils; and
- eliminate or greatly reduce the potential for infiltration of precipitation through impacted sediments and soils to shallow ground water.

MDEQ approved the *Removal Action Work Plan* in early 2003. KMCLLC and the City of Hattiesburg completed over 95 percent of the work specified in the work plan in 2003; a small portion of the project could not be completed due to site access issues. KMCLLC did not perform confirmation sampling, as the MDEQ-approved remedy was a source removal/containment and control remedy and the *Removal Action Work Plan* did not specify numerical cleanup standards.

The MDEQ did carry out post-remediation evaluation of the Northeast Drainage Ditch area. This work included an environmental survey between Scooba Street and Katie Street, in which 75 soil samples from the study area were collected and analyzed for polycyclic aromatic hydrocarbon (PAH) compounds. The results from this survey found that some of the soils contained low levels of PAH (Attachment 1).

NewFields was retained by KMCLLC to examine the MDEQ survey data in an effort to reconcile the findings of the low level PAH in the Ditch soils with likely sources. NewFields evaluation included two critical assessments of the MDEQ data: (1) a comparison of the concentrations of PAH found in the Ditch versus published concentrations in rural and urban soils (background conditions) and a comparison with creosote-impacted sites, and (2) a determination of the type or types of materials that could give rise to the PAH found in the Ditch soils based on PAH chemical distribution profiles.

¹ Mississippi Department of Environmental Quality. 2003. Status and Cleanup Activity for the former Gulf States Creosote Site in Hattiesburg.

2.0 PAH—BACKGROUND

The principal analyses carried out in this report are comparisons of the concentrations and distributions of PAH compounds measured in the soils from the Northeast Drainage Ditch versus published data for PAH concentrations and compound distributions in creosote, creosote-impacted soils, and unimpacted (background) soils. In order to best place NewField's analyses in context, a brief background about the nature and sources of PAH in creosote waste and in general environmental media is provided in this section.

2.1 PAH Distributions in Potential Source Materials

Polycyclic aromatic hydrocarbons are ubiquitous contaminants in the environment. They originate from a large number of sources which can be broadly classified as either (1) diagenetic, (2) petroleum-derived, or (3) combustion-derived:

- Diagenetic sources are natural sources of PAH that are not ordinarily recognized as significantly impacting environmental quality.
- Petroleum-derived sources are anthropogenic sources of PAH arising directly from crude oil or refined petroleum products.
- Combustion-derived sources are anthropogenic sources of PAH which include those derived from fires, combustion of petroleum products, combustion and conversion of coal, and metallurgical processing. (Creosote is a derivative of combustion-derived coal or oil tar). Notably, urban air and urban soils are impacted by PAHs that arise from tailpipe exhausts and controlled and uncontrolled combustion typical of urban areas.

PAH as their name implies, are polycyclic aromatic hydrocarbons. Literally, this means that PAH (1) contain multiple 'ring' structures, (2) which are aromatic in nature, and (3) comprised of hydrogen and carbon. The arrangement and number of rings is used to distinguish different PAH. Chemical structures for the most common 2- through 6-ring PAH of environmental concern are shown in Figure 1.

In addition to the ring structures, many PAH contain carbon side-chains of varying numbers, lengths, and locations. Those PAH without any side-chains are considered as "parent" or C₀-PAH. PAH with one, single carbon side chain are said to be C₁-PAH, two additional carbons attached are C₂-PAH, and so on. Assessing the distribution of the PAH containing C₁ to C₄ alkyl side chains relative to the unsubstituted (C₀) parent PAH is a useful means to distinguish among different types of PAH-bearing materials, because petroleum derived PAH have an abundant amount of these substituted PAH, while combustion-derived materials like creosote contain much lower relative amounts of the alkylated PAH².

Compliance-driven investigations of PAH contamination utilize standard EPA methods of analysis for PAH compounds (such as used by MDEQ in the Northeast Drainage Ditch survey) that do not routinely measure these alkylated PAH compounds, so some forensic chemistry

² Sauer, T.C. and A.D. Uhler. 1994. Pollutant source identification and allocation: Advances in hydrocarbon fingerprinting. Remediation, Winter 1994/1995, pp. 25-50.

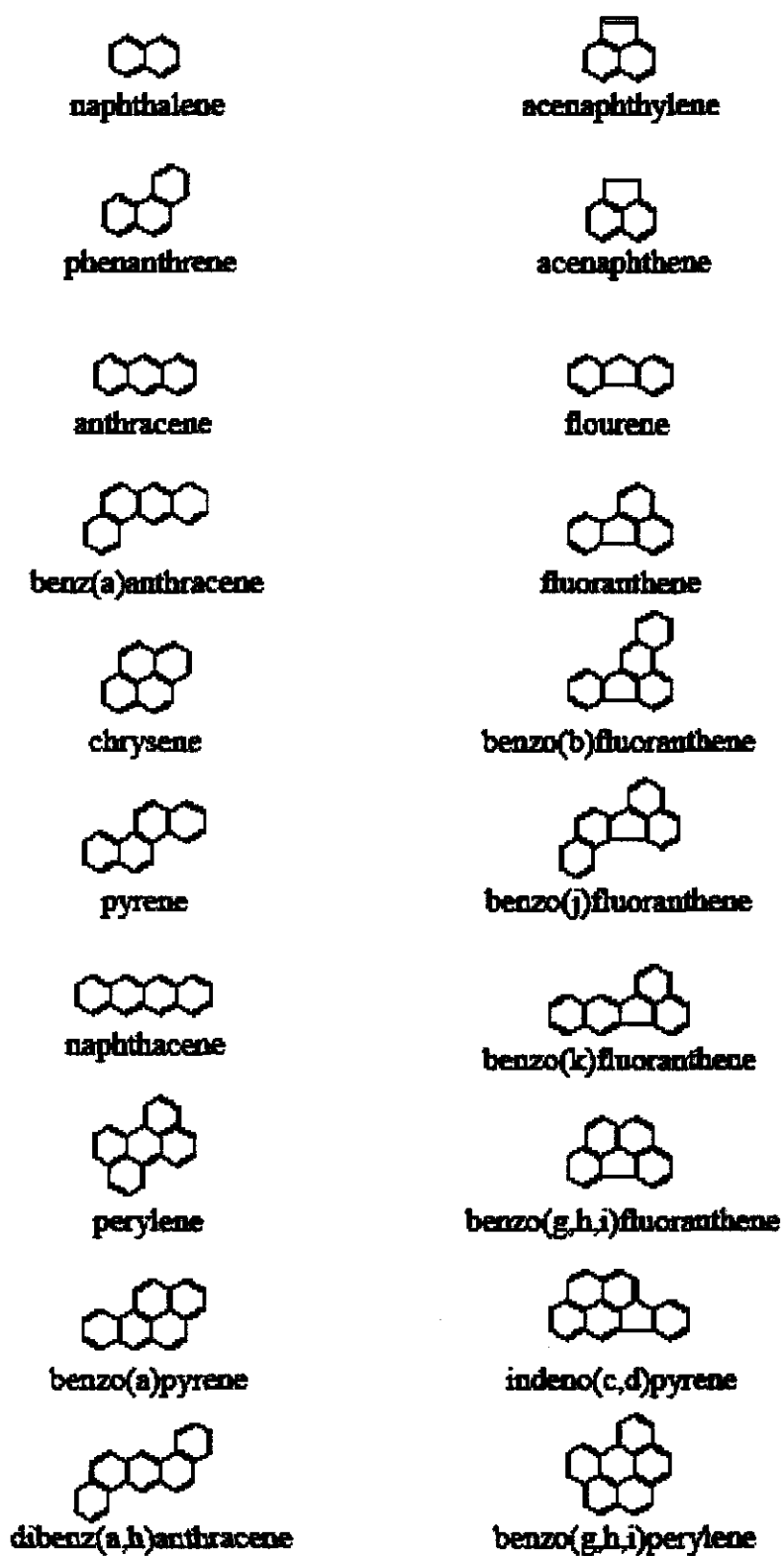


Figure 1. Chemical structures of the most common PAH measured in environmental media.

information about the source of PAHs found in such environmental samples is inevitably lost in such measurement programs. However, the information about the relative distribution of the major parent PAH (which are measured in compliance programs using standard EPA methods of analysis) can yield important insight into the nature of the PAH in environmental samples. The PAH compounds measured in the MDEQ program are shown in Table 1.

Because of the unique ways in which PAH are formed, groups of source-specific (e.g. combustion-derived or petroleum-derived) PAH co-occur in distinguishable patterns. A significant body of literature has developed over the last 25 years describing the nature of PAH assemblages in waste streams, petroleum, and urban soil and air, as well as for techniques to link these patterns with their likely sources e.g. 3,4,5,6. For example, the parent (C₀) PAH patterns for three PAH-bearing materials, diesel fuel, creosote, and urban dust are obviously different from one another (Figure 2); such differences in the patterns of PAH are used by forensic chemists to identify the source of PAH found in environmental samples.

In order to determine the nature and origin of the materials responsible for PAH in environmental samples, forensic environmental chemists examine the distributions of PAH found in samples, and compare these patterns against those patterns that have been documented for likely source materials, for example, creosote or other tar products, petroleum, or atmospheric fallout responsible for urban background PAH^{7,8}. This comparison can be done either by comparing patterns using histograms plots (akin to Figure 2), or using mathematical methods such as diagnostic ratio cross plots to determine differences or similarities among PAH found in environmental samples and their likely sources. This latter methodology will be used later in this report to help deduce the nature of PAH found in the Ditch soil samples.

Table 1. PAH compounds Measured in Soils from the Northeast Drainage Ditch

Naphthalene
C1-naphthalenes
Acenaphthene
Acenaphthylene
Fluorene
Phenanthrene
Anthracene
Fluoranthene
Pyrene
Benz(a)anthracene
Chrysene
Benzo(b)fluoranthene
Benzo(j/k)fluoranthene
Benzo(a)pyrene
Indeno(1,2,3-c,d)pyrene
Dibenz(a,h)anthracene
Benzo(g,h,i)perylene

³ Stout, S.A., Uhler, A.D., McCarthy, K.J. and Emsbo-Mattingly, S.D. 2002. Chemical Fingerprinting of Hydrocarbons. In: Introduction to Environmental Forensics, (B. Murphy and R. Morrison, Eds.), Academic Press, 137 pp.

⁴ Lao, R.C., R.S. Thomas, and J.L. Monkman. 1975. Computerized gas chromatographic-mass spectrometric analysis of polycyclic aromatic hydrocarbons in environmental samples. J. Chromatog., 112:681-700.

⁵ Lee, M.L., G.P. Prado, J.B. Howard, and R.A. Hites. (1977) Sources identification of urban airborne polycyclic aromatic hydrocarbons by gas chromatography, mass spectrometry and high resolution mass spectrometry. Biomed. Mass Spectrom. 4(3): 182-186.

⁶ Takada, H., Tomoko, O., Mamoru, H. and Norio, O. 1991. Distribution and sources of polycyclic aromatic hydrocarbons (PAHs) in street dust from the Tokyo metropolitan area. The Science of the Total Environment. 17, 45-69.

⁷ Raia, J.C., C.R. Blakley, A.N. Fuex, D.C. Cillalanti, and P.D. Fahrenhold. 2004. Evaluation of environmental samples containing heavy hydrocarbon components in environmental forensics investigations. J. Environ. Forensics 5:21-32.

⁸ Stout, S.A., Uhler, A.D., and McCarthy, K.J. 1998. PAH can provide a unique forensic fingerprint for hydrocarbon products. Contam. Soil Sed. Groundwater. Oct. Issue.

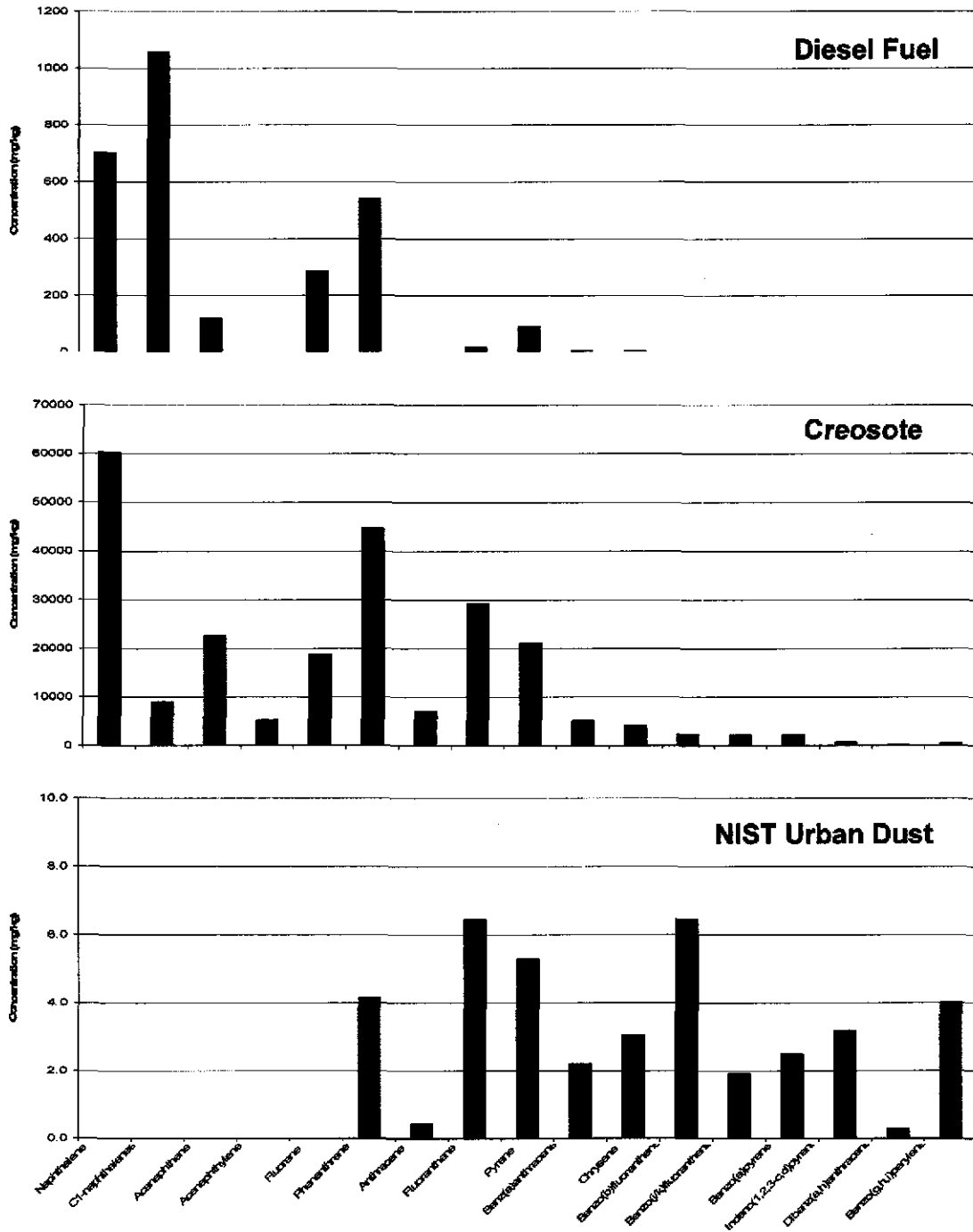


Figure 2. PAH distributions for three different PAH-bearing materials: diesel fuel, creosote, and urban dust. Note the differences in the relative distributions of the various PAH compounds that differentiate one material from another.

2.2 Concentrations of PAH in Soils and Sediments

PAH are ubiquitous environmental contaminants, and can be found in measurable concentrations in soils and sediments virtually everywhere in the world. As suggested above, PAHs are released to the environment through natural process and from man's activities. Natural sources include emissions from volcanoes and forest fires. Man-derived sources provide a much greater release volume than natural sources; the largest single source is the burning of wood in homes^{9,10}. Automobile and truck emissions are also major sources of PAHs. Hazardous waste sites can be concentrated sources of PAHs on a local scale. Examples of such sites include abandoned wood-treatment plants such as the former Gulf States Creosoting Site. PAHs can enter surface water through atmospheric deposition and from discharges of industrial effluents (including wood-treatment plants), municipal waste water, and improper disposal of used motor oil^{11,12}, and ultimately deposit in sediments.

Two important points relevant to this report can be made from these documented observations:

1. There is a modern pervasive background of PAH found in rural and urban soils and sediments that is a composite of natural and anthropogenic sources.
2. There can be localized source of PAH contamination to soils and sediments from operating and/or former industrial sites.

2.2.1 Background PAH in rural and urban soils

A recent report on PAH in the environment compiled by the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) has documented the typical concentration ranges of PAH in rural and urban soils¹³—so-called anthropogenic PAH. Table 2, excerpted from the ATSDR report summarizes the range of PAH and total PAH for soils from these environments. The total PAH concentration in agricultural and rural soils can be expected to range from about 0.1 parts per million (mg/Kg) to about 3 mg/Kg; urban soils—exposed to higher concentrations of PAH arising from atmospheric fallout from fossil fuel combustion—can be expected to range as high as 500 mg/Kg. These data help frame our understanding of the characteristic ranges of anthropogenic PAH in rural and urban settings, against which we can compare and contrast site-specific findings of PAH such as in the Northeast Drainage Ditch.

⁹ Ramdahl T, Alfheim I, Bjorseth A. 1982. Nitrated polycyclic aromatic-hydrocarbons in urban air particles. *Environ Sci Technol* 16:861-865.

¹⁰ Freeman DJ, Cattell CR. 1990. Woodburning as a source of atmospheric polycyclic aromatic hydrocarbons. *Environ Sci Technol* 24(10):1581-1585.

¹¹ Eganhouse, R.P., D.L. Blumfield, and I.R. Kaplan. 1982. "Petroleum hydrocarbons in stormwater runoff and municipal wastes: input to coastal waters and fate in marine sediments". *Thalassia Jugoslavica*. 18(1-4):411-431.

¹² Stout, S.A., Uhler, A.D., and Emsbo-Mattingly, S.D. (2004) Comparative evaluation of background anthropogenic hydrocarbons in surficial sediments from nine urban waterways. *Environ. Sci. Technol.*, 38(11): 2987-2994.

¹³ Agency for Toxic Substances and Disease Registry. 1995. Toxicological Profile For Polycyclic Aromatic Hydrocarbons. Agency for Toxic Substances and Disease Registry Division of Toxicology/Toxicology Information Branch 1600 Clifton Road NE, E-29 Atlanta, Georgia 30333

Table 2. Background Soil Concentrations of Polycyclic Aromatic Hydrocarbons (PAHs)¹⁴

Compound	Concentrations ($\mu\text{g}/\text{kg}$)		
	Rural soil	Agricultural soil	Urban soil
Acenaphthene	1.7	6	
Acenaphthylene		5	
Anthracene		11-13	
Benz(a)anthracene	5-20	56-110	169-59,000
Benzo(a)pyrene	2-1,300	4.6-900	165-220
Benzo(b)fluoranthene	20-30	58-220	15,000-62,000
Benzo(e)pyrene		53-130	60-14,000
Benzo(g,h,i)perylene	10-70	66	900-47,000
Benzo(k)fluoranthene	10-110	58-250	300-26,000
Chrysene	38.3	78-120	251-640
Fluoranthene	0.3-4.0	120-210	200-166,000
Fluorene		9.7	
Indeno(1,2,3-c,d)pyrene	10-15	63-100	8,000-61,000
Phenanthrene	30.0	48-140	
Pyrene	1-19.7	99-150	145-147,000

2.2.2 PAH in soils proximal to former wood treating facilities

PAH is perhaps the most important persistent class of contaminants found at wood treating facilities that utilize creosote as a preservative. Creosote can contain upwards of 30% by weight total PAH¹⁵; thus, creosote is a potent source of PAH contamination if accidentally discharged or disposed in the environment.

Significant concentrations of PAH have been documented in soils at and immediately proximal to certain former wood preserving and wood treating operations in the United States; for example, as part of its assessment of the sources of PAH in the environment, the ATSDR has documented ranges of PAH measured in surface and subsurface soils at contaminated former wood preserving facilities that while variable, can contain concentrations of total PAH as high as many thousands of parts per million¹³. Similarly, in setting where sediments have been

¹⁴ Table excerpted from Agency for Toxic Substances and Disease Registry. 1995. Toxicological Profile For Polycyclic Aromatic Hydrocarbons. Agency for Toxic Substances and Disease Registry Division of Toxicology/Toxicology Information Branch 1600 Clifton Road NE, E-29 Atlanta, Georgia 30333, and references therein.

¹⁵ International Agency for Research on Cancer (IARC) 1984. Coal- Tars and Derived Products. In, IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Vol. 35, pp 83-100.

impacted by former wood treating facility creosote wastes, concentrations of many thousands of parts per million PAH in near-facility sediments have been documented¹⁶.

Comparisons of soil and/or sediment concentrations is one means of assessing if the impacts of PAH at a site are due to specific nearby industrial activities, other point sources, or if the PAH are more likely consistent with modern anthropogenic background. When this concentration data is combined with an assessment of PAH distributions (discussed above in Section 2.1), scientifically defensible conclusions can be drawn regarding the nature and sources of PAH found in soils and sediments.

3.0 MDEQ HATTIESBURG NORTHEAST DRAINAGE DITCH SURVEY

NewFields was provided with a spreadsheet summarizing the PAH analytical results from MDEQ's Northeast Drainage Ditch soil survey, along with a site map depicting where each of the 75 sampling points were located. The samples were analyzed for the 17 PAH compounds listed in Table 1; detection limits for the measurement program were approximately 0.1 mg/Kg per compound. Summary statistics for the data set is presented in Table 3.

Table 3. Summary Statistics for MDEQ Northeast Drainage Ditch Survey PAH Data

Number of Samples	75
Minimum Concentration (mg/Kg)	<0.1
Maximum Concentration (mg/Kg)	100
Mean Concentration (mg/Kg)	3.46
Samples with non-detected PAH	43 (57%)

3.1 PAH Concentrations

Thirty-two of the 75 soils contained low concentrations of PAH; the majority of the samples (57%) contained no detectable PAH. The average PAH concentration in the 75 soil samples was 3.46 mg/Kg; the highest concentration sample (Florence 375-A) contained 100 mg/Kg total PAH. The total PAH concentration distributions in the Ditch soils can be seen graphically in Figure 3. All of the samples contained total PAH that fell below or within the ATSDR documented range for Urban Background Soil PAH Concentrations; most of the samples (n=60 or 80%) were within or below the range ATSDR documents for Agricultural and Rural Background Soil PAH Concentrations. Evaluated strictly on a soil concentration basis, the data strongly suggest that the PAH found in the Ditch soils from this survey are typical of anthropogenic background.

¹⁶ Brenner, R.C., Magar, V.S., Ickes, J.A., Abbott, J.E., Stout, S.A., Crecelius, E.A. and Bingler, L.S. (2002) Characterization and fate of PAH-contaminated sediments at the Wycoff/Eagle Harbor Superfund site. *Env. Sci Technol.* 36(12): 2605-2613.

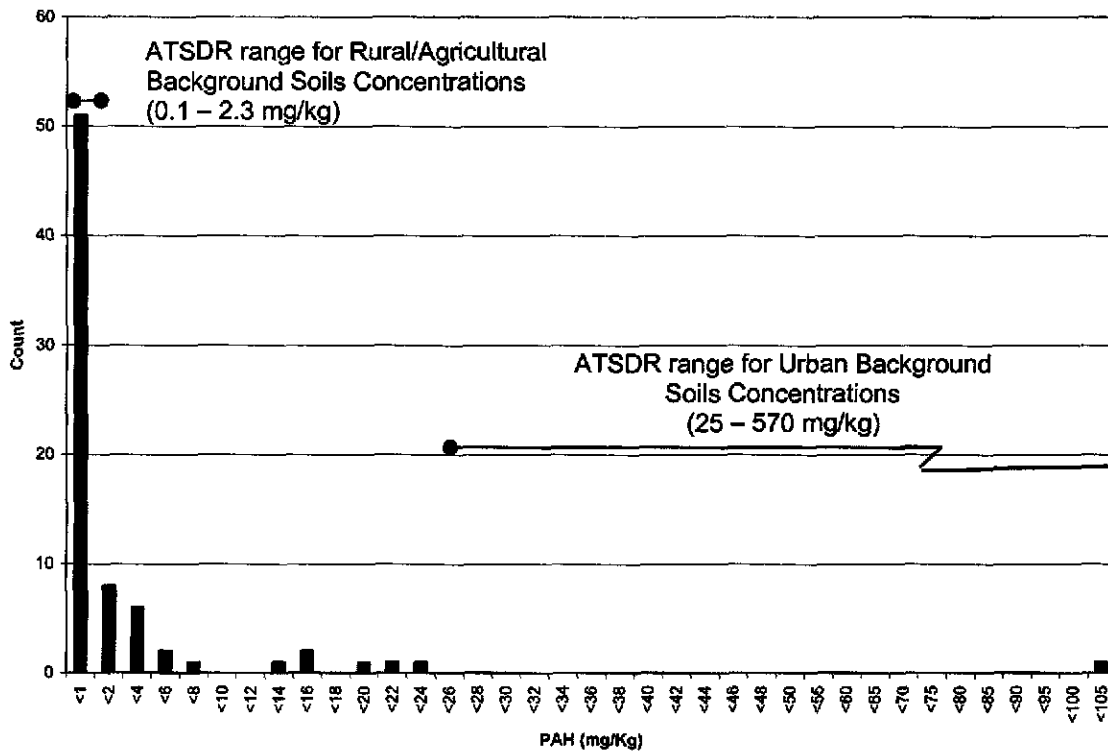


Figure 3. Distributions of PAH concentrations in soils from the MDEQ Northeast Drainage Ditch Survey. All of the samples contained total PAH that fell below the ATSDR documented range for Urban Background Soil PAH Concentrations.

3.2 PAH Compound Distributions

A fundamental part of determining the nature and origin of PAH in environmental samples is evaluation of the relative distribution of the compounds found in the samples, and comparing those chemical signatures or “fingerprints” to patterns that have been documented for various types of PAH-containing materials, e.g. creosote, various petroleum products, urban background.

PAH distribution histograms for the Northeast Drainage Ditch samples were prepared and examined as part of NewFields’ data analysis. The PAH distributions in virtually all of the samples had notably similar features,

- Very low or non-detectable relative amounts of 2- and 3-ring PAH compounds like naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, and anthracene.
- Elevated relative amounts of 4-, 5- and 6- ring PAH compounds like fluoranthene, pyrene, chrysene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(j/k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenz(a,h)anthracene, benzo(g,h,i)perylene.

Virtually all of the 32 soil samples from MDEQ survey that had measurable PAH (except Florence 025-A, discussed later), shared these features, regardless of total PAH

concentration. In other words, when there were detectable PAH in the soil samples, they had very similar PAH compound profiles. A typical example of such a PAH distribution can be seen in Figure 4.

The PAH distribution typical of the samples that contained measurable PAH (shown above in Figure 4) are inconsistent with that for creosote—either fresh or weathered. The relative distribution of PAH compounds in creosote, shown in Figure 2, is dominated by lower molecular weight, 2- and 3- and some 4- ring PAH (particularly naphthalene, phenanthrene, anthracene, fluoranthene, and pyrene). Significantly lower relative concentrations of other 4-, 5-, and 6-ring PAH is typical of PAH distributions in creosote. Importantly, even in the face of potential environmental weathering (e.g. evaporation and biodegradation), creosote maintains a PAH profile that is dominated by the lower and mid-molecular weight PAH (e.g. phenanthrene, fluoranthene, pyrene), with substantially lesser amounts of the higher molecular weight 4-, 5- and 6-ring PAH¹⁷.

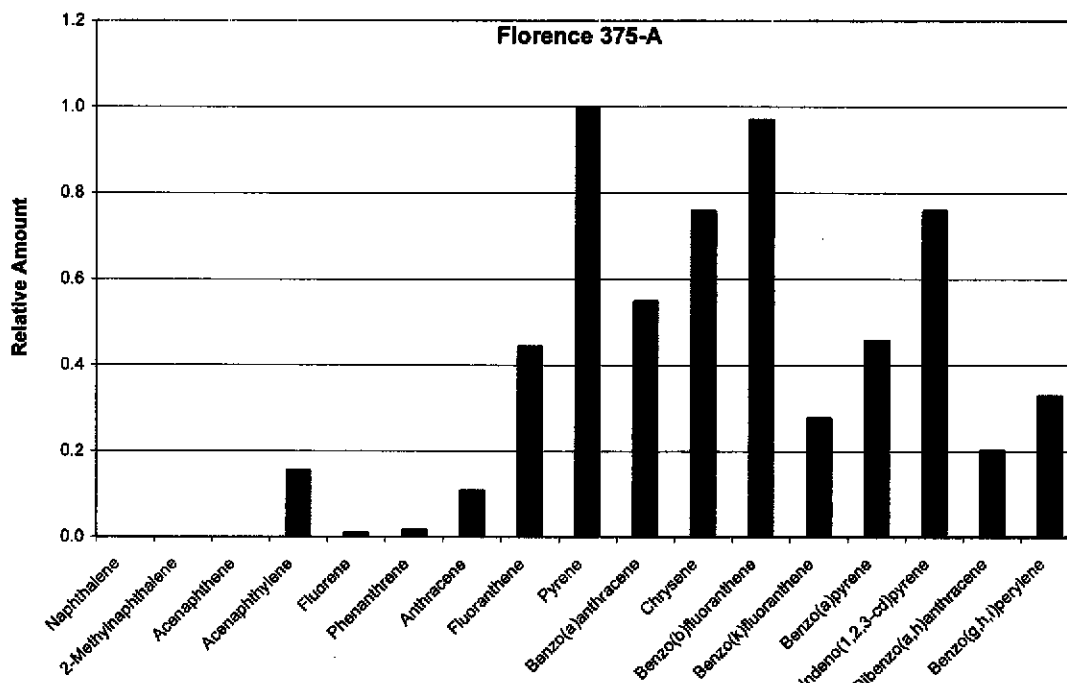


Figure 4. PAH distribution typical for the Northeast Drainage Ditch soil samples. PAH in soils from the Ditch are typified by relatively higher amounts of 4-, 5- and 6-ring PAH.

In fact, the relative distribution of the PAH observed in the Northeast Drainage Ditch sample are most consistent with PAH patterns for urban background. Figure 5 shows the relative distribution of PAH compounds in the U.S. National Institute of Standards and Technology (NIST) Standard Reference Material # 1649A *Urban Dust*. Note how this urban dust is dominated by relatively elevated amounts of the 4-, 5- and 6- ring PAH. These so-called

¹⁷Emsbo-Matingly, S. and Boehm, P., Principal Investigators. Identifying PAHs from Manufactured Gas Plant Sites. Palo Alto, CA: EPRI; 2003 Mar.

pyrogenic (combustion) derived PAH are typical of urban soils and sediments that are enriched in the PAH, which arise largely from fossil fuel and wood combustion^{11, 18, 19}. In fact that the PAH pattern seen in the NIST *Urban Dust* is most consistent with patterns seen in the typical Ditch soil sample. A further, synoptic comparison of PAH characteristics of all the MDEQ Ditch soil samples is presented below in Section 3.3.

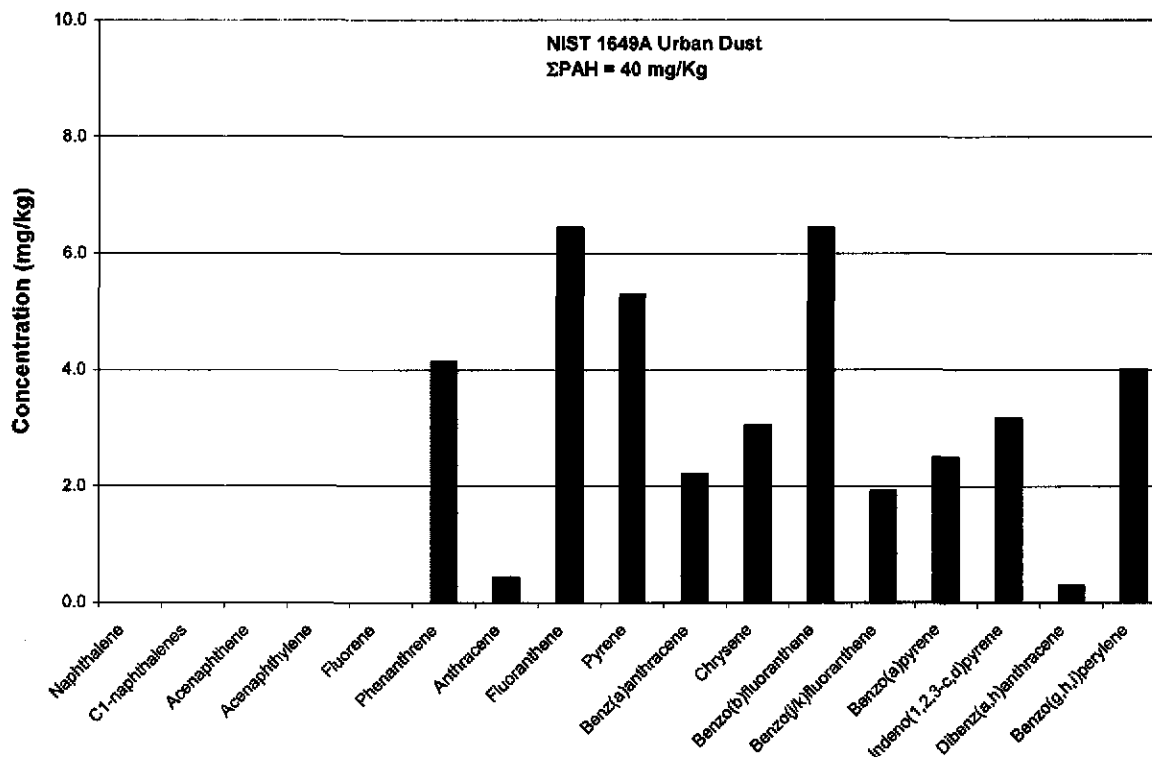


Figure 5. PAH distribution in U.S. National Institute of Standards and Technology (NIST) Standard Reference Material 1649A *Urban Dust*.

As mentioned above, one of the MDEQ Ditch soil samples was found to contain a PAH distribution pattern distinct from the remaining 31 that contained measurable PAH. Sample Florence-025A had a PAH distribution that was relatively enriched in lower molecular weight PAH, particularly fluorene, phenanthrene, anthracene, fluoranthene and pyrene (Figure 6). This PAH pattern is inconsistent with urban background (which is dominated by higher molecular weight 4-, 5- and 6-ring combustion-derived PAH). Rather, this PAH distribution pattern is more consistent with a weathered creosote, where the very light 2- and 3-ring PAH such as naphthalene, acenaphthene and acenaphthylene have evaporated, resulting in a PAH pattern dominated by mid-molecular weight PAH.

¹⁸ Harrison, R.M., Smith, D.J.T., and Luhana, L. (1996). Source apportionment of atmospheric polycyclic aromatic hydrocarbons collected from an urban location in Birmingham, U.K. *Environ. Sci. Technol.* 30, 835-832.

¹⁹ Marr, L.C., Kirchstetter, T.W., Harley, R.A., Miguel, A.H., Hering, S.V., and Hammond, S.K. (1999). Characterization of PAH in motor vehicle fuels and exhaust emissions. *Environ. Sci. Technol.* 33, 3091-3099.

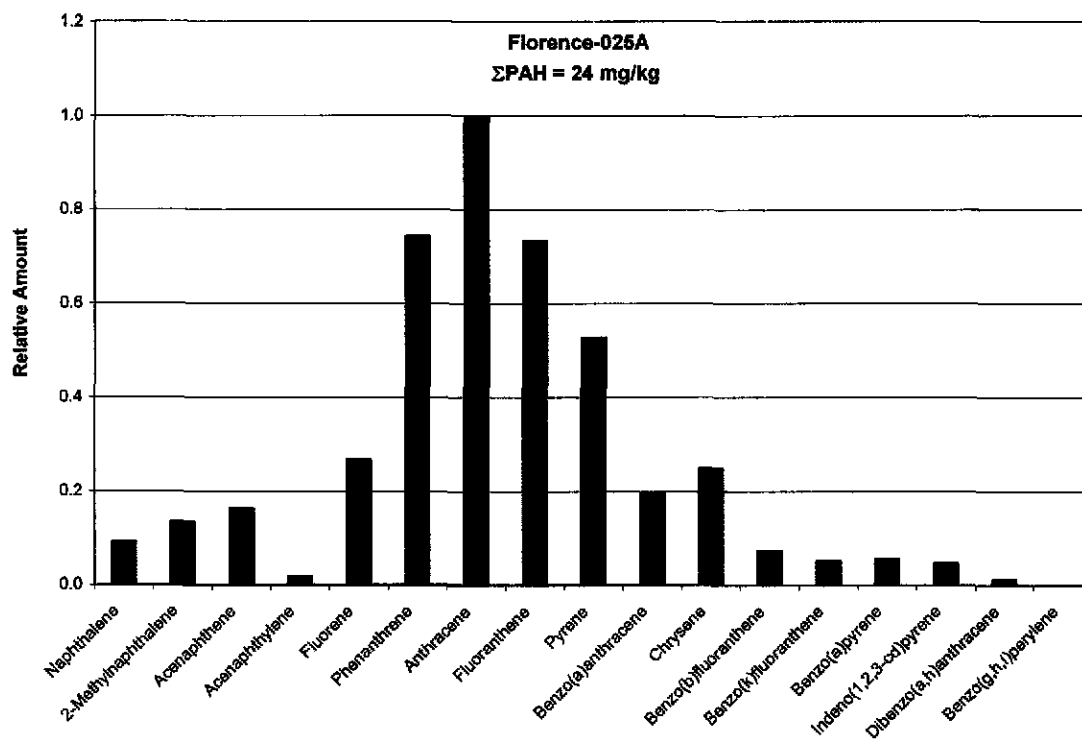


Figure 6. PAH distribution for soil Florence-025A. The pattern, dominated by mid-molecular weight PAH, is consistent with weathered creosote.

3.3 Synoptic perspective of PAH Patterns in Soils from the Northeast Drainage Ditch

A convenient means of comparing and contrasting the PAH patterns measured for all the Drainage Ditch soil samples that contained measurable PAH is through graphical data analysis. While more complex forensic chemistry data sets are amenable to advanced numerical analysis techniques, the relatively basic data set collected by MDEQ warrants a straightforward analysis—in this case, diagnostic cross-plots.

As noted above, creosote-derived PAH are enriched in relatively lower molecular weight, 2-, 3- and 4-ring PAH. Conversely, urban soils are dominated by higher molecular weight, 4-, 5- and 6-ring PAH. Thus, a straightforward cross-plot of representative PAH ratios using compounds from each of these molecular weight ranges provides a convenient means to separate PAH source signatures.

In this analysis, we use the following diagnostic ratios:

- $(\text{anthracene} + \text{fluoranthene}) / (\text{benzo(b)fluoranthene} + \text{indeno(1, 2, 3-c,d)pyrene})$
AN+PHEN/BBF+IND

- $(\text{fluoranthene} + \text{pyrene})/(\text{benzo(k)fluoranthene} + \text{benzo(a)pyrene})$:
FL + PY/BKF+BAP

As the proportion of creosote (enriched in lower molecular weight PAH) in a hypothetical sample increases relative to urban background, the value of each diagnostic ratio increases. Thus, in a cross plot of these variables, creosote-derived PAH plot in the upper right quadrant, and urban background-derived PAH plot in the lower left of a cross plot of these diagnostic ratios.

A cross-plot of these diagnostic ratio pairs for the Northeast Drainage Ditch soil samples that contained measurable PAH and two laboratory reference samples (shown in red: creosote and the NIST 1649A *Urban Dust*) is shown in Figure 7. Here, it is evident that the all but one of the samples cluster in the lower left quadrant of the plot, coincident with that for the NIST 1649 *Urban Dust*. The only sample that plots coincident with the creosote reference standard is Florence-025A. This numerical analysis supports the hypothesis that the PAH signatures found in all but one of the soil samples that contained measurable PAH taken from the Northeast Drainage Ditch are consistent with anthropogenic background. These PAH do not arise from creosote waste.

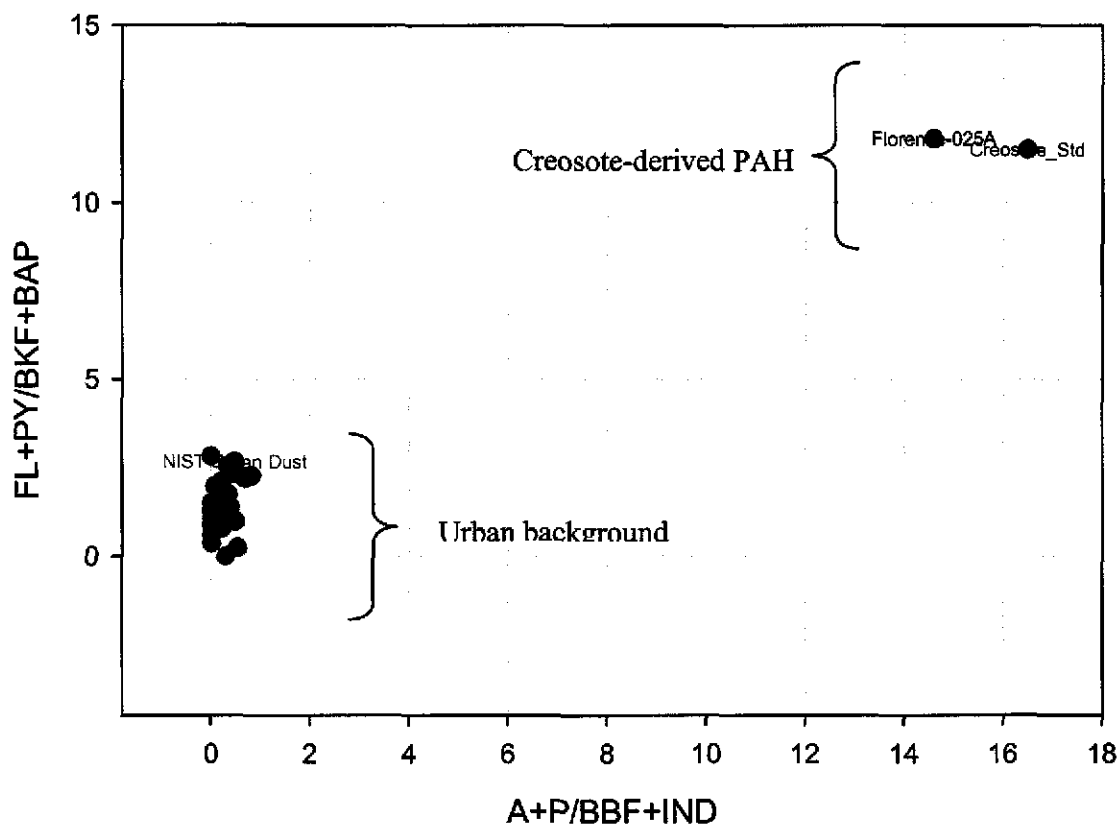


Figure 7. Cross-plot of diagnostic PAH ratios for 75 Northeast Drainage Ditch soil samples and the laboratory reference standards for creosote and NIST *Urban Dust*. Samples with creosote-derived PAH plot in the upper right quadrant; samples with urban background-derived PAH plot in the lower left.

In addition to the MDEQ data discussed in this report, NewFields reviewed the results of PAH analyses of soil taken from Northeast Drainage Ditch prior to the 2003 soil removal action. A total of 13 soil samples, taken in 1998 and 2000 were reviewed. Of these 13 samples, four contained obviously elevated concentrations of PAH that were attributable to creosote contamination (total PAH of ~2,000-15,000 mg/Kg). When the data for these samples (shown in blue) are plotted along with the 32 MDEQ Northeast Drainage Ditch samples that contained measurable PAH and the laboratory reference samples, the pre-remediation soils containing creosote-derived PAH plot in the quadrant of the graph with the creosote laboratory reference standard (Figure 8) and Florence-025A.

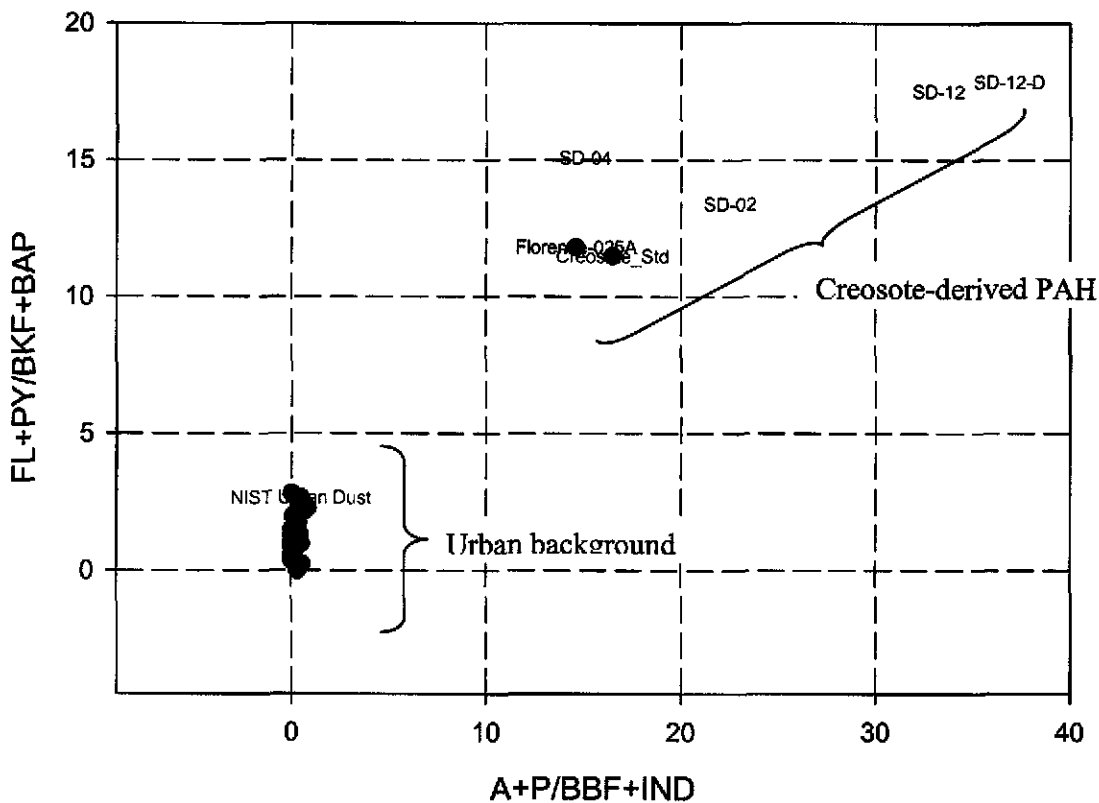


Figure 8. Cross-plot of diagnostic PAH ratios for 75 Northeast Drainage Ditch soil samples (black circles), 1998 and 2000 pre-removal action soil analyses (blue), and laboratory reference standards for creosote and NIST *Urban Dust* (red).

While sample Florence-025A contained what appears to be creosote PAH at a low 25 mg/Kg, it is worthy to note that samples collected immediately proximal to its location contained non-detectable PAH or very low PAH with distribution patterns consistent with urban background (Figure 9). Thus, the low levels of creosote-derived PAH measured in Florence-025A do not represent geographically extensive creosote contamination, rather a discrete location that contains low-level residues of creosote PAH.



Sample	ΣPAH (mg/Kg)
Florence 025-A	23.8
Florence 000A	ND
Florence 000B	2.2
Florence 175A	1.55
Florence 175B	1.18
Florence 075A	12.9
Florence 075B	2.87
Harrell 175A	ND
Harrell 175B	ND

Figure 9. Distribution of total PAH in soils from the Northeast Drainage Ditch immediately proximal to Florence-025A.

4.0 CONCLUSIONS

Seventy-five post-remediation shallow soil samples from the Northeast Drainage Ditch near the Former Gulf States Creosoting Site were collected by Mississippi Department of Environmental Quality, and analyzed for polycyclic aromatic hydrocarbons (PAH). The concentration of total PAH in all the soils was low. The soils contained an averaging of 3.46 ppm (mg/Kg) total PAH. Fully 57% of the samples contained no detectable PAH (<0.1 ppm); the maximum PAH concentration measured was 100 ppm. The concentrations of PAH that were detected fell well within the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) documented ranges for PAH in rural (0.1 – 2.3 ppm) and urban background soils (up to 570 ppm).

The patterns of the PAH compounds measured in the overwhelming number (all but one of the soil samples that contained detectable PAH) of the soil samples was most consistent with urban background PAH, not creosote. Only one of the 75 soil samples (Florence-025A) contained a PAH chemical distribution pattern consistent with creosote. This soil sample contained only 23.8 ppm of total PAH, and was surrounded by nine other sampling locations that contained no detectable or very low (<15 ppm) total PAH. The chemical signature of the PAH in the nine soil samples immediately surrounding Florence-025A were consistent urban background. Thus, soil from Florence-025A was not indicative of pervasive creosote contamination, rather a localized residue of some material (either site- or non-site derived) that contained PAH consistent with a creosote signature.

The preponderance of evidence indicates that the soils from the Northeast Drainage Ditch that were collected and analyzed by MDEQ are consistent with urban background concentrations and chemical features of PAH, and are not attributable to creosote waste that could have arisen from the former Gulf States Creosoting Site.

Attachment 1.

Summary of MDEQ Northeast Drainage Ditch Soil PAH Analytical Data

Laboratory Sample ID:	BB68628	BB68629	BB68630	BB68631	BB68632	BB68633	BB68634	BB68635	BB 68636	BB68637
Field Sample ID:	MLK 175 B	MLK 275 A	MLK 275 B	MLK 375 A	MLK 375 B	Francis 000 A	Francis 000B	Florence 000-A	Florence 000-B	Florence-025A
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.885
Acenaphthylene	0.656	ND	ND	0.231	0.289	ND	0.711	ND	ND	0.1
Anthracene	1.26	ND	0.113	0.465	0.427	ND	1.29	ND	0.272	5.45
Benzo(a)anthracene	2.03	ND	0.274	0.577	0.632	ND	1.47	ND	0.246	1.07
Benzo(a)pyrene	1.77	ND	0.473	0.48	0.789	ND	1.18	ND	0.216	0.299
Benzo(b)fluoranthene	3.01	ND	0.529	0.668	1.14	ND	1.94	ND	0.359	0.399
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1.58	ND	0.351	0.491	0.543	ND	1.56	ND	ND	0.283
Chrysene	2.51	ND	0.444	0.755	1.05	ND	1.72	ND	0.322	1.36
Dibenzo(a,h)anthracene	0.485	ND	0.116	0.154	0.217	ND	0.439	ND	ND	0.066
Fluoranthene	1.74	ND	0.324	0.577	0.545	ND	1.35	ND	0.234	4
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.45
Indeno(1,2,3-cd)pyrene	1.77	ND	0.466	0.537	0.901	ND	1.49	ND	0.279	0.252
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.733
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.501
Phenanthrene	ND	ND	0.101	ND	ND	ND	ND	ND	ND	4.05
Pyrene	2.76	ND	0.32	0.756	0.78	ND	1.98	ND	0.268	2.87
Total PAH	19.57	0.00	3.51	5.69	7.31	0.00	15.13	0.00	2.20	23.77

Laboratory Sample ID:	BB63638	BB68639	BB 68640	BB 68641	BB68642	BB68643	BB 68644	BB 68645	BB 68646	BB68647
Field Sample ID:	Florence 025-B	Florence 075-A	Florence 075-B	Florence 175-A	Florence 175-B	Florence 275-A	Florence 275-B	Florence 375-A	Florence 375-B	Harrell 000A
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	0.201	ND	ND	ND	ND	ND	2.58	ND	0.89
Anthracene	ND	0.516	ND	ND	ND	ND	ND	1.79	ND	1.82
Benzo(a)anthracene	ND	1.36	0.331	0.155	0.12	ND	ND	9.1	0.293	1.1
Benzo(a)pyrene	ND	0.769	0.181	0.147	0.146	ND	0.121	7.59	0.187	7.6
Benzo(b)fluoranthene	ND	1.35	0.24	0.221	0.218	ND	0.162	16.1	0.286	1.5
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	5.47	ND	ND
Benzo(k)fluoranthene	ND	0.981	0.246	0.153	0.105	ND	0.115	4.6	0.279	1.2
Chrysene	ND	1.71	0.414	0.248	0.204	0.154	0.145	12.6	0.413	1.4
Dibenzo(a,h)anthracene	ND	0.273	ND	0.062	ND	ND	ND	3.35	ND	0.19
Fluoranthene	ND	2.1	0.544	0.113	ND	ND	ND	7.37	0.259	1
Fluorene	ND	ND	ND	ND	ND	ND	ND	0.165	ND	ND
Indeno(1,2,3-cd)pyrene	ND	0.903	0.211	0.25	0.164	ND	0.143	12.6	0.31	2.4
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	0.989	0.231	ND	ND	ND	ND	0.263	ND	0.256
Pyrene	ND	1.72	0.468	0.2	0.224	0.181	0.202	16.6	0.342	1.1
Total PAH	0.00	12.87	2.87	1.55	1.18	0.34	0.89	100.16	2.37	20.26

Laboratory Sample ID:	BB 68648	BB68649	BB 68650	BB68651	BB68652	BB68653	BB68654	BB68655	BB68656	BB68657
Field Sample ID:	Harrell 000B	Harrell 025A	Harrell 025B	Harrell 075A	Harrell 075B	Harrell 175 A	Harrell 175B	Eastside 000A	Eastside 025A	Eastside 050A
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	0.142	ND	ND	ND	0.31	ND	ND
Benzo(a)anthracene	ND	ND	ND	0.125	ND	ND	ND	0.48	ND	ND
Benzo(a)pyrene	ND	ND	ND	0.129	0.088	ND	ND	0.173	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	0.23	0.111	ND	ND	0.7	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	0.14	0.106	ND	ND	0.37	ND	ND
Chrysene	ND	ND	ND	0.215	0.113	ND	ND	0.78	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	0.18	ND	ND
Fluoranthene	ND	ND	ND	0.22	ND	ND	ND	0.51	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	0.18	0.106	ND	ND	0.73	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	0.248	0.113	ND	ND	0.63	ND	ND
Total PAH	0.00	0.00	0.00	1.63	0.64	0.00	0.00	4.86	0.00	0.00

Laboratory Sample ID:	BB68658	BB68659	BB68660	BB68661	BB68662	BB68663	BB68664	BB68665	BB68666	BB68726
Field Sample ID:	Francis 030A	Francis 060A	MLK 000A	MLK 000B	MLK 025A	MLK 025B	MLK 075A	MLK 075B	MLK 175A	BG-7 Eastside Florence
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	0.421	ND	ND	ND	ND	ND	ND	0.113	ND	ND
Anthracene	0.645	ND	ND	ND	0.176	ND	ND	0.206	ND	ND
Benzo(a)anthracene	1.52	ND	ND	ND	0.205	ND	ND	0.18	ND	ND
Benzo(a)pyrene	0.876	ND	0.073	0.164	0.116	ND	0.087	0.21	ND	ND
Benzo(b)fluoranthene	1.49	ND	ND	0.231	0.171	ND	0.116	0.299	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1.04	ND	ND	ND	0.145	ND	ND	0.173	ND	ND
Chrysene	1.95	ND	0.115	0.234	0.227	0.094	0.104	0.281	ND	ND
Dibenzo(a,h)anthracene	0.314	ND	ND	ND	0.059	ND	ND	0.083	ND	ND
Fluoranthene	2.26	ND	ND	ND	0.125	ND	0.115	0.197	ND	ND
Fluorene	0.063	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	1.21	ND	0.111	0.255	0.188	ND	0.115	0.323	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	0.226	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	2.59	ND	0.109	0.208	0.131	ND	0.13	0.244	ND	ND
Total PAH	14.61	0.00	0.41	1.09	1.54	0.09	0.67	2.31	0.00	0.00

Laboratory Sample ID:	BB68747	BB68748	BB68749	BB68750	BB68751	BB68752	BB68753	BB68754	BB68755	BB68756
Field Sample ID:	FSAPTS000B	FSAPTS025A	FSAPTS025B	FSAPTS075A	FSAPTS075B	FSAPTS175A	FSAPTS175B	FSAPTS275A	FSAPTS275B	BG-1 B (E of MLK)
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	0.162	ND	0.088	ND	ND	ND	ND	ND
Benzo(a)anthracene	ND	0.1	0.236	ND	0.141	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	0.142	0.194	ND	0.126	ND	ND	0.221	ND	ND
Benzo(b)fluoranthene	ND	0.227	0.241	ND	0.149	ND	ND	0.281	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	0.121	0.2	ND	0.118	ND	ND	0.134	ND	ND
Chrysene	ND	0.167	0.317	ND	0.194	ND	ND	0.216	ND	ND
Dibenzo(a,h)anthracene	ND	ND	0.075	ND	ND	ND	ND	0.104	ND	ND
Fluoranthene	ND	ND	0.475	ND	0.172	ND	ND	ND	ND	ND
Fluorene	ND	ND	0.082	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	0.211	0.321	ND	0.174	ND	ND	0.401	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	0.299	ND	ND	ND	ND	ND	ND	ND
Pyrene	ND	0.147	0.421	ND	0.21	ND	ND	0.128	ND	ND
Total PAH	0.00	1.12	3.02	0.00	1.37	0.00	0.00	1.49	0.00	0.00

Laboratory Sample ID:	BB68757	BB68758	BB68759	BB68760	BB68761
Field Sample ID:	BG-2 8 (E of MLK)	BG-3 8 (S of Francis)	BG-4 8 (S of Francis)	BG-5 8 (E of Bertha)	BG-6 8 (W of Florence)
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND
Benzo(a)anthracene	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND
Total PAH	0.00	0.00	0.00	0.00	0.00

ALLEN D. UHLER, Ph.D.
Senior Consultant
Environmental Forensics Practice

EXPERIENCE

Dr. Uhler has over 20 years experience in the field of environmental chemistry, with a specialization in environmental forensics – the integration of advanced chemical analyses, petroleum and hydrocarbon product source identification techniques, and understanding of operational practices – to determine the nature, sources, and fate of hydrocarbons and other industrial chemicals in the environment. Dr. Uhler has developed analytical methods for the measurement of petroleum-, coal-derived, and anthropogenic hydrocarbons in the environment, and has led numerous investigations of the occurrence and fate of hydrocarbons in the environment, and has led numerous investigations of the occurrence and fate of hydrocarbons in the aquatic and terrestrial environment. His particular expertise is the analysis of petroleum-, coal-derived and anthropogenic hydrocarbons and other man-made organic compounds in waters, soils, and sediments, the use of numerical chemometric techniques to reveal relationships among samples and suspected sources, differentiation of hydrocarbons in complex source settings, evaluating weathering characteristics of hydrocarbons, and tracking the fate of these chemicals in complex, contaminated environments. He has conducted numerous assessments of the occurrence, sources, and fate of fugitive petroleum at refineries, offshore oil and gas production platforms, bulk petroleum storage facilities, along petroleum pipelines, and in sedimentary environments. He has studied the occurrence, behavior, and fate of coal-derived wastes at former manufactured gas plants, wood-treating facilities, and in sedimentary environments. Prior to joining NewFields Dr. Uhler was a Senior Consultant for Battelle Memorial Institute.

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Editorial Board, *Journal of Environmental Forensics*. Amherst Press. 1999 – present.

Invited Speaker, International Society of Environmental Forensics. Santa Fe, NM. September, 2002.

Invited chairperson, International Business Communication's 3rd Executive Forum on Environmental Forensics. Washington, D.C. June, 2000

Invited chairperson, International Business Communication's 2nd Executive Forum on Environmental Forensics. Washington, D.C. June, 1999.

Founding Co- Editor-in-Chief, *International Journal of Environmental Forensics*. Amherst Press. 1998-1999.

Feature Editor, "Environmental Forensics", in *Soil, Sediment, Groundwater*. 1998-present.

Invited speaker, National Environmental Forensics Conference: Chlorinated Solvents and Petroleum Hydrocarbons. August 27-28, 1998, Tucson, AZ.

Editorial Advisory Board, *Soil, Sediment, Groundwater*. 1997-present.

Technical Advisory Committee, *Association for Environmental Health and Sciences*, 1996-present.

Moderator, *Chemical Analysis*, 12th Annual Conference on Contaminated Soils, Amherst, MA.

Staff Fellow, US Food and Drug Administration, Division of Environmental and Elemental Contaminants.

Branch, Methods Development Group, Washington, DC. 1985-1987.

Associate Referee, Association of Official Analytical Chemists, (AOAC) 1985-present.

Faculty Research Associate, University of Maryland, 1983-1985.

EDUCATION AND TRAINING

Ph.D. Chemistry, University of Maryland – 1983

M.S. Chemistry, University of Maryland – 1981

B.A. Chemistry, SUNY, Plattsburgh – 1978

PUBLICATIONS

Environmental Forensic Publication Series –Contaminated Soil, Sediment & Water, AEHS:

Stout, S.A., Uhler, A.D., Emsbo-Mattingly, S.J. 2003. Characterization of "urban background" PAH in sediments. Sept. Issue, pp. 16-18.

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**Summary of Soil Analytical Results
Property Across Scooba Street**

**Gulf States Creosoting Site
Hattiesburg, Mississippi**

Analytical Parameter	Units	Restricted	Unrestricted	GEO-22/0-1'		GEO-22/2-3'		GEO-22/5-6'		GEO-23/0-1'		GEO-23/2-3'		GEO-23/5-6'	
		Tier 1 TRG	Tier 1 TRG												
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>															
Naphthalene	mg/kg	247	194	0.095	J	3.7	ND (0.039)	0.086	J	ND (0.04)	ND (0.04)				
Acenaphthylene	mg/kg	123,000	4,690	0.098	J	2	ND (0.039)	0.11	J	ND (0.04)	ND (0.04)				
Acenaphthene	mg/kg	123,000	4,690	ND (0.034)		0.35	J	ND (0.039)		ND (0.036)	ND (0.04)				
Fluorene	mg/kg	81,700	3,130	0.038	J	0.66	0.042	J	ND (0.036)		0.054	J	ND (0.04)		
Phenanthrene	mg/kg	61,300	2,350	0.39		2.5	0.064	J	0.18	J	0.27	J	ND (0.04)		
Anthracene	mg/kg	613,000	23,500	0.21	J	3.4	0.078	J	0.11	J	0.15	J	ND (0.04)		
Fluoranthene	mg/kg	81,700	3,130	0.71		5.6	0.065	J	0.51		0.2	J	ND (0.04)		
Pyrene	mg/kg	61,300	2,350	0.61		8.4	0.092	J	0.5		0.16	J	ND (0.04)		
Benz(a)anthracene	mg/kg	7.84	0.875	0.39		4.5	ND (0.039)		0.35	J	0.084	J	ND (0.04)		
Chrysene	mg/kg	784	87.5	0.44		6.9	0.049	J	0.44		0.092	J	ND (0.04)		
Benzo(b)fluoranthene	mg/kg	7.84	0.875	0.72			0.076	J	0.82		0.15	J	ND (0.04)		
Benzo(k)fluoranthene	mg/kg	78.4	8.75	0.21	J	ND (0.041)	ND (0.039)		ND (0.036)		ND (0.04)		ND (0.04)		
Benzo(a)pyrene	mg/kg	0.784	0.0875	0.39			0.048	J	0.57		0.073	J	ND (0.04)		
Dibenz(a,h)anthracene	mg/kg	0.784	0.0875	0.084	J		ND (0.039)		0.096	J	ND (0.04)		ND (0.04)		
Benzo(g,h,i)perylene	mg/kg	61,300	2,350	0.28	J	3.8	0.045	J	0.32	J	0.055	J	ND (0.04)		
Indeno(1,2,3-cd)pyrene	mg/kg	7.84	0.875	0.3	J		0.056	J	0.35	J	0.057	J	ND (0.04)		
<i>Other Parameters</i>															
Moisture	%			3.35		18.3		15		7.36		16.5		17.1	

Notes:

-  denotes concentration exceeding Tier 1 TRG for unrestricted use.
-  denotes concentration exceeding Tier 1 TRG for both unrestricted and restricted use.
- ND denotes "not detected" at reporting limit shown in parentheses.
- Values shown are dry-weight concentrations.
- J data validation qualifier denotes estimated value.
- B data validation qualifier denotes constituent was detected in corresponding laboratory blank.
- U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinsate blanks.

**Summary of Soil Analytical Results
Property Across Scooba Street**

**Gulf States Creosoting Site
Hattiesburg, Mississippi**

Analytical Parameter	Units	Restricted	Unrestricted	GEO-22/0-1'	GEO-22/2-3'	GEO-23/0-1'	GEO-59/0-1'	GEO-60/0-1'	GEO-64/2-3'
		Tier 1 TRG	Tier 1 TRG						
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>									
Benz(a)anthracene	mg/kg	7.84	0.875	0.39	4.5	0.35 J	5.8	0.26	0.67
Benzo(b)fluoranthene	mg/kg	7.84	0.875	0.72		0.82	5.7	0.44	0.59
Benzo(a)pyrene	mg/kg	0.784	0.0875	0.39		0.37		0.37	0.7
Dibenz(a,h)anthracene	mg/kg	0.784	0.0875	0.084 J		0.096 J		0.066 J	0.11
Indeno(1,2,3-cd)pyrene	mg/kg	7.84	0.875	0.3 J		0.35 J	4.6	0.29	0.49
<i>Other Parameters</i>									
Moisture	%			3.35%	18.30%	7.36%	8.55%	4.32%	13.6%

Notes:

- EO denotes concentration exceeding Tier 1 TRG for unrestricted use.
- EO denotes concentration exceeding Tier 1 TRG for both unrestricted and restricted use.
- ND denotes "not detected" at reporting limit shown in parentheses.
- Values shown are dry-weight concentrations.
- J data validation qualifier denotes estimated value.
- B data validation qualifier denotes constituent was detected in corresponding laboratory blank.
- U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinsate blanks.

**Summary of Soil Analytical Results
Property Across Scooba Street**

**Gulf States Creosoting Site
Hattiesburg, Mississippi**

Analytical Parameter	Units	Restricted	Unrestricted	GEO-59/0-1'		GEO-59/2-3'		GEO-59/5-6'		GEO-60/0-1'		GEO-60/2-3'		GEO-60/5-6'	
		Tier 1 TRG	Tier 1 TRG												
<i>Polycyclic Aromatic Hydrocarbons (PAHs)</i>															
Naphthalene	mg/kg	247	194	4.8	J	ND (0.16)		ND (0.16)		ND (0.56)		ND (0.029)		ND (0.032)	
Acenaphthylene	mg/kg	123,000	4,690	ND (2.4)		ND (0.16)		ND (0.16)	U*	ND (0.56)		ND (0.029)	U*	ND (0.032)	U*
Acenaphthene	mg/kg	123,000	4,690	ND (2.4)		ND (0.16)		ND (0.16)		ND (0.56)		ND (0.029)		ND (0.032)	
Fluorene	mg/kg	81,700	3,130	0.95	J	0.026	J	ND (0.015)		ND (0.052)		0.0036	J	ND (0.0029)	
Phenanthrene	mg/kg	61,300	2,350	10		0.12		0.054	J	0.15	J	0.012		0.0068	J
Anthracene	mg/kg	613,000	23,500	ND (0.044)		ND (0.003)	U*	ND (0.003)	U*	ND (0.01)		ND (0.0005)		ND (0.00058)	
Fluoranthene	mg/kg	81,700	3,130	15		0.13		0.049		0.42		0.016		0.013	
Pyrene	mg/kg	61,300	2,350	16		0.13	J	0.081	J	0.58		0.020	J	0.016	J
Benz(a)anthracene	mg/kg	7.84	0.875	5.8		0.042		0.026		0.26		0.0091		0.0068	
Chrysene	mg/kg	784	87.5	4.8		0.037	J	0.057	J	0.27		0.0024	J	0.0052	J
Benzo(b)fluoranthene	mg/kg	7.84	0.875	5.7		0.071		0.087	J	0.44		0.013		0.009	
Benzo(k)fluoranthene	mg/kg	78.4	8.75	2.8		0.032		0.038	J	0.21		0.0062		0.0047	
Benzo(a)pyrene	mg/kg	0.784	0.0875			0.072		0.1	J	0.27		0.010		0.0083	
Dibenz(a,h)anthracene	mg/kg	0.784	0.0875			0.011	J	0.021	J	0.066	J	0.0017	J	0.0019	J
Benzo(g,h,i)perylene	mg/kg	61,300	2,350	3.7		0.036	J	0.087		0.26	J	0.0074	J	0.0067	J
Indeno(1,2,3-cd)pyrene	mg/kg	7.84	0.875	4.6		0.051	J	0.095		0.29		0.0083	J	0.0078	J
<i>Other Parameters</i>															
Moisture	%			8.55%		16.7%		16.0%		4.32%		8.09%		14.5%	

Notes:

- 11.0 denotes concentration exceeding Tier 1 TRG for unrestricted use.
- 11.0 denotes concentration exceeding Tier 1 TRG for both unrestricted and restricted use.
- ND denotes "not detected" at reporting limit shown in parentheses.
- Values shown are dry-weight concentrations.
- J data validation qualifier denotes estimated value.
- B data validation qualifier denotes constituent was detected in corresponding laboratory blank.
- U* data validation qualifier denotes originally reported positive result that should be considered "not detected" due to trace-level presence of the analyte in associated laboratory method blanks and/or rinsate blanks.

Process Area – Work Remaining

- Complete Courtesy Ford pavement reconstruction
- Complete portions of drainage project on Norfolk Southern r-o-w
- Address affected soils beneath Norfolk Southern r-o-w

NE Drainage Ditch – Work Completed

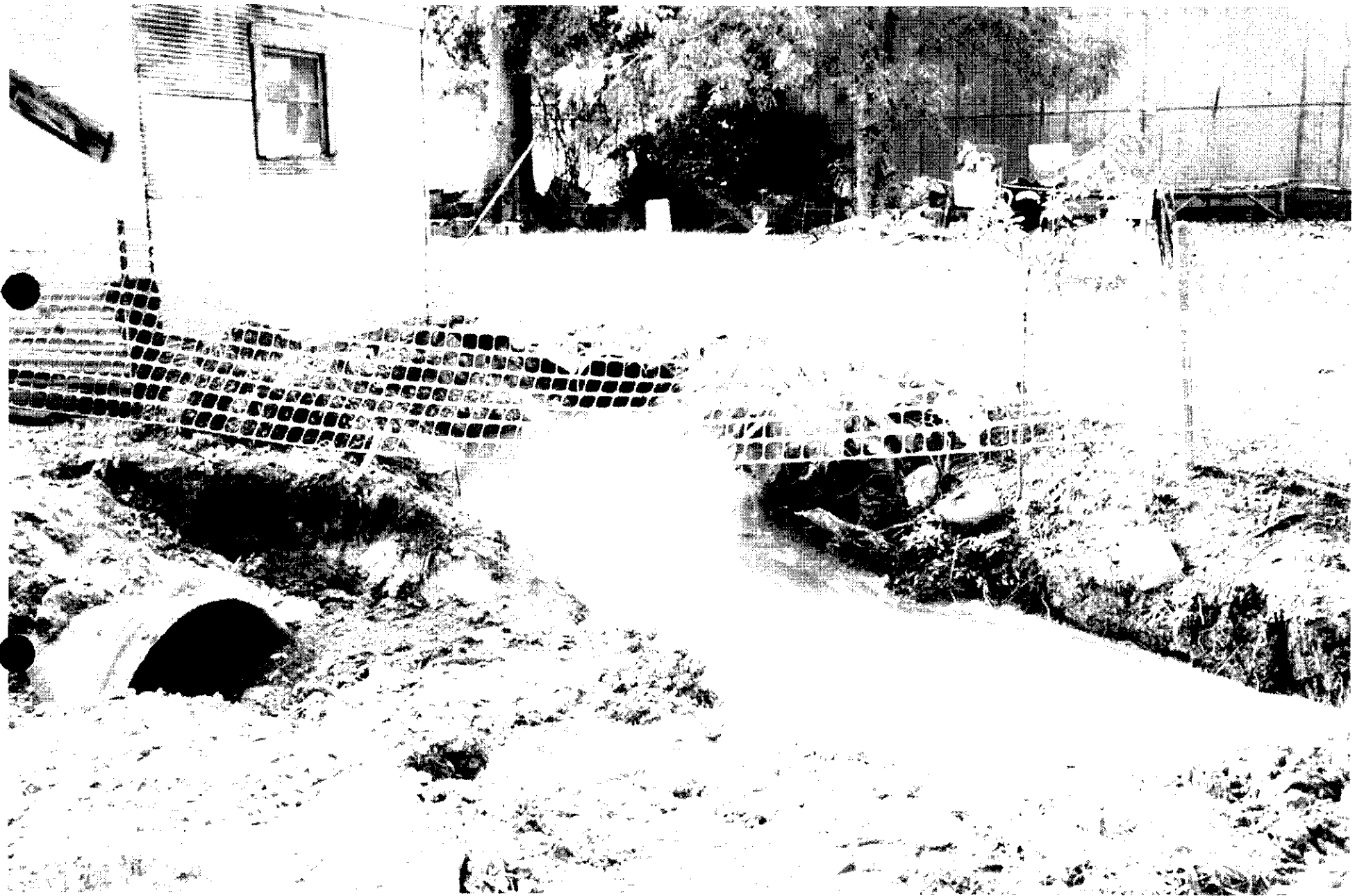
- Removed and disposed of affected material between Hattiesburg Housing Authority projects and Norfolk Southern railroad – approximately 13,000 tons
- Installed over 3,700 linear feet of culvert system
- Eliminated potential for direct contact and surface water contact with affected materials, as well as potential for ground water infiltration















Northeast Drainage Ditch – Work Remaining

- Complete segment of project behind 106 Scooba Street
- Address properties where potentially-affected materials remain outside of 15-foot permanent drainage easement

Additional Topics

- Ms. Woods' yard
- Former (bypassed) ditch route
 - Down Home Cookin'
 - Upstream of Ms. Woods
 - Harrell & Francis Streets
- “Fingers” of impact from NE Drainage Ditch
 - Harrell Street sanitary sewer line
 - Along Scooba Street northwest of railroad
- Property across Scooba Street
- Norfolk Southern railroad r-o-w

**Project Status Meeting
December 19, 2003**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

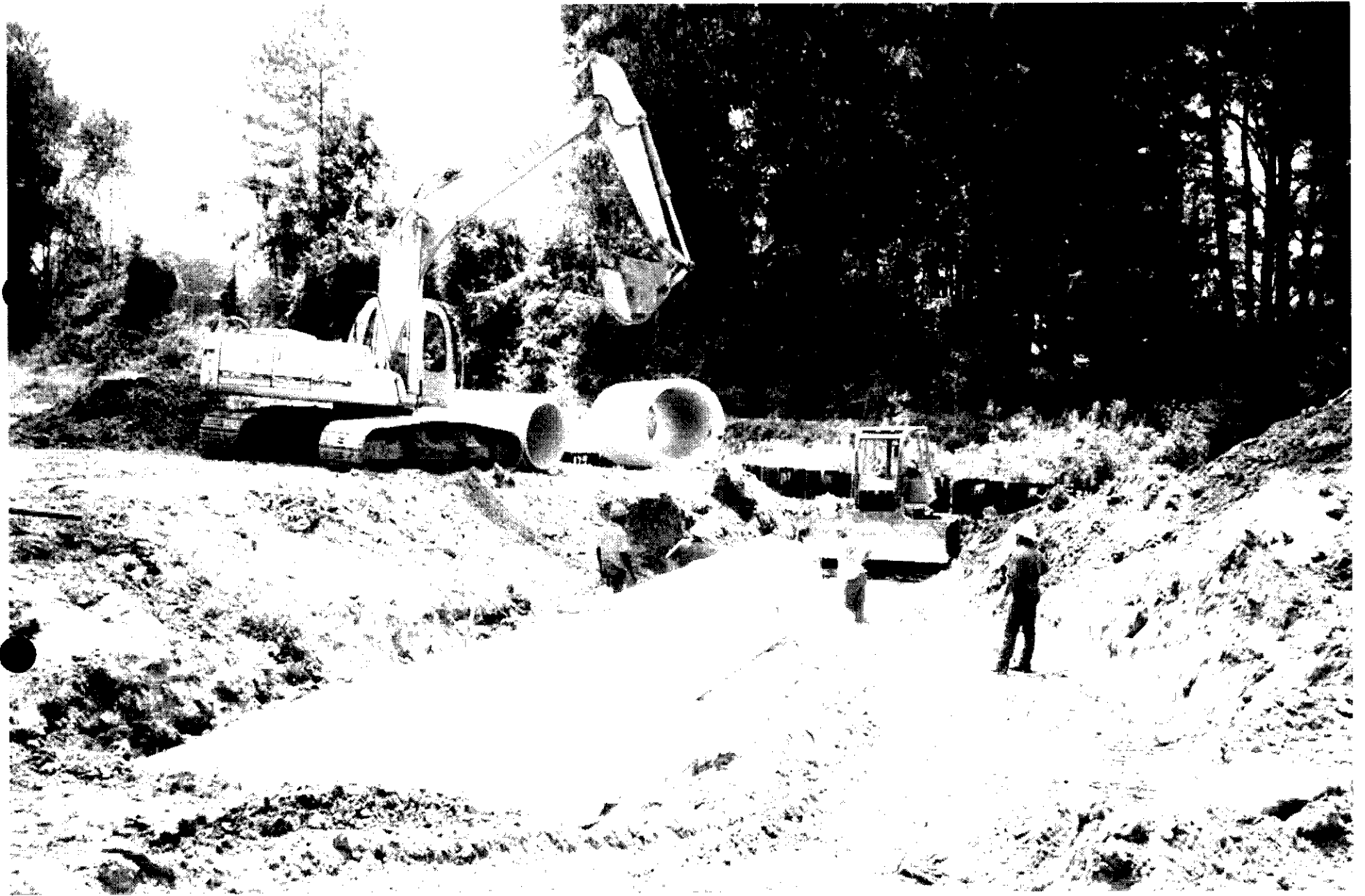
Fill Area – Work Completed

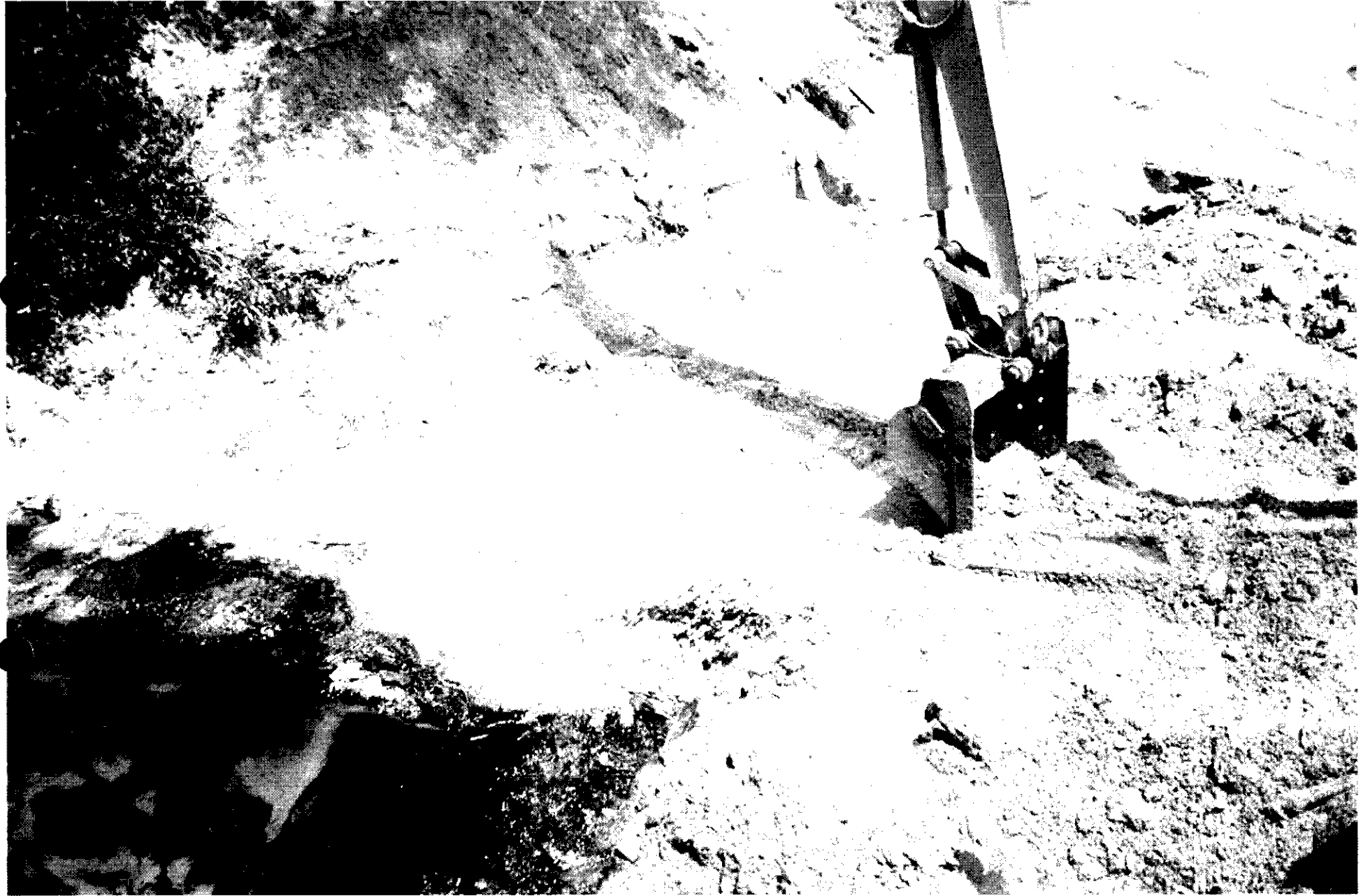
- Cleared and grubbed over 4 acres
- Installed over 20,000 square feet of sealable-joint sheet piling
- Culverted 200 feet of open ditch
- Conducted Gordon's Creek assessment
- Removed impacted sediment and free liquids from Gordon's Creek
- Widened Gordon's Creek and stabilized far bank

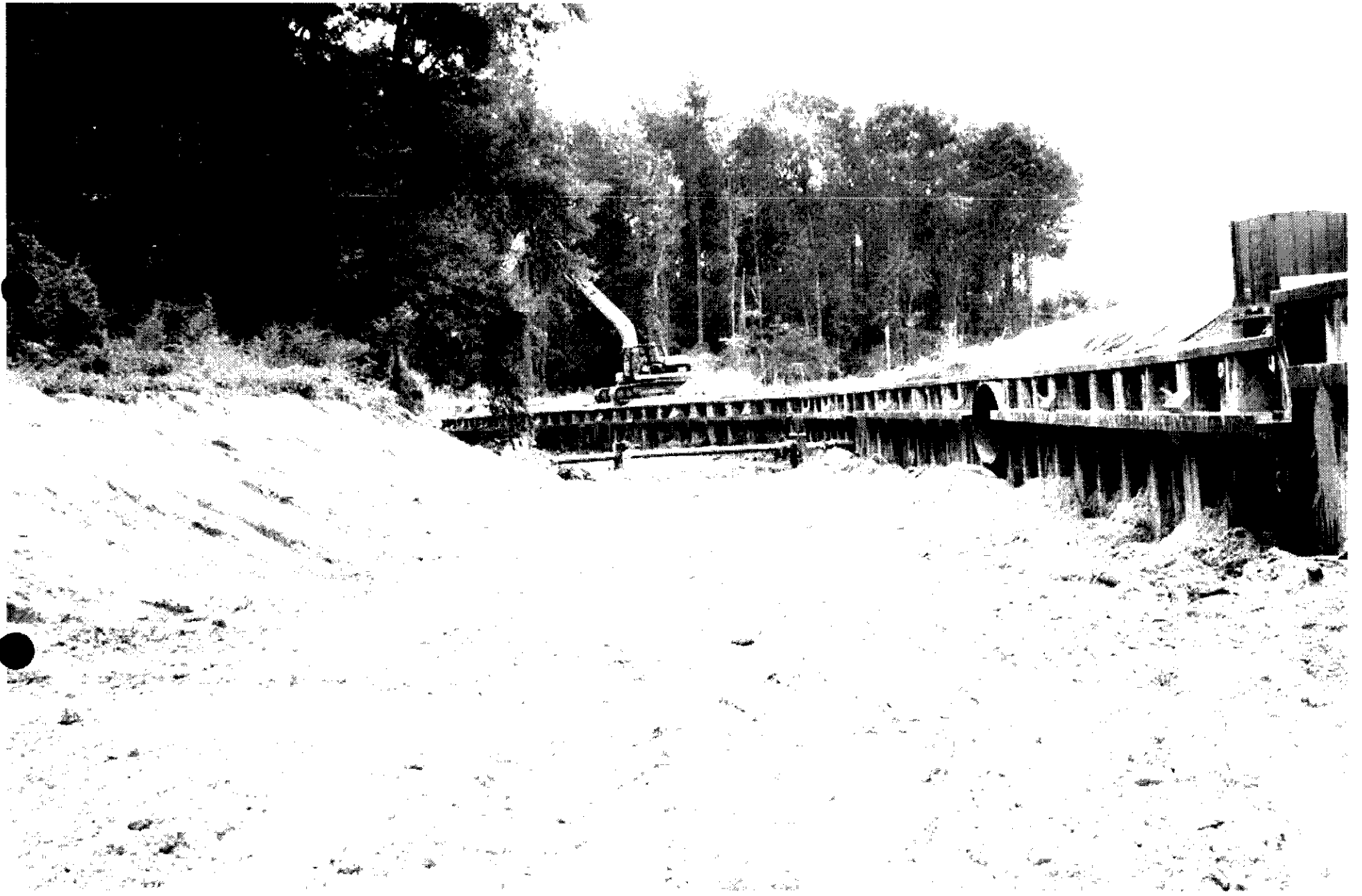
Fill Area – Work Completed

- Installed over 2 acres of geosynthetic clay liner
- Placed topsoil and vegetated containment area
- Installed DNAPL recovery and monitoring system













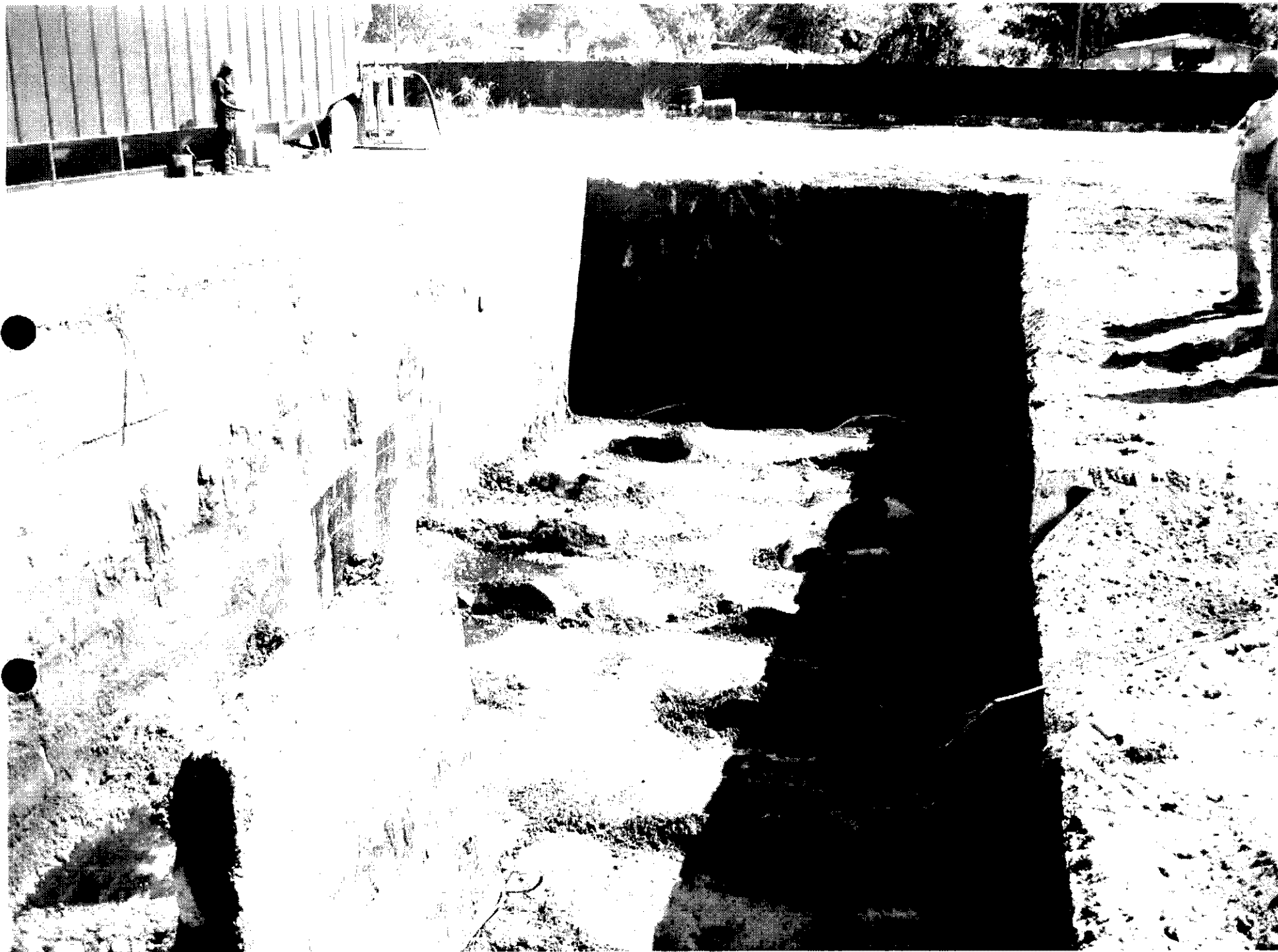
Fill Area – Work Remaining

- Construct concrete road along creek wall
- Plant approximately 800 poplars and willows
- Conduct post-closure inspections and DNAPL recovery (as necessary)

Process Area – Work Completed

- Relocated gas line between Courtesy Ford and Norfolk Southern r-o-w
- Removed materials from concrete sump and wooden substructure
- Removed soils from Courtesy Ford ditch up to Norfolk Southern r-o-w (in progress)
- Placed liner and constructed concrete ditch (in progress)
- Prepared Courtesy Ford parking lot for paving (in progress)



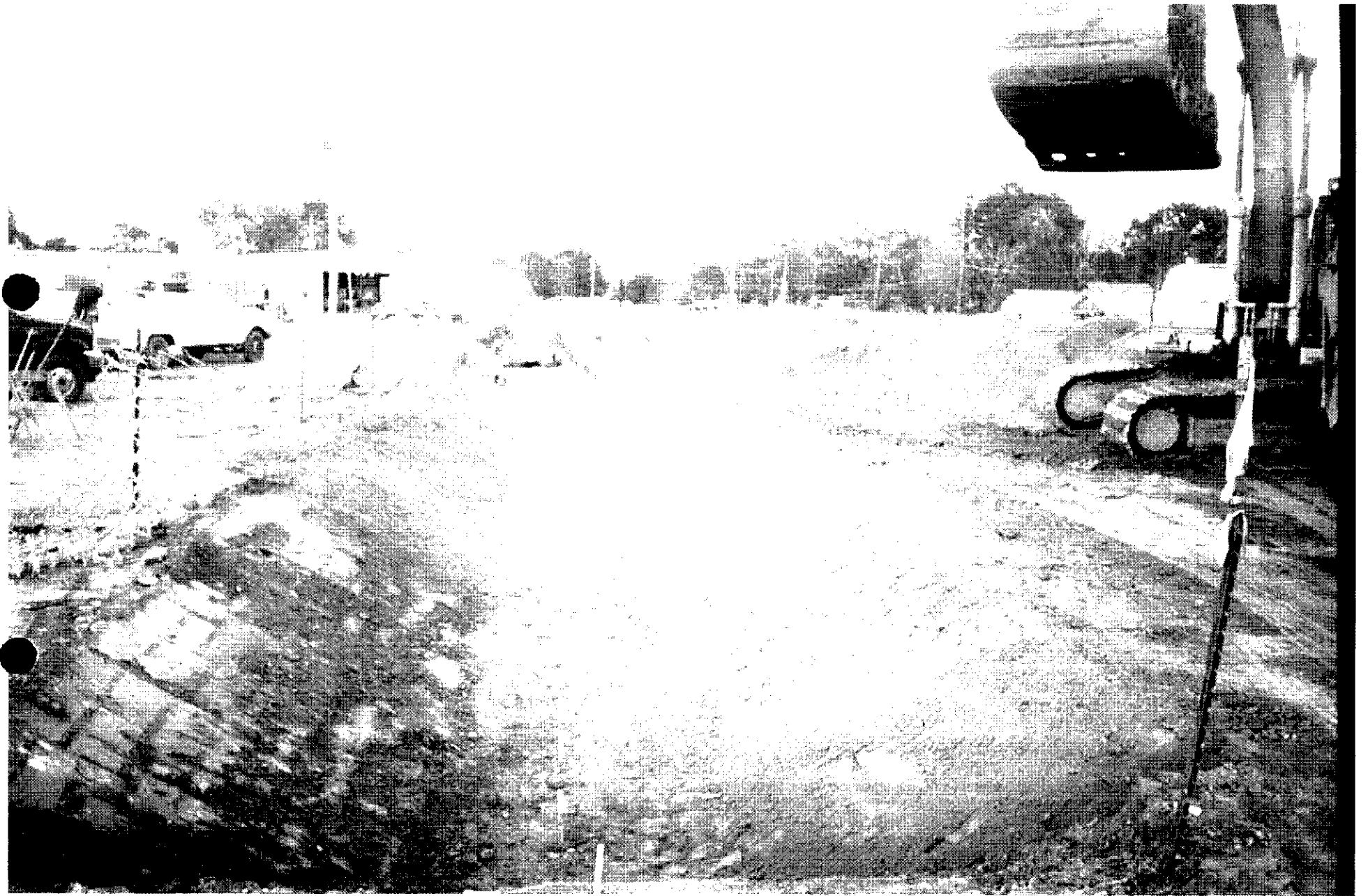
















STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Andy McCain *AM*

DATE: June 1, 2004

RE: Site Visit – May 25, 26 and 27, 2004

On May 25 at approximately 9:00 Tony Russell, James Radich, Willie McKercher and I met in south Hattiesburg and proceeded to the site, which was the drainage ditch that flowed northeastward from the old processing area of Gulf States Creosote. We started in the area to the southwest of Florence St.

Because each street crossing acted as a barrier/dam and caused water to back up, possible contaminants could have settled out in the soils outside the boundary of the excavated ditch. Therefore, the work plan called for samples to be collected starting at the drain closest to the street and working up stream at an incrementally increasing distance with largest increment at 100 feet. For example, for a 400 foot segment: collect initial sample at street crossing, then at 25 foot, 75 foot, 175 foot, 275 foot and 375 foot. Soil samples were collected at a depth of 6 to 12 inches below the backfill material from both sides of the old ditch at each location.

The samples were taken outside of the excavated area of the ditch. This was estimated to be 8 feet either side of the centerline of the buried culvert which we had marked using a tape measure and flags. Because the ground was so hard we used a posthole-digger to dig down through the backfill material to the interval from which a sample was collected with a pre-clean stainless steel spoon. We often had to step out several times to locate native soil outside the excavation. Because the fill dirt for the culvert burial was red sand, we were able to identify the perimeter of the ditch. If we had not enc

ountered the red fill soil at approximately 12 inches, we stepped out 2 more feet and tried again. The GPS position and depth of each sample were recorded. If the fill dirt depth was unusual it was also noted. The samples were placed in a cooler filled with ice. The posthole-digger was decontaminated after each sample with tap water then rinsed with D-I water and rinsed with isopropanol.

A total of 25 samples were collected on the 25th. On May 26 Jimmy Crellin replaced James Radich. We continued to collect samples using the same method as before. In the afternoon we laid out a set of 50' X 50' grids with flags behind the Francis Street apartments where there was uncertainty about the exact location of the old ditch in that area. Because of the presence of children in the apartment area, we marked the flag locations with paint and pulled the flags. Jimmy Crellin left for Jackson with a cooler full of samples to bring to the lab. We then collected 7 background soil samples in various locations up and down the ditch but outside the drainage pathway.

On the 27th we took one more background sample by Eastside Drive. We then went back to the Francis Street Apartments and put the flagging back up to mark the grid corners. We collected composite samples from each of 12 grids. Where possible, a 5-point composite was collected and placed in a Zip-loc bag and thoroughly mixed. There were several grids that included the basketball court and parking lot where less than 5 samples were collected. Once mixed, the sample was transferred from the Zip-loc bag with a clean stainless steel spoon into the proper container. The center of each grid was located using the GPS. We finished sampling at 11:00 and left the area.

No creosote odors were noticed during the collection of the samples. No pictures were taken during this sampling event.



STATE OF MISSISSIPPI
GOVERNOR HALEY BARBOUR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

FILE COPY

June 23, 2004

Mr. Mickey Shoemake
First Federal Bank for Savings
202 West Central Avenue
Petal, MS 39465

Re: Stahan Auto Sales
West Pine Street
Hattiesburg, Mississippi

Dear Mr. Shoemake:

The Mississippi Department of Environmental (MDEQ) has reviewed your letter dated June 16, 2004, concerning the above referenced property. Based on the information we have in our files at this time, it does not appear that the contamination from the Gulf States Creosoting operation extended onto the referenced property. However, as I stated in our phone conversations, it would be to the property owner's advantage to have a Phase I Environmental Investigation conducted on the property. It is possible that the property may have been impacted from past operations on the property not even associated with the Gulf States Creosoting operation.

Call me with any questions you may have at 601-961-5318.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

K:\Common\UCSS\Tony\Gulf States Creosote\Stahan Auto Sales - It to First Federal Bank for Savings 6-23-04.doc

**FIRST FEDERAL BANK FOR SAVINGS
202 WEST CENTRAL AVE.
PETAL, MS 39465
(601) 583-1281**

JUNE 16, 2004

**MR. TONY RUSSELL
DEPT. OF ENVIRONMENTAL QUALITY
101 WEST CAPITOL STREET
JACKSON, MS 39201**

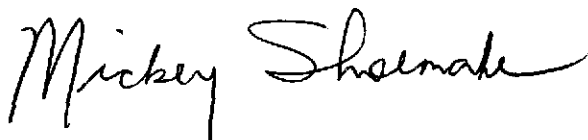
DEAR MR. RUSSELL,

PER YOUR REQUEST, I AM ENCLOSING THE SURVEY, LEGAL DESCRIPTION AND PICTURES OF THE PROPERTY LOCATED AT HIGHWAY 49 AND WEST PINE STREET IN HATTIESBURG. THE SUBJECT PROPERTY IS .61 ACRES ON THE NORTH SIDE OF WEST PINE ST, LOCATED WITHIN FIVE HUNDRED (500) YARDS OF HIGHWAY 49. AS YOU CAN TELL BY THE PICTURES, THE SITE IS WEST OF THE FIRST DITCH RUNNING NORTHERLY FROM WEST PINE STREET TO GORDON'S CREEK.

YOU STATED OVER THE PHONE THAT YOU WERE ALMOST SURE THE SITE WAS OUTSIDE YOUR AREA OF CONCERN FOR POSSIBLE REMEDIATION. PLEASE GIVE ME YOUR EXPERT OPINION AS TO THE STATUS OF THIS SITE.

YOUR ASSISTANCE IS GREATLY APPRECIATED.

SINCERELY,



**MICKEY SHOEMAKE
ASST. VICE PRESIDENT**



RichLand Title, Inc.
Land title services

June 7, 2004

First Federal Bank for Savings
Attention: Mickey Shoemaker
P. O. Box 1086
Petal, MS 39465

RE: Strahan Auto Sales, Inc.

RE: A part of the Northwest 1/4 of the Southwest 1/4 of Section 16, in Township 4 North, Range 13 West in the City of Hattiesburg, County of Forrest, State of Mississippi, and being more particularly described as commencing at the intersection of the Northwestern right of way line of the New Orleans and Northeastern railroad and the northeastern right of way line of U. S. Highway No. 49, thence run North 45 degrees 15 minutes 11 seconds along the said Northeastern right of way at U. S. Highway No. 49 for 125.42 feet to a point of intersection of the said Northeastern right of way line of U. S. Highway No. 49 and the Southeastern right of way line of West Pine Street, thence run North 45 degrees 10 minutes 34 seconds West for 50.52 feet to a point of intersection of the said Northeastern right of way line of U. S. Highway No. 49 and the Northwestern right of way line of said West Point Street, thence run North 36 degrees 33 minutes 32 seconds East and along the said Northwestern right of way line of West Pine Street for 873.88 feet to the point of beginning, thence run North 53 degrees 16 minutes 48 seconds West for 224.06 feet to a point on the Centerline of Gordon's Creek, thence run North 37 degrees 58 minutes 59 seconds East along the said Centerline of Gordon's Creek for 120.03 feet to the point of intersection of the said centerline of Gordon's Creek and the centerline of a ditch, thence run South 53 degrees 16 minutes 48 seconds East along the said centerline of a ditch for 221.08 feet to a point on the said Northwestern right of way line of West Pine Street, thence run South 36 degrees 33 minutes 32 seconds West along the said Northwestern right of way line of West Pine Street for 120.00 feet to the point of beginning, comprising 0.61 acres, more or less.

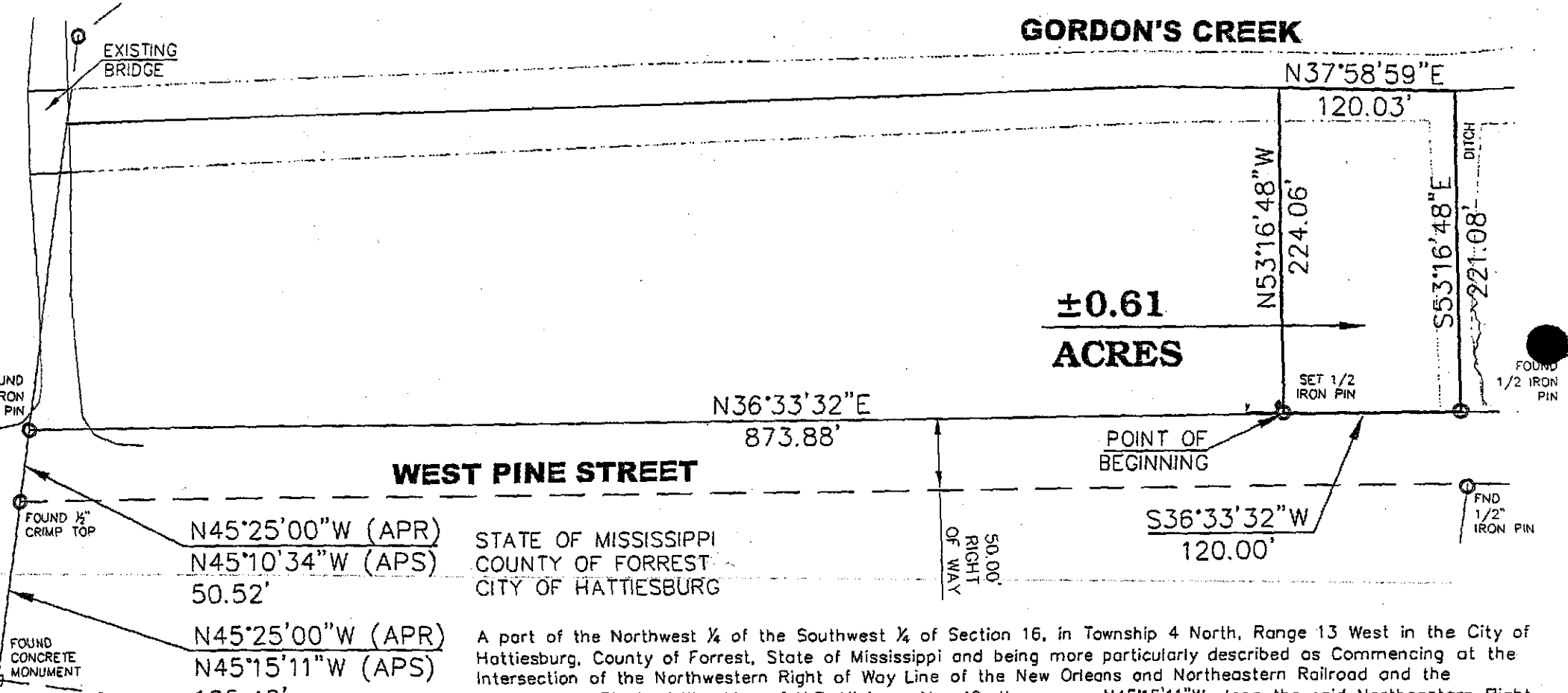
RECITALS

In accordance with requests, I have this day examined such properly indexed public records of Forrest County, Mississippi, as same affect in any fashion the above referenced property for a period covering thirty-one (31) years, to June 7, 2004, at 8:00 a.m. and after said search, I am of the opinion that **M & M PROPERTIES AND INVESTMENTS, INC.** is the owner in fee simple of the merchantable title to the herein described property, subject to the conditions, stipulations, exclusions and exceptions set out hereinbelow as follows, to-wit:

PROJECTIONS: isani and Associates\F02-1906 IPI Boundary Surveys\F02-1906.dwg\F021906_PLT.DWG, Plat 1A, 04/29/2004 06:32:57 AM

SCALE: 1" = 100'
APRIL 28, 2004
CLASS "B" SURVEY
BEARINGS BASED ON SOLAR OBSERVATION.

U.S. HIGHWAY No. 49



±0.61
ACRES

NEW ORLEANS AND NORTHEASTERN RAILROAD

POINT OF COMMENCEMENT:
THE INTERSECTION OF THE NORTHWESTERN RIGHT OF WAY LINE OF THE NEW ORLEANS AND NORTHEASTERN RAILROAD AND THE NORTHEASTERN RIGHT OF WAY LINE OF U.S. HIGHWAY No. 49, FORREST COUNTY, MISSISSIPPI.

STATE OF MISSISSIPPI
COUNTY OF FORREST
CITY OF HATTIESBURG

A part of the Northwest 1/4 of the Southwest 1/4 of Section 16, in Township 4 North, Range 13 West in the City of Hattiesburg, County of Forrest, State of Mississippi and being more particularly described as Commencing at the intersection of the Northwestern Right of Way Line of the New Orleans and Northeastern Railroad and the Northeastern Right of Way Line of U.S. Highway No. 49, thence run N45°15'11"W along the said Northeastern Right of Way of U.S. Highway No. 49 for 125.42 feet to a Point of Intersection of the said Northeastern Right of Way Line of U.S. Highway No. 49 and the Southeastern Right of Way Line of West Pine Street, thence run N45°10'34" for 50.52 feet to a Point of Intersection of the said Northeastern Right of Way Line of U.S. Highway No. 49 and the Northwestern Right of Way Line of said West Pine Street, thence run N36°33'32"E and along the said Northwestern Right of Way Line of Pine Street for 873.88 feet to the the Point of Beginning, thence run N53°16'48"W for 224.06 to a Point on the Centerline of Gordon's Creek, thence run N37°58'59"E along the said Centerline of Gordon's Creek for 120.03 feet to the Point of Intersection of the said Centerline of Gordon's Creek and the Centerline of a Ditch, thence run S53°16'48"E along the said Centerline of a Ditch for 221.08 feet to a Point on the said Northwestern Right of Way Line of West Pine Street, thence run S36°33'32"W along the said Northwestern Right of Way Line of West Pine Street for 120.00 feet to the Point of Beginning, comprising 0.61 Acres, more or less.

SHOWS, DEARMAN & WAITS, INC.
CONSULTING ENGINEERS
P.O. BOX 1711
HATTIESBURG, MISSISSIPPI 39403-1711
(601) 544-1821

RAYMOND M. DEARMAN, P.E.
Civil Engineer No. 5302

West Pike 7 Hwy 44 - Hatterburg - .61 ACRES



Bryan Strahan SITE



Bryan Strahan SITE

Bryan Strahan

Shot from W Pike Looking
Northwest toward Gordon's
Creek AND Broadway Drive

There is a line of trees
fence on North side of
W Pike looking eastward
toward the creek

Dealships

**Scope of Work
Confirmation Sampling of NE Drainage Ditch
Gulf States Creosote Site
Hattiesburg, Mississippi
May 2004**

Objectives:

1. Collect soil samples along the perimeter of the northeast drainage ditch project for confirmation analysis.
2. Verify whether the northeast drainage project is protective of human health and the environment.
3. Satisfy the concerns of the residents.

Sampling Plan:

MDEQ will collect surface soil samples along the perimeter of the northeast drainage ditch project. The samples will be collected from below the root zone down to 12 inches. Each sample will be collected with a pre-cleaned stainless steel auger. Each soil sample will be transferred from the auger to the appropriate sample container using a stainless steel spoon. The sampling will be conducted from the railroad down to Charles Street.

Each street crossing acted as a barrier/dam, causing storm water to back up allowing possible contaminants to settle out in the soils/sediments outside the boundary of the ditch. The perimeter of the ditch project will either be located by probing or by using a geophysical survey instrument that measures the differences in the densities of soils. The samples will be collected within five (5) feet of the perimeter of the northeast drainage ditch project. The northeast ditch will be divided into the following segments: from the railroad to Eastside Avenue, from Woods property to Florence Street, from Florence Street to Harrell Street, along Harrell Street to Francis Street, from Francis Street to Martin Luther King Avenue, from Martin Luther King Avenue to Francis St. apartments west fence, from the west fence to the east fence of Francis St. apartments, and from the east fence to Charles Street.

Each segment will be sampled by collecting the initial surface soil sample on the down-gradient end of each segment and working back up the ditch. The next samples will be collected at 25 foot, 50 foot and then every 100-foot along the perimeter of the ditch. An example for a 400 foot segment: collect initial sample at the street crossing, then at 25 foot, 75 foot, 175 foot, 275 foot and 375 foot. A sample will be collected from both sides of the drainage ditch at each sampling location.

One exception to this sampling plan is for the segment from Martin Luther King Avenue to the Francis Street apartments fence. Since this segment of the ditch

was a deep cut (approximately 8 feet), this segment will be sampled on 200-foot intervals.

An additional sampling event will be conducted behind the Francis Street apartments. The actual location of the old drainage ditch is unknown in this area; therefore, the area will be sampled on a 50-foot grid system. A five (5) point composite will be collected from each grid. Each sample from a grid will be placed into a stainless steel bowl and mixed to make a homogeneous sample mixture. Once thoroughly mixed, the sample will be placed into the appropriate sample containers using a stainless steel spoon.

All samples will be placed on ice in ice chests for transport to the lab for analysis. The samples will be analyzed for polynuclear aromatic hydrocarbons (PAHs) by an EPA approved analytical method. The appropriate chain-of-custody forms will be filled out for this sampling event. Each sampling location will be photographed using a digital camera and permanently marked using a Garmin Global Positioning System (GPS) unit.

Background Concentrations:

Approximately 8 additional surface soil samples will be collected from vacant lots in the area to determine a background concentration of PAH's in the soils. The background sampling locations will be selected based on no obvious environmental impacts such as distressed vegetation, stained soil or soil odors. The exact locations will be selected while in the field. The locations will be photographed and permanently marked using a GPS unit.

SEGMENT	NUMBER OF SAMPLES
Railroad to Eastside Avenue	6
Woods property to Florence Street	12
Florence Street to Harrell Street	8
Harrell Street to Francis Street	2
Francis Street to Martin Luther King	12
MLK to Francis St. apartments west fence	6
West fence to east fence at Francis St. apts	10
Francis St. apts east fence to Charles Street	3
Area behind Francis St. apts	8
Background Samples	8
Total	75

Gulf States Cresote Sampling Event

May-04

Location	Fill (Inches)	Depth Inches	Date (May)	Time	Lat (31-)	Long(89-)
Florence 000a		12	25	10:20	18' 44.3"	18' 07.8"
" 000b		6	25	10:25	18 43 7	18 07 5
" 025a		12	25	10:35	18 43 8	18 07 9
" 025b		6	25	10:45	18 43 6	18 07 7
" 075a		12	25	10:55	18 43 5	18 07 6
" 075b		6	25	11:05	18 43 3	18 07 5
" 175 a		9	25	11:15	18 43 2	18 09 3
" 175b		8	25	11:20	18 43 0	18 09 1
" 275a		14	25	11:30	18 42 8	18 10 5
" 275b		7	25	11:35	18 42 7	18 10 4
" 375a		7	25	11:45	18 42 5	18 11 4
" 375b		6	25	11:50	18 42 3	18 11 4
Harrell 000a	12	14	25	13:50	18 45 3	18 04 7
" 000b		12	25	13:55	18 45 2	18 04 3
" 025a	10	12	25	14:05	18 44 9	18 04 8
" 025b		6	25	14:10	18 45 1	18 04 6
" 075a	8	11	25	14:40	18 45 2	18 05 2
" 075b		8	25	14:45	18 44 4	18 05 2
" 175a		8	25	14:55	18 44 3	18 06 3
" 175b		6	25	15:05	18 44 4	18 06 1
Francis 030a		7	25	15:32	18 45 1	18 03 4
" 060a		8	25	15:35	18 45 2	18 03 8
East side 000a		8	25	16:30	18 43 9	18 14 9
" " 025a	4	8	25	16:40	18 44 0	18 15 1
" " 050a		10	25	16:50	18 44 1	18 15 3
MLK 000a	6	9	26	8:47	18 46 1	17 58 4
" 000b		8	26	9:00	18 46 2	17 58 5
" 025a	12	14	26	9:05	18 46 0	17 58 7
" 025b		6	26	9:12	18 46 1	17 58 5
" 075a	8	12	26	9:20	18 45 9	17 59 2
" 075b		8	26	9:25	18 45 7	17 58 9
" 175a	9	11	26	9:34	18 45 2	18 00 0
" 175b	12	15	26	9:40	18 45 0	17 59 8
" 275a	6	9	26	9:46	18 44 6	18 00 8
" 275b	8	13	26	9:55	18 44 2	18 00 5
" 375a	9	12	26	10:00	18 44 4	18 01 7
" 375b		8	26	10:05	18 44 8	18 01 8
Francis 000a		6	26	10:12	18 45 3	18 02 3
" 000b		7	26	10:18	18 45 1	18 02 7
Charles 000a		10	26	11:12	18 53 7	17 48 5
" 000b	9	12	26	11:16	18 53 7	17 48 1
" 025a	9	12	26	11:20	18 53 8	17 48 6
" 025b		6	26	11:25	18 53 8	17 48 8
" 075a	12	13	26	11:33	18 53 7	17 49 2
" 075b	12	14	26	11:36	18 53 7	17 49 2
Fs Apts 000a	12	14	26	14:14	18 50 8	17 49 8
" 000b		11	26	14:20	18 50 5	17 49 7
" 025a	12	17	26	14:27	18 50 4	17 49 9
" 025b	9	12	26	14:34	18 50 3	17 49 9

"	075a		12	26	14:43	18 50 6	17 50 5
"	075b	12	14	26	14:50	18 50 4	17 50 4
"	175a	10	13	26	15:00	18 50 2	17 51 6
"	175b		10	26	15:17	18 49 8	17 51 4
"	275a		10	26	15:30	18 50 0	17 52 6
"	275b		13	26	15:43	18 49 8	17 52 6
BG1			8	26	16:14	18 46 8	17 55 6
BG2			8	26	16:16	18 46 5	17 58 8
BG3			8	26	16:50	18 46 6	17 59 8
BG4			8	26	16:55	18 45 8	18 00 5
BG5			8	26	17:00	18 44 0	18 01 6
BG6			8	26	17:08	18 45 0	18 09 1
BG7			8	26	17:12	18 44 2	18 10 5
BG8			8	27	8:00	18 45 5	18 13 6
Grid A		Composite		27	8:40	18 50 7	17 50 0
Grid B		Composite		27	8:52	18 51 3	17 50 0
Grid C		Composite		27	9:00	18 51 8	17 50 1
Grid D		Composite		27	9:10	18 52 3	17 50 1
Grid E		Composite		27	9:30	18 52 8	17 50 1
Grid F		Composite		27	9:40	18 53 3	17 50 0
Grid G		Composite		27	9:48	18 50 6	17 50 1
Grid H		Composite		27	10:02	18 51 0	17 50 6
Grid I		Composite		27	10:10	18 51 5	17 50 5
Grid J		Composite		27	10:21	18 50 7	17 51 1
Grid K		Composite		27	10:32	18 51 1	17 51 1
Grid L		Composite		27	10:42	18 50 3	17 51 9



STATE OF MISSISSIPPI
GOVERNOR HALEY BARBOUR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Tony Russell *TR*

DATE: April 27, 2004

SUBJECT: Walk NE Drainage Ditch

I met with Dave Upthegrove on April 26, 2004 to walk the NE drainage ditch and discuss MDEQ's plans to sample the perimeter of the ditch for confirmation sampling. I measured the length of the areas that would be sampled. The ditch will be divided into segments, which will be separated by the street crossings. Based on the lengths of the segments, a sampling plan will be developed.

We also checked the newly planted trees in the Fill Area. The poplars were budding out as well as some of the willows. The rain over the weekend will help in getting the trees established.

The area around Courtesy Ford is complete.

The area adjacent to the railroad track will be completed once access is worked out with the railroad. I told Dave that Bill Cheney with the SOS office is working on access to the railroad property.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC memo to file on site visit 4-26-04.doc



STATE OF MISSISSIPPI
GOVERNOR HALEY BARBOUR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

FILE COPY

April 6, 2004

Mr. David C. Upthegrove, P.G.
Michael Pisani & Associates, Inc.
1100 Poydras Street
1430 Energy Centre
New Orleans, LA 70163

Re: Gulf States Creosote Site
*Proposed Use of Trees to Update Affected Ground Water Gordon's
Creek Fill Area Containment Cell* dated March 5, 2004
Hattiesburg, Mississippi

Dear Mr. Upthegrove:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the above referenced plan. Approval of the plan is contingent on incorporation of the following requirements:

1. Section 3.4 Tree Mortality and Monitoring – the plan does not mention anything about replacing the dead trees. The plan also mentions about periodically monitoring the trees but does not state any specific frequency. MDEQ requires the plan be modified to include provisions for replacing dead trees and a schedule for monitoring the growth performance of the trees. Please submit the modifications by April 23, 2004 for approval.

Please call me at 601-961-5318 with any questions you may have.

Sincerely,

Tony Russell, Chief
Assessment Remediation Branch

K:\Common\UCSS\Tony\Gulf States Creosote\GSC cond approv of phyto plan 4-6-04.doc



STATE OF MISSISSIPPI
GOVERNOR HALEY BARBOUR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE ASSISTANT DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: April 1, 2004

SUBJECT: Site Inspection conducted March 31, 2004

A final walk of the northeast drainage ditch was conducted on March 31, 2004. Everything was in order for the completed portion. The engineering firm for the City was satisfied with the project and was going to notify Benny Sellers that they satisfied with the project.

Dave Upthegrove and I then went over to the fill area to observe the borings being drilled so the trees could be planted. The borings were being installed on 10-foot grids and were 3 foot deep. Some obstructions were encountered during the boring as the area was used in the past as a fill area.

Photos were taken of the borings being drilled with a digital camera and are saved on a CD.

K:\Common\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 3-31-04.doc



STATE OF MISSISSIPPI
GOVERNOR HALEY BARBOUR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
March 12, 2004

FILE COPY

Mr. David C. Upthegrove, P.G.
Michael Pisani & Associates, Inc.
1100 Poydras Street
1430 Energy Centre
New Orleans, LA 70163

Re: Gulf States Creosote Site
Letter Dated February 10, 2004 Requesting a Variance from the
Final Remedial Action Work Plan
Hattiesburg, Mississippi

Dear Mr. Upthegrove:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your letter dated February 10, 2004, requesting a variance from the approved Final Remedial Action Work Plan. MDEQ concurs with the requested variance.

Please call me 601.961.5318, if you have any questions.

Sincerely,

Tony Russell, Chief
Assesment Remediation Branch

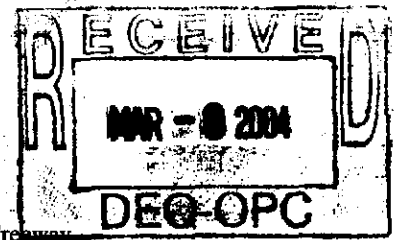
cc: Keith Watson Kerr McGee

K:\Common\UCSS\Tony\Gulf States Creosote\GSC approv for variance from RAWP 3-12-04.doc

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net



March 5, 2004

Mr. Tony Russell, Chief
Uncontrolled Sites Section
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Re: Phytoremediation Plan
Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

Enclosed for you review is a copy of the referenced document. Should you have any questions or wish to discuss the plan, please contact me. We plan to begin tree planting activities during the week of March 15, pending your approval.

Sincerely,

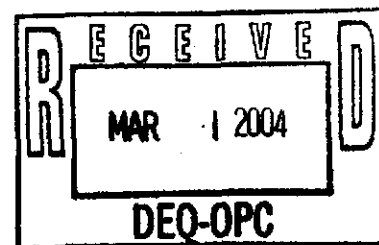
MICHAEL PISANI & ASSOCIATES, INC.

David C. Uptegrove, P.G.

cc: Keith Watson - Kerr-McGee



KERR-McGEE CHEMICAL LLC
KERR-McGEE CENTER • P.O. BOX 25861 • OKLAHOMA CITY, OKLAHOMA 73125



February 26, 2004

Mr. Tony Russell
Uncontrolled Sites Section
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

Re: Gulf States Creosoting Site
Hattiesburg, Mississippi
Scooba Street Property

Dear Mr. Russell:

Yesterday, you, David Upthegrove and I participated in a teleconference to discuss the status of remediation activities at Hattiesburg. During that conversation, you reported to us the agency's decision that no action is required on the Scooba Street property across Scooba from the former Gulf States facility process area.

In review, four shallow soil samples from this property exhibited very low levels of polynuclear aromatic hydrocarbon (PAH) contamination. Remediation of this property was not discussed in KMC LLC's remediation plan. This property was discussed in a letter from John Reichenberger of KM to Roy Furrh of MDEQ dated January 28, 2003. When KMC LLC representatives, including myself, met with you and other MDEQ representatives on December 19, 2003, we observed that this referenced property was littered with building debris including burnt wood and asphalt, which made source characterization impossible. We further proposed that due to the extremely low levels of PAHs at the Scooba property, remediation was not indicated. You indicated today that you took Jerry Banks and Gloria Tatum to the site and after a walkover, you agree with the recommendation. It is our understanding that this determination will fulfill KMC LLC's obligation regarding this property discussed in Mr. Reichenberger's letter.

If you have any questions or comments, please call me at 405-270-3747.

Sincerely,

A. Keith Watson
Project Manager

Copy: T.L. Cabbage
Jane Raiford - Adams & Reese

MICHAEL PISANI & ASSOCIATES, INC.

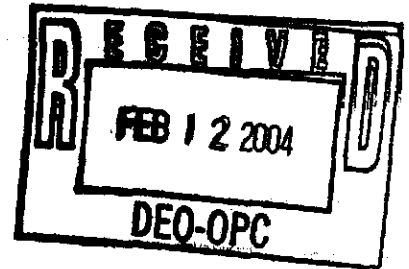
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net

February 10, 2004

Mr. Tony Russell, Chief
Groundwater Assessment and Remediation Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385



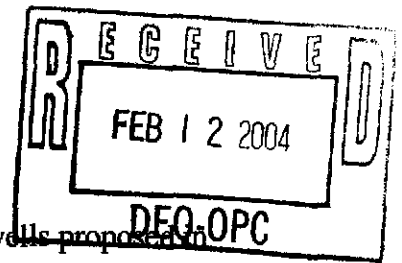
Re: Request for Variance from *Final Remedial Action Work Plan*
Fill Area Monitoring and Recovery System
Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

On behalf of Kerr-McGee Chemical LLC (KMC LLC), Michael Pisani & Associates, Inc. (MP&A) is currently implementing the MDEQ-approved *Final Remedial Action Work Plan* for the referenced site. As part of this work, MP&A has installed a system of monitoring and recovery wells within and adjacent to the Gordon's Creek Fill Area. The purpose of this letter is to document a variance from the MDEQ-approved plan, and to request MDEQ approval of this variance.

The *Final Remedial Action Work Plan* calls for the installation of recovery wells at 25-foot intervals behind the sheet-piling barrier to allow for the collection of dense non-aqueous phase liquids (DNAPLs) where present. The plan also calls for the installation of monitoring wells at 50-foot intervals behind the sheet-piling barrier to monitor for the presence of DNAPLs at the contact between the Fill Area sands and the Hattiesburg clay. Figure 5-6 of the plan, which is attached to this letter, shows 21 planned recovery well locations and 12 planned monitoring well locations.

All 12 monitoring wells were installed as planned. Recovery wells were installed at 17 of the 21 planned locations. No DNAPL was logged in borings at the remaining locations, therefore recovery wells were not installed. These four locations were either at the extreme upstream end or the extreme downstream end of the sheet-piling barrier, where no DNAPL had been logged during previous investigations. The locations of monitoring and recovery wells are shown on attached Figure 1.



We request that MDEQ grant a variance from the number of recovery wells proposed in the approved plan for the following reasons:

- It is reasonable to only install recovery wells at locations where DNAPLs are present. It was an oversight that the plan did not make provisions for not installing recovery wells at locations where DNAPLs were not encountered.
- After more than 40 years in the subsurface, given the nature of the Fill Area DNAPL (i.e., a viscous substance perched on discontinuous clay layers), and in consideration of the newly-installed sheet piling barrier, additional lateral migration is not anticipated.
- Even though DNAPLs were not logged at the locations RW-15, RW-16, and RW-17, recovery wells were installed at these locations as a precaution and to monitor for potential migration.
- As the plan states, should DNAPL be gauged in any of the monitoring wells, those wells will be converted into recovery wells.

Should you have any questions or require additional information, please call me. We look forward to hearing back from you with your approval of this variance.

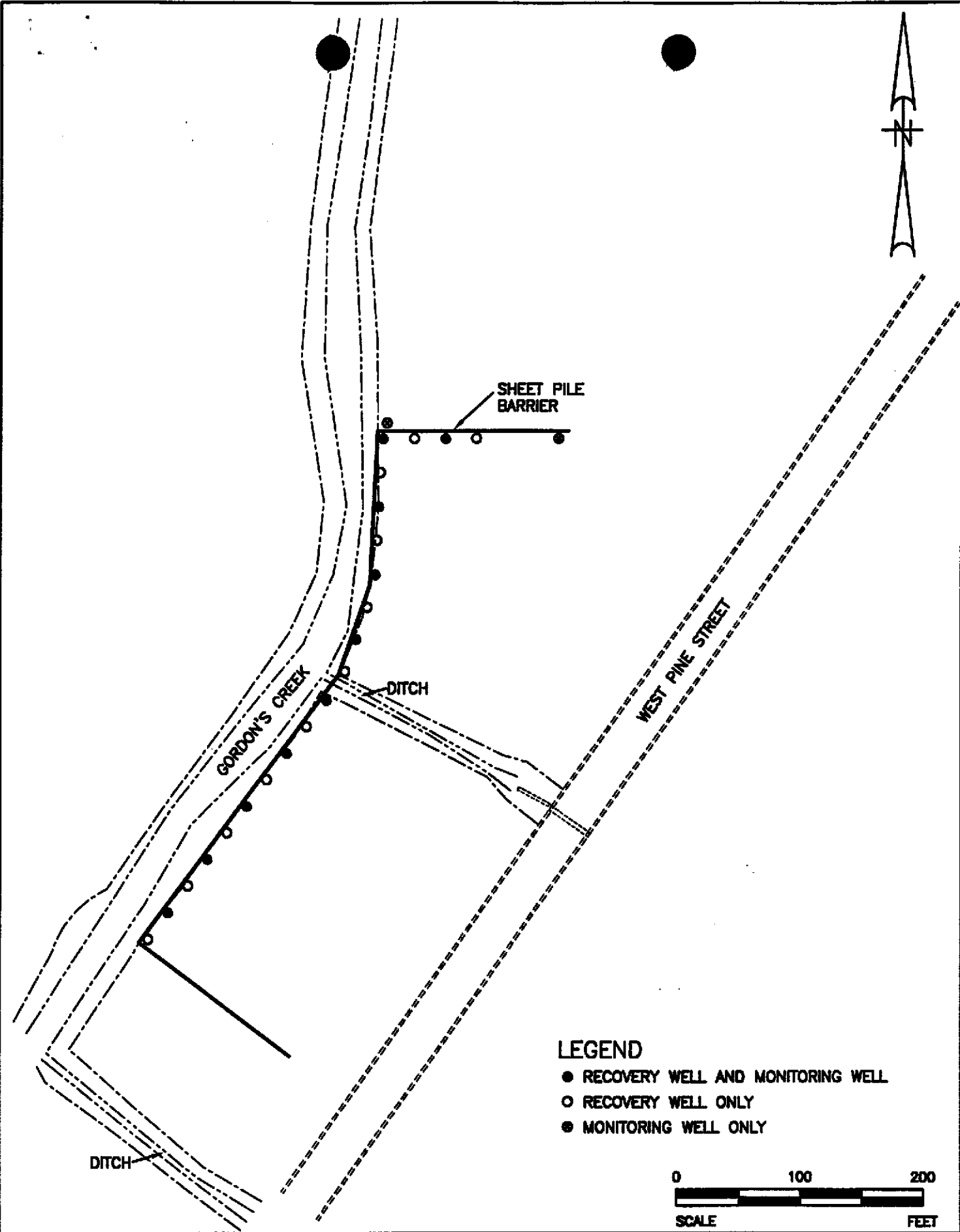
Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "D. C. Upthegrove".

David C. Upthegrove, P.G.

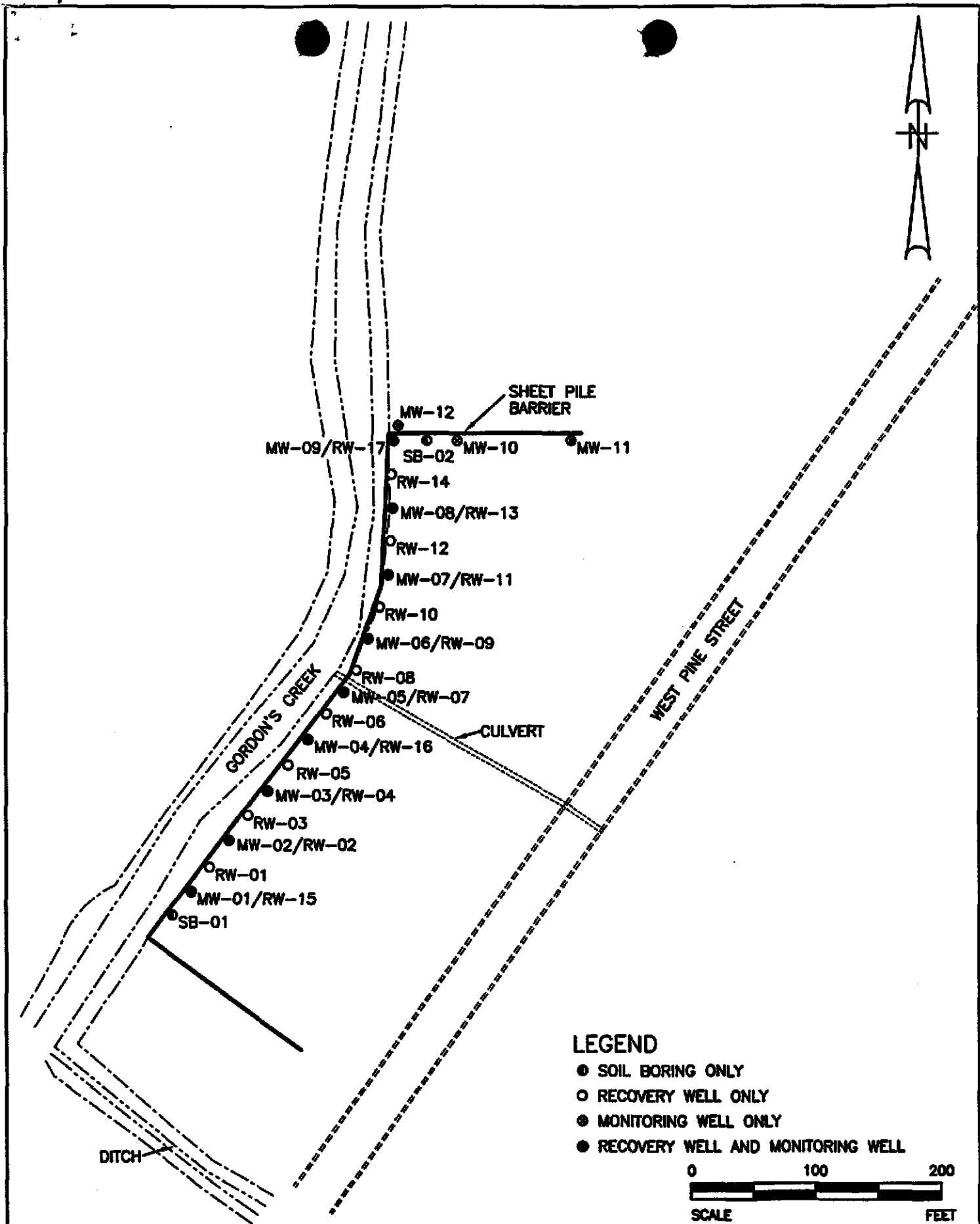
cc: Keith Watson – Kerr-McGee



MICHAEL PISANI & ASSOCIATES
 Environmental Management and Engineering Services
 New Orleans, Louisiana Houston, Texas

SCALE: 1"=100' DWG. NO.: 21-04/237A

FIGURE 5-8
 RECOVERY WELL AND MONITORING WELL LOCATIONS
 FILL AREA
 FORMER GULF STATES CREOSOTING SITE
 HATTIESBURG, MISSISSIPPI



MICHAEL PISANI & ASSOCIATES
 Environmental Management and Engineering Services
 New Orleans, Louisiana Houston, Texas

SCALE: 1"=100' DWG. NO.: 21-04/298A

FIGURE 1
 RECOVERY WELL AND MONITORING WELL LOCATIONS
 FILL AREA
 FORMER GULF STATES CREDSTOTING SITE
 HATTIESBURG, MISSISSIPPI

MDEQ Meeting 12/19/03 Hattiesburg

Name Representing Phone

Jane Bairford	Adams & Reese / KM	504 585 0369
Nick Bock	KM	405 270 2394
KEITH WATSON	KWELL	405-270-3747
GLEN PILUE	ALR	504-585-0260
DAVE VANDERHOVE	MPEA	504-582-2468
Bill Cheney	SOS	601-359-6377
Tony Russell	MDEQ	601-961-5318
JERRY BANICK	MDEQ	601-961-5221
Kelly Riley	MDEQ	601.961.5369
Gloria Tatum	MDEQ	601-961-5011

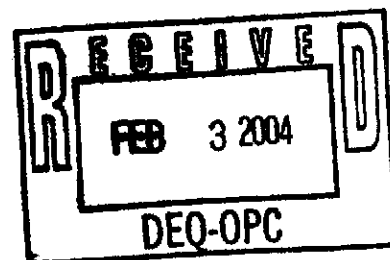
PPROPOSED AGENDA
DECEMBER 19 MEETING WITH MDEQ
HATTIESBURG ISSUES

TOPIC

1. ✓ Fill Area Update
D. Upthegrove
2. ✓ Process Area Update
D. Upthegrove
3. ✓ Mrs. Woods Yard
54' of 24" pipe & underlying soil
Access issues
4. ✓ Former (bypassed) Ditch Route
Downhome Cookin' - 50'
Upstream of Mrs. Woods - 50'
Harrell & Francis Streets - 75-100'
Aka "Mr. Harris' home"
5. Fingers of Impact from NE Ditch
Harrell St. Sewer line
Along Scooba NW of RR
6. Property across Scooba from Courtesy Ford
7. NSRR Access
Surface soil along tracks
Ditch along Scooba



STATE OF MISSISSIPPI
SECRETARY OF STATE
ERIC CLARK



401 MISSISSIPPI STREET
POST OFFICE BOX 136
JACKSON, MISSISSIPPI 39205-0136

TELEPHONE (601) 359-1350
FACSIMILE (601) 359-1499

January 30, 2004

Mr. Don Barrett, Esq.
Barrett Law Firm
Post Office Box 987
Lexington, Mississippi 39095

VIA FACSIMILE 662-834-2628

RE: Kerr-McGee Creosote Clean-up
Northeast Ditch Project
Section 16, Township 4 North, Range 13 West
Forrest County, Mississippi

Dear Don:

I am in receipt of your letter of January 13, 2004, regarding the above-referenced matter. The Public Lands Division of the Secretary of State's Office is willing to offer advice and support, but we cannot draft a complaint. The responsibility for litigation lies with the Hattiesburg School District Board of Education ("the Board"). I am confident that the Board will be able to draft a complaint to resolve the issue of access to the property occupied by Mrs. Woods, Mr. Harris, and Norfolk Southern Railroad.

I suggest you contact Jane Raiford and determine the exact nature of the City's responsibility for the culvert project for the Northeast ditch. The culvert project was part of the remediation plan established by MDEQ and Kerr-McGee. An agreement was reached whereby the City was hired to perform the labor, since the City wanted to improve the drainage of the ditch.

The Chancery Court action I envision is a Declaratory Judgment, pursuant to Rule 57 Miss. R. Civ. P., confirming the school district's right to prevent waste and granting an easement. The action would further confirm the City's existing easement. Since the City has an existing easement, they can join as a plaintiff. If the City will not voluntarily join in the action, it can be made an involuntary plaintiff pursuant to Rule 19. I fully believe the City will complete the ditch project once access is confirmed and the protesters temporarily removed. If not, the Board might be able to look to Kerr-McGee to ensure completion of the last portion of work. Due to the construction deadline and the potential continued damage to the Trust, you might even be able to obtain a temporary restraining order pursuant to Rule 65(b) allowing the

construction crew to enter the property.

If you have any questions or need additional information, please call me at (601) 359-6377 or e-mail me at bcheney@sos.state.ms.us.

Sincerely yours,



WILLIAM G. CHENEY, JR.
Senior Attorney, Public Lands Division

WGC/

cc:

Dr. James R. Davis
Superintendent
Hattiesburg Public School District
Post Office Box 1569
Hattiesburg, Mississippi 39403
VIA FACSIMILE 601-582-6666

Mr. Sam Buchanan
307 Parkdale Drive
Hattiesburg, Mississippi 39401
VIA FACSIMILE 601-582-6666

Mr. J. B. VanSlyke, Jr., Esq.
606 Maine Street
Post Office Box 1506
Hattiesburg, Mississippi 39403
VIA FACSIMILE 601-582-6666

Miss Kelly Riley, Esq.
Senior Attorney
MDEQ
Post Office Box 20305
Jackson, Mississippi 39289-0305
VIA FACSIMILE 354-6965

Mr. Tony Russell
MDEQ
Post Office Box 10385
Jackson, Mississippi 39289-0385
VIA FACSIMILE 961-5300

1820



STATE OF MISSISSIPPI
SECRETARY OF STATE
ERIC CLARK

401 MISSISSIPPI STREET
POST OFFICE BOX 136
JACKSON, MISSISSIPPI 39205-0136

TELEPHONE (601) 359-1350
FACSIMILE (601) 359-1499

January 13, 2004

Dr. James R. Davis
Superintendent
Hattiesburg Public School District
Post Office Box 1569
Hattiesburg, Mississippi 39403

VIA FACSIMILE 601-582-6666

RE: Kerr-McGee Creosote Clean-up
Section 16, Township 4 North, Range 13 West
Forrest County, Mississippi

Dear Dr. Davis:

Thank you for participating in the conference call, Wednesday, December 17, 2003, with your legal counsel, Assistant Superintendent, and staff from the Mississippi Department of Environmental Quality ("MDEQ"). As I am sure you can understand, it is imperative that the clean-up of any potential creosote contamination be completed as soon as possible. Completion of the culvert project for the Northeast ditch from Scooba Street to Katie Street is integral to the overall clean-up project.

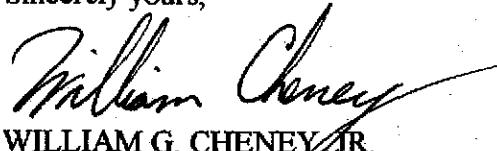
As I indicated in the conference call, it is the responsibility of the Hattiesburg School District Board of Education ("the Board"), as trustee of the 16th Section Public School Trust Lands, to protect the Trust. This trustee obligation is required by virtue of statutory authority and case law. Further, the Board incurred an obligation when it participated in the settlement of its lawsuit brought against Kerr-McGee. Protection of the Trust involves ensuring the completion of the culvert project and other clean-up activities.

The Board must immediately take whatever action is necessary, including actions in a court of competent jurisdiction, to ensure that access is granted to those entities with the responsibility for cleaning up the potential creosote contamination. In particular, the Board must ensure that access is granted across the property currently occupied by Mrs. Woods, Mr. Harris, and, to the extent it does not impact railroad operations, the property leased by the Norfolk Southern Railroad. As I have explained, the Board's authority to grant access is contained in §§ 29-3-1 and 29-3-85 Miss. Code Ann. (Miss. 1972) as amended, as well as the holding in the case *Turney v. Marion County Board of Education*, 481 So.2d 770 (Miss. 1985).

Failure by the Board to take such action as is necessary to ensure completion of the clean-up project may be seen as a willful failure to protect the Trust and could **subject the Board members to personal liability pursuant to §29-3-9 Miss. Code Ann (1972), as amended.**

If you have any questions or need additional information, please call me at (601) 359-6377 or e-mail me at bcheney@sos.state.ms.us.

Sincerely yours,


WILLIAM G. CHENEY JR.
Senior Attorney, Public Lands Division

WGC/

cc:

Mr. Sam Buchanan
307 Parkdale Drive
Hattiesburg, Mississippi 39401
VIA FACSIMILE 601-582-6666

Mr. J. B. VanSlyke, Jr., Esq.
606 Mainè Street
Post Office Box 1506
Hattiesburg, Mississippi 39403
VIA FACSIMILE 601-582-6666

Miss Kelly Riley, Esq.
Senior Attorney
MDEQ
Post Office Box 20305
Jackson, Mississippi 39289-0305
VIA FACSIMILE 354-6965



Thomas (T.L.) Cabbage III
Attorney
Kerr-McGee Shared Services Company LLC
Law Department
Litigation Division

Voice (405) 270-2741
Fax (405) 270-4101
tcabbage@kmg.com

December 12, 2003

Via U.S. Mail and e-mail (tjam@aol.com)

***Privileged and Confidential – Not Admissible in Any Proceeding
For Dispute Resolution Purposes Only
Governed by Federal Rule of Evidence 408 and State Law Equivalents***

Alethea Shaw-Milton, Esq.
814 Martin Luther King Jr. Ave.
Hattiesburg, MS 39401

Re: *Betty Bolton, et al. v. Kerr-McGee Chemical Corp., et al.*
In the U.S. District Court for the Southern District of Mississippi
Our File No. 2003-00024

Dear Ms. Shaw-Milton:

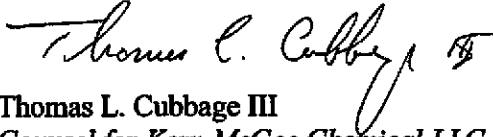
Along with the Brunini Grantham firm, I represent Kerr-McGee Chemical ("Kerr-McGee") in the above-referenced lawsuit. I am writing with regard to Ms. Clevester Woods, one of the plaintiffs you represent in that lawsuit.

Pursuant to an agreement between Kerr-McGee and the City of Hattiesburg, the City has been conducting drainage control and remediation work in a ditch in the vicinity of Ms. Woods's residence. As part of that project, the City proposes to excavate a portion of the ditch that crosses Ms. Woods's leasehold. Ms. Woods reportedly has objected to work on her leasehold.

I would like to speak with you about Ms. Woods's objections, and ways in which Kerr-McGee might help to resolve them. As part of that discussion, I would be happy to explore the possibility of resolving Ms. Woods's claims against Kerr-McGee in the *Bolton* lawsuit as well. I am hopeful that if we have such discussions, we can reach a solution that would satisfy Ms. Woods and allow the timely completion of the City's project.

I have been unable to reach your office by telephone. Please call me to discuss Ms. Woods, at (405) 270-2741. I look forward to hearing from you.

Sincerely,


Thomas L. Cabbage III
Counsel for Kerr-McGee Chemical LLC

Kerr-McGee Shared Services Company LLC

123 Robert S. Kerr Avenue, Oklahoma City, OK 73102 • P.O. Box 25861, Oklahoma City, OK 73125

City Council

Betsy M. Rowell Ward One
 Deborah L. Denard Ward Two
 Carter Carroll Ward Three
 C. E. "Red" Bailey Ward Four
 Henry E. Naylor Ward Five



Post Office Box 1898
 Hattiesburg, Mississippi 39403 1898

Johnny L. DuPree, Mayor

From the desk of.....

Johnny L. DuPree
 Mayor

CITY OF HATTIESBURG
 P. O. BOX 1898
 HATTIESBURG, MS 39403-1898
 PHONE (601) 545-4501 FAX (601) 545-4608

DATE: 11-5-03

TO: Gloria Tatum

DEPARTMENT: _____

FAX NO: 601-961-5376

FROM: Johnny L. DuPree, Mayor

MESSAGE: _____

NO. PAGES FAXED (Including Cover Sheet) _____

City Council

Betsy M. Rowell Ward One
 Deborah L. Denard Ward Two
 Carter Carroll Ward Three
 C. E. "Red" Bailey Ward Four
 Henry E. Naylor Ward Five



Post Office Box 1898
 Hattiesburg, Mississippi 39403-1898
 (601) 545-4501
 Fax (601) 545-4608
 Email: mayor@hattiesburgms.com
 council@hattiesburgms.com
 Website: www.hattiesburgms.com

City of Hattiesburg*Johnny L. DuPree, Mayor*

November 4, 2003

Ms. Gennie Walker
 Mr. Vernell Woods
 106 Scooba Street
 Hattiesburg MS 39401

Re: Letter of October 28, 2003 to Mayor Johnny DuPree

Dear Ms. Walker and Mr. Woods.

Please be advised that I am in receipt of your letter of October 28, 2003 wherein you raised questions concerning the cleanup in the area of your mother, Mrs. Clevester Wood's house.

Your questions and the responses are as follows:

1. Does the city of Hattiesburg employ Aletha Michelle Shaw-Milton?

Response- Yes, Mrs. Shaw-Milton is employed by the city as its public defender to defend persons who are charged with the commission of misdemeanor criminal offenses in city court.

2. Is it your position that the area where my mother lives is not contaminated?

Response- The areas of contamination were identified by the Mississippi department of Environmental Quality DEQ is the state agency charged with the responsibility by law to identify areas where environmental hazards exist and to manage its cleanup.

3. If the area is not contaminated why is Mrs. Shaw-Milton, Attorney of Records, in a contamination lawsuit in Federal Court in Hattiesburg?

Response- I cannot answer your question as to why Mrs. Shaw-Milton in the attorney of record in a contamination lawsuit.

4. Why is she actually involved with Attorney Gregory Cade in soliciting new clients in a suit against Kerr McGee?

Response- I have no knowledge that Attorney Shaw-Milton is involved with any other attorney or is soliciting clients for any purpose and therefore cannot answer this question.

City Council

Betsy M. Rowell Ward One
 Deborah L. Denard Ward Two
 Carter Carroll Ward Three
 C. E. "Red" Bailey Ward Four
 Henry E. Naylor Ward Five



Post Office Box 1898
 Hattiesburg, Mississippi 39403-1898
 (601) 545-4501
 Fax (601) 545-4608
 Email: mayor@hattiesburgms.com
 council@hattiesburgms.com
 Website: www.hattiesburgms.com

City of Hattiesburg

Johnny L. DuPree, Mayor

5. If the Public School district has the authority to allow this clean up to take place even in opposition to our mother's wishes. Why did the city obtain an easement from her?

Response- Because the school district is the owner of the land under state law due to the fact that it is 16th section land, your mother is a leaseholder of 16th section property and the school district by law has ownership, control and management responsibility for the property. The city obtained an easement from your mother because she has physical possession of the property pursuant to the lease she obtained from the school district and the city is prohibited from entering upon property that it does not own without permission of the owner/lessee. Further, it is the responsibility of the city to maintain the ditches to reduce and eliminate flooding etc.

6. Why was her children not notified that this city was requesting an easement?

Response- Mrs. Woods is listed and shown as the property owner by virtue of the lease that she has from the school district. Under the law the city must conduct its business with the property owner, unless there is some legal reason why the property owner cannot speak or act legally for himself or herself. The city did not know of and knows of no reason why Mrs. Woods could not act for herself and for that reason her children were not notified when the city was obtaining an easement.

7. Our mother is an elderly resident, why wasn't one of her children present when this transaction took place?

Response- If your mother lacked the capacity to understand and/or had a conservator appointed by the court, then you or whomever was serving, as conservator would have been contacted. Also, if your mother had made it known that she desired to have a family member present, then the city would have complied with such a request.

I respect and appreciate the fact that you are concerned about your mother and are looking out for her best interest. I am also concerned about her and I have made and will continue to make every effort, under the law that I can to ease any fears that she may have regarding the conduct of the city.

Thanking you for the opportunity to respond to your questions and share this information with you.

Sincerely,

Johnny L. DuPree, Mayor
 City of Hattiesburg

504 582 2408
70

Mrs. Clevester Woods
106 Scooba Street
Hattiesburg, Ms. 39401

October 26, 2003

Charles E. Lawrence, Jr.
P O Box 1624
1105 Edwards St.
Hattiesburg, Ms. 39403-1624

Dear Mr. Lawrence,

Please be advised that I as a citizen, have learned more through a community meeting on 10/21/03 about the clean up of the Kerr Magee project. Which had been presented to the residents as only drainage improvement work. I have had a visit at my home from Mr. David Becker president of CAPS. Mr. Becker was recently given an award from EPA and nationally recognized for his work in bringing together agencies and communities in order to better the quality of living in our neighborhoods. Mr. Becker spoke at the community meeting held on 10/21/03. Mr. Becker also spoke to WDAM after touring the Kerr Magee site here in Hattiesburg, he advised the news media that this was the worst site that he had ever seen.

Mr. Lawrence, you had delivered a letter on 10/23/03, this said letter stated that it's purpose was to clear up the confusion and any questions. These are my questions and the points I am confused on.

1. I am confused as to whether the mayor and yourself are working for the citizens of Hattiesburg or Kerr Magee?
2. Did you, Mr. Lawrence, give a citizen Mr. James Rogers, a letter on the street in front of my home that I put in your hands in a private meeting in my home?
3. Why Mr. Lawrence was my home ripped apart within hours and I was left without hot water and gas for over two weeks, because they were looking for a gas like smell, and Mr. Harris several blocks over from me has the same problem. If this gas was the type that would have been coming from the line in my home I would have been dead. This tells me that I have the same gas like smell which comes from the contamination that was being removed from the environment.
4. Mr. Lawrence in the third and fourth paragraph of your letter dated 10/23/03, your statements leave me and my children more confused than ever. I quote "The City of Hattiesburg do not have any control over this particular project as it is being performed pursuant to an Order from Mississippi Department of Environmental Quality and possibly a Court order. The role of the City has been to accommodate Kerr Magee by allowing it

to deposit the money with the City for payment of the cleanup cost and allowing the bids for the work to come through the City." This whole paragraph is disturbing to me as a citizen, why would the City officials enter into an agreement, partnership or a joint venture and not have any control? This is not good business to say the least. In my opinion Kerr Magee evidently has full control of the work that is being performed in my community. The Kerr Magee company is in Business to make money, the City officials on the other hand are supposed to be in office to protect and serve. It is understood that Kerr Magee would use good business sense to save every dollar they can. So, this means if they can cut corners to lower cost on this project they will. That is why they did not spend the money to properly relocate the residents of this community. It was, I am sure, a business decision accompanied by the fact that we are African Americans.

5. Mr. Lawrence why did you host a town hall meeting to inform the residents, and did not invite the agencies that could properly answer the questions that concerned the citizens. For instance OSHA, the Health Dept., and the ATSDR?

6. Mr. Lawrence, I am very disappointed in you and the mayor, not only as City officials but also as men from our community. In your third paragraph you talk about a possible Court Order. Mr. Lawrence you being a lawyer, should know better than to talk about possibilities. As the City attorney it is your duty to have a copy of the said Order, because if anything you again should know what is said on behalf of the citizens from the Court. You have been in contact with the attorneys for School Board and the School Board attorney has been in contact with the Secretary of State's office. So Mr. Lawrence please provide me with a copy of the Court Order within 24 hours of receiving my letter, so I can read for myself and see what the judge has told MDEQ and Kerr Magee on behalf of the citizens. When you use the word possible it gives me the impression that you have not read the Order, which means the judge may have ordered relocation of the citizens. So without this document you do not know if the clean up is being done in accordance of the Judge's Order.

7. Mr. Lawrence I stated that I believe that the City officials' job is to protect and serve.

- Was this action part of the court order?
- Who's idea was it to involve the City? City officials or Kerr Magee?
- WDAM stated that Kerr Magee gave the City of Hattiesburg 3 million dollars, a City council member states that the City did business on 2 million dollars. As a citizen I am respectfully requesting to know how much money did Kerr Magee give the City of Hattiesburg and what were the agreements?

8. Mr. Lawrence, your fourth paragraph is also troubling, you have spoken with a representative of Kerr Magee. While you were speaking to Kerr Magee did you advise them that I was an 80 year old widow, and that I have been without utilities because of the clean up work that they are doing? Did you advise them of my visits to the emergency room because of a cough and breathing difficulties, and the prescription that I have been given by the doctors that I can not afford? Did you advise them that I cannot run my AC because it pulls the fumes into my home, so most of the time I have been confined in a hot house? Did you advise them that the smell in my house, in my clothes and in my bed will still be here once they stop digging and I will still be left with these same fumes? Mr.

Lawrence, if your answer is no, then I do not see why you did not have Kerr Magee contact me and my family. Mr. Lawrence, I do not believe that Kerr Magee knows about all the suffering I've been through, if they are responsible for re-sodding and restoring the lawn to their original condition if not better, then what about my home and my life?

9. Lastly, I have two questions that I feel deserve to be answered, one is what were the results of the sample taken from my yard, and two what is the level of contamination in my home? These questions I would like answered by Kerr Magee.

In conclusion, Mr. Lawrence I would like to speak with Kerr Magee myself, because I believe you have left out some important information like my medical bills and prescriptions that I cannot afford. Mr. Lawrence, the citizens have not been informed because we were told this was drainage work that we were signing easements for, we were never advised that this was remediation work to remove hazards from our community. I have no desire to become an obstacle or to prevent any progress that is necessary for the project that is going in order to better our community, but I do ask that all parties respect me as a citizen and the other residents of my community who under the Constitution have rights which I feel have been grossly violated along with the Community Right to know Act.

Mr. Lawrence please contact a representative of Kerr Magee and ask them to send a representative to my home in an effort to resolve this matter in a timely manner. I can speak for myself since the agreement needs to be made between myself and Kerr Magee. I have a 99 year lease that is as far as I know in good standing. I look forward to hearing from a representative of Kerr Magee soon in hopes of resolving this matter in a respectful way to all involved and to make sure that the rights and interest of all parties are protected. My prayer is that all officials and the Kerr Magee company will cease to treat us like live stock and will not continue to act like this contamination has no impact on our community and our health only to leave us to die one at a time while everyone pretends not to know what happened.

I look forward to working with Kerr Magee and all other agencies involved in an effort to make our community a safer place to work, live, and play.

Respectfully,

Cleaver Woods
Mrs. Cleaver Woods and family

cc:
Kerr Magee
EPA
Judge Charles W. Pickering, Sr.
U S Justice Department
U S Senators
CAPS

STATE OF MISSISSIPPI
COUNTY OF FORREST
SWORN TO AND SUBSCRIBED BEFORE ME
THIS 27th day of October, 2003
[Signature] Clerk Clerk



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

January 16, 2004

FILE COPY

Mr. Joe Ford, President
ICON Environmental Solutions
P. O. Box 247
Cary, IL 60013-0247

Re: Gulf States Creosote Site
Parcel #5 West Pine Street
Hattiesburg, Mississippi

Dear Mr. Ford:

The Mississippi Department of Environmental Quality (MDEQ) has completed review of the above referenced work plan and has the following concerns/comments/requirements:

1. Section 2 – Scope of Work – We are not sure exactly how you plan to pull the samples based on the wording in this section. The data from previous reports show that the contamination is near the surface. MDEQ evaluates human exposure from soil contamination from the surface down to six (6) feet. MDEQ recommends that the plan be modified to sample from the surface down to six (6) feet on a two-foot interval. A soil sample should be collected from each interval and sent to the lab with the instructions that if the surface sample is contaminated then analyze the next sample and so on. If the surface sample is not contaminated, the other samples may be discarded.
2. Section 4.0 – Health and Safety Plan – the HASP should include the 7-digit phone number for each local emergency agency. It is our understanding that dialing 911 with a cell phone may go out of the area back to the home area of the cell phone user. The HASP did not include provisions for air and dust monitoring if soil removal is required. The trucks shall be covered while transporting material. All toolbox safety meeting forms must be made part of the permanent file for this project. The plan must include guidelines for when to move to from Level D to the next level of personnel protection. A decon pad must be built to decon heavy equipment prior to leaving the site.

Mr. Joe Ford
January 16, 2004
Page 2

FILE COPY

3. The proposed sampling grid is unacceptable. Grid lines equally spaced across the property with a minimum of 3 sampling locations per line should be used.
4. The plan does not describe in detail how the samples will be collected or what analytical methods will be used.
5. The method detection limits must be equal to or less than DEQ's target remediation goal (TRG) levels for contaminants of concern. The TRG table is available on DEQ's web page under the Brownfields program.
6. The plan must include environmental contractors/subcontractors and laboratory that will be used during this project. Only personnel with the proper training will be allowed to work on this project.
7. You may wish to submit a plan to only sample the site and then once the levels of contamination are known, if any, then submit a plan to remediate.

Any questions you may have concerning this matter should be directed to me at 601-961-5318.

Sincerely,



Tony Russell, Chief
Uncontrolled Sites Branch



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *JRR*

DATE: December 5, 2003

SUBJECT: Site Inspection conducted Dec. 4

I conducted an unannounced site inspection on December 4, 2003.

Process Area:

The contractor was working on concreting the ditch between Courtesy Ford and the RR tracks. This is the same ditch that was recently excavated. They have backfilled the excavation with compacted gravel and are presently over laying the gravel with concrete.

Dunn Construction was onsite preparing the Courtesy Ford back parking lot for capping with asphalt. A soft area is located in the area which previously contained the lagoon. They believe the soil was not compacted when the old lagoon was dug out and backfilled. The excavated soil will be taken to the permitted landfill in McNeill. The soil that is being scrapped up during grading will be used to backfill the area that will be excavated.

Photos were taken during this site visit with a digital camera.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 12-4-03.doc



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: November 12, 2003

SUBJECT: Site Inspection conducted November 11, 2003

I conducted an unannounced site inspection on November 11, 2003.

Process Area:

The contractors were in the process of bringing the ditch to grade. Once the ditch is to grade, it will be lined with concrete. Photos were taken of some very small areas of leachate in the ditch

NE Drainage Ditch:

The contractor was backfilling the cut across Martin Luther King in preparation for opening the road within the next couple of days.

Fill Area:

The recovery wells were being installed during this site visit. Dave indicated that he wanted to delete some of the wells, as in some areas there was no creosote present. I told Dave to submit in writing those recovery wells he wanted to take out and DEQ would let him know if acceptable. No creosote was observed in the Gordon's Creek. The minnow population seems to be multiplying. Photos were taken of the well installations.

Air monitoring was not in place during this visit as no contamination was being excavated.

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STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: November 10, 2003

SUBJECT: Site Inspection conducted November 4

I conducted an unannounced site inspection on November 4, 2003.

Process Area:

The ditch had been excavated up to the RR ROW. The ROW is approximately 50 foot wide. No work was being conducted in this area during this site visit. It is my understanding that KM is working with the RR to reach an agreement for accessing the RR ROW.

NE Drainage Ditch:

The contractor was working on replacing the culvert at Martin Luther King Avenue during this site visit.

Fill Area:

The monitoring wells were being installed during this site visit. The entire depth of each borings was logged using a two (2) foot split spoon. Very little creosote was seen in the borings. Once all the monitoring wells have been installed, they will install the recovery wells based on what they see in the monitoring wells.

No pictures were taken during this site inspection. Air monitoring was not in place during this visit as no contamination was being excavated.

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STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell

DATE: November 3, 2003

SUBJECT: Site Inspection conducted Oct. 30

I conducted an unannounced site inspection on the afternoon of October 30, 2003.

Process Area:

The contractor had stated backfilling the ditch that was excavated between Courtesy Ford and the RR tracks. They still lacked about two-foot of additional material before the excavation would be back to original grade.

NE Drainage Ditch:

The contractor was working on cutting out the culvert crossing at Martin Luther King Avenue during the inspection. Some creosote contamination was observed in the excavation. The contaminated soil was being loaded directly into trucks for disposal at the Subtitle D landfill in McNeill, MS. Air monitoring was present during this inspection. No photos were taken during this inspection.

Workers were replacing the driveway for one of the residents on Florence Street. The crossing at Eastside was open for traffic during this visit.

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MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY MEETING ATTENDEES LIST

DATE: November 9, 2005

SITE NAME: Gulf States Creosote

LOCATION: Hattiesburg, MS

PARTICIPANT	COMPANY	PHONE NUMBER
Tony Russell	MDEQ - GARD	601-961-5318
Jerry Banks	MDEQ - GARD	601-961-5221
Mary Jacq Easley	MDEQ - Legal	601-961-5369
Ben SLATER	AGS	504-584-9141
David Minvielle	AGS	504-584-9180
Dave Hothegrove	Tronox	241-242-5700
Tame Raiford	KM Tronox	504-585-0369
Mary Jacq Easley	MDEQ Legal	601-961-5369
Nick Beck	KMG (TRONOX)	405-270-2394
T. L. CUBBAGE	KMG (TRONOX) - LAW	405-270-2741

SUMMARY:

KM hopes to conduct sampling on Norfolk Southern railroad property in the middle of December. KM will submit sampling plan for DEQ approval. Get access from railroad to conduct the sampling. Submit risk assessment for construction worker scenario within two weeks. KM wants DEQ input on the number of days for exposure duration.

Sampling will be conducted on a specified grid spacing and depth. Work will be conducted using a Geoprobe unit.

Environmental Standards will prepare the risk assessment for KM.

KM and RR will have to work out final access agreement for remediation of contaminated area. The final remedy will not include a liner.



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *DRM*

DATE: October 24, 2003

SUBJECT: Site Inspection conducted Oct. 22

I conducted an unannounced site inspection on October 22, 2003.

Process Area:

The contractor had started backfilling the excavated ditch between Courtesy Ford and the RR tracks. They were not backfilling during this site inspection. The excavation in the ditch was temporarily halted. An agreement with the RR had not been reached and they were approaching the turn at Scooba, which would then take them up to the RR ROW.

NE Drainage Ditch:

The environmental contractor was working on removing soil at Eastside during the inspection. They had made the cut the day before. Upon arrival they had the liner in the ditch and were laying down sand for the culvert to be installed on. Upon inspection, it was determined that more soil needed to be removed from the sides of the ditch up near the RR tracks. The contractor removed some soil but would need to wait on utility company to locate buried electric line running from the pole to the RR signal. Further soil will be removed from around the culvert that goes under the RR tracks at a later date. Air monitoring was in place during the inspection.

A soil sample was collected from the culvert that drained from the southwest beneath Eastside. The soil appeared to be contaminated with oil and had the smell of old gasoline. There is an old car repair shop just up the street from the sampling location. The sample was taken to OPC lab for analysis.

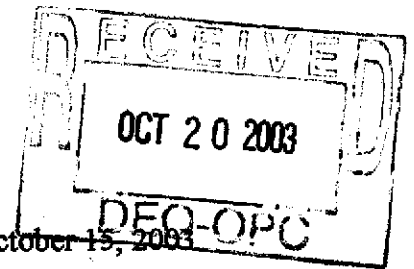
A walk of the drainage ditch below Martin Luther King Avenue revealed boards lying around with nails. Even though this was not an environmental hazard, it was pointed out to the contractors. They fenced the areas off with plans to remove all the boards the next day. A complaint had been received about kids playing on contaminated soil piles. The inspection revealed that the contractors were bringing in clean topsoil for the final cover along this area of the ditch prior to seeding.

Spoke with EPA, Franklin Hill, about a complaint he received that morning that the air monitors were not on. I assured him they were on and that the complaintant had been sticking his fingers in the monitors according to the contractors. They had to ask him to leave as he was walking around in the work zone, without protective gear, filming them working. Photos were taken during this site inspection.

I

ICON

Environmental Solutions, LLC



FILE COPY

Mr. Tony Russell
Office of Pollution Control
Mississippi Department of Environmental Quality
101 West Capital Street
Jackson, MS 39201

Re: Gulf States Creosote Site
Clearing, Grubbing, Disposal of Stumps, & Backfilling Work Plan dated March 24, 2003
Parcel #5
West Pine Street
Hattiesburg, MS

Mr. Russell,

We would like to submit the following work plan for your review, and consideration, for Icon to proceed with the next phase of environmental testing and analysis, to determine if any residual contamination exist on the Former Gulf States Creosote Site, Parcel # 5 on West Pine Street.

This plan will detail the recommended removal, disposal and cleanup of the property, in the event any contamination is detected in the soil analysis.

We would appreciate your approval to proceed with the work plan as soon as possible. If you have any immediate questions prior to releasing your written statement please do not hesitate to contact me.

Regards,

A handwritten signature in cursive script that reads "Joe Ford".

Joe Ford

Cc: Mr. John Fairchild



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell

DATE: October 20, 2003 *DR*

SUBJECT: Site Inspection conducted Oct. 16

I conducted an unannounced site inspection on October 16, 2003.

Process Area:

The contractor was in the process of excavating the contaminated soil from the ditch between Courtesy Ford and the RR tracks. The soil was loaded directly into trucks for disposal at the Subtitle D landfill in McNeill, MS. The contractor was excavating 3 feet beneath the bottom of the original ditch bed. A nice uniform clay was encountered in the bottom of the excavation. Air monitoring was in place during the inspection. Pictures were taken but the disk (3.5" floppy) became corrupted and the pictures were lost.

NE Drainage Ditch:

The environmental contractor had finished removing soil from the cut at Florence Street. The installation contractor was in the process of adding the sand bed for the culvert installation.

Note: OSHA inspector (Mr. Smith) showed up in response to a complaint. The only thing he saw that needed to be corrected was that a ladder needed to be used for workers to get out of the excavation. The contractor corrected the concern within a few minutes by getting a ladder for the work zone.



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: October 15, 2003

SUBJECT: Site Inspection conducted Oct. 14

An unannounced site inspection was conducted on October 14, 2003, at the former Gulf States Creosote site in Hattiesburg.

Fill Area:

This area is complete except for installing the monitoring and recovery wells and planting trees in the fall.

Process Area:

The environmental contractor was in the process of digging out the ditch between Courtesy Ford and the RR tracks. The soil was being loaded directly into trucks for disposal at a Subtitle D landfill. Air monitoring was in place during this inspection. Some video and still pictures were taken. The bottom of the excavation was good clay.

NE Drainage Ditch:

The environmental contractor had started cutting Florence Street so the drainage culvert could be installed. Some creosote was present around the pipe and also around a gas line that was running parallel with the street. The gas line had to be lowered by the gas company as it was in the way path of the new drainage culvert. Air monitoring was in place during this inspection. Some video and still pictures were taken. The soil was being loaded directly into trucks for disposal at Subtitle D landfill.



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *DR*

DATE: October 15, 2003

SUBJECT: Site Inspection conducted Oct. 7

I met with Dave Upthegrove to observe the removal of contamination from the wooden substructure and with Chris Feters and Libby Cornell to observe and split groundwater samples.

Fill Area:

The site has been graded, seeded and a fence installed along the sheet-pile wall. A water sample was split from monitoring well 12 located downgradient of the fill area.

Process Area:

The contractor was in the process of excavating the wooden substructure area. There was some oil beneath the bottom layer of boards but not as much as originally anticipated. Since very little liquid was present, very little fly ash was needed to solidify the material. The excavated material was loaded directly into trucks for disposal at the hazardous waste landfill in Emile, AL. Some video footage and still pictures were taken during this visit. Air monitoring was being conducted during this inspection.

NE Drainage Ditch:

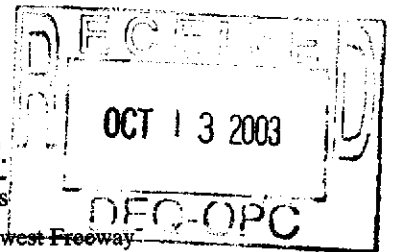
The environmental contractor was not working in the ditch during this inspection. The construction contractor was working installing drain inlet boxes in the area around Harrell Street. According to Dave, they wanted to open Harrell later that week so they could cut Florence Street. A water sample was split from monitoring well 19. This well is located on Harrell Street adjacent to the drainage ditch.

Note: OSHA inspector (Carolyn Wilson-Smith) showed up in response to a complaint called in on Friday (10-3-03) for the corner of Scooba and Eastside. She could not find anyone at this location but saw the workers behind Courtesy Ford so she stopped. Dave gave her a copy of Singley Construction's HASP and the location of the workers along the ditch project. She did not mention that she observed any violations for the work being conducted behind Courtesy Ford.

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

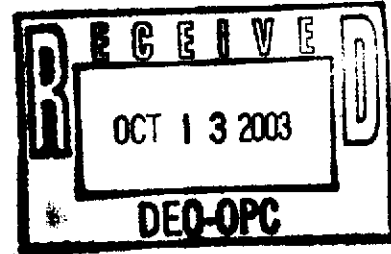
1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net



October 10, 2003

Mr. Tony Russell, Chief
Uncontrolled Sites Section
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385



Re: Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

In accordance with your request, enclosed are one copy each of the *Final Remedial Action Work Plan, Former Gulf States Creosoting Site* and the *Removal Action Work Plan, Northeast Drainage Ditch*.

Should you have any questions or require additional information, please call me.

Sincerely,

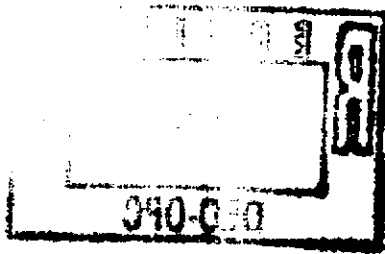
MICHAEL PISANI & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "D. Upthegrove".

David C. Upthegrove, P.G.

Copies for
HATTIESBURG LIBRARY

TR
10/13/03





STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

October 1, 2003

Ms Donna Webster
USEPA Region IV
61 Forsyth Street SW
11th Floor
Atlanta, GA 30303

Re: Former Gulf States Creosote Site
Hattiesburg, Mississippi

Dear Ms. Webster:

Please find enclosed the documents we discussed by phone on Wednesday, October 1, 2003.

1. Cover letter referencing the documents that were signed during the final settlement,
2. Notice of Use Restrictions,
3. Exhibit "A" – The Lands – description of those properties that were restricted in the Notice of Use Restrictions,
4. Exhibit "C" – map showing the location of the properties restricted in the Notice of Use Restrictions,
5. Perpetual Easement,
6. Letter dated January 28, 2003, from Kerr McGee to MDEQ regarding two areas outside the Notice of Use Restrictions agreement,
7. MDEQ Agreed Order #4539-03, and
8. MDEQ Tier 1 Target Remediation Goal Levels

Any questions you may have pertaining to these documents should be directed to me at 601-961-5318.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

Enclosures

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STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *DR*

DATE: October 15, 2003

SUBJECT: Site Inspection conducted Sept. 30

An unannounced site inspection was conducted on September 30, 2003, to observe the ongoing work at the former Gulf States Creosote site.

Fill Area:

The surface was not graded per the work plan as it had couple of areas where water was ponding. The contractor would be required to bring in more topsoil, re-grade and re-seed.

Process Area:

The contractor was in the process of removing the waste material from the concrete sump during this site inspection. The depth of the sump was 12 feet. They had originally assumed the sump only had three (3) sides but the fourth side was present, which keep the waste material within the sump. The fourth side was 10 to 12 feet farther out which made the sump significantly larger. The exterior concrete walls were approximately 1 foot thick. Once the liquid (mostly water and some creosote oil) was pumped into a storage tank, fly ash was used to mix with the remaining material to further solidify for transport to hazardous waste landfill in Emile, AL. As the liquid level within the sump was lowered, it appeared the walls were weeping liquid from the exterior. The contractor was required to dig down beside the exterior side of the wall in the area of the weep to verify that the soil had not been impacted; it was not contaminated. Some video and still pictures were taken during this inspection. Air monitoring was being conducted during this inspection.

NE Drainage Ditch:

The environmental contractors were not working on the ditch during this inspection. The construction contractor was in the process of completing the installation of the drainage system beneath Francis and Harrell Streets.



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *DR*

DATE: September 26, 2003

SUBJECT: Site Inspection conducted Sept. 25

I met with Carl Blair, ATSDR, on September 25 for a tour of the Gulf States Creosote Site. We conducted a windshield tour of the Gordon's Creek Fill Area, the Process Area and the Drainage Ditch Area. I explained what is being done at each area to eliminate exposure to contamination. The Fill Area has sheet pile wall with synthetic liner, the Process Area will have source areas removed, the drainage ditch through the neighborhood is being excavated and installed with a new drainage system.

After the windshield tour with Mr. Blair, I conducted a walk of the ditch from Florence Street to Scooba Street. The only area that any creosote was observed in the ditch was in the ditch on the property adjacent to Mrs. Woods. The contractors were in the process of removing the contamination from the ditch and loading it onto trucks for disposal at the Subtitle D Landfill. Air monitoring was in place during this site visit.

I spoke to Mrs. Woods and she said everything was fine. She did ask about an odor she smelled in the back of her house and I told her it was from the digging that was going on. She would continue to smell the creosote odor until the excavation work was completed. I again asked her if everything was okay and she said, "Okay". She told me about an electric line running from her house to the green house in her back yard, so I notified the contractors about the electrical line. When I left the site, they were in the process of locating the electric line, as it was a bare line with no conduit. They had stopped the digging for the day.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 9-25-03.doc



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: September 26, 2003

SUBJECT: Site Inspection conducted Sept. 22

I stopped by the Gulf States Site on Monday, September 22 to observe the work being conducted on the drainage ditch. They were not working due to the rain the night before. A windshield survey did not reveal anything out of the ordinary. All the fencing was up as required. Some of the ditch contained water due to the rain the night before, but no sheens were observed in the water.

I then stopped by the Courtesy Ford site to observe the removal of the soil that was previously removed from the front of the dealership. The soil was loaded into EIC trucks for disposal to the permitted Subtitle D landfill located in McNeill, MS. No creosote odors were observed during the loading of the trucks.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 9-22-03.doc



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TR*

DATE: September 19, 2003

SUBJECT: Site Inspection conducted Sept. 18, 2003

I conducted an unannounced site inspection on the evening of Sept. 18 at the above referenced site. The inspection was to observe that at the end of the day the site was secured as required. The fencing material was in place and the last area that digging occurred was covered with the liner material.

I spoke to a couple of residents (Chris Lampkin & John Creagh) about the project and they were pleased that the open ditch would soon be gone. I gave them my business card and requested they call me if they had any concerns.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 9-18-03.doc

SHOWS, DEARMAN & WAITS, INC.

CONSULTING ENGINEERS

P.O. BOX 1711, 301 SECOND AVENUE
HATTIESBURG, MISSISSIPPI 39403-1711
TELEPHONE 601-544-1821
FAX 601-544-0501
WWW.SD-W.COM

RAYMOND M. DEARMAN, P.E., R.L.S.
MICHAEL T. WAITS, P.E., R.L.S.
NICHOLAS M. CONNOLLY, P.E.
KYLE D. WALLACE, P.E.
SAMUEL C. WATSON, P.E.

PAUL J. SHOWS (1996)

September 16, 2003

Mississippi Department of Environmental Quality
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

Attn: Mr. Tony Russell, Chief
Assessment Remediation Branch

RE: Gulf State Creosote
Northeast Drainage Ditch Improvements
LC-120-0016
Scooba Street to Katie Avenue

Dear Mr. Russell:

Enclosed is the Contractor's *revised* Health and Safety Plan. This is submitted in accordance with your September 3, 2003 letter.

Please advise of any comments.

Sincerely,



Michael T. Waits, P.E., R.L.S.

MTW/bs

Enclosure

cc: Mr. Bennie Sellers
Mr. Keith Watson

OFFICE PHONE
(601) 736-6393



FAX
(601) 736-7304

Singley Environmental & Remediation Services

P.O. Box 389 - 1001 Highway 13 South
Columbia, Mississippi 39429

**REVISED
HEALTH AND SAFETY PLAN
For
Lampkin Construction Company
Northeast Drainage Ditch Improvements
Scooba Street to Katie Avenue
City of Hattiesburg**

September 12, 2003

1.0 INTRODUCTION

This plan presents Health and Safety procedures and practices to be used by Singley Environmental & Remediation Services for the project to be performed for Lampkin Construction Company, North Drainage Ditch Improvements, Scooba Street to Katie Avenue, City of Hattiesburg.

1.1 KEY PERSONNEL

Key personnel responsible for the implementation of this Health and Safety Plan are

- Health and Safety Manager: Richard Ellis
- Project Manager: Richard Ellis
- Site Safety Officer: Bobby Shivers/Mac Hudson
- Field Personnel: SCC Personnel

The Project Manager is responsible for all on-site operations and is also responsible for ensuring the health and safety of personnel at the site. The Health and Safety Manger (HSM) is responsible for overseeing all health and safety activities within the company. The HSM has review and approval authority for all Health and Safety (H&S) Plans to ensure their procedures and provisions provide adequate protection for all hazards anticipated during site activities. The HSM has stop work authorization which will be executed upon determination of an imminent safety hazard, emergency, or other potentially dangerous situation. Authorization to proceed with work will be issued by the HSM.

The Site Safety Officer (SSO) will supervise site activities. The SSO's primary responsibility is to provide the appropriate monitoring to ensure the safe conduct of field operations. The SSO also has stop-work authority. Authorization to proceed must be approved by the HSM.

The SSO will also be responsible for the control of specific field operations and all related activities such as personnel protection, decontamination, monitoring of worker physical condition, distribution of safety equipment, calibration and maintenance of monitoring equipment, and conformance with all other procedures established in this H&S Plan. Should an immediate need to modify the health and safety procedures detailed in this plan arise due to changes in site conditions, the SSO shall consult with the HSM prior to implementing these changes.

The SSO has the authority to exclude from the site all personnel who will not, or can not, abide by the H&S Plan. Should the SSO be unable to adequately control the site, work will cease, and the HSM will be notified. The HSM will take the necessary measures to correct the problem and will give the authorization to re-initiate field activity.

1.2 Health and Safety Audits

Health and Safety Audits will be performed prior to project start and as needed during the duration of the project. Health and Safety Audits will be conducted by either Richard Ellis or Bobby Shivers. Health and Safety audits will be documented and placed in the project permanent file.

1.3 Medical Surveillance and Training

Project personnel working on-site will have undergone either a baseline or annual medical monitoring examination within one year prior to participation in field work. This exam must meet the requirements of 29CFR1910.120(e). Training complies with 29CFR 1910.120 which includes 40 hours of classroom instruction.

2.0 Review of Site Safety Plan/Daily Safety Meeting

2.1 Site Specific Safety Plan

All personnel, including subcontractors, will read and understand the safety plan prior to starting work.

The master safety plan signed by all personnel will be maintained on-site throughout the project.

All personnel are expected to notify the SERS Site Manager of any situation presenting a risk which has not been addressed in the plan.

The plan will be revised as site conditions and hazards change.

Amendments to this Health and Safety Plan will be necessary if site conditions and/or procedures change. The site manager will review all amendments, and the amendments will be attached to the site master Health and Safety Plan, addressed in the daily activity log and discussed during the next daily Toolbox Safety Meeting.

2.2 Daily Toolbox Safety Meetings

A Toolbox Safety Meeting will be held daily prior to beginning work each morning.

Attendance is mandatory for all Site personnel, including subcontractors.

The Toolbox Safety Meeting will discuss the suspected hazards for the work to be performed that day and what precautions are necessary to deal with the suspected hazards.

A Toolbox Safety Meeting form will be completed showing attendance and items discussed and be placed in project permanent file.

3.0 SCOPE OF WORK

3.1 Site Activities

The following items will be performed during this project:

- A. Mobilization/Demobilization
- B. Construction Staking
- C. Removal of Concrete Box Inlets
- D. Removal of Headwalls
- E. Removal of Concrete
- F. Removal of Concrete Sidewalk
- G. Removal of Pipe (different sizes)
- H. Removal of Pavement
- I. Removal of Retaining Walls
- J. Standard Ground Preparation
- K. Maintenance of Traffic
- L. Excavation and Loading of Soils for Transport to Subtitle D Landfill
- M. Excavation and Loading of Soils for Transport to Subtitle C Landfill.
- N. Class C Fly Ash and Mixing
- O. 20-mil High Density Polyethylene Liner Installation
- P. Sand Bedding Installation

4.0 HAZARD ASSESSMENT

4.1 Chemical Hazards

The chemicals having the potential for being encountered during the retired substation remediation activities are Creosote, Napthalene, and Anthracene. The various chemical or chemical groups, their exposure limits, and health hazards are discussed below:

4.1.1 Creosote

Is a yellowish to dark green-brown, oily liquid; clear at 38° C or higher with a characteristic odor. Soluble in alcohol, benzene and toluene; immiscible with water.

COMBUSTABLE – NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – SUSPECTED CARCINOGEN. Avoid breathing vapors - May cause burning sensation during inhalation, coughing, shortness of breath, dizziness, weakness, coma or death. **Avoid Skin/Eye Contact** – May cause moderate irritation. Can result in severe irritation which when accentuated by sunlight may result in phototoxic skin reaction. **Avoid ingestion** – may cause nausea, vomiting and abdominal pain.

Level Anticipated:	Unknown
Exposure Routes:	Inhalation, Skin/Eye Contact, Ingestion
Exposure Limits:	5 ppm TLV/PEL

4.1.2 Naphthalene

Is a colorless to brown solid with a characteristic odor (moth balls). Soluble in benzene, absolute alcohol and ether; insoluble in water.

COMBUSTABLE - NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – Avoid Ingestion – Toxic – May cause headache, profuse sweating listlessness, nausea, vomiting and disorientation. Sever cases may produce coma with or without convulsions. **Avoid breathing vapors** – May cause headache, nausea, vomiting, extensive sweating and disorientation. **Avoid Skin/Eye Contact** – Vapors and solids may cause irritation, redness and pain. Very high exposures may damage nerves of the eye.

Level Anticipated:	Unknown
Exposure Routes:	Ingestion, Inhalation, Skin/Eye Contact
Exposure Limits:	10 ppm (50 mg/m ³) PEL/TWA/OSHA IDLH – 500 ppm

4.1.3 Anthracene

A tri-cyclic hydrocarbon soluble in alcohol and ether; insoluble in water.

COMBUSTABLE – NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – Avoid Skin/Eye Contact – MAY BE ABSORBED bioaccumulation may take place. **Avoid breathing vapors** - May cause coughing, labored breathing, sore throat. **Avoid ingestion** – May cause abdominal pain or cramps.

Level Anticipated:	Unknown
Exposure Routes:	Skin/Eye Contact, Inhalation, Ingestion
Exposure Limits:	Not Established

4.2 Physical Hazards

See Appendix B – Activity Hazard Analysis
See Appendix C – Excavation and Trenching

4.3 Air Monitoring

Ambient Air will be monitored during all excavation activities.

Ambient air will be monitored utilizing a Thermo Environmental Instruments, Inc. Model 680 Portable Hydrocarbon Vapor Meter (flame ionization detector {FID}).

Near residencies, ambient air will be monitored with the Model 680 FID along with ambient air sampling pumps stationed at selected sampling points. One air sample per day per pump will be collected and submitted to the laboratory for coal tar vapors, specifically, airborne total particulate and benzene soluble fraction via NIOSH Method 5042.

Air monitoring results (FID) will be documented daily and included as part of the permanent file.

All laboratory results will be included as part of the permanent file.

4.4 Dust Suppression

Ingress and egress routes will be visually observed and wetted as required to eliminate dust particles.

5.0 SAFETY PROCEDURES

5.1 Personal Protection

Level D protection will be worn until on-site conditions dictate an increase in PPE.

Level C protection will be worn if on-site conditions dictate.

Level C protection includes:

1. Tyvek Suits
2. Nitrile Gloves
3. Respirators with appropriate cartridges

6.0 AREA CONTROL

Access to the work area must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public.

Entry to the work area shall be limited to individual who must work in those areas. Unofficial visitors and/or the public must not be permitted to enter the work area while work is in progress. Official visitors may be allowed to enter the work area only if they agree to abide by the provisions of this document, follow orders issued by the site Safety officer and are informed of the potential dangers that could be encountered.

7.0 EMERGENCY ASSISTANCE

The name, telephone number, and location of police, fire, or other emergency response agencies will be with the OSS.

7.1 Emergency Resources

The following emergency information will be utilized for personnel.

EMERGENCY CONTACTS

Nearest Hospital	Forrest General Hospital 6051 Highway 49 Hattiesburg, MS 39401 (601) 288-2100
Ambulance	<u>(601) 264-0175</u>
SERS Main Office	(601) 736-6393

First Aid Kit will be on-site. First Aid Cases will be handled on-site by OSS.
Non-emergency medical cases will be transported to hospital by OSS.

8.0 SIGNATURE PAGE

I have participated in a Site Health & Safety Meeting and reviewed the site-specific Health and Safety Plan for the site and understand the information presented. I will comply with the provisions contained therein.

Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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CONCERNED CITIZENS OF HATTIESBURG, MS
1001 E 7th Street
Hattiesburg, MS 39401

September 19, 2003

RECEIVED

SEP 23 2003

**OFFICE OF THE
EXECUTIVE SECRETARIAT**

Marianne L. Horinko
USEPA Headquarters
Asiel Rios Building
1200 Pennsylvania Avenue, N W
Washington DC 20460

Re: **Kerr-McGee LLC (formerly Gulf State Creosote)**
Hattiesburg, MS

Dear Ms Horinko:

We are writing you to request that you take prompt and direct actions to begin an investigation into the wide spread contamination of Hattiesburg, Mississippi area by Kerr-McGee LLC formerly Gulf State Creosote (herein referred to as Kerr-McGee) with benzo(a)pyrene, polynuclear aromatic hydrocarbons and other chemicals. We are writing to you due to the history of EPA's Region IV Office slow response to communities request for an investigation into contamination issues that affect their lives, communities and environment in surrounding areas has not been in the community's best interest. We feel that this is a matter of emergency and urgency that needs to be addressed as quickly as possible. In this letter, we will lay out for you in detail what we feel is the scope of the problem. The questionable role played by Mississippi regulators, charged with resolving the problem, the futility of the response made by Kerr-McGee to date, and what needs to be done to correct this environmental calamity. We hope that EPA will respond decisively to our request for action.

From the mid 1930's to late 1950's Kerr-McGee operated and treated preservation of cross ties and all other timbers; handle and preserve forest products; purchased preservatives for the manufacturing of said products; manufactured and purchased tar products, creosote, chemicals, spirits, acids and alkalis and their respective derivatives, compound, products, by-products, and residuals. Thereby, contaminating and polluting our community. Unbeknown to the citizens of our community that this would adversely affect our lives, community and the environment. Kerr-McGee never informed the community of the health hazards or threats.

OPTIONAL FORM 99 (7-99)

FAX TRANSMITTAL

of pages **3**

To Toy Russell	From Donna Webster
Dept./Agency MTDEQ	Phone # 404.510.28870
Fax # 601.961.5300	Fax #

FACTUAL BACKGROUND

Kerr-McGee operated a wood processing plant and among other things were engaged in wood preserving processes over the years, using various chemicals and pollutants containing or resulting into the following: Naphthalene, 2-methylnaphthalene, acenaphthene, dibenzofuran, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and other chemicals. Further, nineteen polynuclear aromatic hydrocarbons have been identified at the site location.

Kerr-McGee for many years introduced pollutants into the soil, sediment and ground water, posing a hazard to the public. While the hazardous substances have probably not reached the ground water supply, there is a serious concern about an aquifer. The hazardous substances are in close proximity to the first water bearing unit of the aquifer of concern and could migrate to the public water supply over a period of years.

These pollutants have been persistent in a source of continuous contamination in the soil, sediment and ground water causing damage thereto. The areal extent of contamination is estimated to be 75,000 square feet with an estimate average depth of 10 feet.

The release of the chemicals and pollutants have provided a source of chronic pollution and have through geological magnification created a hazard.

The presence of the contaminants disrupts the stable ecological relationships and have an adverse effect on the environment. Through the years there has been a release of contaminants which has magnified the build up in and upon the land causing damage.

Even though there is a proposed clean up ordered we feel that there is a gross contamination being imposed upon the citizens as this is being done. The process that is being used has no protection strategies incorporated into it. Example: As they are disturbing the soil the contamination is being released adversely affecting our health. One of our residences properties was being cleaned, she was not relocated she became instantly sick with respiratory problems, blood pressure elevated, nausea, vomiting and loss of appetite and had to visit her physician. The workers are reporting that they have been instructed to move to another area whenever they encounter creosote and other contaminants abandoning that site.

Subsequently, Hattiesburg Public School District filed a lawsuit against Kerr-McGee in 1993 accusing them of contaminating and polluting 75,000 square feet of 16th Section land. See attached. Out of this lawsuit compensation was paid to the school district and the businesses. However, the community residence was not addressed. We were not informed of the dangers by anyone. The cleanup that was implemented is not being done in the best interest of the residence or their health.

The DEQ was notified of this August 7, 1989 but failed to follow thru. See attach.

In conclusion, Kerr-McGee will undoubtedly rationalize the information we are conveying to you, as it has for decades gone to great lengths to avoid its responsibilities. Kerr-McGee's deceitful approach is reflected with crystal clarity in its continued denial to the community that any health hazards or threats have been imposed upon them.

What we are requesting is a prompt, assessment by the EPA of the problem, including (1) review of the site for probable inclusion on, and remediation consistent with the Nation Contingency Plan; (2) objective investigation of the rates of illness among the affected residents conducted by unbiased medical professionals; (3) regular medical screening for the people exposed to the chemicals they produced and (4) real oversight by an agency willing to insure that all this is accomplished.

We have one Superfund site in Forrest County, Davis Timber Company, it does not pose but a fraction of the danger that Kerr-McGee does. There are proven off site releases to the soil and ground water. The population exposed and threaten by this contamination is of a low social economic status and majority people of color. The dangers of the chemicals involved include, among other things, toxicity, persistence, ability to bioconcentrate, and carcinogenicity. It seems that this site, if scored objectively and accurately would surely rank high on any list of sites deserving EPA's attention. The people of Hattiesburg need, and deserve, a prompt, public, straightforward, and substantive response to this request for environmental justice.

Sincerely yours

James Rogers
Concerned Citizens of
Hattiesburg, MS

Contact Person: James Rogers
Telephone: 601-584-6111

cc: Senator Trent Lott
Congressman Gene Taylor
Governor Ronnie Musgrove
Hattiesburg American
EPA, Region IV, Atlanta
Jackson Advocate
Washington Post
Community Against Pollution (CAP)

Attorney Johnnie Cochran
Attorney Eddie Harris
Mayor Johnny L. DuPre

FAX

Date *September 28, 2003*

Number of pages including cover sheet *3*

TO: *Tony Russell*
MDEQ

Phone *601.961.5171*
Fax Phone *601.961.5300*

FROM: *Dave Upthegrove*
Michael Pisani &
Associates, Inc.
1430 Energy Centre
1100 Poydras Street
New Orleans, LA 70163

CC:

Phone
Fax Phone

Phone *504.582.2468*
Fax Phone *504.582.2470*

REMARKS: *Urgent* *For your review* *Reply ASAP* *Please Comment*

Tony:

Attached is a copy of the drainage/construction easement for Ms. Woods' property at 106 Scooba Street, which was obtained by the City of Hattiesburg in July 2001.

Regards,
Dave

STATE OF MISSISSIPPI
COUNTY OF FORREST
CITY OF HATTIESBURG

DRAINAGE EASEMENT

For and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable considerations, including the benefits to be derived here from CLEVESTER H. AND WILLIE WOODS, do hereby grant and convey unto CITY OF HATTIESBURG, a municipal corporation, an easement over, across and upon a parcel of real property, for the construction and maintenance of drainage facilities over and across the following described real property located in the City of Hattiesburg, Forrest County, Mississippi:

A 15' wide Permanent Drainage Easement being part of the Southwest ¼ of the Northeast ¼ of Section 16, T-4-N, R-13-W, Forrest County, Mississippi, being 7.5' either side of a centerline more particularly described as follows:
Begin at the Southwest corner of Lot 5, Block 3, of D.D. Molinis 3rd Addition and thence run Northeastly along the Northwestern line of said Lot 5 for 70.84 feet to and for the Point-of-Beginning; thence run S 72°43'30" E for 56.29 feet, more or less, to the Southeastern line of said Lot 5 and the Point-of-Ending. The above herein described Permanent Drainage Easement contains .019 acres.

And also an additional 10 foot Temporary Construction Easement running parallel with and adjacent to the Northern and Southern lines of the above herein described Permanent Drainage Easement.

I/we fully understand that we have the right to receive just compensation for the use of the real property herein described based on an appraisal of said property. I/we hereby waive our right to just compensation and donate the use of real property herein described to the City of Hattiesburg. I/we further understand that we have the right to request that a fair market value appraisal of the property be made and I/we hereby waive that right.

The Grantee herein is given the right to do whatever may be necessary or proper for the enjoyment of the rights herein granted, including the right of ingress and egress and the right to clear said right-of-way so selected of such shrubs, trees and other vegetation as may be necessary.

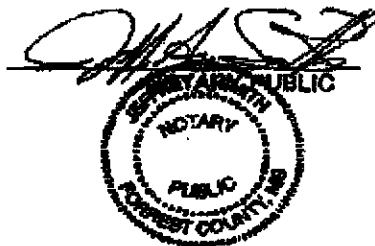
WITNESS OUR SIGNATURES on this, the 9 day of July A.D., 2001.

Clevester Woods

This day there came and appeared before me, the undersigned authority in and for County and State, the within named CLEVESTER H. AND WILLIE WOODS, who acknowledged before me that he/she signed, executed and delivered the above and foregoing easement on the day and year therein, mentioned as their own free and voluntary act and deed.

Given under my hand and official seal of this office on this, the 9th day of July A.D., 2001.

My Commission Expires: September 24, 2004
Recorded This Date Notary Service, Inc.



PERMANENT DRAINAGE EASEMENT

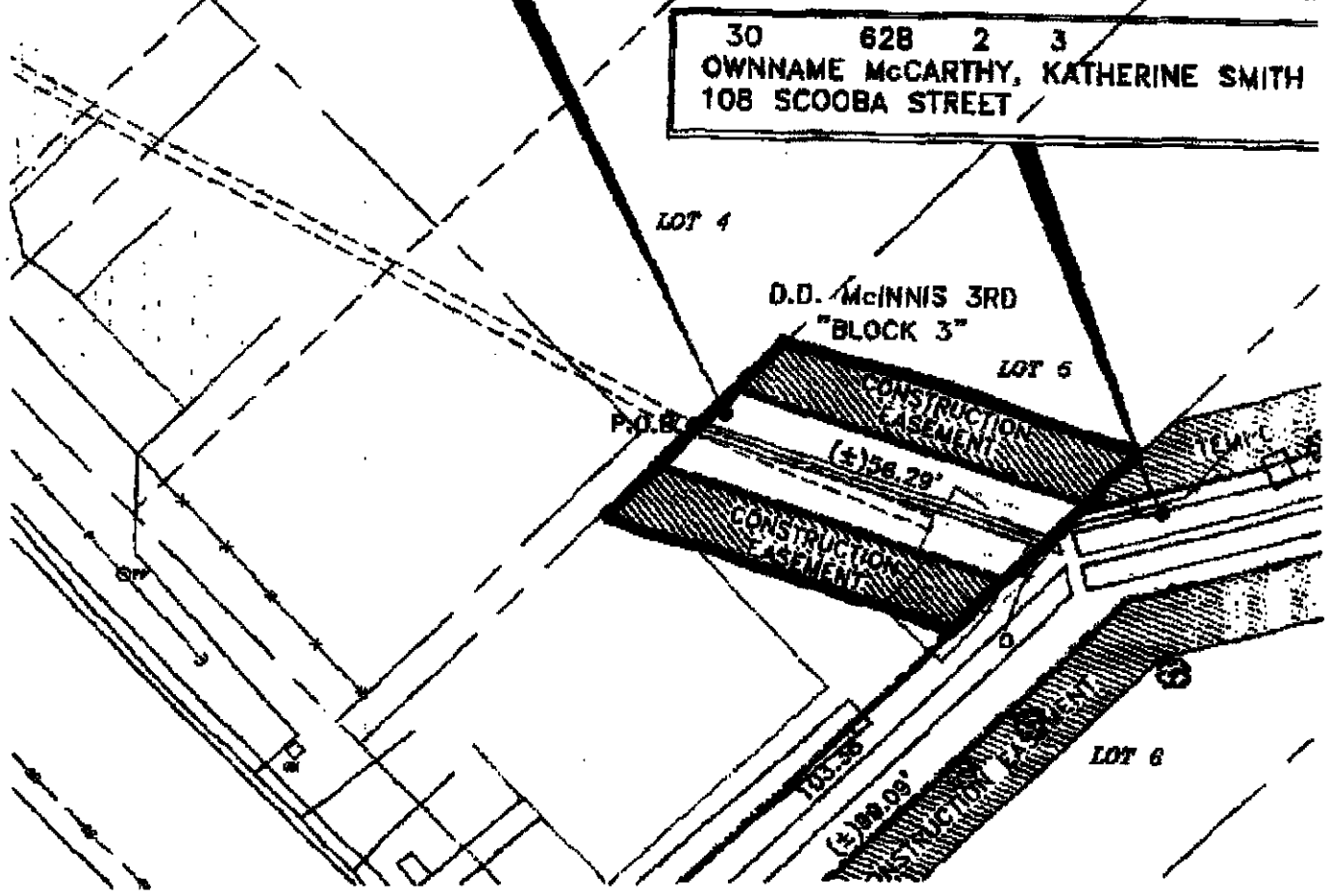
30 628 2 2
OWNNAME WOODS, CLEVESTER H-WOODS WILLIE
106 SCOوبا STREET

PERMANENT

30 628
OWNNAME WOO
110 SCOوبا S'

PERMANENT DRAINAGE EASEMENT

30 628 2 3
OWNNAME MCCARTHY, KATHERINE SMITH
108 SCOوبا STREET





STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR
MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *TMR*

DATE: September 19, 2003

SUBJECT: Site Inspection conducted Sept. 16, 2003

I conducted an unannounced site inspection on Tuesday, Sept. 16 at the above referenced site. The environmental contractor was working in the vicinity of Harrell Street at the time of my arrival on site. While onsite, they encountered sufficient amount of creosote contamination in the ditch, that they loaded the contaminated soil into trucks for disposal at Emil, AL. Contaminated soil was being handled as outlined in the approved work plan.

Contamination around a 6-inch concrete sewer pipe was encountered. After digging 2 to 3 feet along this pipe, it was obvious that the contamination extended further than anticipated. The location was denoted and digging was stopped so as not hold up construction on the drainage system and jeopardize the integrity of the adjacent intersection. This contamination will be dealt with after the drainage system is finished.

The old ditch was also observed to be going onto Mr. Will Harris property. This concern will also be addressed after the drainage system has been completed.

Air monitoring was in place. There was no dust observed during this inspection as it had rained recently.

Some video was taken of the ongoing project but no digital pictures.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 9-16-03.doc



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, Mississippi

FROM: Tony Russell *DR*

DATE: September 11, 2003

SUBJECT: Site Inspection conducted Sept 10, 2003

I conducted an unannounced site inspection at the above referenced site on September 10, 2003. I arrived at the site around 10:30 a.m. The contractors were in the process of excavating soil from the drainage ditch just below Martin Luther King Drive (MLK). They had increased the number of trucks from 6 to 13 to reduce down time. They were also working between MLK and Francis Street. Some creosote was observed in the ditch at Francis Street. Brad Blalock with Michael Pisani was instructed to have it removed. He replied that they would as they were still excavating in that area. EarthCon was onsite conducting air monitoring as required by MDEQ.

I spoke with Mr. Will Harris, resident on the corner of Francis Street, to notify him that they would be coming across the street tomorrow and if he had any concerns to call me. He did not have any questions at the time. He did show me where he remembered the ditch draining 40 years ago. It supposedly went under his house. I told him I would check into this and get back with him. [Note: called Dave Upthegrove 9/11/03 and relayed the information to him].

No photos were taken during this inspection. A video was taken of the work in progress.

K:\Shared\UCSS\Tony\Gulf States Creosote\GSC site inspection memo to file 9-10-03.doc

SHOWS, DEARMAN & WAITS, INC.

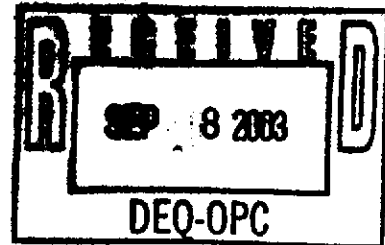
CONSULTING ENGINEERS

P.O. BOX 1711, 301 SECOND AVENUE
HATTIESBURG, MISSISSIPPI 39403-1711
TELEPHONE 601-544-1821
FAX 601-544-0501
WWW.SD-W.COM

RAYMOND M. DEARMAN, P.E., R.L.S.
MICHAEL T. WAITS, P.E., R.L.S.
NICHOLAS M. CONNOLLY, P.E.
KYLE D. WALLACE, P.E.
SAMUEL C. WATSON, P.E.

PAUL J. SHOWS (1996)

September 4, 2003



Lampkin Construction Co., Inc.
P.O. Box 1313
Vicksburg, MS 39181

Attn: Mr. Ronnie Lampkin

Re: Northeast Drainage Ditch Improvements
City of Hattiesburg

Dear Mr. Lampkin,

I received a letter in which a copy was sent to you concerning your Health and Safety Plan (HASP) from the Mississippi Department of Environmental Quality (MDEQ). I have included another copy for your ready convenience.

They have cited several omissions and also pointed out certain steps you are to take in documentation. Please advise me of the steps you will take immediately to comply with their letter. I reiterate you are to take immediate action with regards to their letter where it deals with the safety of personnel.

Please respond in a timely manner.

Should you have any questions or comments, please do not hesitate to call. With kindest regards, I remain

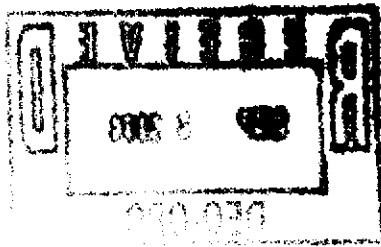
Sincerely,

Michael T. Waits, P.E., R.L.S.

MTW/bs

Enclosures

cc: Mr. Bennie Sellers, P.E., R.L.S.
Mr. Tony Russell





STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

September 3, 2003

VIA EMAIL & US MAIL

Mr. Mike Waits, P.E., P.L.S.
P. O. Box 1711
Hattiesburg, MS 39403-1711

Re: Gulf States Creosote Site
*Health and Safety Plan for Northeast Drainage Ditch Improvements
Scooba Street to Katie Avenue dated July 21, 2003*

Dear Mr. Waits:

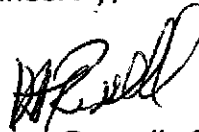
The Mississippi Department of Environmental Quality (MDEQ) has reviewed the Health and Safety Plan (HASP) and has the following comments/requirements:

1. **Section 1.0 Introduction** – the MDEQ shall be notified of any changes or modifications required in the HASP. The changes shall be documented in writing in a permanent file.
2. **Section 1.2 Health and Safety Audits** – the audits shall be documented in writing in a permanent file.
3. **Section 2.2 Daily Toolbox Safety Meeting** – the forms completed each day for the toolbox safety meetings should be included as part of the permanent file.
4. **Section 4.1.1 Creosote** – the physical hazards listed for this compound include breathing vapors. There is no provision in this safety plan for monitoring the breathing zone of the workers.
5. **Section 4.1.2 Naphthalene** – the physical hazards listed for this compound include breathing vapors. There is no provision for monitoring the breathing zone of the workers as exposure limits exist for this compound.

6. **Section 4.1.3 Anthracene** - the physical hazards listed for this compound include breathing vapors. There is no provision for monitoring the breathing zone of the workers.
7. **Section 7.1 Emergency Resources** - the nine digit phone number for the ambulance service must be shown and not the 911 number due to the use of cell phones. Also include the nine-digit phone number for the local gas company and any other relevant utility company.
8. There is no provision in the safety plan to suppress dust during the removal of contaminated soil along the ditch. MDEQ requires this provision be added to the Health and Safety Plan.

MDEQ requires the plan be revised and resubmitted for approval within 14 days of the date of this letter. All provisions listed in this letter must be implemented immediately.

Sincerely,



Tony Russell, Chief
Assessment Remediation Branch

cc: Dave Upthegrove Michael Pisani & Associates
Bennie Sellers City of Hattiesburg
John Sparks Lampkin Construction Co.
Richard Ellis Singley Construction Co.



Tony Russell

09/03/2003 10:13 AM

To: dupthegrove@ix.netcom.com, pubser@hattiesburgms.com,
prcallstat@aol.com, johns@lampkinconstruction.com,
rellis@netdoor.com
Subject: DEQ comments on HASP

Attached is the comment letter for the HASP. A copy of the letter is also being sent via US Mail.



GSC com on HASP 9-3-03.d

MDEQ will be conducting unannounced inspections to verify the HASP is being adhered to.

Tony Russell
Mississippi Department of Environmental Quality
Assessment Remediation Branch Chief
101 West Capitol Street
Jackson, MS 39201
Phone 601-961-5318
Fax 601-961-5300



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

September 3, 2003

Mr. Carl Blair, ATSDR
Waste Division
Sam Nunn Atlanta Federal Center
100 Alabama Street, 10th Floor
Atlanta, GA 30303

Re: Gulf States Creosote Site
Hattiesburg, MS

Dear Mr. Blair:

Enclosed is the *Remedial Action Work Plan for the Northeast Drainage Ditch* dated August 3, 2001. This report was inadvertently left out of the package of material that was mailed to you last week.

The enclosed work plan is referenced in the Final Remedial Action Work Plan dated August 21, 2002, on Page 33, Section 4.4.

Please feel free to contact me any time at 601-961-5318. Look forward to meeting you in Hattiesburg on September 25.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

Enclosures



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

FILE COPY

September 3, 2003

VIA EMAIL & US MAIL

Mr. Mike Waits, P.E., P.L.S.
P. O. Box 1711
Hattiesburg, MS 39403-1711

Re: **Gulf States Creosote Site**
Health and Safety Plan for Northeast Drainage Ditch Improvements
Scooba Street to Katie Avenue dated July 21, 2003

Dear Mr. Waits:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the Health and Safety Plan (HASP) and has the following comments/requirements:

1. **Section 1.0 Introduction** – the MDEQ shall be notified of any changes or modifications required in the HASP. The changes shall be documented in writing in a permanent file.
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Mr. Mike Waits

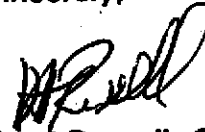
September 3, 2003

Page 2

6. **Section 4.1.3 Anthracene** - the physical hazards listed for this compound include breathing vapors. There is no provision for monitoring the breathing zone of the workers.
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MDEQ requires the plan be revised and resubmitted for approval within 14 days of the date of this letter. All provisions listed in this letter must be implemented immediately.

Sincerely,



Tony Russell, Chief
Assessment Remediation Branch

cc: Dave Upthegrove Michael Pisani & Associates
 Bennie Sellers City of Hattiesburg
 John Sparks Lampkin Construction Co.
 Richard Ellis Singley Construction Co.

OFFICE PHONE
(601) 736-6393



FAX
(601) 736-7304

Singley Environmental & Remediation Services

P.O. Box 389 - 1001 Highway 13 South
Columbia, Mississippi 39429

AUG 28 2003

HEALTH AND SAFETY PLAN

For

Lampkin Construction Company

Northeast Drainage Ditch Improvements

Scooba Street to Katie Avenue

City of Hattiesburg

July 21, 2003

1.0 INTRODUCTION

This plan presents Health and Safety procedures and practices to be used by Singley Environmental & Remediation Services for the project to be performed for Lampkin Construction Company, North Drainage Ditch Improvements, Scooba Street to Katie Avenue, City of Hattiesburg.

1.1 KEY PERSONNEL

Key personnel responsible for the implementation of this Health and Safety Plan are

- Health and Safety Manager: Richard Ellis
- Project Manager: Richard Ellis
- Site Safety Officer: Bobby Shivers/Mac Hudson
- Field Personnel: SCC Personnel

The Project Manager is responsible for all on-site operations and is also responsible for ensuring the health and safety of personnel at the site. The Health and Safety Manger (HSM) is responsible for overseeing all health and safety activities within the company. The HSM has review and approval authority for all Health and Safety (H&S) Plans to ensure their procedures and provisions provide adequate protection for all hazards anticipated during site activities. The HSM has stop work authorization which will be executed upon determination of an imminent safety hazard, emergency, or other potentially dangerous situation. Authorization to proceed with work will be issued by the HSM.

The Site Safety Officer (SSO) will supervise site activities. The SSO's primary responsibility is to provide the appropriate monitoring to ensure the safe conduct of field operations. The SSO also has stop-work authority. Authorization to proceed must be approved by the HSM.

The SSO will also be responsible for the control of specific field operations and all related activities such as personnel protection, decontamination, monitoring of worker physical condition, distribution of safety equipment, calibration and maintenance of monitoring equipment, and conformance with all other procedures established in this H&S Plan. Should an immediate need to modify the health and safety procedures detailed in this plan arise due to changes in site conditions, the SSO shall consult with the HSM prior to implementing these changes.

The SSO has the authority to exclude from the site all personnel who will not, or can not, abide by the H&S Plan. Should the SSO be unable to adequately control the site, work will cease, and the HSM will be notified. The HSM will take the necessary measures to correct the problem and will give the authorization to re-initiate field activity.

1.2 Health and Safety Audits

Health and Safety Audits will be performed prior to project start and as needed during the duration of the project. Health and Safety Audits will be conducted by either Richard Ellis or Bobby Shivers.

1.3 Medical Surveillance and Training

Project personnel working on-site will have undergone either a baseline or annual medical monitoring examination within on year prior to participation in field work. This exam must meet the requirements of 29CFR1910.120(e). Training complies with 29CFR 1910.120 which includes 40 hours of classroom instruction.

2.0 Review of Site Safety Plan/Daily Safety Meeting

2.1 Site Specific Safety Plan

All personnel, including subcontractors, will read and understand the safety plan prior to starting work.

The master safety plan signed by all personnel will be maintained on-site throughout the project.

All personnel are expected to notify the SERS Site Manager of any situation presenting a risk which has not been addressed in the plan.

The plan will be revised as site conditions and hazards change.

Amendments to this Health and Safety Plan will be necessary if site conditions and/or procedures change. The site manager will review all amendments, and the amendments will be attached to the site master Health and Safety Plan, addressed in the daily activity log and discussed during the next daily Toolbox Safety Meeting.

2.2 Daily Toolbox Safety Meetings

A Toolbox Safety Meeting will be held daily prior to beginning work each morning.

Attendance is mandatory for all Site personnel, including subcontractors.

The Toolbox Safety Meeting will discuss the suspected hazards for the work to be performed that day and what precautions are necessary to deal with the suspected hazards.

A Toolbox Safety Meeting form will be completed showing attendance and items discussed.

3.0 SCOPE OF WORK

3.1 Site Activities

The following items will be performed during this project:

- A. Mobilization/Demobilization
- B. Construction Staking
- C. Removal of Concrete Box Inlets
- D. Removal of Headwalls
- E. Removal of Concrete
- F. Removal of Concrete Sidewalk
- G. Removal of Pipe (different sizes)
- H. Removal of Pavement
- I. Removal of Retaining Walls
- J. Standard Ground Preparation
- K. Maintenance of Traffic
- L. Excavation and Loading of Soils for Transport to Subtitle D Landfill
- M. Excavation and Loading of Soils for Transport to Subtitle C Landfill.
- N. Class C Fly Ash and Mixing
- O. 20-mil High Density Polyethylene Liner Installation
- P. Sand Bedding Installation

4.0 HAZARD ASSESSMENT

4.1 Chemical Hazards

The chemicals having the potential for being encountered during the retired substation remediation activities are Creosote, Naphthalene, and Anthracene. The various chemical or chemical groups, their exposure limits, and health hazards are discussed below:

4.1.1 Creosote

Is a yellowish to dark green-brown, oily liquid; clear at 38° C or higher with a characteristic odor. Soluble in alcohol, benzene and toluene; immiscible with water.

COMBUSTABLE – NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – SUSPECTED CARCINOGEN. Avoid breathing vapors - May cause burning sensation during inhalation, coughing, shortness of breath, dizziness, weakness, coma or death. Avoid Skin/Eye Contact – May cause moderate irritation. Can result in severe irritation which when accentuated by sunlight may result in phototoxic skin reaction. Avoid ingestion – may cause nausea, vomiting and abdominal pain.

Level Anticipated:	Unknown
Exposure Routes:	Inhalation, Skin/Eye Contact, Ingestion
Exposure Limits:	5 ppm TLV/PEL

4.1.2 Naththalene

Is a colorless to brown solid with a characteristic odor (moth balls). Soluble in benzene, absolute alcohol and ether; insoluble in water.

COMBUSTABLE - NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – Avoid Ingestion – Toxic – May cause headache, profuse sweating listlessness, nausea, vomiting and disorientation. Sever cases may produce coma with or without convulsions. Avoid breathing vapors – May cause headache, nausea, vomiting, extensive sweating and disorientation. Avoid Skin/Eye Contact – Vapors and solids may cause irritation, redness and pain. Very high exposures may damage nerves of the eye.

Level Anticipated:	Unknown
Exposure Routes:	Ingestion, Inhalation, Skin/Eye Contact
Exposure Limits:	10 ppm (50 mg/m ³) PEL/TWA/OSHA IDLH – 500 ppm

4.1.3 Anthracene

A tri-cyclic hydrocarbon soluble in alcohol and ether; insoluble in water.

COMBUSTABLE – NO OPEN FLAMES, NO IGNITION SOURCES

PHYSICAL HAZARDS – Avoid Skin/Eye Contact – MAY BE ABSORBED bioaccumulation may take place. **Avoid breathing vapors - May cause coughing, labored breathing, sore throat.**
Avoid ingestion – May cause abdominal pain or cramps.

Level Anticipated:	Unknow
Exposure Routes:	Skin/Eye Contact, Inhalation, Ingestion
Exposure Limits:	Not Established

4.2 Physical Hazards

See Appendix B – Activity Hazard Analysis
See Appendix C – Excavation and Trenching

5.0 SAFETY PROCEDURES

5.1 Personal Protection

Level D protection will be worn until on-site conditions dictate an increase in PPE.

Level C protection will be worn if on-site conditions dictate.

Level C protection includes:

1. Tyvek Suits
2. Nitrile Gloves
3. Respirators with appropriate cartridges

6.0 AREA CONTROL

Access to the work area must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public.

Entry to the work area shall be limited to individual who must work in those areas. Unofficial visitors and/or the public must not be permitted to enter the work area while work is in progress. Official visitors may be allowed to enter the work area only if they agree to abide by the provisions of this document, follow orders issued by the site Safety officer and are informed of the potential dangers that could be encountered.

7.0 EMERGENCY ASSISTANCE

The name, telephone number, and location of police, fire, or other emergency response agencies will be with the OSS.

7.1 Emergency Resources

The following emergency information will be utilized for personnel.

EMERGENCY CONTACTS

Nearest Hospital	Forrest General Hospital 6051 Highway 49 Hattiesburg, MS 39401 (601) 288-2100
Ambulance	Utilize 911 Service
SERS Main Office	(601) 736-6393

First Aid Kit will be on-site. First Aid Cases will be handled on-site by OSS.

Non-emergency medical cases will be transported to hospital by OSS.

Emergency medical cases will utilize 911 service.

8.0 SIGNATURE PAGE

I have participated in a Site Health & Safety Meeting and reviewed the site-specific Health and Safety Plan for the site and understand the information presented. I will comply with the provisions contained therein.

Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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Name	Organization	Date
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TECHNOLOGY CHEMICAL INC

-- COAL TAR CREOSOTE

MSDS Safety Information

FSC: 6840

NIIN: 00-286-0446

MSDS Date: 02/04/1993

MSDS Num: BPWXF

Product ID: COAL TAR CREOSOTE

MFN: 01

Responsible Party

Cage: 2U663

Name: TECHNOLOGY CHEMICAL INC

Address: 3718 GRAND AVE

Box: 13268

City: OAKLAND CA 94661

Info Phone Number: 510-339-3066

Emergency Phone Number: 510-339-3066

Preparer's Name: DGSC-SSH 804-279-4371

Review Ind: Y

Published: Y

Preparer Co. when other than Responsible Party Co.

Cage: 2U663

Name: TECHNOLOGY CHEMICAL INC

Address: 3718 GRAND AVE

Box: 13268

City: OAKLAND CA 94661

Contractor Summary

Cage: 2U663

Name: TECHNOLOGY CHEMICAL INC

Address: 3718 GRAND AVE

Box: 13268

City: OAKLAND CA 94661

Phone: 510-339-3066

Item Description Information

Item Manager: S9G

Unit of Issue: DR

Quantitative Expression: 00000000055GL

UI Container Qty: 1

Type of Container: DRUM

Ingredients

Cas: 8001-58-9

RTECS #: GF8615000

Name: CREOSOTE (SARA III)

% Wt: UNKNOWN

Other REC Limits: 0.2 MG/M3 COAL TAR

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

EPA Rpt Qty: 1 LB

DOT Rpt Qty: 1 LB

Cas: 95-13-6
 RTECS #: NK8225000
 Name: INDENE
 % Wt: <10
 Other REC Limits: NONE SPECIFIED
 OSHA PEL: 10 PPM
 ACGIH TLV: 10 PPM; 9192

 Cas: 91-20-3
 RTECS #: QJ0525000
 Name: NAPHTHALENE (SARA III)
 % Wt: <15
 Other REC Limits: NONE SPECIFIED
 OSHA PEL: 10 PPM/15 STEL
 ACGIH TLV: 10 PPM/15 STEL; 9192
 EPA Rpt Qty: 100 LBS
 DOT Rpt Qty: 100 LBS

 Cas: 92-52-4
 RTECS #: DU8050000
 Name: DIPHENYL (BIPHENYL) (SARA III)
 % Wt: <5
 Other REC Limits: NONE SPECIFIED
 OSHA PEL: 0.2 PPM
 ACGIH TLV: 0.2 PPM; 9192
 EPA Rpt Qty: 1 LB
 DOT Rpt Qty: 1 LB

 Cas: 71-43-2
 RTECS #: CY1400000
 Name: BENZENE (SARA III)
 % Wt: <1
 Other REC Limits: NONE SPECIFIED
 OSHA PEL: 1PPM/5STEL;1910.1028
 ACGIH TLV: 10 PPM; A2; 9192
 EPA Rpt Qty: 10 LBS
 DOT Rpt Qty: 10 LBS

 Name: ALKYL NAPHTHALENE
 % Wt: <10
 Other REC Limits: NONE SPECIFIED
 OSHA PEL: NOT ESTABLISHED
 ACGIH TLV: NOT ESTABLISHED

=====
 Health Hazards Data
 =====

LD50 LC50 Mixture: LD50 (ORAL RAT) IS 1,700 MG/KG
 Route Of Entry Inds - Inhalation: YES
 Skin: YES
 Ingestion: NO
 Carcinogenicity Inds - NTP: YES
 IARC: YES
 OSHA: YES
 Effects of Exposure: ACUTE-EYE:MAY CAUSE MODERATE IRRITATION. SKIN:CAN RESULT
 IN SEVERE IRRITATION WHICH WHEN ACCENTUATED BY SUNLIGHT MAY RESULT IN
 PHOTOTOXIC SKIN REACTION. INHALATION:IRRITATION,CNS EFFECTS,SUCH AS HEADAC
 HE,DIZZINESS,COMA AND POSSIBLE DEATH.INGESTION:IRRITATION,NAUSEA, VOMITING
 & ABDOMINAL PAIN.CHRONIC-MAY CAUSE CANCER.
 Explanation Of Carcinogenicity: BENZENE. IARC LISTS CREOSOTE AS A POSSIBLE

CARCINOGENIC AGENT TO HUMAN.

Signs And Symptions Of Overexposure: MAY BE FATAL IF SWALLOWED., NAUSEA, VOMITING. IRRITATION OF RESPIRATORY TRACT, COUGHING AND CHOKING. EYE AND SKIN IRRITATION.

Medical Cond Aggravated By Exposure: PERSONS WITH PRE-EXISTING DISEASE INVOLVING THE SKIN OR BLOOD-FORMING ORGANS MAY BE AT A GREATER RISK OF DEVELOPING ADVERSE HEALTH EFFECTS WHEN EXPOSED TO THIS MATERIAL.

First Aid: SEEK MEDICAL AID.EYE:FLUSH WITH WATER FOR 15 MINUTES.SKIN:WIPE MATERIAL OFF.WASH THOROUGHLY WITH SOAP & WATER/WATERLESS HAND CLEANER.INHALATION:REMOVE TO FRESH AIR.GIVE CPR/OXYGEN IF NEEDED. INGESTION :GIVE 1-2 GLASSES OF WATER/MILK IF CONSCIOUS.INDUCE VOMITING USING IPECAC SYRUP.THEN,GIVE A SLURRY OF 100 G OF ACTIVATED CHARCOAL IN 8 OZ OF WATER.

Handling and Disposal

Spill Release Procedures: STOP LEAK IF NO RISK INVOLVED. STAY UPWIND. SOLIDIFIED SPILL:SHOVEL INTO DRY CONTAINERS AND COVER. FLUSH AREA WITH WATER.SMALL WET SPILL:TAKE UP WITH SAND. FLUSH AREA WITH WATER. DIKE LARGE SPILLS FOR LATER DISPOSAL.CONTAIN RUNOFF FROM FIRE CONTROL.

Waste Disposal Methods: CONSULT LOCAL AUTHORITIES;DISPOSAL MUST BE IN ACCORDANCE WITH LOCAL,STATE AND FEDERAL REGULATIONS. THIS PRODUCT RELEASED INTO THE ENVIRONMENT MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800-424 -8802). WHEN SPILLED,REPORTABLE QUANTITY IS 1 LB.

Handling And Storage Precautions: STORE IN COOL, DRY AND WELL VENTILATED AREA. KEEP CONTAINER CLOSED WHEN NOT IN USE.

Other Precautions: AVOID PROLONGED/REPEATED BREATHING OF VAPORS,MISTS/ FUMES.AVOID PROLONGED/REPEATED CONTACT WITH SKIN/EYES.APPLICATION OF CERTAIN PROTECTIVE CREAMS (SUN SCREENS FOR COAL TAR PRODUCTS) BEFORE WORKING/SE VERAL TIMES DURING WORK MAY BE BENEFICIA

Fire and Explosion Hazard Information

Flash Point Method: CC

Flash Point Text: >200F,>93C

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL. WATER OR FOAM MAY CAUSE FROTHING, IF MOLTEN.

Fire Fighting Procedures: WEAR COMPLETE FIRE SERVICE PROTECTIVE EQUIPMENT,INCLUDING FULL-FACE MSHA/NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS.USE WATER TO COOL CONTAINERS BY FIRE.

Unusual Fire/Explosion Hazard: TOXIC VAPORS/DECOMPOSITION PRODUCTS MAY BE RELEASED FORMING FLAMMABLE/EXPLOSIVE MIXTURES IN AIR. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

Control Measures

Respiratory Protection: NONE NORMALLY REQUIRED.IF EXPOSURES ARE ABOVE TIV(PEL),USE NIOSH APPROVED UNITS AS PER CURRENT 29 CFR 1910.134 AND MANUFACTURERS' "INSTRUCTIONS" AND "WARNINGS". COMBINATION FILTER/ORGANIC VAPOR CARTRI DGES OR CANISTER MAY BE USED.

Ventilation: PROVIDE SUFFICIENT GENERAL/LOCAL EXHAUST VENTILATION TO CONTROL INHALATION EXPOSURE < EXPOSURE LIMITS.

Protective Gloves: IMPERVIOUS

Eye Protection: SAFETY GLASSES/GOGGLES

Other Protective Equipment: IMPERVIOUS PROTECTIVE GARMENTS SUCH AS HEAD/ NECK COVER,APRONS,JACKETS,PANTS,BOOTS,ETC.EYE-WASH FACILITIES,SAFETY SHOWER

Work Hygienic Practices: AVOID CONTACT WITH EYES AND SKIN;DO NOT BREATHE VAPORS/MIST.WASH THOROUGHLY AFTER EACH USE.

Supplemental Safety and Health: MSDS IS NOT AVAILABLE FROM MFR. INFORMATION PRESENTED HEREIN IS ACCURATE AND RELIABLE TO THE BEST OF OUR KNOWLEDGE AND

BELIEF BUT IS NOT GUARANTEED TO BE SO. IT IS THE USER'S RESPONSIBILITY TO TAKE ALL SAFETY PRECAUTIONS AS MAY BE NECESSARY. WE HEREBY DISCLAIM ALL LIABILITY WITH RESPECT TO IT'S USE.

Physical/Chemical Properties

HCC: T6
B.P. Text: >355F,>179C
M.P/F.P Text: UNKNOWN
Decomp Text: UNKNOWN
Vapor Pres: 1 @ 30C
Vapor Density: >1
Spec Gravity: 1.050
Evaporation Rate & Reference: SLOW (N-BUTYL ACETATE=1)
Solubility in Water: SLIGHT
Appearance and Odor: BROWN TO BLACK LIQUID WITH CREOSOTE OR TARRY ODOR
Corrosion Rate: UNKNOWN

Reactivity Data

Stability Indicator: YES
Stability Condition To Avoid: HIGH TEMPERATURES AND OPEN FLAMES
Materials To Avoid: OXIDIZING AGENTS
Hazardous Decomposition Products: OXIDES OF CARBON, SUFUR.
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: NONE

Toxicological Information

Ecological Information

MSDS Transport Information

Regulatory Information

Other Information

Transportation Information

Responsible Party Cage: 2U663
Trans ID NO: 66557
Product ID: COAL TAR CREOSOTE
MSDS Prepared Date: 02/04/1993
Review Date: 11/17/1999
MFN: 1
Tech Entry NOS Shipping Nm: CONTAINS CREOSOTE AND INDENE AND NAPHTHALENE
Net Unit Weight: 481 LBS
Multiple KIT Number: 0
Review IND: Y
Unit Of Issue: DR
Container QTY: 1
Type Of Container: DRUM
Additional Data: NOTE: THE MAXIMUM ALLOWED BY PASSENGER/CARGO AIR: 5L / 60L.

Detail DOT Information

DOT PSN Code: QKN
 Symbols: G
 DOT Proper Shipping Name: TOXIC LIQUIDS, ORGANIC, N.O.S.
 Hazard Class: 6.1
 UN ID Num: UN2810
 DOT Packaging Group: II
 Label: POISON
 Special Provision: B110,T14
 Packaging Exception: NONE
 Non Bulk Pack: 202
 Bulk Pack: 243
 Max Qty Pass: 5 L
 Max Qty Cargo: 60 L
 Vessel Stow Req: B
 Water/Ship/Other Req: 40

 Detail IMO Information

IMO PSN Code: OTX
 IMO Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S. o
 IMDG Page Number: 6270-1
 UN Number: 2810
 UN Hazard Class: 6.1
 IMO Packaging Group: I/II/III
 Subsidiary Risk Label: -
 EMS Number: 6.1-02
 MED First Aid Guide NUM: T

 Detail IATA Information

IATA PSN Code: YIE
 IATA UN ID Num: 2810
 IATA Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S. *
 IATA UN Class: 6.1
 IATA Label: TOXIC
 UN Packing Group: II
 Packing Note Passenger: 609
 Max Quant Pass: 5L
 Max Quant Cargo: 60L
 Packaging Note Cargo: 611
 Exceptions: A4

 Detail AFI Information

AFI PSN Code: YGF
 AFI Symbols: *
 AFI Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S.
 AFI Hazard Class: 6.1
 AFI UN ID NUM: UN2810
 AFI Packing Group: II
 Special Provisions: P4
 Back Pack Reference: A10.5

 HAZCOM Label

Product ID: LABEL COVERED UNDER EPA REGS - HAZCOM LABEL NOT AUTHORIZED

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.

MSDS Number: N0090 * * * * * Effective Date: 11/02/01 * * * * * Supercedes: 02/25/99

MSDS**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 609-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 813-988-6666

Outside U.S. and Canada
Chemtec: 763-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-552-2537) for assistance.

NAPHTHALENE

1. Product Identification

Synonyms: Naphthene; mothballs; tar camphor; naphthaliin; white-tar

CAS No.: 91-20-3

Molecular Weight: 128.16

Chemical Formula: C₁₀H₈

Product Codes:

J.T. Baker: 2718

Mallinckrodt: 6348

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Naphthalene	91-20-3	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

<http://www.jtbaker.com/msds/englishhtml/n0090.htm>

8/1/03

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION. MAY AFFECT LIVER, KIDNEY, BLOOD AND CENTRAL NERVOUS SYSTEM. COMBUSTIBLE.

J.T. Baker SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate
Flammability Rating: 2 - Moderate
Reactivity Rating: 0 - None
Contact Rating: 2 - Moderate
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

Inhalation of dust or vapors can cause headache, nausea, vomiting, extensive sweating, and disorientation. The predominant reaction is delayed intravascular hemolysis with symptoms of anemia, fever, jaundice, and kidney or liver damage.

Ingestion:

Toxic. Can cause headache, profuse perspiration, listlessness, dark urine, nausea, vomiting and disorientation. Intravascular hemolysis may also occur with symptoms similar to those noted for inhalation. Severe cases may produce coma with or without convulsions. Death may result from renal failure.

Skin Contact:

Can irritate the skin and, on prolonged contact, may cause rashes and allergy. "Sensitized" individuals may suffer a severe dermatitis.

Eye Contact:

Vapors and solid causes irritation, redness and pain. Very high exposures can damage the nerves of the eye.

Chronic Exposure:

Has led to cataract formation in eyes. May cause skin allergy.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin, blood or vascular disorders or impaired respiratory function may be more susceptible to the effects of the substance. Particularly susceptible individuals are found in the general population, most commonly in dark skinned races.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get

medical attention.

Skin Contact:

Wash skin with soap or mild detergent and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Flash point: 87C (189F) CC

Autoignition temperature: 526C (979F)

Combustible. May be ignited by heat, sparks or flame. May burn rapidly with flare-burning effect. Fire may produce irritating or poisonous gases.

Explosion:

Explosive limits, volume % in air: lel: 0.9; uel: 5.9. Above flashpoint, vapor-air mixtures are explosive within flammable limits noted above. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire or explosion.

Fire Extinguishing Media:

Dry chemical, foam, water or carbon dioxide. Foam or direct water spray on molten naphthalene may cause extensive foaming. Molten naphthalene spatters in contact with water; apply water from as far-a distance as possible.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Keep away from moisture and oxidizers. Containers of this

material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

- OSHA Permissible Exposure Limit (PEL):

10 ppm, 50 mg/m³.

- ACGIH Threshold Limit Value (TLV):

TWA= 10 ppm, 52 mg/m³

STEL= 15 ppm, 79 mg/m³.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White crystals.

Odor:

Strong coal tar odor (moth balls).

Solubility:

Insoluble in water.

Specific Gravity:

1.2

pH:

No information found.

% Volatiles by volume @ 21C (70F):

No information found.

Boiling Point:

218C (424F)

Melting Point:

80C (176F)

Vapor Density (Air=1):

4.4

Vapor Pressure (mm Hg):

1 @ 53C (127F)

Evaporation Rate (BuAc=1):

< 1

10. Stability and Reactivity

Stability:

Stable at room temperature in sealed containers. Sublimes appreciably at temperatures above melting point.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizers, strong alkalis and strong mineral acids, mixtures of aluminum trichloride and benzoyl chloride. Reacts violently with chromic anhydride. Melted naphthalene will attack some forms of plastics, rubber, and coatings.

Conditions to Avoid:

Avoid heat, sparks, flames and other ignition sources and incompatibles.

11. Toxicological Information

Oral rat LD50: 490 mg/kg;

Inhalation rat LC50: 340 mg/m³, 1 hour;

Skin rabbit LD50: > 20 g/kg;

Irritation data: skin (open Draize) rabbit 495 mg, mild; eye (standard Draize) rabbit 100 mg, mild;

Investigated as a tumorigen, mutagen and reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Naphthalene (91-20-3)	No	No	None

12. Ecological Information

Environmental Fate:

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released to water, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. When released into the water, this material is expected to have a half-life between 1 and 10 days. This material may bioaccumulate to some extent. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: NAPHTHALENE, REFINED

Hazard Class: 4.1

UN/NA: UN1334

Packing Group: III

Information reported for product/size: 1KG

International (Water, I.M.O.)

Proper Shipping Name: NAPHTHALENE, REFINED

Hazard Class: 4.1

UN/NA: UN1334

Packing Group: III

Information reported for product/size: 1KG

International (Air, I.C.A.O.)

Proper Shipping Name: NAPHTHALENE, REFINED

Hazard Class: 4.1**UN/NA: UN1334****Packing Group: III****Information reported for product/size: 1KG**

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----
 Ingredient TSCA EC Japan Australia

 Naphthalene (91-20-3) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----
 Ingredient Korea DSL NDSL Phil.

 Naphthalene (91-20-3) Yes Yes No Yes

-----\Federal, State & International Regulations - Part 1\-----
 Ingredient -SARA 302- -SARA 313-
 RQ TPQ List Chemical Catg.

 Naphthalene (91-20-3) No No Yes No

-----\Federal, State & International Regulations - Part 2\-----
 Ingredient CERCLA -RCRA- -TSCA-
 261.33 8(d)

 Naphthalene (91-20-3) 100 U165 No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
 Reactivity: No (Pure / Solid)

Australian Hazchem Code: 2Z**Poison Schedule: S6****WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 2 Flammability: 2 Reactivity: 0**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION. MAY AFFECT LIVER,

KIDNEY, BLOOD AND CENTRAL NERVOUS SYSTEM. COMBUSTIBLE.**Label Precautions:**

Avoid contact with eyes, skin and clothing.
Avoid prolonged or repeated contact with skin.
Avoid breathing dust.
Avoid breathing vapor.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Keep away from heat, sparks and flame.

Label First Aid:

In all cases call a physician. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 8.

Disclaimer:

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

**Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)**

International Chemical Safety Cards

ANTHRACENE

ICSC: 0825

ANTHRACENE Anthracin Paranaphthalene Molecular mass: 178.2			
CAS # 120-12-7 RTECS # CA9350000 ICSC # 0825			
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
• INHALATION	Cough. Laboured breathing. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
• SKIN	MAY BE ABSORBED! Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
• EYES	Redness. Pain.	Safety goggles, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• INGESTION	Abdominal pain.	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.
SPILLAGE DISPOSAL		STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place (extra personal protection: P2 filter respirator for harmful particles).		Separated from strong oxidants, strong acids. Tightly closed. Cool.	
SEE IMPORTANT INFORMATION ON BACK			
ICSC: 0825		Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993	

International Chemical Safety Cards

ANTHRACENE

ICSC: 0825

I M P O R T A N T D A T A	<p>PHYSICAL STATE; APPEARANCE: WHITE CRYSTALS OR FLAKES.</p> <p>PHYSICAL DANGERS: Dust explosion possible if in powder or granular form, mixed with air.</p> <p>CHEMICAL DANGERS: The substance decomposes on heating, on contact with sunlight, under influence of strong oxidants producing acrid, toxic fume, causing fire and explosion hazard.</p> <p>OCCUPATIONAL EXPOSURE LIMITS (OELs): TLV not established. PDK not established.</p>	<p>ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation, through the skin and by ingestion.</p> <p>INHALATION RISK: Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.</p> <p>EFFECTS OF SHORT-TERM EXPOSURE: The substance irritates the eyes, the skin, the respiratory tract and the gastrointestinal tract.</p> <p>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Repeated or prolonged contact may cause skin sensitization.</p>
	<p>PHYSICAL PROPERTIES</p> <p>Boiling point: 342°C Melting point: 218°C Relative density (water = 1): 1.25 Solubility in water: none Relative vapour density (air = 1): 6.15</p>	<p>Flash point: 121°C Auto-ignition temperature: 538°C Explosive limits, vol% in air: 0.6-? Octanol/water partition coefficient as log Pow: 4.5 (calculated)</p>
ENVIRONMENTAL DATA	This substance may be hazardous to the environment; special attention should be given to soil and air. In the food chain important to humans, bioaccumulation takes place, specifically in aquatic organisms and plants.	
NOTES		
Do NOT take working clothes home. Green oil, Tetraolive are trade names.		
NFPA Code: H0; F1; R;		
ADDITIONAL INFORMATION		
<div style="display: flex; justify-content: space-between;"> ICSC: 0825 ANTHRACENE </div> <p style="text-align: center;">© IPCS, CEC, 1993</p>		
IMPORTANT LEGAL NOTICE:	Neither the CEC or the IPCS nor any person acting on behalf of the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use.	

ACTIVITY HAZARD ANALYSIS

Project: Lampkin Construction Company Northeast Drainage Ditch Improvements Scooba Street to Katie Avenue City of Hattiesburg	Date: July 21, 2003
	Project Manager: Lampkin Construction – John Sparks SERS – Richard Ellis
	Site Supervisor: Lampkin Construction – Randy McCaffery SERS – Elbert Brown/Bobby Shivers
	Site Safety Officer: SERS – Bobby Shivers
	Review for latest use: Before the job is performed.

HAZARD	PREVENTION	HAZARD CONTROLS
Site Topography	Be aware of surrounding environment, obstacles, overhead obstructions.	
Utilities	Call One Call. Physically locate all known utilities prior to excavation activities.	
Noise	Equipment maintenance to avoid unuaually loud operations.	Any personnel in an 85-decible environment will wear hea protection.
Ergonomic	Use proper lifting technique "lower back straight – Lift performed with upper legs."	Use good body mechanics. Support Belt as necessary.

ACTIVITY HAZARD ANALYSIS

HAZARD	PREVENTION	HAZARD CONTROLS
Heavy Equipment Operation	Be aware of personnel around equipment operation. Back-up alarm will be operational or spotter is required Whenever backing is done. Be aware of pinch points. Be aware of chemical exposure.	Stay clear of operating equipment. Wear appropriate PPE. Prevent sparking.
Chemical Exposure	Be aware of surrounding environment.	Wear appropriate PPE.
Crushing Injuries	Stay clear of overhead equipment operations.	Never stand or walk under loads.
Weather Conditions	Note daily forecasts. Work will be suspended during Lightning storms, heavy rainfall and tornado warnings.	
Wildlife	Inspect work environment where tasks are being Performed. Awareness with respect to mosquitos, Bees, wasps, snakes, rats, poisonous plants.	
Heat Stress	Personnel will take breaks when needed and hydrate As necessary.	Hydrate with water or electrolyte drink. Take breaks as necessary.



Singley Environmental & Remediation Services

P.O. Box 389 - 1001 Highway 13 South
Columbia, Mississippi 39429

EXCAVATION AND TRENCHING

1.0 PURPOSE

This program describes minimum requirements for safe work practices during excavation and trenching operations. It is intended to assure compliance with 29 CFR 1926, Subpart P.

2.0 SCOPE

This program applies to all excavation and trenching operations performed or supervised by employees of Singley Environmental & Remediation Services (SERS). Subcontractors will comply with the requirements of this program, as a minimum.

3.0 DEFINITIONS

The following definitions apply specifically to excavation and trenching operations.

Competent Person: A worker who is trained and capable of identifying existing and predictable hazards of excavations. Such workers must have the authority to shut down operations if new hazards are identified.

OSHA does not accept a Professional Engineer (PE) license as qualification to be a "competent person" unless the PE can demonstrate appropriate training and work experience in at least the following topics:

- State and federal OSHA excavation standards,
- OSHA-required methods of soil classification,
- Potential hazards of excavation and trenching,
- Methods for identifying and correcting hazards,
- Methods for inspecting and verifying the design and use of sloping and shoring systems.

OSHA consultation offices have suggested eight (8) to sixteen (16) hours of training in these topics to qualify an individual as a "competent person". Qualifications of competent persons must be documented in writing.

Registered Professional Engineer (PE): A person who is registered as a PE in the state where the excavation work is to be performed. OSHA recommends using civil engineers or those with licenses in a related discipline and experience in the design and use of sloping and shoring systems. PE qualifications must be documented in writing.

Excavation: Any man-made cut, cavity, trench or depression in an earth surface, formed by dirt or rock removal. This includes landfills and piping trenches and openings caused by underground storage tank removal.

Cave-In: Soil or rock falling into an excavation from the sides; soil or rock falling out from under a trench or support system. Cave-ins are usually sudden movements that can trap, bury, or crush workers in the excavation.

Benching: A method of protecting workers from cave-ins by excavating the sides of an excavation to form a series of horizontal levels or steps.

Shoring: Wooden, metal, or hydraulic bracing systems that support the sides of an excavation to prevent cave-ins.

Sloping: Flattening the sides of an excavation at an angle to maintain stability and prevent cave-ins. Sloping angles are stated as the horizontal distance back from the foot of the slope, versus the vertical height of the slope. For example, 1.5 feet horizontal to 1 foot vertical (1.5 to 1). Slopes may also be stated as the number of degrees in the angle formed by the slope. A 1.5 to 1 slope is also a 34° angle. The larger the angle, the steeper the slope. A vertical wall is a 90° angle.

4.0 REQUIREMENTS

4.1 Pre-Planning

4.2 Buried Utilities

The estimated location of all underground installations must be determined before excavation begins. The local Underground Services Alert (USA – One Call) or utility companies must be contacted and requested to locate such underground public utilities at least two business days prior to the start of work. Property owners and facility operators must also be contacted prior to project startup, to locate underground private utilities and installations. Ground-penetrating radar or other equipment may be useful in locating such utilities.

When excavations approach the estimated location of the underground utilities, exact locations must be physically located by means of hand shoveling, probing, or other methods of safely identifying and uncovering the utilities.

All underground installations must be protected, supported or removed in order to prevent injuries and damage during excavation. Where utilities or underground installations will be removed, they must be drained, flushed, de-energized, and locked out and tagged prior to removal.

4.3 Above Ground Structure and Landscaping

If there are any nearby buildings, walls, sidewalks, trees, or roads that may be threatened or undermined by the excavation, where the stability of any of these items may be endangered by the excavation, they must be removed or supported by adequate shoring, bracing or underpinning.

Excavations may not go below the base of footings, foundations, or retaining walls, unless they are adequately supported or a Registered Professional Engineer (PE) has determined that they will not be affected by the soil removal. (See definition of PE above.)

4.4 Personnel Entry into Excavations

Personnel required to enter or work in the excavation at any time must be protected from the hazards of cave-ins. This requires the use of sloping and/or shoring systems that comply with state and federal OSHA standards.

4.5 Maximum Excavation Depths

Excavations less than 4 feet deep do not require sloping or shoring IF a "competent person" examines the ground and finds no indication of a potential cave-in. (See the definition of "competent person" above.)

Excavations greater than or equal to 4 feet deep must be sloped or shored to protect personnel working inside.

Excavations deeper than 20 feet must be subjected to soil classification, regardless of whether workers enter the hole or not. A PE who is licensed in the state where the work will take place must approve sloping and/or shoring systems for such excavations. The PE must be licensed in civil engineering or a related field. PEs licensed in disciplines such as electrical engineering is prohibited from certifying or designing sloping and shoring.

4.6 Personnel Entrance and Exit Ladders/Ramps

Where personnel must enter excavations ≥ 4 feet deep, ladders or stairs must be provided so that workers are not required to travel more than 25 feet to reach an exit.

4.7 Vehicle Traffic

Personnel exposed to vehicle traffic must wear high-visibility warning vests. Measures must be put in place to route traffic away from or safely around excavations. This includes placing traffic barriers, traffic cones, and high-visibility warning signs.

Vehicle traffic and heavy equipment can create vibration that may make the excavation unstable. Where such hazards exist, sloping and shoring systems must be designed to withstand these vibrations.

4.8 Oxygen Deficiency and Hazardous Atmospheres

If there is any risk of oxygen deficiency or hazardous atmospheres (such as methane or hydrogen sulfide) accumulating in the excavation, air monitoring for oxygen deficiency and/or hazardous atmospheres is required before workers enter the excavation. If a hazardous atmosphere is present, ventilation or other control systems must be used to remove the hazard. In addition, where ventilation is used, air monitoring must be repeated every 15 minutes to verify that the excavation remains safe for workers to enter.

Emergency rescue equipment and a safety standby person must be present at the excavation whenever hazardous atmospheres exist or could reasonably develop.

4.9 Water Table Depths and Water Accumulation in Excavations

The depth of the water table must be determined, if there is any possibility of water entering or accumulating in the excavation, and if there is any possibility of rain or snowfall occurring during excavation operations.

If rain, snowfalls, or groundwater enter the excavation between work shifts, the excavation must be thoroughly inspected and certified safe by the "competent person" on-site prior to workers re-entering the excavation.

Personnel are not permitted to work in excavations where water is accumulating or has accumulated, UNLESS the water is continuously pumped out and the sloping or shoring system has been designed to withstand exposure to water without cave-ins. Personnel working in such wet conditions will also wear safety harnesses and rescue lines attached to a stable tie-off point at the top of the excavation that is capable of withstanding 5000 pounds of force for each attached worker. SERS employees are prohibited from using vehicles as tie-off points.

4.10 Spoils Piles, Equipment and Tool Storage

Small equipment, tool storage, shoring supplies, and spoils piles must be placed at least 2 feet away from the top edge of the excavation. In addition, heavy equipment and vehicles must be positioned at least 2 feet from the top edge of the excavation.

4.11 Equipment Operator Visibility During Excavation Activities

Assess whether heavy equipment operators will be able to clearly see the excavation edge while working. When equipment operators do not have a clear and direct view of the edge, barricades, stop logs, or hand signals must be used to warn them of their positions.

4.12 Personnel Working on Excavation Face

If personnel will be working on the excavation face at more than one level, they must be protected from falling rock or soil that may be generated by others working at levels above them. Protective barricades will be necessary at intervals along the face to provide this protection. The excavation face may also be scraped to remove loose materials.

Personnel are prohibited from working, standing, or traveling below loads being lifted or moved. Such loads include the buckets of excavators, backhoes and loaders. Drivers of vehicles that are being loaded must remain clear of the loading area at all times.

4.13 Personnel and Equipment Crossover Points

Where personnel or equipment will be required to cross over the excavation, walkways or bridges with standard 42-inch-high guardrails, midrails, and 6-inch-high toeboards must be provided across the excavation. These bridges must be strong enough to withstand the weight of people, objects and vehicles traveling across them.

4.14 Personnel Working in Proximity to Open Excavations

Where personnel must work on an ongoing basis within 10 feet of the edge of an open excavation, they should be protected from falls by wearing a body harness and lifeline. Lifelines must be tied to a stationary object, away from the open excavation, that is capable of withstanding 5000 pounds of force for each attached worker. This practice is critically important where excavations have vertical sides or are potentially unstable. (Personnel are prohibited from using vehicles as tie-off points for fall protection.)

4.15 Soil Types

OSHA classifies soils into one of three types: A, B, or C. OSHA sloping and shoring requirements are based on the types of soil present at each work site.

Note that the definitions of these soil types are specific to compliance with OSHA excavation and trenching regulations. These definitions do not necessarily match terms used in geology or engineering soil studies.

4.16 Type A Soils

Type A soils are defined as cohesive. They stick together easily and resist breaking apart under pressure. Clay, silty clay, sandy clay, and clay loam are examples of cohesive soils.

Type A soils must have an unconfined compressive strength greater than or equal to 1.5 tons per square foot.

Soil cannot be classified as Type A if it is fissured, subject to vibration, or if it has been previously disturbed or backfilled.

4.17 Type B Soils

Type B soils include cohesive soil that has an unconfined compressive strength between 0.5 and 1.5 tons per square foot. Soil that has an unconfined compressive strength greater than 1.5 tons per square foot and is fissured or subject to vibration, is also classified as Type B.

Some other soils that are granular and exhibit poor cohesion may be included as Type B materials. Angular gravel (similar to crushed rock), silt, silty loam, and sandy loam are examples of these materials.

4.18 Type C Soils

Type C soils include cohesive soil that has an unconfined compressive strength less than 0.5 tons per square foot. Loose granular soils such as gravel, sand and loamy sand are also classified as Type C.

4.19 OSHA Soil Classification Procedures

Soil classification must be done in accordance with methods described in the OSHA excavation standard. Visual examination will be followed by at least one manual test until the material is classified as Type A, B, or C.

A large chunk of soil, about the size of a backhoe bucket, should be used to make the classification. Samples must be collected in an undisturbed area before excavation begins.

It may be necessary to examine multiple samples to address the possibility of layering or multiple soil types in the proposed excavation or trench. If layers are present, each layer must be classified separately.

4.20 Visual Examination

Is the material entirely solid rock without cracks or fissures?

YES: Type A. Verify this by testing the unconfined compressive strength as described in 4.3.2 below.

Is the material submerged under water, saturated with water, or seeping water?

YES: Type C.

Does the excavated soil remain in clumps?

NO: Type C.

YES: Perform manual testing as described in 4.3.2 below.

4.21 Manual Testing

Test the material for its unconfined compressive strength by one or both of the following methods.

Method A

Can a thumb be pressed into the soil several inches with very little effort?

YES: Type C. Compressive strength is less than 0.5 tons per square foot (tsf).

NO: Is the material fissured, cracked or subject to vibration?

YES: Type C.

NO: Type A or B.

If the material is fissured, cracked, subject to vibration, previously disturbed or backfilled, it drops a level in the hierarchy of stability.

Method B (most accurate)

Press a pocket penetrometer into a ball of soil.

Less than 0.5 tsf, Type C.

Between 0.5 and 1.5 tsf, Type B.

Greater than 1.5 tsf, Type A.

If the material is fissured, cracked, subject to vibration, previously disturbed or backfilled, it drops a level in the hierarchy of stability.

To confirm the decision to classify soil as Type B or C, perform a plasticity test. Roll a lump of soil into a rope that is no more than 1/8 inch thick and is at least 2 inches long. Does the rope break when it is lifted into the air by one end?

YES: Type C.

NO: Type B.

4.22 Documentation

Soil classifications must be documented in writing. This may be done as part of the site's daily operating logs. Documentation must include, as a minimum:

- Date and time of sample collection and testing,
- Location of soil sample collection,
- Physical condition and description of sample and any layering observed,
- Methods used for classifying soil types,
- Results of soil classification,
- Name of the "competent person" who performed the soil classification.

4.23 Layered Soils

In situations where different soil layers are present, each layer must be classified separately as Type A, B, or C. Where unstable soil is present underneath a stable soil layer, the sloping or shoring system for the entire excavation must meet the requirements for the most unstable soil. For example, if Type C soil is present under a layer of Type B, the entire excavation or trench must use the sloping or shoring requirements for Type C soil.

If Type B soil is present under Type C, the lower layer may be sloped or shored to meet Type B requirements and the upper layer to meet Type C.

4.24 Selection and Design of SLOPING Systems

Sloping systems must be selected to meet the requirements of Appendix B of the OSHA excavation standard 29 CFR 1926, Subpart P. This Appendix provides detailed diagrams and specifications for the allowable angle of sloped excavations and trenches based on the types of soil present.

Sloping designs for excavations greater than 20 feet deep must be prepared by a PE. OSHA allows four options for sloping excavations less than 20 feet deep.

4.25 One and One-Half to One Sloping

Excavations may be sloped to a 34° angle or flatter, without classifying the soil types or consulting a PE. This angle is equal to cutting the excavation back 1.5 feet horizontally for every 1 foot of depth.

This option may be impractical if the excavation is very deep or if the area around the excavation is restricted. Using the flattest slope, without classifying soil Types, may result in removing substantially more soil than necessary. For example, a 10 foot deep hole would require removal of at least 2,250 cubic feet using the 1.5 to 1 slope. If the soil is classified as Type B, with an allowable slope of 1 to 1; less than half as much soil (about 1,000 cubic feet) must be removed. This can provide significant savings in man hours and disposal costs for contaminated soils.

4.26 Steeper Slopes

If soils are classified as Type A, B, or C, in accordance with the OSHA standard, steeper sloping angles may be possible. In excavations less than 20 feet deep, Type A soils may be sloped at 0.5 foot horizontal to 1 foot vertical and Type B soils at 1-foot horizontal to 1-foot vertical. Type C soils must still use the 1.5-foot horizontal to 1-foot vertical slope.

4.27 Alternative Sloping Designs by PEs

If soils are classified as Type A, B, or C, an alternative sloping system may be designed by a PE, based on other tabulated data or previous work experience. Where an alternative sloping system is used, at least one written copy of the design must be kept at the jobsite while the slope is being constructed. This copy must include the data or other information used to develop the design, a description of the soil classification procedure and results, the specified measurements for sloping, and the name of the PE who developed and approved the design. The written copy can be kept at the local US Services office after all sloping is completed.

4.28 Benching

Benching is a method of protecting personnel from cave-ins by cutting a series of horizontal levels or steps in the sides of an excavation. Benching may only be used when soils have been classified as Type A or B according to the OSHA excavation standard. The benching design must meet the requirements of Appendix B of the standard. Any alternative benching systems must be approved by a PE with the same written documentation as described in Section 3.3.3, above.

4.29 Selection and Design of Shoring Systems

Shoring systems must be selected to meet the requirements of Appendix C or D of the OSHA excavation standard 29 CFR 1926, Subpart P. This Appendix provides detailed specifications for the strength, physical size and number of timbers or other structural materials used to build shoring systems.

Shoring systems for excavations >20 feet deep must be designed by a PE. OSHA allows similar options to those described for sloping, when selecting shoring for excavations less than 20 feet deep.

4.30 Wood and Aluminum Shoring Specifications

If soils are classified as Type A, B, or C in accordance with the standard, a wood or aluminum shoring system may be selected from Appendices C or D of the OSHA excavation standard 29 CFR 1926 Subpart P.

Note that lumber used to construct shoring must be new, previously unused, and free of knots and cracks.

The size of wooden timbers listed in Appendix C of 29 CFR 1926, Subpart P, is the actual size of the lumber, NOT the nominal size that is usually quoted when pre-cut timbers are sold. Timbers used for shoring systems must usually be special ordered from a lumber yard or sawmill in the exact sizes listed in Appendix C of the OSHA excavation standard.

4.31 Pre-Manufactured Shoring Systems

After classifying the soil types, OSHA also allows the employer to use pre-manufactured shoring systems. This involves using the manufacturer's specifications to determine which shoring system will be used. The manufacturer must approve any design changes in writing before there is any deviation from their original recommendations.

A written copy of the manufacturer's specifications and any approved changes, must be kept at the jobsite while the shoring is constructed. After that, the copy may be sent to the local US Services office for storage.

4.32 Alternative Shoring Systems Designed by a PE

If soils are classified as Type A, B, or C, an alternative shoring system may be designed by a PE, based on any other tabulated data or previous work experience.

Where an alternative shoring system is used, at least one written copy of the design must be kept at the jobsite while the shoring is being constructed.

This copy must include the data or other information used to develop the design, a description of the soil classification procedure and results, the specified measurements for shoring, and the name of the PE who developed and approved the design.

The written copy can be kept at the local US Services office after all shoring is completed.

4.33 Shoring Installation and Removal

Shoring systems must be installed from the top down as excavation or trenching progresses. Removal must take place from the bottom up, with the hole being backfilled as the shoring is removed.

Workers may not enter the excavation until adequate shoring is in place to prevent a cave-in. Workers will not remain in the excavation during removal of shoring unless an alternate means of support is provided to prevent cave-ins.

4.34 Trench Shields

Trench shields are structures designed to prevent workers from being injured in a cave-in. These devices are reinforced metal boxes that are placed inside trenches using a crane. The boxes may be stacked or placed side by side in order to fill the depth and width of a trench.

The top of the trench shield must extend at least 18 inches above the top of the excavation.

Workers are to remain within the trenchshield at all times in the excavation. Trench shields will not prevent cave-ins. They do not support the walls of the trench. They only protect workers inside the box, if the trench caves in. An arm or leg outside the trench shield may be torn off or crushed by falling soil if a cave-in occurs.

All personnel will leave the excavation or trench while the trench shield is moved or repositioned.

Stacked trench shields must be bolted together and ladders must be provided for workers to enter and exit the boxes. The ladders must be placed inside the trench shield, and must extend at least 3 feet above the top of the trench shield. Workers must have no more than 25 feet of travel to reach one of the ladders in an emergency.

4.35 Competent Person Inspections

The excavations must be inspected at the start of each workshift by a "competent person" prior to personnel entering the excavation. Inspections must include checking for any evidence of damage, defects or loose parts in the shoring system. Personnel may not enter the excavation until any such problems have been corrected.

Inspections must also include looking for any evidence of possible cave-ins, hazardous atmospheres, water accumulation, undermining, or material breaking off the sides of the excavation. Any changes or new hazards must be addressed before workers enter the excavation.

Inspections must be repeated after rain or snowfall, after freezing or thawing, and after any other hazard-increasing occurrence.

When a new hazard is identified while workers are in the excavation, all exposed personnel must be evacuated from the excavation until the situation is corrected.

Daily inspections will be documented in writing in the site's daily operating logs. The monthly site safety inspection checklist may also be used as additional documentation.

4.36 Barricades and Warning Signs

Unattended excavations and those in remote areas, require barricades or covers with warning signs to prevent persons and equipment from falling into them. Large excavations may require temporary fencing to prevent unauthorized access. Barriers with flashing warning lights will be used when excavations are left open after dark.

**SINGLEY ENVIRONMENTAL & REMEDIAL SERVICES
HEALTH AND SAFETY PROGRAM**

EXCAVATION AND TRENCHING CHECKLIST

Project Name: _____ Project Number: _____

Location: _____

Competent Person: _____

Conditions	Yes	No	Corrective Actions
Soil Classified as type A, B, or C?			
Sloping in place?			
Angle of slope matches design & safety plan?			
Shoring in place?			
Shoring design matches safety plan & written design?			
Shoring is tight?			
Excavation guarded from traffic?			
Utility lines and nearby structures are supported to prevent damage?			
Stockpiles & equipment are at least 2 ft from edge of hole?			
Cracks in soil or rock layers?			

Notes: Sloping and shoring must match design specs exactly.

**SINGLEY ENVIRONMENTAL & REMEDIAL SERVICES
HEALTH AND SAFETY PROGRAM**

EXCAVATION AND TRENCHING CHECKLIST

Project Name: _____ Project Number: _____

Location: _____

Competent Person: _____

Conditions	Yes	No	Corrective Actions
Tension or shrinkage cracks visible in slopes or sidewalls?			
Water or standing liquid in bottom of excavation or trench?			
Evidence of caving, sloughing or leafing from sidewalls?			
Trench boxes used correctly with workers completely inside boxes?			
Escape ladders within 25 ft of workers?			
Is anyone working on slopes under suspended loads?			
Excavations lighted and barricaded after dark?			
Documentation of daily inspections on-site?			
Full-time competent person on-site?			
Walkways across trenches have guardrails?			
State excavation permit on-site?			