

SECTION 4

**PROJECT CASE NARRATIVES AND
CHAIN-OF-CUSTODY RECORDS**

CASE NARRATIVE

Client: Kerr-McGee Corporation
 SDG #: HMS01

LANCASTER LABORATORIES
 SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

<u>LL #'s</u>	<u>Sample Code</u>	<u>Matrix</u>		<u>Comments</u>
		<u>Soil</u>	<u>Water</u>	
2932449	CPT07		X	
2932449DL	CPT07DL		X	100X Dilution
2932449RE	CPT07RE		X	Reextraction
2932450	CPT08		X	
2932451	CPT09		X	
2932451DL	CPT09DL		X	100X Dilution
2932451RE	CPT09RE		X	Reextraction
2932452	CPT11		X	
2932453	CPT12		X	
2932453DL	CPT12DL		X	5X Dilution
2932454	CPT13		X	Unspiked
2932455MS	CPT13MS		X	Matrix Spike
2932456MS	CPT13MSD		X	Matrix Spike Dup
2934151	CPT10		X	
2934152	CPT18		X	
2934153	CPT21		X	
2934154	CPT22		X	
2934155	CPTRB		X	Client Blank
LABORATORY SUBMITTED QC:				
SBLKWE146	SBLKWE146L		X	Method Blank
SBLKWD156	SBLKWD156M		X	Method Blank
146WELCS	146WELCSL		X	Lab Control Sample
156WDLCS	156WDLCSM		X	Lab Control Sample

Case Narrative
SDG #: HMS01
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SAMPLE PREPARATION:

Due to insufficient sample, only 950 mls were used in the extraction of CPT11.

No other problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 Method 8270C.

All samples were analyzed for the CLP OLM01.8 target compound list.

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
CPT07	100X	naphthalene, 2-methylnaphthalene, acenaphthene
CPT09	100X	a number of compounds
CPT12	5X	naphthalene

Reextractions were required for CPT07 and CPT09 due to unacceptable surrogate recoveries.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

CPT07 and CPT09 had the surrogate recovery of nitrobenzene-d5 outside QC limits. These samples were reextracted outside the method required holding time. CPT07RE



Case Narrative

SDG #: HMS01

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and CPT09RE surrogate recoveries did not confirm the original results. Both sets of data are included in this data package.

The recovery of 2,4-dichlorophenol in CPT13MSD was outside QC limits. All recoveries were within specifications in 146WELCSL.

The relative percent difference (RPD) for 2,4-dichlorophenol between CPT13MS and CPT13MSD was greater than 30 percent.

All other QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 7/19/98

Sample Administration Receipt Documentation Log

Client/Project: MICHAEL PISANI Shipping Container Sealed: / N
 Date of Receipt: 5-21-98 COC Seal Present: N
 Time of Receipt: 0940 COC Seal Intact: / N
 Source Code: F1 Package: / Not Chilled
 Unpacker Emp. No.: 87

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>1340</u>	Thermometer ID: <u>1340</u>
Temp.: <u>4.0</u>	Temp.: <u>3.6</u>
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
Wet Ice / Dry Ice / Ice Packs _____	Wet Ice / Dry Ice / Ice Packs _____
Ice Present? <input checked="" type="checkbox"/> / N	Ice Present? <input checked="" type="checkbox"/> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
Wet Ice / Dry Ice / Ice Packs _____	Wet Ice / Dry Ice / Ice Packs _____
Ice Present? <input type="checkbox"/> / N	Ice Present? <input type="checkbox"/> / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>Harla Collins</u>	<u>5-21-98</u>	<u>1210</u>	Unpacking
<u>Meslund</u>	<u>5/21/98</u>	<u>1230</u>	Place in Storage or Entry
			Remove from Storage
			Place in Storage or Entry
			Entry

**Sample Administration
 Receipt Documentation Log**

Client/Project: Michael Pisan Shipping Container Sealed: Y / N
 Date of Receipt: 5-23-98 COC Seal Present: Y / N
 Time of Receipt: 11:00 COC Seal Intact: Y / N
 Source Code: 50-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 65

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>1340</u>	Thermometer ID: _____
Temp.: <u>6.0</u>	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.?	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>ADP</u>	<u>5-23-98</u>	<u>13:44</u>	Unpacking
<u>J. Moyer</u>	<u>5/23/98</u>	<u>1400</u>	Place in Storage or Entry
<u>R. Lutz</u>	<u>5/23/98</u>	<u>1630</u>	Remove from Storage / <u>65</u>
			Place in Storage or Entry
			Entry

CASE NARRATIVE

 Client: Kerr- McGee Corporation
 SDG #: HMS02

**LANCASTER LABORATORIES
 SEMIVOLATILES BY GC/MS**
SAMPLE NUMBER(S) :

<u>LL #'s</u>	<u>Sample Code</u>	<u>Matrix</u>		<u>Comments</u>
		<u>Soil</u>	<u>Water</u>	
2941671	SD1-	X		
2941672	SD2-	X		10X Dilution
2941672DL	SD2-DL	X		500X Dilution
2941673	SD3-	X		
2941673DL	SD3-DL	X		20X Dilution
2941674	SD4-	X		10X Dilution
2941674DL	SD4-DL	X		500X Dilution
2941675	SD5-	X		
2941676	SD6-	X		
2941677	SD7-	X		
2941678	SD8-	X		
2941679	SD9-	X		
2941680	SD10-	X		
2941681	SD11-	X		
2941682	SD12-	X		
2941682RE	SD12-RE	X		Reextraction
2941682DL	SD12-DLRE	X		2X Dilution
2943286	0202-	X		
2943286DL	0202-DL	X		80X Dilution
2943287	0656-	X		
2943288	1901-	X		
2943288DL	1901-DL	X		10X Dilution
2943288DL	1901-DL	X		30X Dilution
2943289	1923-	X		
2943289DL	1923-DL	X		2X Dilution
2943290	1956-	X		
2943290DL	1956-DL	X		2X Dilution
2943291	2001-	X		5X Dilution
2943292	2023-	X		
2943293	2701-	X		Unspiked
2943294	2701-MS	X		Matrix Spike
2943295	2701-MSD	X		Matrix Spike Dup

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Case Narrative
SDG: HMS02 continued

LABORATORY SUBMITTED QC:

SBLKLF162	SBLKLF1622	X	Method Blank
SBLKLB169	SBLKLB1692	X	Method Blank
SBLKLC177	SBLKLC1772	X	Method Blank
162LFLCS	162LFLCS2	X	Lab Control Sample
169LBLCS	169LBLCS2	X	Lab Control Sample
177LCLCS	177LCLCS2	X	Lab Control Sample

SAMPLE PREPARATION:

No problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 Method 8270C.

All samples were analyzed for the CLP OLM03.2 target compound list.

The following samples were analyzed at initial dilutions due to high concentrations of target compounds.

<u>Sample Code</u>	<u>Dilution</u>
SD2-	10
SD4-	10
2001-	5

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
SD2-	500	various
SD3-	20	various
SD4-	500	various
1901-	10	various
1901-	30	various
1923-	2	pyrene
1956-	2	phenanthrene
0202-	80	various
SD12-RE	2	anthracene

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Case Narrative
SDG: HMS02 continued

Reextraction was required for SD12- due to unacceptable surrogate recoveries.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Due to surrogate recoveries outside QC limits, SD12- was reextracted. The reextraction was performed outside the method required holding time and did not confirm the original extraction. Both sets of data are included in this data package.

Bis(2-ethylhexyl)phthalate was detected in SBLKLC1772 at a concentration below the limit of quantitation. This value was not subtracted from the analytical results of the associated samples.

Benzo(a)pyrene was above QC limits in 169LBLCS2.

All other QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

The chain of custody for the following samples was incomplete. All samples were removed from Department 36 storage on 06/26/98 by Linda Hartenstine and placed on instrument HP06588 for analysis. The samples were analyzed on the following dates.

<u>Sample Number</u>	<u>Analysis Date</u>	<u>Analyst</u>
2943286	06/30/98	Eileen Hostetler
2943287	06/26/98	Eileen Hostetler
2943288	06/29/98	Eileen Hostetler
2943289	06/29/98	Eileen Hostetler
2943290	06/26/98	Eileen Hostetler
2943291	06/30/98	Eileen Hostetler
2943292	06/26/98	Eileen Hostetler
2943293	06/26/98	Eileen Hostetler
2943294	06/26/98	Eileen Hostetler
2943295	06/26/98	Eileen Hostetler

All samples were returned to Department 36 storage on 07/01/98.

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Case Narrative
SDG: HMS02 continued

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 8/7/98



For Lancaster Laboratories use only

Acct. # 7802 Sample # 2941671-82
2941683-94

Please print. Instructions on reverse side correspond with circled numbers.

Client: Michael P. Sani & Associates Acct. #: _____
Project Name/ID: Gulf States Coasting PWSID #: _____
Project Manager: DARR YPHIGUARD P.O.#: _____
Sampler: W.C. [Signature] Quote #: _____
Name of state where samples were collected: Mississippi

For lab use only
FSC: _____
SCR #: 1112167

Sample ID	Date	Time	QC	Other	Notes
SW-07	6-4-98	1325	✓	2	X
SD-07		1330	✓	1	
SW-08		1220	✓	1	
SD-08		1225	✓	1	
SW-09		1150	✓	2	
SD-09		1155	✓	1	
SW-10		1025	✓	2	
SD-10		1130	✓	1	
SW-11		1050	✓	2	
SD-11		1055	✓	1	

TEL. Sanival/Stilos
by SD-246 2270

ORIGINAL IN THIS CONDITION
WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax
Phone #: (504) 582-2464 Fax #: (504) 582-2470

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	6-13-98	1625	<u>[Signature]</u>	6-1-98	1315
<u>[Signature]</u>	6-5-98	1700	<u>[Signature]</u>		
			<u>[Signature]</u>		
			<u>[Signature]</u>		
			<u>[Signature]</u>		

Data Package Options (please circle if requested)
QC Summary Type VI (Raw Data) SDG Complete? Yes No
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NI) Red. Del.)
Type IV (CLP)
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

Please print. Instructions on reverse side correspond with circled numbers.

Client: Michael Pisani & Associates Acct. #: _____
Project Name/ #: GSCS PWSID #: _____
Project Manager: D. Y. Thegn P.O. #: _____
Sampler: [Signature] Quote #: _____
Name of state where samples were collected: MS

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	Analyses Requested		For lab use only	
									FSC:	SCR #:		
GEO-02/0-2'	6-9-98	1230	X		X			1	X			
GEO-06/5-6'		1649										
GEO-19/0-1'		1012										
GEO-19/2-3'		1015										
GEO-19/5-6'		1020										
GEO-20/0-1'		1026										
GEO-20/2-3'		1030										
GEO-20/5-6'		1035										
GEO-20/9-10'		1055										
GEO-21/0-1'		1108										

Handwritten notes in table:
 (4) Water Potable (FINDS)
 (5) Analyses Requested: TCL Samples by SW-846 2270
 (6) For lab use only: FSC: _____ SCR #: 1112431
 (9) ORIGINAL IN THIS CONDITION WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone _____ Fax _____
 Phone #: _____ Fax #: _____

Data Package Options (please circle if requested)

<input type="checkbox"/> Summary	Type VI (Raw Data)	SDS Complete? <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="checkbox"/> Type I (Tier I)	GLP	
<input type="checkbox"/> Type II (Tier II)	Other	Site-specific QC required? <input checked="" type="radio"/> Yes <input type="radio"/> No (If yes, indicate QC sample and submit triplicate volume.)
<input type="checkbox"/> Type III (NI Red. Del.)		Internal Chain of Custody required? <input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> Type IV (CLP)		

Relinquished by:	Date	Time	Received by:	Date	Time
<u>Kees. Hight</u>	5-20-98	9:45	<u>[Signature]</u>	6-9-98	8:10
<u>[Signature]</u>	6-9-98	15:00	<u>Fed EA</u>		12:00
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Handwritten notes:
 (9) [Signature] 09/10

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Please print. Instructions on reverse side correspond with circled numbers.

Client: _____ Acct. #: _____
Project Name/ #: _____ PWSID #: _____
Project Manager: _____ P.O. #: _____
Sampler: _____ Quote #: _____
Name of state where samples were collected: _____

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total Containers	Analyses Requested		Remarks
									4	5	
GEO-24 / 2-3'	6-9-98	1519	X		X						
GEO-24 / 5-6'		1525									
GEO-25 / 0-1'		1419									
GEO-25 / 2-3'		1423									
GEO-25 / 5-6'		1428									
GEO-26 / 0-1'		1550									
GEO-26 / 2-3'		1555									
GEO-26 / 5-6'		1601									
GEO-27 / 0-1'		1625									
GEO-27 / 0-1' / UNS / MSD		1625									

TEL Samivolehles
by SW-846 2270

For lab use only
FSC: _____
SCR #: 1112431

ORIGINAL IN THIS CONDITION
WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
Rush TAT is subject to Lancaster Laboratories approval and surcharge.
Date results are needed: _____
Rush results requested by (please circle): Phone Fax
Phone #: _____ Fax #: _____

Data Package Options (please circle if requested)
QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (NJ Red. Del.) Type IV (GLP)
SDG Complete? Yes No
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

Relinquished by: <u>Keep-Quits</u>	Date: <u>5-20-98</u>	Time: <u>945</u>	Received by: <u>[Signature]</u>	Date: <u>6-9-98</u>	Time: <u>1200</u>
Relinquished by: <u>[Signature]</u>	Date: <u>6-9</u>	Time: <u>1500</u>	Received by: <u>[Signature]</u>	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: <u>[Signature]</u>	Date: _____	Time: _____

**Sample Administration
 Receipt Documentation Log**

Client/Project: Michael Pisani/Kerns Shipping Container Sealed: Y / N
 Date of Receipt: 6-6-98 COC Seal Present: Y / N
 Time of Receipt: 10:00 COC Seal Intact: Y / N
 Source Code: 50-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 605

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>1340</u>	Thermometer ID: <u>1340</u>
Temp.: <u>2.0</u>	Temp.: <u>3.0</u>
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems: _____
COC's will be FAXED
2 Boro bottles - 1 MW-11 (Amber 1)
- 1 CFU (Amber 1)

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6-6-98</u>	<u>14:28</u>	Unpacking
<u>J. Moun</u>	<u>6/6/98</u>	<u>1430</u>	Place in Storage or Entry
<u>R. [Signature]</u>	<u>6/7/98</u>	<u>1520</u>	Remove from Storage / [Signature]
			Place in Storage or Entry
			Entry <u>6</u>

**Sample Administration
 Receipt Documentation Log**

Client/Project: MICHEL PISANI Shipping Container Sealed: / N
 Date of Receipt: 6/10/98 COC Seal Present: N
 Time of Receipt: 0916 COC Seal Intact: N
 Source Code: 507 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 184

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>2723</u>	Thermometer ID: _____
Temp.: <u>5.0</u>	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs.	Wet Ice / Dry Ice / Ice Packs
Ice Present? <input checked="" type="checkbox"/> / N	Ice Present? <input type="checkbox"/> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <input type="checkbox"/> / N	Ice Present? <input type="checkbox"/> / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6/10/98</u>	<u>0947</u>	Unpacking
<u>Jeffery S. Mason</u>	<u>6/10/98</u>	<u>10:00</u>	Place in Storage or Entry
<u>Jeffery S. Mason</u>	<u>6/10/98</u>	<u>10:48</u> <u>11:30</u>	Remove from Storage
		<u>0910/98</u>	Place in Storage or Entry
			Entry

CASE NARRATIVE

CLIENT: KERR-MCGEE
SDG: HMS03

LANCASTER LABORATORIES
VOLATILES by GC/MS

LL NUMBERS:	SAMPLE CODES:	MATRIX		COMMENTS
		SOIL	WATER	
2946085	GW16-		X	
2946086	GW17-		X	50X DILUTION
2946087	GW18-		X	
2946088	GW19-		X	5X DILUTION
2946089	GW20-		X	UNSPIKED
2946090	GW20-MS		X	MATRIX SPIKE
2946091	GW20-MSD		X	MATRIX SPIKE DUP
2946092	GW21-		X	50X DILUTION
2946093	RB611		X	CLIENT BLANK
2946094	TB611		X	CLIENT BLANK

LABORATORY SUBMITTED QC:

VBLKK72	VBLKK72		X	METHOD BLANK
VBLKK73	VBLKK73		X	METHOD BLANK
LCSWK72	LCSWK72		X	LAB CONTROL SAMPLE

SAMPLE PREPARATION:

No sample preparation was necessary for the VOA fraction.

ANALYSIS:

The method used for analysis was EPA SW846 Method 8260B.

The quantitation limits for samples GW17-, GW19-, and GW21- were raised due to the high level of non-target compounds.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Only client requested compounds are addressed in this narrative.

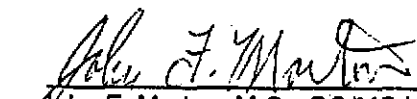
The percent recoveries for bromoform in GW20-MS and GW20-MSD were outside QC limits. This compound met recovery criteria in the LCS analysis.

All other QC was within specifications.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



John F. Morton, M.S., GC/MS Volatiles

Date 8/19/98

CASE NARRATIVE

 Client: Kerr-McGee Corporation
 SDG #: HMS03

 LANCASTER LABORATORIES
 SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

<u>LL #'s</u>	<u>Sample Code</u>	<u>Matrix</u>		<u>Comments</u>
		<u>Soil</u>	<u>Water</u>	
2941683	2SW-		X	
2941684	3SW-		X	
2941685	4SW-		X	
2941686	6SW-		X	
2941687	7SW-		X	
2941688	8SW-		X	
2941689	9SW-		X	
2941689RE	9SW-RE		X	Reextraction
2941690	10SW-		X	
2941691	11SW-		X	
2941692	12SW-		X	
2941693	CFO-		X	
2941694	RB-64		X	
2946085	GW16-		X	
2946086	GW17-		X	
2946086DL	GW17-DL		X	200X Dilution
2946088	GW19-		X	
2946088DL	GW19-DL		X	20X Dilution
2946089	GW20-		X	Unspiked
2946090	GW20-MS		X	Matrix Spike
2946091	GW20-MSD		X	Matrix Spike Dup
2946092	GW21-		X	
2946092DL	GW21-DL		X	100X Dilution
2946093	RB611		X	
LABORATORY SUBMITTED QC:				
SBLKWC161	SBLKWC161D		X	Method Blank
SBLKWB168	SBLKWB168		X	Method Blank
SBLKWC190	SBLKWC190J		X	Method Blank

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Case Narrative
SDG #: HMS03 continued

LABORATORY SUBMITTED QC continued:

		Matrix	
161WCLCS	161WCLCS	X	Lab Control Sample
168WBLCS	168WBLCS7	X	Lab Control Sample
190WCLCS	190WCLCSJ	X	Lab Control Sample

SAMPLE PREPARATION:

Due to insufficient volumes, the following samples were extracted using reduced initial volumes. The limits of quantitation were raised accordingly.

<u>Sample Code</u>	<u>Extraction Volume</u>
2SW-	961 mls
3SW-	950 mls
4SW-	951 mls
11SW-	913 mls
CFO-	957 mls
RB-64	945 mls
GW-19	914 mls

No other problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 Method 8270C.

All samples were analyzed for the CLP OLM03.2 target compounds.

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

294

Case Narrative
SDG #: HMS03 continued

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
GW17-	200	various
GW19-	20	naphthalene
GW21-	100	various

Reextraction was required for 9SW-- due to unacceptable surrogate recoveries.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Due to surrogate recoveries outside QC limits, 9SW-- was reextracted. The reextraction was performed outside the method required holding time and did not confirm the original extraction. Both sets of data are included in this data package.

Butylbenzylphthalate was detected in SBLKWC161D at a concentration below the limit of quantitation. Di-n-butylphthalate was detected in SBLKWC161D at 10 ug/l. These values were not subtracted from the analytical results of the associated samples.

Butylbenzylphthalate was detected in SBLKWB168 at a concentration below the limit of quantitation. This value was not subtracted from the analytical results of the associated samples.

A number of compounds were not recovered or their recoveries were outside QC limits in 190WCLCS. Refer to the lab control sample form for the specific compounds outside QC limits.

All other QC was within specifications.

Case Narrative
SDG #: HMS03 continued

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 8/17/98



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Sample Reference List for SDG # HMS03 with a Package Type of I

Lab Sample Number	Sample Code	Client Sample Description
2941683	2SW--	SW-02 Grab Water Sample
2941684	3SW--	SW-03 Grab Water Sample
2941685	4SW--	SW-04 Grab Water Sample
2941686	6SW--	SW-06 Grab Water Sample
2941687	7SW--	SW-07 Grab Water Sample
2941688	8SW--	SW-08 Grab Water Sample
2941689	9SW--	SW-09 Grab Water Sample
2941690	10SW-	SW-10 Grab Water Sample
2941691	11SW-	SW-11 Grab Water Sample
2941692	12SW-	SW-12 Grab Water Sample
2941693	CFO--	CFO Grab Water Sample
2941694	RB-64	RB/6-4-98 Rinseate Blank Grab Water Sample
2946085	GW16-	GEO-16-GW Grab Water Sample
2946086	GW17-	GEO-17-GW Grab Water Sample
2946087	GW18-	GEO-18-GW Grab Water Sample
2946088	GW19-	GEO-19-GW Grab Water Sample
2946089	GW20-	GEO-20-GW Unspiked Grab Water Sample
2946090	GW20-	GEO-20-GW Matrix Spike Grab Water Sample
2946091	GW20-	GEO-20-GW Matrix Spike Dup. Grab Water Sample
2946092	GW21-	GEO-21-GW Grab Water Sample
2946093	RB611	RB/6-11-98 Rinseate Blank Grab Water Sample
2946094	TB611	TB/6-11-98 Trip Blank Grab Water Sample

Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
TEL: 717-399-2000 FAX: 717-399-2001

Shipping Address:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605
TEL: 717-399-2000 FAX: 717-399-2001

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Please print. Instructions on reverse side correspond with circled numbers.

Client: Michael P. Pisanic & Associates Acct. #: _____
Project Name/#: Gulf States Geositing PWSID #: _____
Project Manager: Dave Apthegauer P.O.# _____
Sampler: RLC Quote #: _____
Name of state where samples were collected: Mississippi

For lab use only
FSC: _____
SCR #: 1112167

TEL. Samples/Files
by SD-816 2270

Sample ID	Date	Time	Relinquished	Received	QC	Notes
SW-07	6-4-98	1325	✓	✓	2	X
SD-07		1330	✓	✓	1	
SW-08		1220	✓	✓	1	
SD-08		1225	✓	✓	1	
SW-09		1150	✓	✓	2	
SD-09		1155	✓	✓	1	
SW-10		1125	✓	✓	2	
SD-10		1130	✓	✓	1	
SW-11		1050	✓	✓	2	
SD-11		1055	✓	✓	1	

ORIGINAL IN THIS CONDITION
WHEN SCANNED

7 Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax
Phone #: (504) 582-2164 Fax #: (504) 582-2470

Relinquished by:	Date	Time	Received by:	Date	Time
<u>X. Dunt</u>	<u>5-13-98</u>	<u>1615</u>	<u>RLC</u>	<u>6-4-98</u>	<u>0915</u>
<u>RLC</u>	<u>6-5-98</u>	<u>1700</u>	<u>Fed Ex</u>		
			<u>R. Jones</u>	<u>6/6/98</u>	<u>1000</u>

8 Data Package Options (please circle if requested)
QC Summary Type VI (Raw Data) SDG Complete? Yes No
Type I (Tier I) GLP
Type II (Tier II) Other Site-specific QC required? Yes No
(if yes, indicate QC sample and submit triplicate volume.)
Type III (NI Red. Del.) Internal Chain of Custody required? Yes No
Type IV (CLP)



For Lancaster Laboratories use only

Acct. # _____ Sample # _____

Please print. Instructions on reverse side correspond with circled numbers.

Client: Michael P. Pisan: & Associates
 Project Name: Gulf States Coasting
 Project Manager: Dave Yphre
 Sampler: RLC
 Name of state where samples were collected: Mississippi

For lab use only
 FSC: _____
 SCR #: 1112167

TEC Semivolatiles
 by SD-246 2270

Sample ID	Date	Volume	QC	Analysis	Result	Remarks
SW-12	6-4-98	1650	1000	/	1	X
SD-12	↓	1000	/	/	1	↓
CFD	↓	1650	/	/	2	↓
RB/6-4-98	↓	1700	/	/	2	↓

ORIGINAL IN THIS CONDITION WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone Fax
 Phone #: (504) 582-2468 Fax #: (504) 582-2470

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>5-13-98</u>	<u>1615</u>	<u>[Signature]</u>	<u>6-4-98</u>	<u>0915</u>
<u>[Signature]</u>	<u>6-5-98</u>	<u>1700</u>	<u>[Signature]</u>		
			<u>R. Stum</u>	<u>6/6/98</u>	<u>1000</u>

Data Package Options (please circle if requested)

QC Summary Type VI (Raw Data) SDG Complete? Yes No

Type I (Tier I) GLP Other

Type II (Tier II) Site-specific QC required? Yes No
 (If yes, indicate QC sample and submit triplicate volume.)

Type III (NJ Red. Del.)

Type IV (CLP) Internal Chain of Custody required? Yes No



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Acct. # 7802 Sample # 2946082-4
2946082-74

P 1 of 2

PLEASE PRINT: Instructions on reverse side correspond with circled numbers.

Client: Michael Pisch & Associates Acct. # _____
 Project Name: Gulf States Creosoting PWSID # _____
 Project Manager: D. H. Hegrovac PO # _____
 Sampler: D. H. Hegrovac Quote # _____
 Name of state where samples were collected: MS

Matrix	4	Sample #	5	Analytes Requested		For lab use only
				FSC	SCR: <u>1112431</u>	
TEC Semivolatile						
by SW-946						
2270						
TEC Volatiles						
by SW-946						
0240						

Sample Identification	Date Collected	Time Collected	GRD Composite	State	Other	Total Containers	Remarks
SE0-16-GW	6-11-98	0915	X		X	4	
SE0-17-GW		1050				4	
SE0-18-GW		0950				2	
SE0-19-GW		1145				3	
SE0-20-GW & MS/MSD		0805				8	
SE0-21-GW		1250				4	
SE0-13/0-1		1507		X		1	
SE0-13/2-3		1506				1	
SE0-13/5-6		1511				1	
SR/6-11-98		1542			X	4	

Turnaround Time Requested (TAT) (please circle): Normal Rush
 Rush TAT is subject to Lancaster Laboratories approval and surcharge.
 Date results are needed: _____
 Rush results requested by (please circle): Phone Fax
 Phone #: (504) 582-2464 Fax #: (504) 582-2470

Data Package Options (please circle if requested)

IC Summary	Type VI (Raw Data)	SDG Complete? <input checked="" type="radio"/> Yes <input type="radio"/> No
Type I (Tier I)	GLPC	
Type II (Tier II)	Other	Site-specific QC required? <input checked="" type="radio"/> Yes <input type="radio"/> No (if yes, indicate QC sample and submit triplicate volume.)
Type III (NJ Red. Del.)		Internal Chain of Custody required? <input checked="" type="radio"/> Yes <input type="radio"/> No
Type IV, (CLP)		

Relinquished by: <u>Kemp</u>	Date: <u>6-17-98</u>	Time: <u>1200</u>	Received by: <u>[Signature]</u>	Date: <u>6-4-98</u>	Time: <u>0200</u>
Relinquished by: <u>[Signature]</u>	Date: <u>6-17-98</u>	Time: <u>1200</u>	Received by: <u>Fel EX</u>	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____

[Signature] 6/13/98

Please print. Instructions on reverse side correspond with circled numbers.

Client: Michael Pisoni & Associates Acct. # _____
 Project Name/#: _____ PWSID #: _____
 Project Manager: _____ P.O.#: _____
 Sampler: _____ Quote #: _____

Time of state where samples were collected: _____

(4) RECEIVED (5) RECEIVED (6) RECEIVED (3) RECEIVED (9) RECEIVED <i>TECH VOLATILES by SW-296-2216</i>										For lab use only FSC: _____ SCR #: <u>11184211</u>										
<u>B/6-11-98</u>	<u>6-11-98</u>	<u>-</u>	<u>X</u>	<u>X</u>	<u>2</u>	<u>X</u>														
ORIGINAL IN THIS CONDITION WHEN SCANNED																				

Turnaround Time Requested (TAT) (please circle): Normal Rush
 Rush TAT is subject to Lancaster Laboratories approval and surcharge.
 Site results are needed: _____
 Rush results requested by (please circle): Phone Fax
 Phone #: _____ Fax #: _____

Data Package Options (please circle if requested):
 Summary Type VI (Raw Data)
 Type I (Tier I) GLP
 Type II (Tier II) Other
 Type III (NJ Red. Del.)
 Type IV (CLP)
 SDG Complete? Yes No
 Site-specific QC required? Yes No
 (If yes, indicate QC sample and submit triplicate volume.)
 Internal Chain of Custody required? Yes No

Relinquished by: <u>K. Guit</u>	Date: <u>5-20-98</u>	Time: <u>9:15</u>	Received by: <u>[Signature]</u>	Date: <u>6-9-98</u>	Time: <u>1200</u>
Relinquished by: <u>[Signature]</u>	Date: <u>6-12-98</u>	Time: <u>1200</u>	Received by: <u>Fed Ex</u>	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

**Sample Administration
 Receipt Documentation Log**

Client/Project: Michael Pisani / Kerry Shipping Container Sealed: Y / N
 Date of Receipt: 6-13-98 COC Seal Present: Y / N
 Time of Receipt: 10:00 COC Seal Intact: Y / N
 Source Code: 50-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 605

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>1340</u>	Thermometer ID: <u>1340</u>
Temp.: <u>3.0</u>	Temp.: <u>4.0</u>
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
<u>Wet Ice</u> / Dry Ice / Ice Packs	<u>Wet Ice</u> / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6-13-98</u>	<u>12:00</u>	Unpacking
<u>C. Gynn</u>	<u>6/13/98</u>	<u>1205</u>	<u>Place in Storage</u> or Entry
<u>R. Sherrill</u>	<u>6/14/98</u>	<u>2050</u>	Remove from Storage / <u>[Signature]</u>
			Place in Storage or Entry
			Entry

**Sample Administration
 Receipt Documentation Log**

Client/Project: Michael Pisani/Kernan Shipping Container Sealed: Y / N
 Date of Receipt: 6-6-98 COC Seal Present: Y / N
 Time of Receipt: 10:00 COC Seal Intact: Y / N
 Source Code: 50-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: [Signature]

Temperature of Shipping Containers

#1	#2
Thermometer ID: <u>1390</u>	Thermometer ID: <u>1390</u>
Temp.: <u>2.0</u>	Temp.: <u>3.0</u>
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N

Paperwork Discrepancy/Unpacking Problems: _____

COC's will be FAX'd
2 Brown bottles - 1 MW-11 (Ambe 1)
- 1 CFU (Ambe 2)

Sample Administration Chain of Custody

Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6-6-98</u>	<u>14:28</u>	Unpacking
<u>J. Mayni</u>	<u>6/6/98</u>	<u>1430</u>	Place in Storage or Entry
<u>[Signature]</u>	<u>6/7/98</u>	<u>1520</u>	Remove from Storage / <u>[Signature]</u>
			Place in Storage or Entry
			Entry

CASE NARRATIVE

Client: Kerr-McGee Corporation
SDG #: HMS04

LANCASTER LABORATORIES
SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

<u>LL #'s</u>	<u>Sample Code</u>	<u>Matrix</u>		<u>Comments</u>
		<u>Soil</u>	<u>Water</u>	
2943338	2056-	X		5X Dilution
2943338DL	2056-DL	X		50X Dilution
2943339	20910	X		
2943339DL	20910DL	X		50X Dilution
2943340	2101-	X		25X Dilution
2943340DL	2101-DL	X		50X Dilution
2943341	2123-	X		25X Dilution
2943341DL	2123-DL	X		250X Dilution
2943342	2156-	X		
2943343	21910	X		
2943344	2201-	X		
2943345	2223-	X		
2943345DL	2223-DL	X		5X Dilution
2943346	2256-	X		
2943346RE	2256-RE	X		Reextraction
2943347	2301-	X		
2943348	2323-	X		
2943349	2356-	X		
2943350	2401-	X		
2943350RE	2401-RE	X		Reextraction
2943351	2423-	X		
2943352	2456-	X		
2943352RE	2456-RE	X		Reextraction
2943353	2501-	X		
2943354	2523-	X		
2943355	2556-	X		
2943356	2601-	X		
2943357	3356-	X		Unspiked
2943358	3356-MS	X		Matrix Spike
2943359	3356-MSD	X		Matrix Spike Dup

Case Narrative
SDG #: HMS04 continued

LABORATORY SUBMITTED QC:

SBLKLE162	SBLKLE1627	X	Method Blank
SBLKLC181	SBLKLC1817	X	Method Blank
SBLKLB183	SBLKLB183L	X	Method Blank
162LELCS	162LELCS7	X	Lab Control Sample
181LCLCS	181LCLCS7	X	Lab Control Sample
183LBLCS	183LBLCSL	X	Lab Control Sample

SAMPLE PREPARATION:

No problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 Method 8270C.

All samples were analyzed for the semivolatile CLP OLM01.8 target compound list.

The following samples were analyzed at initial dilutions due to high concentrations of target compounds.

<u>Sample Code</u>	<u>Dilution</u>
2056-	5X
2101-, 2123-	25X

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
2056-	50X	a number of compounds

Case Narrative
SDG #: HMS04 continued

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
20910	50X	a number of compounds
2101-	50X	anthracene
2123-	250X	a number of compounds
2223-	5X	a number of compounds

Réextractions were required for 2256-, 2401- and 2456- due to unacceptable surrogate recoveries.

In 2223-, 2301-, 2323-, 2501- and 2523- benzo(b)fluoranthene and benzo(k)fluoranthene were not resolved under the analysis conditions. The benzo(b)fluoranthene value is a combination of results from both isomers.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

In 2256-, 2401- and 2456- surrogate recoveries were outside QC limits. These samples were reextracted outside the method required holding time. All surrogate recoveries were within specifications in 2256-RE, 2401-RE and 2456-RE. Both sets of data are included in this data package.

The recoveries of 1,3-dichlorobenzene, 1,2-dichlorobenzene and hexachloroethane in 3356-MSD were outside QC limits. All recoveries were within specifications in 162LELCS7.

A number of relative percent difference(s) (RPD's) between 3356-MS and 3356-MSD were greater than 30 percent.

All other QC was within specifications.

Case Narrative
SDG #: HMS04 continued

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 7/26/08



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Sample Reference List for SDG # HMS04 with a Package Type of I

Lab Sample Number	Sample Code	Client Sample Description
2943338	2056-	GEO-20/5-6' Grab Soil Sample
2943339	20910	GEO-20/9-10' Grab Soil Sample
2943340	2101-	GEO-21/0-1' Grab Soil Sample
2943341	2123-	GEO-21/2-3' Grab Soil Sample
2943342	2156-	GEO-21/5-6' Grab Soil Sample
2943343	21910	GEO-21/9-10' Grab Soil Sample
2943344	2201-	GEO-22/0-1' Grab Soil Sample
2943345	2223-	GEO-22/2-3' Grab Soil Sample
2943346	2256-	GEO-22/5-6' Grab Soil Sample
2943347	2301-	GEO-23/0-1' Grab Soil Sample
2943348	2323-	GEO-23/2-3' Grab Soil Sample
2943349	2356-	GEO-23/5-6' Grab Soil Sample
2943350	2401-	GEO-24/0-1' Grab Soil Sample
2943351	2423-	GEO-24/2-3' Grab Soil Sample
2943352	2456-	GEO-24/5-6' Grab Soil Sample
2943353	2501-	GEO-25/0-1' Grab Soil Sample
2943354	2523-	GEO-25/2-3' Grab Soil Sample
2943355	2556-	GEO-25/5-6' Grab Soil Sample
2943356	2601-	GEO-26/0-1' Grab Soil Sample
2943357	3356-	GEO-33/5-6' Unspiked Grab Soil Sample
2943358	3356-	GEO-33/5-6' Matrix Spike Grab Soil Sample
2943359	3356-	GEO-33/5-8' Matrix Spike Dup Grab Soil Sample

Lancaster Laboratories
 2425 New Holland Pike
 PO Box 12425
 Lancaster, PA 17605-2425
 717-656-2300 Fax: 717-656-2681

Shipping Address:
 Lancaster Laboratories
 2425 New Holland Pike
 Lancaster, PA 17605
 717-656-2300 Fax: 717-656-2681

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Acct. # 7002 Sample # 2943338-359

p. 2 of 11

Please print. Instructions on reverse side correspond with circled numbers.

Client: _____ Acct. #: _____
 Project Name #: _____ PWSID #: _____
 Project Manager: _____
 Sampler: _____ Quote #: _____

Name of state where samples were collected: _____

Matrix (4) **Level** (5) **Analysis Requested** (6) **For lab use only** (7)

TEC Samples
 SW-21% 2270

IFSC: U.S.I.
 SCR#: 442431

Sample ID	Date	Depth	Matrix	Level	Analysis Requested	Remarks
GEO-21/2-3'	6-9-98	1111	X	X		
GEO-21/5-6'		1116				
GEO-21/9-10'		1122				
GEO-21/10-11'		1425				
GEO-22/2-3'		1402				
GEO-22/5-6'		1402				
GEO-23/10'		1317				
GEO-23/2-3'		1351				
GEO-23/5-6'		1357				
GEO-24/10'		1505				

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone: _____ Fax: _____
 Phone #: _____

Data Package Options (please circle if requested):
 QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (Red. Del.) Type IV (CLP)
 Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (Red. Del.) Type IV (CLP)
 SDG Complete? Yes No
 Site-specific QC required? Yes No
 (If yes, Indicate QC sample and submit triplicate volume.)
 Internal Chain of Custody required? Yes No

Relinquished by: <i>[Signature]</i>	Date: 5-20-98	Time: 9:45	Received by: <i>[Signature]</i>	Date: 9-5-98	Time: 0800
Relinquished by: <i>[Signature]</i>	Date: 6-4-98	Time: 1000	Received by: Ted Ex	Date: 6-9-98	Time: 1000
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____



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Acct. # 7802 Sample # 294338-359

7-3 of 1

Analyze the following samples (circle the number of each sample to be analyzed)

Client: Your company name

Client: _____ Acct. #: _____

Project Name/ #: _____ PWSID #: _____

Project Manager: _____ PO #: _____

Sampler: _____ Quote #: _____

Name of state where samples were collected: _____

4. _____

5. _____

6. _____

For Lab Use Only
FSC: _____
SCR: 11/24/21

7. _____

Sample ID	Weight	Volume	Analysis	Notes
GEO-24/2-3'	6.998	15.9	X	X
GEO-24/5-6'	15.25			
GEO-25/0-1'	14.91			
GEO-25/2-3'	14.23			
GEO-25/5-6'	14.28			
GEO-26/0-1'	15.50			
GEO-26/2-3'	15.55			
GEO-26/5-6'	16.01			
GEO-27/0-1'	16.25			
GEO-27/10-1' (MS/MSD)	16.25			

Turnaround Time Requested (TAT) (please circle): Normal Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: _____

Rush results requested by (please circle): Phone: _____ Fax: _____

Phone #: _____ Fax #: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<i>[Signature]</i>	6-9-98	12:00	<i>[Signature]</i>	6-9-98	12:00
<i>[Signature]</i>	6-9	12:00	<i>[Signature]</i>		
<i>[Signature]</i>			<i>[Signature]</i>		
<i>[Signature]</i>			<i>[Signature]</i>		

Data Package Options (please circle if requested)

QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (NJ Red. Del.) Type IV (CLP)

GLP Other

SDG Complete? Yes No

Site-specific QC required? Yes No

(If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No



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Acct. # 202 Sample # 2943330-359

DIRECTIONS FOR COMPLETING THIS FORM

Please print. Instructions on reverse side correspond with circled numbers.

Client: _____ Acct. #: _____
 Project Name #: _____ PWSID #: _____
 Project Manager: _____ PO #: _____
 Sample #: _____ Quote #: _____
 Name of state where samples were collected: _____

Sample ID	Date Collected	Time Collected	GLP	Compliance	Soil	Water	Sediment	Other	TOTAL VOLUMES	Analysis Requested												Remarks		
										1	2	3	4	5	6	7	8	9	10	11	12			
GEO-27/2-3	6-9-98	1630	X		X				1															
GEO-27/5-6		1634																						
GEO-33/0-1		1300																						
GEO-33/0-1/MS/MSD		1309																						
GEO-33/2-3		1303																						
GEO-33/5-6		1309																						
RB/6-9-98						X			2															

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____

Rush results requested by (please circle): Phone _____ Fax _____
 Phone # _____ Fax # _____

Data Package Options (please circle if requested):
 QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III Red. Del. Type IV (CLP)
 SDG Complete? Yes No
 Site-specific QC required? Yes No
 Internal Chain of Custody required? Yes No

Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____

**Sample Administration
 Receipt Documentation Log**

Client/Project: MICHAEL PISANI Shipping Container Sealed: Y / N
 Date of Receipt: 6/10/98 COC Seal Present: Y / N
 Time of Receipt: 0910 COC Seal Intact: Y / N
 Source Code: 504 Package: Chilled / Not Chilled
 Unpacker Emp. No.: _____

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>2723</u>	Thermometer ID: _____
Temp.: <u>5.0</u>	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? Y / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6/10/98</u>	<u>0947</u>	Unpacking
<u>[Signature]</u>	<u>6/10/98</u>	<u>10:00</u>	Place in Storage or Entry
<u>[Signature]</u>	<u>6/10/98</u>	<u>10:51</u> <u>12:25</u>	Remove from Storage <u>[Signature]</u>
		<u>09:00</u> <u>6/10/98</u>	Place in Storage or Entry
			Entry

CASE NARRATIVE

Client: Kerr McGee Corporation
SDG #: HMS05

LANCASTER LABORATORIES
SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

LL #'s	Sample Code	Matrix		Comments
		Soil	Water	
2943380	2623-	X		
2943381	2656-	X		
2943382	2723-	X		
2943383	2756-	X		
2943384	3301-	X		10X Dilution
2943384DL	3301-DL	X		200X Dilution
2943385	3323-	X		
2943385DL	3323-DL	X		20X Dilution
2945101	340-1	X		Unspiked 5X Dilution
2945101MS	340-1MS	X		Matrix Spike 5X Dilution
2945101MSD	340-1MSD	X		Matrix Spike Dup 5X Dilution
2945102	342-3	X		
2945103	345-6	X		
2945104	280-1	X		
2945104RE	280-1RE	X		Reextraction
2945105	282-3	X		
2945106	285-6	X		
2945107	290-1	X		5X Dilution
2945108	292-3	X		
2945109	295-6	X		
2945110	300-1	X		
2945110DL	300-1DL	X		10X Dilution
2945111	302-3	X		
2945112	305-6	X		
2945113	310-1	X		
2945114	312-3	X		

LABORATORY SUBMITTED QC:

SBLKLF162	SBLKLF1622	X		Method Blank
SBLKLA166	SBLKLA166M	X		Method Blank
SBLKLB196	SBLKLB196M	X		Method Blank
162LFLCS	162LFLCS2	X		Lab Control Sample
166LALCS	166LALCSM	X		Lab Control Sample
196LBLCS	196LBLCSM	X		Lab Control Sample

Case Narrative
SDG# HMS05 continued

SAMPLE PREPARATION:

No problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 8270C.

All samples were analyzed for the semivolatile OLM03.2 target compounds.

3301- was analyzed at an initial 10X dilution due to high concentrations of target compounds.

The following samples were analyzed at initial dilutions due to high concentrations of non-target compounds.

<u>Sample Code</u>	<u>Dilution</u>
340-1	5X
340-1MS	5X
340-1MSD	5X
290-1	5X

The following samples were analyzed at further dilutions due to target recoveries above calibration range.

<u>Sample Code</u>	<u>Dilution</u>	<u>Compounds</u>
3301-	200	a number of compounds
3323-	20	a number of compounds
300-1	10	a number of compounds

Reextraction was required for 280-1 due to unacceptable surrogate recoveries.

No other problems were encountered during the analysis of these samples.

Case Narrative
SDG# HMS05 continued

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Due to surrogate recoveries outside QC limits, 280-1 was reextracted. The reextraction was performed outside the method required holding time and did not confirm the original extraction. Both sets of data are included in this data package.

Bis(2-Ethylhexyl)phthalate was detected in SBLKLA166M at a concentration below the limit of quantitation. This value was not subtracted from the analytical results of the associated samples.

A number of relative percent difference(s) (RPD's) between 340-1MS and 340-1MSD were greater than 30 percent.


All other QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:



Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 8/26/94



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Sample Reference List for SDG # HMS05
with a Package Type of I

Lab Sample Number	Sample Code	Client Sample Description
2943380	2623-	GEO-26/2-3' Grab Soil Sample
2943381	2656-	GEO-26/5-6' Grab Soil Sample
2943382	2723-	GEO-27/2-3' Grab Soil Sample
2943383	2756-	GEO-27/5-6' Grab Soil Sample
2943384	3301-	GEO-33/0-1' Grab Soil Sample
2943385	3323-	GEO-33/2-3' Grab Soil Sample
2945101	340-1	GEO-34/0-1' Unspiked Grab Soil Sample
2945102	342-3	GEO-34/2-3' Grab Soil Sample
2945103	345-6	GEO-34/5-6' Grab Soil Sample
2945104	280-1	GEO-28/0-1' Grab Soil Sample
2945105	282-3	GEO-28/2-3' Grab Soil Sample
2945106	285-6	GEO-28/5-6' Grab Soil Sample
2945107	290-1	GEO-29/0-1' Grab Soil Sample
2945108	292-3	GEO-29/2-3' Grab Soil Sample
2945109	295-6	GEO-29/5-6' Grab Soil Sample
2945110	300-1	GEO-30/0-1' Grab Soil Sample
2945111	302-3	GEO-30/2-3' Grab Soil Sample
2945112	305-6	GEO-30/5-6' Grab Soil Sample
2945113	310-1	GEO-31/0-1' Grab Soil Sample
2945114	312-3	GEO-31/2-3' Grab Soil Sample

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717-656-2300 Fax: 717-656-2681

Shipping Address:
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Lancaster, PA 17601
717-656-2300 Fax: 717-656-2681

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Please print: Instructions on reverse side correspond with circled numbers.

Client: _____ Acct. #: _____
 Project Name/ #: _____ PWSID #: _____
 Project Manager: _____ P.O. #: _____
 Sampler: _____ Quote #: _____
 Name of state where samples were collected: _____

Matrix (4): Potable (check if NPDES applicable) Water Soil Other _____
 Total # of Containers: _____

Analyses Requested (5): TCL Semivolatiles by SW-946 2270

For lab use only
 FSC: _____
 SCR #: 1112431

Sample Identification	Date Collected	Time Collected	Grab (3)	Composite	Soil	Potable (check if NPDES applicable)	Water	Other	Total # of Containers	Remarks
GEO-24 / 2-3'	6-9-98	1519	X		X				1	
GEO-24 / 5-6'		1525								
GEO-25 / 0-1'		1419								
GEO-25 / 2-3'		1423								
GEO-25 / 5-6'		1428								
GEO-26 / 0-1'		1550								
GEO-26 / 2-3'		1555								
GEO-26 / 5-6'		1601								
GEO-27 / 0-1'		1625								
GEO-27 / 0-1' / ms / msD		1625								

ORIGINAL IN THIS CONDITION
WHEN SCANNED

7 Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone Fax
 Phone #: _____ Fax #: _____

Relinquished by: Kapp-Bente Date: 5-20-98 Time: 945
 Received by: [Signature] Date: 6-9-98 Time: 1200

8 Data Package Options (please circle if requested)

QC Summary Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (NJ Red. Del.) Type IV (CLP)

SDG Complete? Yes No
 Site-specific QC required? Yes No (If yes, indicate QC sample and submit triplicate volume.)
 Internal Chain of Custody required? Yes No

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____
 Received by: [Signature] Date: 6/1/98 Time: 0910



p-4 of 4

For Lancaster Laboratories use only
 Acct. # 7802 Sample # 2943380-380

Please print. Instructions on reverse side correspond with circled numbers.

1

Client: _____ Acct. #: _____
 Project Name/#: _____ PWSID #: _____
 Project Manager: _____ P.O.# _____
 Sampler: _____ Quote #: _____
 Name of state where samples were collected: _____

Matrix 4

5

Analyses Requested

For lab use only
 FSC: _____
 SCR #: 111243

Temperature of samples upon receipt of request

2

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Potable (if applicable)	NPDES (if applicable)	Other	Total # of Containers	Remarks
GEO-27/2-3'	6-9-98	1630	X		X					1	
GEO-27/5-6'		1634									
GEO-33/0-1' / 5-6'		1300									
GEO-33/0-1' (uns/uns)		1309									
GEO-33/2-3'		1303									
GEO-33/5-6'		1309									
RT/6-9-98 PCS						X				2	

RECEIVED
 by SW-246 0270

ORIGINAL IN THIS CONDITION WHEN SCANNED

7 Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone Fax
 Phone #: _____ Fax #: _____

Relinquished by: Kepp - Givito Date: 5-20-98 Time: 9:15 Received by: [Signature] Date: 6-4 Time: 4:00

Relinquished by: [Signature] Date: 6-9 Time: 12:00 Received by: [Signature] Date: _____ Time: _____

8 Data Package Options (please circle if requested)

QC Summary Type: VI (Raw Data)	SDG Complete? Yes No
Type I (Tier I) GLP	
Type II (Tier II) Other	Site-specific QC required? Yes No (If yes, indicate QC sample and submit triplicate volume.)
Type III (Red. Def.)	Internal Chain of Custody required? Yes No
Type IV (CLP)	

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: [Signature] Date: _____ Time: _____



P. 1 of 3

For Lancaster Laboratories use only

Acct. # 7802 Sample # 2945101-14
2945135-50

Please print. Instructions on reverse side correspond with circled numbers.

Client: M. C. Pisco & Assoc Acct. #: _____

Project Name#: GSCS PWSID #: _____

Project Manager: David M. Uthgen P.O. #: _____

Sampler: David M. Uthgen Quote #: _____

Name of state where samples were collected: MS

Matrix: 4

Analyses Requested: 5

For lab use only
FSC: _____
SCR #: 1112451

Sample ID	Collected	Collected	Grab	Composite	Soil	Water	Other	Remarks
<u>LEO-34/0-1</u>	<u>6-10-99</u>	<u>1040</u>	<u>X</u>		<u>X</u>			
<u>LEO-34/2-3'</u>		<u>1043</u>						
<u>LEO-34/5-6'</u>		<u>1048</u>						
<u>LEO-29/0-1'</u>		<u>0918</u>						
<u>LEO-29/2-3'</u>		<u>0921</u>						
<u>LEO-29/5-6'</u>		<u>0925</u>						
<u>LEO-29/0-1'</u>	<u>06/5</u>	<u>0845</u>						
<u>LEO-29/2-3'</u>		<u>0848</u>						
<u>LEO-29/5-6'</u>		<u>0851</u>						
<u>LEO-30/0-1'</u>		<u>0802</u>						

7. Turnaround Time Requested (TAT) (please circle): Normal Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: _____

Rush results requested by (please circle): Phone Fax

Phone #: (504) 582-2166 Fax #: (504) 582-2170

Relinquished by: <u>Kerr-Grute</u>	Date: <u>5-20-98</u>	Time: <u>945</u>	Received by: <u>[Signature]</u>	Date: <u>6-9-99</u>	Time: <u>0800</u>
Relinquished by: <u>[Signature]</u>	Date: <u>6-11-99</u>	Time: <u>1700</u>	Received by: <u>FCM Ex</u>	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

8. Data Package Options (please circle if requested)

QC Summary Type VI (Raw Data) Yes No

Type I (Tier I) GLP

Type II (Tier II) Other

Type III (NJ Red. Del.)

Type IV (CLP)

Site-specific QC required? Yes No

(If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No



P. 2 of 3

For Lancaster Laboratories use only
 Acct. # 7802 Sample # 2945101-14
2945135-50

Please print: Instructions on reverse side correspond with circled numbers.

Client: WPA Acct. #: _____
 Project Name/ #: _____ PWSID #: _____
 Project Manager: _____ P.O. #: _____
 Sampler: _____ Quote #: _____
 Name of state where samples were collected: _____

Matrix: 4
 Total of Containers: _____

Analyses Requested: _____

For lab use only
 FSC: _____
 SCR #: 11112453

5
 TCI Semiohio lab loc
 by SH-846 2.27.0

Sample Identification	Date Collected	Time Collected	Grab		Soil	Water Soluble ANPDES	Other	Total of Containers	Remarks
			3	COMPOSITE					
GEO-30/2-3'	6-10-98	0906	X		X			1	
GEO-30/5-6'		0910							
GEO-24/0-1'		0935							
GEO-31/2-3'		0939							
GEO-31/5-6'		0942							
GEO-32/0-12'		1026							
GEO-32/2-3'		1029							
GEO-32/5-6'		1034							
GEO-03/2-3'		1520							
GEO-03/5-6'		1525							

ORIGINAL IN THIS CONDITION
WHEN SCANNED

7. Turnaround Time Requested (TAT) (please circle): Normal Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone _____ Fax _____
 Phone #: _____ Fax #: _____

Relinquished by: Kay - Guite Date: 5-20-98 Time: 9:45
 Received by: XRC Date: 6-9-98 Time: 08:00

Relinquished by: XRC Date: 6-16-98 Time: 12:00
 Received by: FEA

8. Data Package Options (please circle if requested)

QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (NJ Red. Del.) Type IV (CLP)

GLP Other

SDG Complete? Yes No

Site-specific QC required? Yes No
 (If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____
 Received by: John P... Date: 6/24/98 Time: 09:43

**Sample Administration
 Receipt Documentation Log**

Client/Project: MICHEL PISANI Shipping Container Sealed: Y / N
 Date of Receipt: 6/10/98 COC Seal Present: Y / N
 Time of Receipt: 0916 COC Seal Intact: Y / N
 Source Code: 504 Package: Chilled / Not Chilled
 Unpacker Emp. No.: _____

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>2723</u>	Thermometer ID: _____
Temp.: <u>5.0</u>	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <input checked="" type="checkbox"/> Y / N	Ice Present? <input type="checkbox"/> Y / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <input type="checkbox"/> Y / N	Ice Present? <input type="checkbox"/> Y / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>[Signature]</u>	<u>6/10/98</u>	<u>0947</u>	Unpacking
<u>[Signature]</u>	<u>6/10/98</u>	<u>10:00</u>	Place in Storage or Entry
<u>[Signature]</u>	<u>6/10/98</u>	<u>10:55</u> <u>12:37</u>	Remove from Storage <u>[Signature]</u>
		<u>12:37</u> <u>[Signature]</u>	Place in Storage or Entry <u>5</u>
			Entry

**Sample Administration
 Receipt Documentation Log**

Client/Project: MICHAEL PICCOLI Shipping Container Sealed: N
 Date of Receipt: 6/12/98 COC Seal Present: N
 Time of Receipt: 0935 COC Seal Intact: N
 Source Code: 70-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 181

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>7612946</u>	Thermometer ID: _____
Temp.: <u>60</u>	Temp.: _____
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
<u>Wet Ice</u> / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? <input checked="" type="checkbox"/> N	Ice Present? Y / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>John [unclear]</u>	<u>6/12/98</u>	<u>1315</u>	Unpacking
<u>Seanna Wyzand</u>	<u>6/12/98</u>	<u>1320</u>	<u>Place in Storage</u> or Entry
<u>Seanna Wyzand</u>	<u>6/12/98</u>	<u>1445</u>	<u>Remove from Storage / Entry</u>
			Place in Storage or Entry
			Entry

CASE NARRATIVE

 Client: Kerr - McGee Corporation
 SDG #: HMS06

 LANCASTER LABORATORIES
 SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

LL #'s	Sample Code	Matrix		Comments
		Soil	Water	
2945135	315 -6	X		
2945136	320 -1	X		
2945137	322 -3	X		
2945138	325 -6	X		
2945139	032 -3	X		
2945140	035 -6	X		
2945141	102 -3	X		
2945142	105 -6	X		
2945143	162 -3	X		
2945144	165 -6	X		
2945145	172 -3	X		
2945146	175 -6	X		
2945147	182 -3	X		
2945148	185 -6	X		
2945149	RB609		X	Client Blank
2945150	RB610		X	Client Blank
2946082	G13 -0	X		
2946082DL	G13 -0DL	X		5X Dilution
2946083	G13 -2	X		
2946084	G13 -5	X		
LABORATORY SUBMITTED QC:				
SBLKLB166	SBLKLB166N	X		Method Blank
SBLKWA167	SBLKWA1678		X	Method Blank
SBLKLA168	SBLKLA168N	X		Method Blank
166LBLCS	166LBLCSN	X		Lab Control Sample
167WALCS	167WALCS8		X	Lab Control Sample
168LALCS	168LALCSN	X		Lab Control Sample
2945401	B20 -1	X		Unspiked
2945401DL	B20 -1DL	X		2X Dilution
2945401	B20 -1MS	X		Matrix Spike
2945401	B20 -1MSD	X		Matrix Spike Dup

Case Narrative
SDG#: HMS06 continued

SAMPLE PREPARATION:

Due to insufficient sample, the following volumes were used during extractions:

<u>Sample Code</u>	<u>Extraction Volume</u>
RB609	940mls
RB610	921mls

No other problems were encountered during the extraction of these samples.

ANALYSIS:

The method used for analysis was SW-846 Method 8270C.

All samples were analyzed for the CLP OLM03.2 target compounds.

Due to concentrations above calibration range, G13-0 was analyzed at a further 5X dilution.

Due to concentrations above calibration range, B20-1 was analyzed at a further 2X dilution.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Di-n-butylphthalate was detected in SBLKWA1678 at a concentration below the limit of quantitation. Butylbenzylphthalate was detected in SBLKWA1678 at a concentration of 10ug/l. These values were not subtracted from the analytical results of the associated samples.

The recovery of chrysene in 166LBLCSN was outside QC limits.

Case Narrative
SDG#: HMS06 continued

A number of compounds exhibited recoveries outside QC limits in B20-1MS and B20-1MSD. Refer to the matrix spike/matrix spike duplicate form for the specific compounds outside QC limits.

The relative percent difference (RPD) for phenanthrene between B20-1MS and B20-1MSD was greater than 30 percent.

All other QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

No further interpretation is necessary for the data submitted.

Case Narrative Reviewed and Approved by:


Charles J. Neslund
Group Leader, GC/MS Semivolatiles

Date: 8/10/98

Sample Reference List for SDG # HMS06
with a Package Type of I

Lab Sample Number	Sample Code	Client Sample Description
2945135	315-6	GEO-31/5-6' Grab Soil Sample
2945136	320-1	GEO-32/0-1' Grab Soil Sample
2945137	322-3	GEO-32/2-3' Grab Soil Sample
2945138	325-6	GEO-32/5-6' Grab Soil Sample
2945139	032-3	GEO-03/2-3' Grab Soil Sample
2945140	035-6	GEO-03/5-6' Grab Soil Sample
2945141	102-3	GEO-10/2-3' Grab Soil Sample
2945142	105-6	GEO-10/5-6' Grab Soil Sample
2945143	162-3	GEO-16/2-3' Grab Soil Sample
2945144	165-6	GEO-16/5-6' Grab Soil Sample
2945145	172-3	GEO-17/2-3' Grab Soil Sample
2945146	175-6	GEO-17/5-6' Grab Soil Sample
2945147	182-3	GEO-18/2-3' Grab Soil Sample
2945148	185-6	GEO-18/5-6' Grab Soil Sample
2945149	RB609	RB/6-9-98 Rinsate Blank Grab Water Sample
2945150	RB610	RB/6-10-98 Rinsate Blank Grab Water Sample
2946082	G13-0	GEO-13/0-1' Grab Soil Sample
2946083	G13-2	GEO-13/2-3' Grab Soil Sample
2946084	G13-5	GEO-13/5-6' Grab Soil Sample



P. 2 of 3

For Lancaster Laboratories use only

Acct. # 7802 Sample # 2945101-14
2945135-50

Please print! Instructions on reverse side correspond with circled numbers.

Client: WPA Acct. #: 7802
 Project Name/ #: _____ PWSID #: _____
 Project Manager: _____ R.O. #: _____
 Sampler: _____ Quote #: _____
 Name of state where samples were collected: _____

Analysis Requested: _____
 For lab use only:
 FSC: _____
 SCR #: 111124531

*IC 13 Semivolatile
by SW-846 9270*

IDENTIFICATION	Date Collected	Time Collected	QA	QC	QA	QC	QA	QC	QA	QC	QA	QC	QA	QC	QA	QC	QA	QC	QA	QC	Remarks	
GEO-30/2-3	6-10-98	0906	X		X																	
GEO-30/5-6		0910																				
GEO-30/10-1		0935																				
GEO-31/2-3		0934																				
GEO-31/5-7		0942																				
GEO-31/10-1		1026																				
GEO-30/2-3		1025																				
GEO-32/5-6		1034																				
GEO-03/2-3		1520																				
GEO-03/5-6		1525																				

ORIGINAL IN THIS CONDITION WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
 Date results are needed: _____
 Rush results requested by (please circle): Phone _____ Fax _____
 Phone #: _____ Fax #: _____

Data Package Options (please circle if requested):
 QC Summary: Type VI (Raw Data) Type I (Tier I) Type II (Tier II) Type III (NI Red. Del.) Type IV (CLP)
 SDG Complete? (Yes) (No)
 Site-specific QC required? (Yes) (No)
 Internal Chain of Custody required? (Yes) (No)

Relinquished by: <u>WPA</u>	Date: <u>5-20-98</u>	Time: <u>9:45</u>	Received by: <u>XRC</u>	Date: <u>6-9-98</u>	Time: <u>0800</u>
Relinquished by: <u>XRC</u>	Date: <u>6-14-98</u>	Time: <u>12:00</u>	Received by: <u>FELER</u>	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



Lancaster Laboratories
A division of Thermo Analytical Inc.

P 3 of 3

For Lancaster Laboratories use only
Acct. # 7802 Sample # 2945101-14

2945135-50

Please print. Instructions on reverse side correspond with circled numbers.

Client: MP & A Acct. #: _____
Project Name/#: _____ PWSID #: _____
Project Manager: _____ PO #: _____
Sampler: _____ Quote #: _____
Name of state where samples were collected: _____

For lab use only
FSC: _____
SCR #: 1124311

*700 Gwilt St
Lb SW 416 9270*

Sample ID	Date	Volume	QC	Other	Notes
GEO-10/2-3'	6-10-98	1436	X	X	
GEO-10/5-6'		1444			
GEO-16/2-3'		1200			
GEO-16/5-6'		1212			
GEO-17/2-3'		1123			
GEO-17/5-6'		1126			
GEO-18/2-3'		1247			
GEO-18/5-1'		1250			
RB/6-9-98	6-9-98	1205		X	
RB/6-10-98	6-10-98	1545			

ORIGINAL IN THIS CONDITION
WHEN SCANNED

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax
Phone #: _____ Fax #: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<i>Kopp - Bilibit</i>	5-20-98	945	<i>RDC AJ</i>	6-9-98	1800
<i>[Signature]</i>	6-11-98	1200	<i>Fed Ex</i>		

Data Package Options (please circle if requested)

QC Summary Type VI (Raw Data) SDG-Complete? Yes No

Type I (Tier I) GLP

Type II (Tier II) Other Site-specific QC required? Yes No

Type III (NI Red. Del.) (If yes, indicate QC sample and submit triplicate volume.)

Type IV (CLP) Internal Chain of Custody required? Yes No

[Signature] *shkx 093*

Sample Administration Receipt Documentation Log

Client/Project: MICHAEL Piscini Shipping Container Sealed: Y / N
 Date of Receipt: 6/12/98 COC Seal Present: Y / N
 Time of Receipt: 0935 COC Seal Intact: Y / N
 Source Code: JD-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 184

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>7612946</u>	Thermometer ID: _____
Temp.: <u>6.0</u>	Temp.: _____
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
<u>Wet Ice</u> / Dry Ice / Ice Packs _____	Wet Ice / Dry Ice / Ice Packs _____
Ice Present? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Ice Present? <input type="checkbox"/> Y / <input type="checkbox"/> N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp. _____	Temp. Bottle / Surface Temp. _____
Wet Ice / Dry Ice / Ice Packs _____	Wet Ice / Dry Ice / Ice Packs _____
Ice Present? <input type="checkbox"/> Y / <input type="checkbox"/> N	Ice Present? <input type="checkbox"/> Y / <input type="checkbox"/> N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>John [unclear]</u>	<u>6/12/98</u>	<u>1315</u>	Unpacking
<u>Seanna Wyand</u>	<u>6/12/98</u>	<u>1320</u>	<u>Place in Storage</u> or Entry
<u>Seanna Wyand</u>	<u>6/12/98</u>	<u>1445</u>	Remove from Storage / <u>Entry</u>
			Place in Storage or Entry
			Entry

**Sample Administration
 Receipt Documentation Log**

Client/Project: Michael PISA / Ker Shipping Container Sealed: Y / N
 Date of Receipt: 6-13-98 COC Seal Present: Y / N
 Time of Receipt: 10:00 COC Seal Intact: Y / N
 Source Code: 50-1 Package: Chilled / Not Chilled
 Unpacker Emp. No.: 625

Temperature of Shipping Containers	
#1	#2
Thermometer ID: <u>1340</u>	Thermometer ID: <u>1340</u>
Temp.: <u>3.0</u>	Temp.: <u>4.0</u>
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
<u>Wet Ice</u> / Dry Ice / Ice Packs	<u>Wet Ice</u> / Dry Ice / Ice Packs
Ice Present? <u>Y</u> / N	Ice Present? <u>Y</u> / N
#3	#4
Thermometer ID: _____	Thermometer ID: _____
Temp.: _____	Temp.: _____
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems: _____

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
<u>PA [Signature]</u>	<u>6-13-98</u>	<u>12:00</u>	Unpacking
<u>C. C. [Signature]</u>	<u>6/13/98</u>	<u>1205</u>	<u>Place in Storage</u> or Entry
<u>R. [Signature]</u>	<u>6/14/98</u>	<u>2050</u>	Remove from Storage / <u>[Signature]</u>
			Place in Storage or Entry
			Entry