KERR-McGEE CHEMICAL LLC

FINAL REPORT

for the

LINDSAY LIGHT II SITE
CHICAGO, ILLINOIS

ATTACHMENTS G, H, & I

Prepared by
Bono Consulting
Kerr-McGee Chemical LLC

EPA Region 5 Records Ctr.
231454

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ATTACHMENT G

PHASE 1 AIR MONITORING DATA

September 1996 Air Sampling Summary
Lindsay Light II Site

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
10-Sep-96	LLII/Drilling	401	5.63E-13		6.46E-15		1.29E-15	1.61E-04	68,850
11-Sep-96	LLII/Drilling	401	2.56E-12		7.09E-15		1.42E-15	7.21E-05	68,000
12-Sep-96	LLII/Drilling	401	1.01E-12		1.00E-14		2.00E-15	6.44E-05	80,750
13-Sep-96	LLII/Drilling	401	8.35E-13		2.15E-14		4.31E-15	4.37E-05	66,300
13-Sep-96	LLII/Drilling	402	6.38E-13	<	9.34E-15	<	1.87E-15	3.34E-05	62,900
16-Sep-96	LLII/Drilling	401	2.29E-13	<	6.83E-15	<	1.37E-15	6.51E-05	92,650
16-Sep-96	LLII/Drilling	402	2.60E-13		6.55E-15		1.31E-15	3.92E-05	73,950
17-Sep-96	LLII/Drilling	401	1.33E-13	<	7.23E-15	<	1.45E-15	6.69E-05	80,750
17-Sep-96	LLII/Drilling	402	4.71E-14	<	8.52E-15	<	1.70E-15	2.35E-05	51,000
18-Sep-96	LLII/Drilling	401	5.96E-13		2.98E-14		5.95E-15	4.43E-05	79,050
18-Sep-96	LLII/Drilling	402	3.23E-13	<	4.33E-15	<	8.65E-16	3.45E-05	78,200
19-Sep-96	LLII/Drilling	401	2.87E-13		7.19E-15		1.44E-15	4.96E-05	86,700
19-Sep-96	LLII/Drilling	402	2.39E-13	<	5.79E-15	<	1.16E-15	4.95E-05	80,750
20-Sep-96	LLII/Drilling	401	2.34E-12		7.47E-15		1.49E-15	1.30E-04	66,300
20-Sep-96	LLII/Drilling	402	1.62E-12		6.18E-15		1.24E-15	1.13E-04	66,300
23-Sep-96	LLII/Drilling	401	9.67E-15		5.73E-15		1.15E-15	5.58E-05	66,300
24-Sep-96	LLII/Drilling	401	6.03E-13		5.63E-15		1.13E-15	9.70E-05	82,450
24-Sep-96	LLII/Drilling	402	6.62E-13	<	7.70E-15	<	1.54E-15	4.37E-05	82,450
25-Sep-96	LLII/Drilling	401	4.87E-13	<	4.90E-15	<	9.80E-16	4.59E-05	69,700
25-Sep-96	LLII/Drilling	402	3.14E-13	<	6.45E-15	<	1.29E-15	5.04E-05	83,300
27-Sep-96	LLII/Drilling	401	5.18E-13	<	7.44E-15	<	1.49E-15	5.26E-05	72,250

October 1996 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
01-Oct-96	LLII/Drilling	401	1.27E-12	<	7.79E-15	<	1.56E-15	1.21E-04	68,385
02-Oct-96	LLII/Drilling	401	2.13E-12	<	7.25E-15	<	1.45E-15	1.21E-04	52,875
03-Oct-96	LLII/Drilling	401	5.55E-14	<	6.92E-15	<	1.38E-15	4.30E-05	69,795
04-Oct-96	LLII/Drilling	401	5.58E-13	<	6.32E-15	<	1.26E-15	1.04E-04	60,630
07-Oct-96	LLII/Drilling	401	7.17E-14	<	6.61E-15	<	1.32E-15	5.05E-05	73,320
08-Oct-96	LLII/Drilling	401	3.09E-13	<	7.23E-15	<	1.45E-15	2.79E-05	46,530
09-Oct-96	LLII/Drilling	401	9.43E-13	<	6.74E-15	<	1.35E-15	9.46E-05	71,910
10-Oct-96	LLII/Drilling	401	2.47E-13	<	2.56E-14	<	5.11E-15	4.86E-05	24,675
11-Oct-96	LLII/Drilling	401	6.01E-13		6.39E-15		1.28E-15	8.91E-05	60,630
14-Oct-96	LLII/Drilling	401	2.14E-13	<	1.04E-14	<	2.08E-15	3.93E-05	71,205
15-Oct-96	LLII/Drilling	401	2.78E-12	<	1.25E-14	<	2.50E-15	1.06E-04	59,220
17-Oct-96	LLII/Drilling	401	2.43E-12	<	1.11E-14	<	2.21E-15	1.18E-04	66,975
18-Oct-96	LLII/Drilling	401	1.51E-12	<	2.15E-14	<	4.29E-15	1.19E-04	34,545
21-Oct-96	LLII/Drilling	401	7.70E-13	<	1.07E-14	<	2.14E-15	1.09E-04	70,500
22-Oct-96	LLII/Excavation	401	1.91E-12	<	6.55E-15	<	1.31E-15	1.01E-04	59,220
22-Oct-96	LLII/Excavation	402	1.25E-12	<	8.86E-15	<	1.77E-15	2.63E-05	68,385
22-Oct-96	LLII/Excavation	403	1.40E-12		1.29E-14		2.57E-15	8.34E-05	68,385
22-Oct-96	LLII/Excavation	404	2.01E-12	<	1.03E-14	<	2.06E-15	5.26E-05	68,385
23-Oct-96	LLII/Excavation	401	2.37E-13	<	6.40E-15	<	1.28E-15	2.97E-05	60,630
23-Oct-96	LLII/Excavation	402	1.10E-13	<	6.40E-15	<	1.28E-15	2.14E-05	60,630
23-Oct-96	LLII/Excavation	403	1.44E-13	<	6.48E-15	<	1.30E-15	2.00E-05	59,925
23-Oct-96	LLII/Excavation	404	1.12E-13	<	6.48E-15	<	1.30E-15	8.18E-05	59,925
24-Oct-96	LLII/Excavation	401	1.59E-12	<	5.24E-15	<	1.05E-15	6.75E-05	74,025
24-Oct-96	LLII/Excavation	402	9.63E-13	<	6.18E-15	<	1.24E-15	9.19E-05	74,025
24-Oct-96	LLII/Excavation	403	1.15E-12	<	1.08E-14	<	2.17E-15	1.03E-04	74,025
24-Oct-96	LLII/Excavation	404	1.05E-12	<	6.18E-15	<	1.24E-15	1.00E-04	74,025
25-Oct-96	LLII/Excavation	401	1.11E-12	<	5.40E-15	<	1.08E-15	1.14E-04	71,910
25-Oct-96	LLII/Excavation	402	7.22E-13	<	5.67E-15	<	1.13E-15	1.21E-04	71,910
25-Oct-96	LLII/Excavation	403	7.50E-13	<	5.40E-15	<	1.08E-15	1.08E-04	71,910
25-Oct-96	LLII/Excavation	404	8.76E-13	<	6.36E-15	<	1.27E-15	1.08E-04	71,910
28-Oct-96	LLII/Excavation	401	8.94E-13	<	6.69E-15	<	1.34E-15	1.03E-04	67,680
28-Oct-96	LLII/Excavation	402	7.29E-13		6.72E-15		1.34E-15	1.00E-04	67,680
28-Oct-96	LLII/Excavation	403	3.95E-13	<	5.52E-15	<	1.10E-15	4.58E-05	67,680
28-Oct-96	LLII/Excavation	404	5.87E-13	<	6.69E-15	<	1.34E-15	7.83E-05	67,680
29-Oct-96	LLII/Excavation	401	2.31E-12		3.19E-14		6.38E-15	9.46E-05	12,690
29-Oct-96	LLII/Excavation	402	1.08E-12	<	2.19E-14	<	4.39E-15	2.21E-04	12,690
29-Oct-96	LLII/Excavation	403	2.33E-12	<	2.77E-14	<	5.53E-15	1.34E-04	12,690
29-Oct-96	LLII/Excavation	404	1.51E-12		3.87E-14		7.74E-15	1.58E-04	12,690
30-Oct-96	LLII/Excavation	401	1.06E-12		8.41E-15		1.68E-15	5.83E-05	63,450
30-Oct-96	LLII/Excavation	402	1.15E-12		5.02E-15		1.00E-15	1.29E-04	63,450
30-Oct-96	LLII/Excavation	403	1.09E-12		1.25E-14		2.50E-15	1.17E-04	63,450
30-Oct-96	LLII/Excavation	404	8.33E-13		5.70E-15		1.14E-15	5.36E-05	63,450
31-Oct-96	LLII/Excavation	401	9.27E-13		1.01E-14		2.02E-15	4.88E-05	65,565
31-Oct-96	LLII/Excavation	402	4.51E-13		1.14E-14		2.29E-15	9.76E-05	65,565
31-Oct-96	LLII/Excavation	403	8.49E-13		1.86E-14		3.73E-15	1.91E-04	65,565
31-Oct-96	LLII/Excavation	404	9.57E-13		4.86E-15		9.72E-16	5.95E-05	65,565

November 1996 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
01-Nov-96	LLII/Excavation	401	1.52E-12		9.09E-15		1.82E-15	5.99E-05	63,450
01-Nov-96	LLII/Excavation	402	1.07E-12		9.09E-15		1.82E-15	1.47E-04	63,450
01-Nov-96	LLII/Excavation	403	9.79E-13		1.38E-14		2.77E-15	1.01E-04	63,450
01-Nov-96	LLII/Excavation	404	1.91E-12		1.59E-14		3.18E-15	4.10E-05	63,450
04-Nov-96	LLII/Excavation	401	4.05E-12	<	7.62E-15	<	1.52E-15	1.73E-04	67,680
04-Nov-96	LLII/Excavation	402	3.63E-12		1.32E-14		2.63E-15	1.32E-04	67,680
04-Nov-96	LLII/Excavation	403	3.45E-12		4.94E-15		9.87E-16	1.46E-04	67,680
04-Nov-96	LLII/Excavation	404	3.62E-12		8.10E-15		1.62E-15	1.20E-04	67,680
05-Nov-96	LLII/Excavation	401	4.96E-12		6.14E-15		1.23E-15	1.43E-04	68,385
05-Nov-96	LLII/Excavation	402	3.20E-12		7.39E-15		1.48E-15	8.63E-05	68,385
05-Nov-96	LLII/Excavation	403	3.93E-12	<	9.00E-15	<	1.80E-15	1.55E-04	68,385
05-Nov-96	LLII/Excavation	404	5.44E-12		1.74E-14		3.48E-15	1.08E-04	68,385
06-Nov-96	LLII/Excavation	401	3.59E-12	<	8.08E-15	<	1.62E-15	8.96E-05	40,185
06-Nov-96	LLII/Excavation	402	2.88E-12	<	1.16E-14	<	2.32E-15	8.71E-05	40,185
06-Nov-96	LLII/Excavation	403	2.54E-12	<	9.09E-15	<	1.82E-15	9.21E-05	40,185
06-Nov-96	LLII/Excavation	404	3.78E-12	<	8.08E-15	<	1.62E-15	8.71E-05	40,185
07-Nov-96	LLII/Excavation	401	1.29E-12	<	4.80E-15	<	9.60E-16	9.46E-05	67,680
07-Nov-96	LLII/Excavation	402	9.95E-13	<	9.82E-15	<	1.96E-15	8.72E-05	67,680
07-Nov-96	LLII/Excavation	403	1.26E-12	<	9.09E-15	<	1.82E-15	8.42E-05	67,680
07-Nov-96	LLII/Excavation	404	1.06E-12		8.10E-15		1.62E-15	7.24E-05	67,680
08-Nov-96	LLII/Excavation	401	2.33E-12		9.77E-15		1.95E-15	1.23E-04	64,860
08-Nov-96	LLII/Excavation	402	2.37E-11	<	1.02E-14	<	2.05E-15	1.42E-04	64,860
08-Nov-96	LLII/Excavation	403	2.49E-12	<	8.72E-15	<	1.74E-15	1.73E-04	64,860
08-Nov-96	LLII/Excavation	404	1.94E-12	<	5.63E-15	<	1.13E-15	8.94E-05	64,860
11-Nov-96	LLII/Excavation	401	7.08E-13	<	3.62E-15	<	7.24E-16	1.03E-04	71,910
11-Nov-96	LLII/Excavation	402	1.96E-12		5.74E-15		1.15E-15	1.28E-04	71,910
11-Nov-96	LLII/Excavation	403	6.20E-13		8.73E-15		1.75E-15	2.45E-04	71,910
11-Nov-96	LLII/Excavation	404	3.81E-13		5.14E-15		1.03E-15	5.42E-05	71,910
12-Nov-96	LLII/Excavation	401	1.10E-12		5.86E-15		1.17E-15	9.22E-05	70,500
12-Nov-96	LLII/Excavation	402	1.85E-12		8.91E-15		1.78E-15	1.59E-04	70,500
12-Nov-96	LLII/Excavation	403	5.88E-13		5.86E-15		1.17E-15	7.38E-05	70,500
12-Nov-96	LLII/Excavation	404	7.89E-13	<	7.81E-15	<	1.56E-15	5.96E-05	70,500
13-Nov-96	LLII/Excavation	401	1.42E-12	<	7.37E-15	<	1.47E-15	1.38E-04	74,730
13-Nov-96	LLII/Excavation	402	2.16E-12		1.42E-14		2.83E-15	2.62E-04	74,730
13-Nov-96	LLII/Excavation	403	7.94E-13		1.24E-14		2.49E-15	1.36E-04	74,730
13-Nov-96	LLII/Excavation	404	5.22E-13		9.55E-15		1.91E-15	6.96E-05	74,730
14-Nov-96	LLII/Excavation	401	4.37E-13		8.13E-15		1.63E-15	8.20E-05	71,910
14-Nov-96	LLII/Excavation	402	6.25E-13		8.73E-15		1.75E-15	1.74E-04	71,910
14-Nov-96	LLII/Excavation	403	3.84E-13		3.95E-15		7.89E-16	7.93E-05	71,910
14-Nov-96	LLII/Excavation	404	2.19E-12		3.95E-15		7.89E-16	6.54E-05	71,910
15-Nov-96	LLII/Excavation	401	1.01E-12		1.10E-14		2.20E-15	1.54E-04	57,105
15-Nov-96	LLII/Excavation	402	9.39E-13		2.08E-14		4.16E-15	3.38E-04	57,105
15-Nov-96	LLII/Excavation	403	9.42E-13		8.74E-15		1.75E-15	2.38E-04	57,105
15-Nov-96	LLII/Excavation	404	5.94E-13		7.98E-15		1.60E-15	2.43E-04	57,105
16-Nov-96	LLII/Excavation	401	2.68E-12		1.35E-14		2.70E-15	1.15E-04	59,220
16-Nov-96	LLII/Excavation	402	2.57E-12		1.06E-14		2.12E-15	1.17E-04	59,220
16-Nov-96	LLII/Excavation	403	1.73E-12		1.06E-14		2.12E-15	1.06E-04	59,220
16-Nov-96	LLII/Excavation	404	3.34E-12		6.25E-15		1.25E-15	1.45E-04	59,220
18-Nov-96	LLII/Excavation	401	1.51E-12		4.34E-15		8.68E-16	8.18E-05	73,320

18-Nov-96	LLII/Excavation	402	2.05E-12		1.37E-14		2.75E-15	7.64E-05	73,320
18-Nov-96	LLII/Excavation	403	1.48E-12		7.28E-15		1.46E-15	6.41E-05	73,320
18-Nov-96	LLII/Excavation	404	1.89E-12		4.93E-15		9.86E-16	5.59E-05	73,320
19-Nov-96	LLII/Excavation	401	1.41E-12		5.68E-15		1.14E-15	9.83E-05	71,205
19-Nov-96	LLII/Excavation	402	1.21E-12		7.49E-15		1.50E-15	7.72E-05	71,205
19-Nov-96	LLII/Excavation	403	9.70E-13	<	3.91E-15	<	7.81E-16	7.58E-05	71,205
19-Nov-96	LLII/Excavation	404	1.39E-12		9.91E-15		1.98E-15	7.30E-05	71,205
20-Nov-96	LLII/Excavation	401	2.99E-13	<	7.02E-15	<	1.40E-15	5.56E-05	71,910
20-Nov-96	LLII/Excavation	402	4.52E-13		5.62E-15		1.12E-15	7.23E-05	71,910
20-Nov-96	LLII/Excavation	403	1.29E-13	<	7.02E-15	<	1.40E-15	5.28E-05	71,910
20-Nov-96	LLII/Excavation	404	2.58E-12		6.22E-15		1.24E-15	1.14E-04	71,910
21-Nov-96	LLII/Excavation	401	3.40E-13	<	4.88E-15	<	9.76E-16	3.48E-05	71,910
21-Nov-96	LLII/Excavation	402	5.64E-13	<	7.73E-15	<	1.55E-15	2.50E-05	71,910
21-Nov-96	LLII/Excavation	403	4.16E-13	<	5.60E-15	<	1.12E-15	2.78E-05	71,910
21-Nov-96	LLII/Excavation	404	7.17E-13	<	7.73E-15	<	1.55E-15	4.45E-05	71,910
22-Nov-96	LLII/Excavation	401	4.91E-13		4.30E-15		8.60E-16	2.03E-04	74,025
22-Nov-96	LLII/Excavation	402	7.33E-13	<	5.44E-15	<	1.09E-15	1.01E-04	74,025
22-Nov-96	LLII/Excavation	403	5.87E-13	<	5.44E-15	<	1.09E-15	1.72E-04	74,025
22-Nov-96	LLII/Excavation	404	9.43E-13		5.46E-15		1.09E-15	7.29E-05	74,025
23-Nov-96	LLII/Excavation	401	4.30E-12		7.10E-15		1.42E-15	1.23E-04	69,090
23-Nov-96	LLII/Excavation	402	3.75E-12		4.61E-15		9.21E-16	8.25E-05	69,090
23-Nov-96	LLII/Excavation	403	2.51E-12		4.61E-15		9.21E-16	8.97E-05	69,090
23-Nov-96	LLII/Excavation	404	4.58E-12		7.72E-15		1.54E-15	6.51E-05	69,090
25-Nov-96	LLII/Excavation	401	1.62E-13		5.97E-15		1.19E-15	7.86E-05	71,205
25-Nov-96	LLII/Excavation	402	3.29E-13		4.78E-15		9.56E-16	4.63E-05	71,205
25-Nov-96	LLII/Excavation	403	1.82E-13	<	7.33E-15	<	1.47E-15	5.20E-05	71,205
25-Nov-96	LLII/Excavation	404	1.28E-12		4.78E-15		9.56E-16	6.60E-05	71,205
26-Nov-96	LLII/Excavation	401	7.85E-13		1.06E-14		2.13E-15	1.43E-04	71,910
26-Nov-96	LLII/Excavation	402	1.16E-12		1.36E-14		2.72E-15	8.76E-05	71,910
26-Nov-96	LLII/Excavation	403	7.34E-13		1.54E-14		3.08E-15	3.80E-04	71,910
26-Nov-96	LLII/Excavation	404	3.06E-13		8.87E-15		1.77E-15	6.26E-05	71,910
27-Nov-96	LLII/Excavation	401	1.18E-12		8.96E-15		1.79E-15	2.23E-04	71,205
27-Nov-96	LLII/Excavation	402	2.16E-12		5.97E-15		1.19E-15	1.97E-04	71,205
27-Nov-96	LLII/Excavation	403	8.43E-13		7.17E-15		1.43E-15	2.43E-04	71,205
27-Nov-96	LLII/Excavation	404	2.51E-12		7.76E-15		1.55E-15	1.26E-04	71,205

December 1996 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
02-Dec-96	LLII/Excavation	401	5.69E-13		1.64E-14		3.28E-15	1.46E-04	71,910
02-Dec-96	LLII/Excavation	402	1.23E-12		9.28E-15		1.86E-15	1.10E-04	71,910
02-Dec-96	LLII/Excavation	403	4.60E-13		1.17E-14		2.33E-15	1.27E-04	71,910
02-Dec-96	LLII/Excavation	404	8.38E-13		5.12E-15		1.02E-15	1.04E-04	71,910
03-Dec-96	LLII/Excavation	401	5.13E-13		6.31E-15		1.26E-15	5.01E-05	71,910
03-Dec-96	LLII/Excavation	402	2.17E-12		3.93E-15		7.85E-16	3.89E-05	71,910
03-Dec-96	LLII/Excavation	403	7.88E-13		4.52E-15		9.04E-16	4.45E-05	71,910
03-Dec-96	LLII/Excavation	404	2.28E-13	<	4.03E-15	<	8.07E-16	2.36E-05	71,910
04-Dec-96	LLII/Excavation	401	7.31E-13		9.10E-15		1.82E-15	2.35E-04	73,320
04-Dec-96	LLII/Excavation	402	2.10E-12		9.68E-15		1.94E-15	1.83E-04	73,320
04-Dec-96	LLII/Excavation	403	9.87E-13		7.93E-15		1.59E-15	2.26E-04	73,320
04-Dec-96	LLII/Excavation	404	1.69E-12	<	7.47E-15	<	1.49E-15	1.38E-04	73,320
05-Dec-96	LLII/Excavation	401	8.50E-13		8.68E-15		1.74E-15	4.87E-05	71,910
05-Dec-96	LLII/Excavation	402	1.14E-12		6.31E-15		1.26E-15	5.28E-05	71,910
05-Dec-96	LLII/Excavation	403	4.54E-13		3.93E-15		7.85E-16	2.78E-05	71,910
05-Dec-96	LLII/Excavation	404	1.04E-12		6.90E-15		1.38E-15	5.56E-05	71,910
06-Dec-96	LLII/Excavation	401	7.43E-13		8.34E-15		1.67E-15	1.39E-04	69,795
06-Dec-96	LLII/Excavation	402	1.21E-12		1.26E-14		2.53E-15	9.31E-05	69,795
06-Dec-96	LLII/Excavation	403	6.05E-13		6.50E-15		1.30E-15	1.20E-04	69,795
06-Dec-96	LLII/Excavation	404	1.78E-12		1.45E-14		2.89E-15	8.31E-05	69,795
07-Dec-96	LLII/Excavation	401	3.14E-12	<	5.82E-15	<	1.16E-15	1.05E-04	67,680
07-Dec-96	LLII/Excavation	402	4.26E-12		6.07E-15		1.21E-15	1.12E-04	67,680
07-Dec-96	LLII/Excavation	403	1.85E-12		9.86E-15		1.97E-15	1.42E-04	67,680
07-Dec-96	LLII/Excavation	404	1.35E-12		4.80E-15		9.61E-16	5.47E-05	67,680
09-Dec-96	LLII/Excavation	401	1.01E-12		7.75E-15		1.55E-15	2.18E-04	70,500
09-Dec-96	LLII/Excavation	402	1.49E-12		1.44E-14		2.88E-15	1.38E-04	70,500
09-Dec-96	LLII/Excavation	403	5.41E-13		5.33E-15		1.07E-15	1.32E-04	70,500
09-Dec-96	LLII/Excavation	404	3.47E-12	<	8.69E-15	<	1.74E-15	1.25E-04	70,500
10-Dec-96	LLII/Excavation	401	3.05E-12		5.07E-15		1.01E-15	2.22E-04	74,025
10-Dec-96	LLII/Excavation	402	3.75E-12	<	6.27E-15	<	1.25E-15	1.34E-04	74,025
10-Dec-96	LLII/Excavation	403	1.93E-12		7.38E-15		1.48E-15	1.73E-04	74,025
10-Dec-96	LLII/Excavation	404	7.31E-12	<	8.28E-15	<	1.66E-15	1.39E-04	74,025
11-Dec-96	LLII/Excavation	401	4.53E-13	<	9.59E-15	<	1.92E-15	5.64E-05	69,090
11-Dec-96	LLII/Excavation	402	3.40E-13	<	7.44E-15	<	1.49E-15	3.33E-05	69,090
11-Dec-96	LLII/Excavation	403	4.37E-13	<	4.68E-15	<	9.37E-16	3.04E-05	69,090
11-Dec-96	LLII/Excavation	404	1.46E-12		4.82E-15		9.64E-16	3.62E-05	69,090
12-Dec-96	LLII/Excavation	401	4.82E-13		8.19E-15		1.64E-15	7.65E-05	71,910
12-Dec-96	LLII/Excavation	402	9.55E-13	<	4.50E-15	<	9.00E-16	4.59E-05	71,910
12-Dec-96	LLII/Excavation	403	5.94E-13		7.00E-15		1.40E-15	4.31E-05	71,910
12-Dec-96	LLII/Excavation	404	1.78E-12	<	4.50E-15	<	9.00E-16	6.68E-05	71,910
13-Dec-96	LLII/Excavation	401	2.57E-12		8.53E-15		1.71E-15	2.08E-04	74,025
13-Dec-96	LLII/Excavation	402	1.12E-11		1.55E-14		3.09E-15	1.49E-04	74,025
13-Dec-96	LLII/Excavation	403	1.58E-12		7.38E-15		1.48E-15	4.32E-05	74,025
13-Dec-96	LLII/Excavation	404	2.77E-12		6.80E-15		1.36E-15	2.43E-05	74,025
14-Dec-96	LLII/Excavation	401	2.41E-12	<	9.45E-15	<	1.89E-15	1.65E-04	64,860
14-Dec-96	LLII/Excavation	402	1.05E-11	<	8.69E-15	<	1.74E-15	1.62E-04	64,860
14-Dec-96	LLII/Excavation	403	1.16E-12	<	6.38E-15	<	1.28E-15	2.24E-04	64,860
14-Dec-96	LLII/Excavation	404	6.89E-12	<	9.45E-15	<	1.89E-15	1.03E-04	64,860
16-Dec-96	LLII/Excavation	401	9.78E-13	<	5.00E-15	<	1.00E-15	1.56E-04	71,910

16-Dec-96	LLII/Excavation	402	1.52E-12	<	5.99E-15	<	1.20E-15	1.04E-04	71,910
16-Dec-96	LLII/Excavation	403	7.44E-13	<	1.02E-14	<	2.04E-15	1.24E-04	71,910
16-Dec-96	LLII/Excavation	404	7.07E-12	<	5.00E-15	<	1.00E-15	1.14E-04	71,910
17-Dec-96	LLII/Excavation	401	1.39E-12	<	4.90E-15	<	9.81E-16	1.15E-04	73,320
17-Dec-96	LLII/Excavation	402	8.65E-12		1.04E-14		2.07E-15	9.68E-05	73,320
17-Dec-96	LLII/Excavation	403	9.77E-13	<	6.56E-15	<	1.31E-15	1.02E-04	73,320
17-Dec-96	LLII/Excavation	404	6.79E-13	<	6.56E-15	<	1.31E-15	1.70E-04	73,320
18-Dec-96	LLII/Excavation	401	1.22E-12	<	8.30E-15	<	1.66E-15	2.21E-04	76,140
18-Dec-96	LLII/Excavation	402	6.70E-12		2.37E-14		4.74E-15	3.07E-04	76,140
18-Dec-96	LLII/Excavation	403	5.93E-13	<	9.62E-15	<	1.92E-15	6.91E-04	76,140
18-Dec-96	LLII/Excavation	404	5.95E-13	<	6.32E-15	<	1.26E-15	2.76E-04	76,140
19-Dec-96	LLII/Excavation	401	1.62E-12	<	9.99E-15	<	2.00E-15	1.70E-04	73,320
19-Dec-96	LLII/Excavation	402	8.19E-12		2.58E-14		5.16E-15	2.17E-04	73,320
19-Dec-96	LLII/Excavation	403	1.80E-12	<	8.62E-15	<	1.72E-15	2.30E-04	73,320
19-Dec-96	LLII/Excavation	404	1.41E-12		1.09E-14		2.19E-15	1.95E-04	73,320
20-Dec-96	LLII/Excavation	401	2.47E-12		1.06E-14		2.11E-15	3.10E-04	71,910
20-Dec-96	LLII/Excavation	402	5.22E-12		2.09E-14		4.17E-15	2.45E-04	71,910
20-Dec-96	LLII/Excavation	403	1.20E-12		7.52E-15		1.50E-15	3.55E-04	71,910
20-Dec-96	LLII/Excavation	404	0.00E+00		1.48E-14		2.96E-15	0.00E+00	71,910
21-Dec-96	LLII/Excavation	401	6.19E-12		2.43E-14		4.85E-15	4.48E-04	63,450
21-Dec-96	LLII/Excavation	402	3.83E-12	<	9.22E-15	<	1.84E-15	1.43E-04	63,450
21-Dec-96	LLII/Excavation	403	1.46E-12	<	1.08E-14	<	2.15E-15	2.06E-04	63,450
21-Dec-96	LLII/Excavation	404	6.57E-12	<	1.08E-14	<	2.15E-15	2.55E-04	63,450
23-Dec-96	LLII/Excavation	401	1.82E-12	<	1.61E-14	<	3.21E-15	5.12E-05	25,380
23-Dec-96	LLII/Excavation	402	9.38E-13	<	7.14E-15	<	1.43E-15	3.15E-05	57,105
23-Dec-96	LLII/Excavation	403	9.41E-13	<	7.66E-15	<	1.53E-15	3.85E-05	57,105
23-Dec-96	LLII/Excavation	404	3.17E-12	<	7.66E-15	<	1.53E-15	4.55E-05	57,105
26-Dec-96	LLII/Excavation	401	3.94E-13	<	5.67E-15	<	1.13E-15	6.12E-05	71,910
26-Dec-96	LLII/Excavation	402	9.51E-13		5.77E-15		1.15E-15	3.62E-05	71,910
26-Dec-96	LLII/Excavation	403	5.31E-13		5.77E-15		1.15E-15	7.79E-05	71,910
26-Dec-96	LLII/Excavation	404	1.34E-12		1.42E-14		2.84E-15	9.46E-05	71,910
27-Dec-96	LLII/Excavation	401	4.38E-13	<	1.15E-14	<	2.31E-15	1.28E-04	71,910
27-Dec-96	LLII/Excavation	402	1.15E-12		1.06E-14		2.12E-15	1.04E-04	71,910
27-Dec-96	LLII/Excavation	403	4.41E-13	<	8.14E-15	<	1.63E-15	1.11E-04	71,910
27-Dec-96	LLII/Excavation	404	1.49E-12		5.77E-15		1.15E-15	1.08E-04	71,910
28-Dec-96	LLII/Excavation	401	1.74E-12	<	8.03E-15	<	1.61E-15	6.10E-05	60,630
28-Dec-96	LLII/Excavation	402	2.08E-12	<	6.72E-15	<	1.34E-15	4.29E-05	60,630
28-Dec-96	LLII/Excavation	403	1.31E-12	<	1.29E-14	<	2.58E-15	4.12E-05	60,630
28-Dec-96	LLII/Excavation	404	3.54E-12	<	1.21E-14	<	2.42E-15	4.29E-05	60,630
30-Dec-96	LLII/Excavation	401	1.04E-12		1.31E-14		2.61E-15	1.75E-04	71,910
30-Dec-96	LLII/Excavation	402	1.31E-12		1.31E-14		2.61E-15	1.11E-04	71,910
30-Dec-96	LLII/Excavation	403	5.10E-13		2.21E-14		4.43E-15	1.39E-04	71,910
30-Dec-96	LLII/Excavation	404	2.31E-12		1.67E-14		3.34E-15	1.32E-04	71,910
31-Dec-96	LLII/Excavation	401	6.37E-13		1.30E-14		2.59E-15	2.79E-04	69,090
31-Dec-96	LLII/Excavation	402	3.16E-12		9.82E-15		1.96E-15	1.01E-04	69,090
31-Dec-96	LLII/Excavation	403	5.44E-13		7.31E-15		1.46E-15	1.66E-04	69,090
31-Dec-96	LLII/Excavation	404	6.80E-12		7.94E-15		1.59E-15	2.20E-04	69,090

January 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
02-Jan-97	LLII/Excavation	401	4.16E-12		5.70E-15		1.14E-15	7.09E-05	73,320
02-Jan-97	LLII/Excavation	402	1.01E-11		1.04E-14		2.09E-15	6.68E-05	73,320
02-Jan-97	LLII/Excavation	403	3.87E-12		8.07E-15		1.61E-15	6.27E-05	73,320
02-Jan-97	LLII/Excavation	404	2.06E-12		1.04E-14		2.09E-15	6.41E-05	73,320
03-Jan-97	LLII/Excavation	401	6.94E-13	<	6.91E-15	<	1.38E-15	1.25E-04	71,205
03-Jan-97	LLII/Excavation	402	1.49E-12		4.64E-15		9.29E-16	5.90E-05	71,205
03-Jan-97	LLII/Excavation	403	6.59E-13	<	6.19E-15	<	1.24E-15	9.83E-05	71,205
03-Jan-97	LLII/Excavation	404	1.75E-11		1.08E-14		2.15E-15	7.44E-05	71,205
04-Jan-97	LLII/Excavation	401	5.80E-12		1.29E-14		2.59E-15	5.91E-05	59,220
04-Jan-97	LLII/Excavation	402	5.09E-12		5.58E-15		1.12E-15	4.39E-05	59,220
04-Jan-97	LLII/Excavation	403	1.10E-12		1.15E-14		2.29E-15	5.74E-05	59,220
04-Jan-97	LLII/Excavation	404	1.35E-11		5.58E-15		1.12E-15	5.23E-05	59,220
06-Jan-97	LLII/Excavation	401	4.11E-13		8.28E-15		1.66E-15	6.99E-05	48,645
06-Jan-97	LLII/Excavation	402	6.09E-12		1.71E-14		3.42E-15	1.03E-04	48,645
06-Jan-97	LLII/Excavation	403	5.32E-13		2.33E-14		4.65E-15	7.24E-04	48,645
06-Jan-97	LLII/Excavation	404	6.23E-13	<	1.21E-14	<	2.42E-15	1.27E-04	48,645
07-Jan-97	LLII/Excavation	401	1.22E-12		9.01E-15		1.80E-15	4.27E-04	73,320
07-Jan-97	LLII/Excavation	402	4.11E-12		5.75E-14		1.15E-14	1.15E-04	73,320
07-Jan-97	LLII/Excavation	403	1.10E-12		1.43E-14		2.85E-15	1.65E-04	73,320
07-Jan-97	LLII/Excavation	404	2.23E-12		2.30E-14		4.61E-15	2.36E-04	73,320
08-Jan-97	LLII/Excavation	401	5.29E-13		1.19E-14		2.39E-15	3.06E-04	80,370
08-Jan-97	LLII/Excavation	402	1.77E-12		7.68E-15		1.54E-15	2.79E-04	80,370
08-Jan-97	LLII/Excavation	403	3.98E-13	<	6.09E-15	<	1.22E-15	1.53E-04	80,370
08-Jan-97	LLII/Excavation	404	4.67E-12		1.20E-13		2.40E-14	6.97E-04	80,370
09-Jan-97	LLII/Excavation	401	3.68E-13	<	8.50E-15	<	1.70E-15	5.20E-05	63,450
09-Jan-97	LLII/Excavation	402	3.03E-13	<	9.29E-15	<	1.86E-15	4.10E-05	63,450
09-Jan-97	LLII/Excavation	403	1.73E-13	<	8.50E-15	<	1.70E-15	2.68E-05	63,450
09-Jan-97	LLII/Excavation	404	9.21E-13		1.65E-14		3.30E-15	5.04E-05	63,450
10-Jan-97	LLII/Excavation	401	6.34E-13	<	5.46E-15	<	1.09E-15	5.72E-05	80,370
10-Jan-97	LLII/Excavation	402	3.97E-12		2.32E-14		4.63E-15	5.97E-05	80,370
10-Jan-97	LLII/Excavation	403	6.22E-13	<	8.57E-15	<	1.71E-15	7.96E-05	80,370
10-Jan-97	LLII/Excavation	404	1.27E-12		1.51E-14		3.03E-15	6.84E-05	80,370
11-Jan-97	LLII/Excavation	401	8.47E-13		5.68E-15		1.14E-15	7.72E-05	63,450
11-Jan-97	LLII/Excavation	402	5.76E-12		6.31E-14		1.26E-14	7.41E-05	63,450
11-Jan-97	LLII/Excavation	403	1.07E-12		5.68E-15		1.14E-15	7.57E-05	63,450
11-Jan-97	LLII/Excavation	404	2.17E-12		5.68E-15		1.14E-15	1.42E-04	63,450
13-Jan-97	LLII/Excavation	401	9.45E-13		9.71E-15		1.94E-15	1.58E-04	62,040
13-Jan-97	LLII/Excavation	402	2.77E-12		9.64E-14		1.93E-14	1.37E-04	62,040
13-Jan-97	LLII/Excavation	403	8.62E-13		1.11E-14		2.22E-15	1.34E-04	62,040
13-Jan-97	LLII/Excavation	404	6.86E-13		7.63E-15		1.53E-15	1.63E-04	62,040
14-Jan-97	LLII/Excavation	401	1.67E-12		1.38E-14		2.76E-15	3.29E-04	81,075
14-Jan-97	LLII/Excavation	402	3.26E-12		3.93E-14		7.85E-15	1.99E-04	81,075
14-Jan-97	LLII/Excavation	403	1.55E-12		4.40E-14		8.81E-15	1.81E-04	81,075
14-Jan-97	LLII/Excavation	404	5.19E-13		1.17E-14		2.33E-15	2.55E-04	81,075
15-Jan-97	LLII/Excavation	401	1.31E-12		1.22E-14		2.44E-15	8.02E-05	81,075
15-Jan-97	LLII/Excavation	402	1.03E-11		4.77E-15		9.55E-16	7.15E-05	81,075
15-Jan-97	LLII/Excavation	403	4.32E-13		5.31E-15		1.06E-15	6.17E-05	81,075
15-Jan-97	LLII/Excavation	404	5.02E-13		1.11E-14		2.23E-15	6.04E-05	81,075
16-Jan-97	LLII/Excavation	401	1.16E-13		6.26E-15		1.25E-15	4.36E-05	54,990
16-Jan-97	LLII/Excavation	402	1.42E-12		5.32E-14		1.06E-14	8.73E-05	54,990
16-Jan-97	LLII/Excavation	403	3.93E-13		1.80E-14		3.60E-15	7.46E-05	54,990
16-Jan-97	LLII/Excavation	404	6.66E-14		6.26E-15		1.25E-15	3.46E-05	54,990

18-Jan-97	LLII/Excavation	401	3.38E-13		4.45E-15		8.90E-16	1.14E-04	67,680
18-Jan-97	LLII/Excavation	402	4.38E-12		2.67E-14		5.34E-15	8.42E-05	67,680
18-Jan-97	LLII/Excavation	403	1.11E-12		1.27E-14		2.54E-15	1.20E-04	67,680
18-Jan-97	LLII/Excavation	404	3.64E-13	<	8.55E-15	<	1.71E-15	1.88E-04	67,680
20-Jan-97	LLII/Excavation	401	4.13E-13		4.16E-15		8.32E-16	6.93E-05	79,383
20-Jan-97	LLII/Excavation	402	1.05E-12		1.29E-14		2.57E-15	5.65E-05	79,665
20-Jan-97	LLII/Excavation	403	1.07E-12		1.61E-14		3.23E-15	5.15E-05	79,665
20-Jan-97	LLII/Excavation	404	1.11E-12		4.14E-15		8.29E-16	1.13E-04	79,665
21-Jan-97	LLII/Excavation	401	4.94E-13		1.22E-14		2.44E-15	6.59E-05	80,370
21-Jan-97	LLII/Excavation	402	8.33E-13		4.65E-15		9.29E-16	6.22E-05	80,370
21-Jan-97	LLII/Excavation	403	4.49E-13		7.35E-15		1.47E-15	6.35E-05	80,370
21-Jan-97	LLII/Excavation	404	1.63E-12		1.11E-14		2.23E-15	7.09E-05	80,370
22-Jan-97	LLII/Excavation	401	7.26E-13		6.05E-15		1.21E-15	6.44E-05	76,140
22-Jan-97	LLII/Excavation	402	1.86E-12		1.00E-14		2.01E-15	7.62E-05	76,140
22-Jan-97	LLII/Excavation	403	6.28E-13	<	6.62E-15	<	1.32E-15	6.83E-05	76,140
22-Jan-97	LLII/Excavation	404	4.07E-13		6.05E-15		1.21E-15	1.54E-04	76,140
23-Jan-97	LLII/Excavation	401	2.64E-13		4.65E-15		9.29E-16	1.74E-04	80,370
23-Jan-97	LLII/Excavation	402	3.44E-13		8.97E-15		1.79E-15	6.84E-05	80,370
23-Jan-97	LLII/Excavation	403	2.71E-14		4.65E-15		9.29E-16	9.21E-05	80,370
23-Jan-97	LLII/Excavation	404	6.18E-13		1.76E-14		3.52E-15	1.08E-04	80,370
24-Jan-97	LLII/Excavation	401	4.02E-13		6.31E-15		1.26E-15	2.01E-04	59,220
24-Jan-97	LLII/Excavation	402	7.66E-13	<	1.05E-14	<	2.09E-15	1.23E-04	59,220
24-Jan-97	LLII/Excavation	403	3.32E-13	<	1.05E-14	<	2.09E-15	9.96E-05	59,220
24-Jan-97	LLII/Excavation	404	1.28E-12		1.08E-14		2.16E-15	3.71E-04	59,220
25-Jan-97	LLII/Excavation	401	1.12E-13		7.42E-15		1.48E-15	1.12E-04	80,370
25-Jan-97	LLII/Excavation	402	9.12E-13		9.03E-15		1.81E-15	1.18E-04	80,370
25-Jan-97	LLII/Excavation	403	1.67E-13		7.42E-15		1.48E-15	1.27E-04	80,370
25-Jan-97	LLII/Excavation	404	1.13E-13		5.27E-15		1.05E-15	1.47E-04	80,370
27-Jan-97	LLII/Excavation	401	2.31E-13	<	7.79E-15	<	1.56E-15	1.29E-04	80,370
27-Jan-97	LLII/Excavation	402	4.84E-13		1.18E-14		2.37E-15	9.71E-05	80,370
27-Jan-97	LLII/Excavation	403	2.64E-13		4.23E-15		8.46E-16	5.10E-05	80,370
27-Jan-97	LLII/Excavation	404	2.81E-13		6.95E-15		1.39E-15	9.83E-05	80,370
28-Jan-97	LLII/Excavation	401	1.86E-13		4.77E-15		9.55E-16	1.21E-04	80,370
28-Jan-97	LLII/Excavation	402	3.15E-13		9.12E-15		1.82E-15	1.06E-04	80,370
28-Jan-97	LLII/Excavation	403	1.54E-13	<	8.42E-15	<	1.68E-15	1.11E-04	80,370
28-Jan-97	LLII/Excavation	404	1.23E-13	<	4.11E-15	<	8.23E-16	1.23E-04	80,370
29-Jan-97	LLII/Excavation	401	1.57E-13		4.77E-15		9.55E-16	1.97E-04	80,370
29-Jan-97	LLII/Excavation	402	5.45E-13		1.29E-14		2.58E-15	1.48E-04	80,370
29-Jan-97	LLII/Excavation	403	1.26E-13		9.12E-15		1.82E-15	1.03E-04	80,370
29-Jan-97	LLII/Excavation	404	4.83E-13		9.12E-15		1.82E-15	1.42E-04	80,370
30-Jan-97	LLII/Excavation	401	6.15E-13		6.35E-15		1.27E-15	1.52E-04	81,075
30-Jan-97	LLII/Excavation	402	8.95E-13		1.17E-14		2.35E-15	1.32E-04	81,075
30-Jan-97	LLII/Excavation	403	2.74E-13		1.60E-14		3.21E-15	1.39E-04	81,075
30-Jan-97	LLII/Excavation	404	4.39E-13	<	5.22E-15	<	1.04E-15	1.09E-04	81,075
31-Jan-97	LLII/Excavation	401	1.16E-12	<	5.26E-15	<	1.05E-15	7.34E-05	80,370
31-Jan-97	LLII/Excavation	402	1.55E-12		8.03E-15		1.61E-15	1.01E-04	80,370
31-Jan-97	LLII/Excavation	403	8.60E-13		8.03E-15		1.61E-15	9.58E-05	80,370
31-Jan-97	LLII/Excavation	404	1.12E-12		4.77E-15		9.55E-16	6.10E-05	80,370

February 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
01-Feb-97	LLII/Excavation	401	3.38E-13		1.28E-14		2.56E-15	1.53E-04	64,155
01-Feb-97	LLII/Excavation	402	1.22E-12		5.98E-15		1.20E-15	7.17E-05	64,155
01-Feb-97	LLII/Excavation	403	4.51E-13		5.30E-15		1.06E-15	5.92E-05	64,155
01-Feb-97	LLII/Excavation	404	1.45E-12		8.02E-15		1.60E-15	9.51E-05	64,155
03-Feb-97	LLII/Excavation	401	9.46E-14		9.76E-15		1.95E-15	5.82E-05	82,485
03-Feb-97	LLII/Excavation	402	7.88E-14		3.99E-15		7.98E-16	1.35E-04	82,485
03-Feb-97	LLII/Excavation	403	8.89E-13		3.99E-15		7.98E-16	8.73E-05	82,485
03-Feb-97	LLII/Excavation	404	7.93E-14		5.56E-15		1.11E-15	8.49E-05	82,485
04-Feb-97	LLII/Excavation	401	3.81E-13		8.00E-15		1.60E-15	4.43E-05	78,960
04-Feb-97	LLII/Excavation	402	7.99E-13	<	4.91E-15	<	9.81E-16	4.56E-05	78,960
04-Feb-97	LLII/Excavation	403	2.55E-13	<	7.49E-15	<	1.50E-15	4.18E-05	78,960
04-Feb-97	LLII/Excavation	404	4.66E-13		9.10E-15		1.82E-15	5.07E-05	78,960
05-Feb-97	LLII/Excavation	401	1.22E-13		5.61E-15		1.12E-15	1.19E-04	81,780
05-Feb-97	LLII/Excavation	402	4.33E-13		5.08E-15		1.02E-15	1.50E-04	81,780
05-Feb-97	LLII/Excavation	403	9.17E-14		7.20E-15		1.44E-15	1.06E-04	81,780
05-Feb-97	LLII/Excavation	404	1.55E-13		5.61E-15		1.12E-15	1.72E-04	81,780
06-Feb-97	LLII/Excavation	401	1.36E-13		8.26E-15		1.65E-15	1.41E-04	81,780
06-Feb-97	LLII/Excavation	402	4.29E-13		8.26E-15		1.65E-15	1.55E-04	81,780
06-Feb-97	LLII/Excavation	403	9.07E-14		4.55E-15		9.10E-16	3.14E-04	81,780
06-Feb-97	LLII/Excavation	404	1.22E-13		5.61E-15		1.12E-15	1.30E-04	81,780
07-Feb-97	LLII/Excavation	401	4.56E-14		6.67E-15		1.33E-15	6.03E-04	81,780
07-Feb-97	LLII/Excavation	402	2.84E-13	<	6.61E-15	<	1.32E-15	9.78E-05	81,780
07-Feb-97	LLII/Excavation	403	2.99E-14		4.54E-15		9.09E-16	9.64E-05	81,921
07-Feb-97	LLII/Excavation	404	4.45E-13		8.77E-15		1.75E-15	1.38E-04	81,921
08-Feb-97	LLII/Excavation	401	1.49E-13	<	7.55E-15	<	1.51E-15	3.70E-05	64,860
08-Feb-97	LLII/Excavation	402	4.70E-13	<	4.70E-15	<	9.40E-16	4.01E-05	64,860
08-Feb-97	LLII/Excavation	403	2.57E-13	<	9.11E-15	<	1.82E-15	3.70E-05	64,860
08-Feb-97	LLII/Excavation	404	3.65E-13	<	4.70E-15	<	9.40E-16	5.70E-05	64,860
10-Feb-97	LLII/Excavation	401	3.17E-13		8.68E-15		1.74E-15	1.14E-04	76,140
10-Feb-97	LLII/Excavation	402	3.01E-13		4.17E-15		8.34E-16	1.12E-04	76,140
10-Feb-97	LLII/Excavation	403	1.32E-13		1.09E-14		2.19E-15	1.05E-04	76,140
10-Feb-97	LLII/Excavation	404	2.91E-14		4.17E-15		8.34E-16	6.04E-05	76,140
11-Feb-97	LLII/Excavation	401	1.27E-13	<	9.53E-15	<	1.91E-15	1.65E-04	63,450
11-Feb-97	LLII/Excavation	402	4.74E-13		1.04E-14		2.08E-15	1.26E-04	63,450
11-Feb-97	LLII/Excavation	403	1.28E-13		1.14E-14		2.29E-15	1.34E-04	63,450
11-Feb-97	LLII/Excavation	404	4.10E-14		1.08E-14		2.15E-15	1.58E-04	63,450
12-Feb-97	LLII/Excavation	401	6.08E-14		1.47E-14		2.93E-15	9.98E-05	64,155
12-Feb-97	LLII/Excavation	402	2.87E-13		1.06E-14		2.13E-15	7.95E-05	64,155
12-Feb-97	LLII/Excavation	403	5.36E-14		3.90E-15		7.81E-16	7.01E-05	64,155
12-Feb-97	LLII/Excavation	404	1.30E-13		7.94E-15		1.59E-15	1.39E-04	64,155
13-Feb-97	LLII/Excavation	401	1.03E-13	<	5.21E-15	<	1.04E-15	2.22E-04	64,860
13-Feb-97	LLII/Excavation	402	2.78E-13		1.19E-14		2.37E-15	1.22E-04	64,860
13-Feb-97	LLII/Excavation	403	1.26E-13		1.32E-14		2.64E-15	1.23E-04	64,860
13-Feb-97	LLII/Excavation	404	3.24E-13		9.19E-15		1.84E-15	1.09E-04	64,860
14-Feb-97	LLII/Excavation	401	5.35E-13		2.17E-14		4.34E-15	5.41E-04	61,335
14-Feb-97	LLII/Excavation	402	9.93E-13		1.32E-14		2.65E-15	2.61E-04	61,335
14-Feb-97	LLII/Excavation	403	4.04E-13		8.31E-15		1.66E-15	5.12E-04	61,335
14-Feb-97	LLII/Excavation	404	2.86E-13		9.01E-15		1.80E-15	2.38E-04	61,335
17-Feb-97	LLII/Excavation	401	8.28E-13	<	4.17E-15	<	8.33E-16	1.18E-04	82,485

17-Feb-97	LLII/Excavation	402	6.26E-13		4.52E-15		9.05E-16	7.64E-05	82,485
17-Feb-97	LLII/Excavation	403	6.59E-13		5.58E-15		1.12E-15	8.00E-05	82,485
17-Feb-97	LLII/Excavation	404	6.46E-13		6.63E-15		1.33E-15	7.52E-05	82,485
18-Feb-97	LLII/Excavation	401	1.13E-12	<	9.03E-15	<	1.81E-15	1.39E-04	80,370
18-Feb-97	LLII/Excavation	402	9.03E-13	<	8.41E-15	<	1.68E-15	1.38E-04	80,370
18-Feb-97	LLII/Excavation	403	1.01E-12	<	9.03E-15	<	1.81E-15	1.21E-04	80,370
18-Feb-97	LLII/Excavation	404	4.29E-13	<	8.41E-15	<	1.68E-15	1.42E-04	80,370
19-Feb-97	LLII/Excavation	401	2.11E-13		5.62E-15		1.12E-15	4.12E-04	81,780
19-Feb-97	LLII/Excavation	402	3.20E-13		5.09E-15		1.02E-15	1.44E-04	81,780
19-Feb-97	LLII/Excavation	403	2.73E-13		7.21E-15		1.44E-15	2.28E-04	69,795
19-Feb-97	LLII/Excavation	404	8.79E-14		6.15E-15		1.23E-15	1.98E-04	81,780
20-Feb-97	LLII/Excavation	401	3.25E-13	<	9.65E-15	<	1.93E-15	1.68E-04	64,860
20-Feb-97	LLII/Excavation	402	5.69E-13	<	1.04E-14	<	2.08E-15	1.00E-04	64,860
20-Feb-97	LLII/Excavation	403	3.04E-13	<	5.30E-15	<	1.06E-15	1.02E-04	64,860
20-Feb-97	LLII/Excavation	404	5.51E-13		7.09E-15		1.42E-15	8.79E-05	64,860
22-Feb-97	LLII/Excavation	401	1.90E-13	<	7.57E-15	<	1.51E-15	6.69E-05	62,745
22-Feb-97	LLII/Excavation	402	3.55E-13	<	6.77E-15	<	1.35E-15	5.10E-05	62,745
22-Feb-97	LLII/Excavation	403	4.24E-13	<	7.57E-15	<	1.51E-15	6.22E-05	62,745
22-Feb-97	LLII/Excavation	404	2.08E-13	<	9.18E-15	<	1.84E-15	3.19E-05	62,745
24-Feb-97	LLII/Excavation	401	2.04E-13		6.45E-15		1.29E-15	1.01E-03	80,370
24-Feb-97	LLII/Excavation	402	1.39E-13		5.38E-15		1.08E-15	2.02E-04	80,370
24-Feb-97	LLII/Excavation	403	5.83E-14		5.38E-15		1.08E-15	1.03E-04	80,370
24-Feb-97	LLII/Excavation	404	9.12E-14		3.76E-15		7.53E-16	1.74E-04	80,370
25-Feb-97	LLII/Excavation	401	3.07E-13		4.26E-15		8.53E-16	6.91E-04	81,075
25-Feb-97	LLII/Excavation	402	4.32E-13		8.53E-15		1.71E-15	3.15E-04	81,075
25-Feb-97	LLII/Excavation	403	3.86E-13		6.40E-15		1.28E-15	2.89E-04	81,075
25-Feb-97	LLII/Excavation	404	3.10E-13		6.40E-15		1.28E-15	3.01E-04	81,075
26-Feb-97	LLII/Excavation	401	1.82E-12		7.66E-15		1.53E-15	1.24E-04	39,480
26-Feb-97	LLII/Excavation	402	2.02E-12		1.20E-14		2.41E-15	8.87E-05	39,480
26-Feb-97	LLII/Excavation	403	1.59E-12	<	1.21E-14	<	2.43E-15	9.37E-05	39,480
26-Feb-97	LLII/Excavation	404	1.40E-12	<	1.47E-14	<	2.95E-15	1.95E-04	39,480
27-Feb-97	LLII/Excavation	401	1.67E-13		8.91E-15		1.78E-15	4.61E-05	82,485
27-Feb-97	LLII/Excavation	402	1.83E-13		5.24E-15		1.05E-15	4.12E-05	82,485
27-Feb-97	LLII/Excavation	403	2.62E-13		7.34E-15		1.47E-15	3.88E-05	82,485
27-Feb-97	LLII/Excavation	404	2.00E-13		4.72E-15		9.43E-16	4.61E-05	82,485
28-Feb-97	LLII/Excavation	401	3.00E-13		7.34E-15		1.47E-15	2.62E-04	82,485
28-Feb-97	LLII/Excavation	402	1.24E-13		6.81E-15		1.36E-15	1.19E-04	82,485
28-Feb-97	LLII/Excavation	403	1.25E-13		3.67E-15		7.34E-16	9.58E-05	82,485
28-Feb-97	LLII/Excavation	404	4.15E-13		6.81E-15		1.36E-15	1.31E-04	82,485

March 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
01-Mar-97	LLII/Excavation	401	1.17E-12	<	8.87E-15	<	1.77E-15	8.54E-05	65,565
01-Mar-97	LLII/Excavation	402	1.28E-12		5.93E-15		1.19E-15	5.95E-05	65,565
01-Mar-97	LLII/Excavation	403	3.24E-13		6.59E-15		1.32E-15	6.71E-05	65,565
01-Mar-97	LLII/Excavation	404	7.53E-13		5.27E-15		1.05E-15	7.32E-05	65,565
03-Mar-97	LLII/Excavation	401	1.08E-13		1.50E-14		3.00E-15	2.86E-04	81,780
03-Mar-97	LLII/Excavation	402	2.02E-13		8.69E-15		1.74E-15	7.70E-05	81,780
03-Mar-97	LLII/Excavation	403	1.08E-13		3.46E-15		6.91E-16	1.16E-04	81,780
03-Mar-97	LLII/Excavation	404	5.04E-13		7.65E-15		1.53E-15	1.00E-04	81,780
04-Mar-97	LLII/Excavation	401	7.89E-13		6.07E-15		1.21E-15	2.08E-04	81,780
04-Mar-97	LLII/Excavation	402	8.07E-13		7.65E-15		1.53E-15	1.39E-04	81,780
04-Mar-97	LLII/Excavation	403	5.45E-13		8.69E-15		1.74E-15	4.52E-04	81,780
04-Mar-97	LLII/Excavation	404	7.95E-13	<	6.08E-15	<	1.22E-15	2.50E-04	73,320
05-Mar-97	LLII/Excavation	401	1.66E-13		4.46E-15		8.93E-16	1.43E-04	82,485
05-Mar-97	LLII/Excavation	402	3.67E-13		8.10E-15		1.62E-15	6.67E-05	82,485
05-Mar-97	LLII/Excavation	403	1.82E-13		9.66E-15		1.93E-15	7.64E-05	82,485
05-Mar-97	LLII/Excavation	404	4.62E-13		9.14E-15		1.83E-15	1.36E-04	82,485
06-Mar-97	LLII/Excavation	401	2.59E-13		7.12E-15		1.42E-15	6.43E-04	81,780
06-Mar-97	LLII/Excavation	402	2.76E-13		8.17E-15		1.63E-15	2.53E-04	81,780
06-Mar-97	LLII/Excavation	403	1.53E-13		1.13E-14		2.26E-15	1.35E-04	81,780
06-Mar-97	LLII/Excavation	404	2.16E-13		6.07E-15		1.21E-15	2.37E-04	81,780
07-Mar-97	LLII/Excavation	401	4.72E-13		9.22E-15		1.84E-15	4.38E-04	81,780
07-Mar-97	LLII/Excavation	402	4.91E-13		5.55E-15		1.11E-15	3.45E-04	81,780
07-Mar-97	LLII/Excavation	403	4.92E-13		9.22E-15		1.84E-15	2.09E-04	81,780
07-Mar-97	LLII/Excavation	404	4.77E-13		9.22E-15		1.84E-15	7.92E-04	81,780
08-Mar-97	LLII/Excavation	401	5.04E-13		5.07E-15		1.01E-15	1.98E-04	64,155
08-Mar-97	LLII/Excavation	402	2.24E-13		6.41E-15		1.28E-15	9.98E-05	64,155
08-Mar-97	LLII/Excavation	403	2.94E-13		1.04E-14		2.08E-15	7.48E-05	64,155
08-Mar-97	LLII/Excavation	404	4.08E-13		1.31E-14		2.62E-15	1.17E-03	64,155
10-Mar-97	LLII/Excavation	401	7.36E-13		7.52E-15		1.50E-15	1.41E-04	80,370
10-Mar-97	LLII/Excavation	402	7.07E-13	<	7.83E-15	<	1.57E-15	2.48E-04	80,370
10-Mar-97	LLII/Excavation	403	5.03E-13		4.25E-15		8.50E-16	1.24E-04	80,370
10-Mar-97	LLII/Excavation	404	4.73E-13		6.98E-15		1.40E-15	4.78E-04	80,370
11-Mar-97	LLII/Excavation	401	5.84E-14		1.11E-14		2.23E-15	5.54E-04	81,780
11-Mar-97	LLII/Excavation	402	4.27E-14	<	5.82E-15	<	1.16E-15	1.76E-04	81,780
11-Mar-97	LLII/Excavation	403	3.75E-14	<	8.31E-15	<	1.66E-15	6.48E-05	81,780
11-Mar-97	LLII/Excavation	404	1.07E-13		8.47E-15		1.69E-15	1.12E-03	81,780
12-Mar-97	LLII/Excavation	401	5.80E-14		7.86E-15		1.57E-15	6.17E-04	82,485
12-Mar-97	LLII/Excavation	402	4.24E-14		6.27E-15		1.25E-15	1.43E-04	82,485
12-Mar-97	LLII/Excavation	403	5.83E-14	<	5.77E-15	<	1.15E-15	1.27E-04	82,485
12-Mar-97	LLII/Excavation	404	5.85E-14		1.32E-14		2.63E-15	4.56E-04	82,485
13-Mar-97	LLII/Excavation	401	4.40E-13		5.74E-15		1.15E-15	5.89E-04	82,485
13-Mar-97	LLII/Excavation	402	4.26E-13	<	8.24E-15	<	1.65E-15	4.02E-04	82,485
13-Mar-97	LLII/Excavation	403	5.20E-13	<	8.24E-15	<	1.65E-15	6.43E-05	82,485
13-Mar-97	LLII/Excavation	404	3.67E-13		8.92E-15		1.78E-15	1.23E-03	82,485
14-Mar-97	LLII/Excavation	401	3.17E-13		4.14E-15		8.29E-16	8.61E-05	82,485
14-Mar-97	LLII/Excavation	402	2.70E-13	<	5.77E-15	<	1.15E-15	2.96E-04	82,485
14-Mar-97	LLII/Excavation	403	3.03E-13		4.67E-15		9.35E-16	8.00E-05	82,485
14-Mar-97	LLII/Excavation	404	2.88E-13		4.67E-15		9.35E-16	2.11E-04	82,485
15-Mar-97	LLII/Excavation	401	4.62E-13	<	1.01E-14	<	2.01E-15	7.39E-04	66,975

15-Mar-97	LLII/Excavation	402	4.91E-13		6.05E-15		1.21E-15	3.15E-04	66,975
15-Mar-97	LLII/Excavation	403	3.01E-13		5.40E-15		1.08E-15	4.78E-04	66,975
15-Mar-97	LLII/Excavation	404	4.26E-13		8.62E-15		1.72E-15	4.05E-04	66,975
17-Mar-97	LLII/Excavation	401	2.02E-12		8.24E-15		1.65E-15	2.02E-04	81,780
17-Mar-97	LLII/Excavation	402	1.64E-12	<	5.06E-15	<	1.01E-15	2.21E-04	81,780
17-Mar-97	LLII/Excavation	403	1.59E-12		7.72E-15		1.54E-15	3.00E-04	81,780
17-Mar-97	LLII/Excavation	404	1.30E-12		6.68E-15		1.34E-15	6.58E-04	81,780
18-Mar-97	LLII/Excavation	401	1.51E-13		1.04E-14		2.08E-15	4.93E-05	81,075
18-Mar-97	LLII/Excavation	402	1.99E-13		6.74E-15		1.35E-15	2.59E-05	81,075
18-Mar-97	LLII/Excavation	403	1.52E-13		6.74E-15		1.35E-15	4.44E-05	81,075
18-Mar-97	LLII/Excavation	404	4.06E-13		1.46E-14		2.93E-15	2.65E-04	81,075
19-Mar-97	LLII/Excavation	401	1.76E-13	<	8.24E-15	<	1.65E-15	1.09E-04	80,370
19-Mar-97	LLII/Excavation	402	1.11E-13		6.26E-15		1.25E-15	6.59E-05	80,370
19-Mar-97	LLII/Excavation	403	2.10E-13		7.86E-15		1.57E-15	8.21E-05	80,370
19-Mar-97	LLII/Excavation	404	2.76E-13		8.92E-15		1.78E-15	6.00E-04	80,370
20-Mar-97	LLII/Excavation	401	2.47E-13		7.33E-15		1.47E-15	1.39E-04	80,370
20-Mar-97	LLII/Excavation	402	1.21E-13	<	6.39E-15	<	1.28E-15	1.17E-04	80,370
20-Mar-97	LLII/Excavation	403	2.17E-13		4.67E-15		9.34E-16	1.31E-04	80,370
20-Mar-97	LLII/Excavation	404	3.77E-13		9.98E-15		2.00E-15	1.22E-03	80,370
21-Mar-97	LLII/Excavation	401	2.81E-12		6.74E-15		1.35E-15	2.89E-04	74,730
21-Mar-97	LLII/Excavation	402	2.15E-12	<	8.86E-15	<	1.77E-15	1.81E-04	74,730
21-Mar-97	LLII/Excavation	403	2.13E-12	<	8.20E-15	<	1.64E-15	4.48E-04	74,730
21-Mar-97	LLII/Excavation	404	1.87E-12		7.88E-15		1.58E-15	4.20E-04	74,730
22-Mar-97	LLII/Excavation	401	1.93E-13	<	1.01E-14	<	2.02E-15	1.17E-04	65,565
22-Mar-97	LLII/Excavation	402	3.68E-13		5.08E-15		1.02E-15	6.41E-05	65,565
22-Mar-97	LLII/Excavation	403	1.79E-13	<	8.59E-15	<	1.72E-15	5.49E-05	65,565
22-Mar-97	LLII/Excavation	404	3.38E-13		5.73E-15		1.15E-15	3.31E-04	65,565
24-Mar-97	LLII/Excavation	401	9.75E-13	<	8.14E-15	<	1.63E-15	1.66E-04	77,550
24-Mar-97	LLII/Excavation	402	9.45E-13		5.15E-15		1.03E-15	1.38E-04	77,550
24-Mar-97	LLII/Excavation	403	1.03E-12	<	4.79E-15	<	9.58E-16	1.61E-04	77,550
24-Mar-97	LLII/Excavation	404	7.84E-13	<	6.21E-15	<	1.24E-15	5.92E-04	77,550
25-Mar-97	LLII/Excavation	401	6.40E-13		4.97E-15		9.94E-16	6.47E-05	80,370
25-Mar-97	LLII/Excavation	402	6.42E-13	<	7.24E-15	<	1.45E-15	6.10E-05	80,370
25-Mar-97	LLII/Excavation	403	7.87E-13		4.97E-15		9.94E-16	1.06E-04	80,370
25-Mar-97	LLII/Excavation	404	1.14E-12	<	4.62E-15	<	9.24E-16	1.39E-04	80,370
26-Mar-97	LLII/Excavation	401	7.69E-13		7.67E-15		1.53E-15	1.89E-04	80,370
26-Mar-97	LLII/Excavation	402	8.21E-13	<	7.86E-15	<	1.57E-15	1.44E-04	80,370
26-Mar-97	LLII/Excavation	403	1.05E-12	<	4.62E-15	<	9.24E-16	2.08E-04	80,370
26-Mar-97	LLII/Excavation	404	8.59E-13	<	8.48E-15	<	1.70E-15	2.13E-04	80,370
27-Mar-97	LLII/Excavation	401	2.92E-12		1.24E-14		2.49E-15	3.89E-04	70,500
27-Mar-97	LLII/Excavation	402	2.57E-12		1.43E-14		2.86E-15	1.94E-04	70,500
27-Mar-97	LLII/Excavation	403	3.22E-12	<	1.04E-14	<	2.07E-15	2.54E-04	70,500
27-Mar-97	LLII/Excavation	404	3.23E-12	<	8.96E-15	<	1.79E-15	2.72E-04	70,500
31-Mar-97	LLII/Excavation	401	5.59E-14		5.23E-15		1.05E-15	6.59E-05	80,370
31-Mar-97	LLII/Excavation	402	1.20E-13	<	4.48E-15	<	8.96E-16	5.23E-05	80,370
31-Mar-97	LLII/Excavation	403	8.83E-14	<	4.48E-15	<	8.96E-16	6.84E-05	80,370
31-Mar-97	LLII/Excavation	404	2.33E-13	<	8.05E-15	<	1.61E-15	8.71E-05	80,370

April 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
01-Apr-97	LLII/Excavation	401	5.14E-13		5.65E-15		1.13E-15	2.19E-04	80,370
01-Apr-97	LLII/Excavation	402	7.20E-13		8.36E-15		1.67E-15	1.31E-04	80,370
01-Apr-97	LLII/Excavation	403	4.54E-13		1.22E-14		2.43E-15	1.48E-04	80,370
01-Apr-97	LLII/Excavation	404	5.03E-13		1.11E-14		2.22E-15	1.83E-04	80,370
02-Apr-97	LLII/Excavation	401	1.38E-12	<	6.39E-15	<	1.28E-15	5.14E-04	80,370
02-Apr-97	LLII/Excavation	402	1.75E-12	<	8.86E-15	<	1.77E-15	1.83E-04	80,370
02-Apr-97	LLII/Excavation	403	1.26E-12	<	4.89E-15	<	9.78E-16	3.50E-04	80,370
02-Apr-97	LLII/Excavation	404	1.71E-12	<	8.25E-15	<	1.65E-15	1.48E-04	80,370
03-Apr-97	LLII/Excavation	401	3.82E-12	<	9.84E-15	<	1.97E-15	1.89E-04	82,485
03-Apr-97	LLII/Excavation	402	3.89E-12		7.09E-15		1.42E-15	1.70E-04	82,485
03-Apr-97	LLII/Excavation	403	3.20E-12		7.09E-15		1.42E-15	5.42E-04	82,485
03-Apr-97	LLII/Excavation	404	3.91E-12		4.97E-15		9.95E-16	3.37E-04	82,485
04-Apr-97	LLII/Excavation	401	2.18E-12		8.36E-15		1.67E-15	4.50E-04	80,370
04-Apr-97	LLII/Excavation	402	2.60E-12	<	4.89E-15	<	9.78E-16	2.50E-04	80,370
04-Apr-97	LLII/Excavation	403	2.13E-12	<	9.48E-15	<	1.90E-15	3.09E-04	80,370
04-Apr-97	LLII/Excavation	404	2.02E-12	<	7.63E-15	<	1.53E-15	5.84E-04	80,370
07-Apr-97	LLII/Excavation	401	7.62E-13	<	5.36E-15	<	1.07E-15	3.96E-04	77,550
07-Apr-97	LLII/Excavation	402	1.11E-12		7.63E-15		1.53E-15	1.43E-04	77,550
07-Apr-97	LLII/Excavation	403	5.34E-13		6.53E-15		1.31E-15	8.67E-04	77,550
07-Apr-97	LLII/Excavation	404	1.14E-12		7.63E-15		1.53E-15	1.30E-04	77,550
08-Apr-97	LLII/Excavation	401	3.67E-13		4.39E-15		8.79E-16	1.43E-04	76,140
08-Apr-97	LLII/Excavation	402	6.57E-13		1.34E-14		2.68E-15	6.41E-04	76,140
08-Apr-97	LLII/Excavation	403	3.69E-13		6.08E-15		1.22E-15	1.94E-04	76,140
08-Apr-97	LLII/Excavation	404	5.76E-13	<	4.80E-15	<	9.60E-16	1.17E-04	76,140
09-Apr-97	LLII/Excavation	401	3.14E-13		5.23E-15		1.05E-15	5.06E-04	80,370
09-Apr-97	LLII/Excavation	402	2.68E-13		1.00E-14		2.01E-15	6.10E-05	80,370
09-Apr-97	LLII/Excavation	403	2.84E-13		9.50E-15		1.90E-15	1.93E-04	80,370
09-Apr-97	LLII/Excavation	404	2.38E-13		7.90E-15		1.58E-15	5.23E-05	80,370
10-Apr-97	LLII/Excavation	401	1.26E-13		1.28E-14		2.57E-15	2.17E-04	76,140
10-Apr-97	LLII/Excavation	402	4.45E-13		7.21E-15		1.44E-15	6.30E-05	76,140
10-Apr-97	LLII/Excavation	403	2.69E-13		1.00E-14		2.01E-15	1.25E-04	76,140
10-Apr-97	LLII/Excavation	404	1.45E-13	<	6.07E-15	<	1.21E-15	2.22E-04	76,140
14-Apr-97	LLII/Excavation	401	9.62E-13		1.32E-14		2.63E-15	2.44E-04	77,550
14-Apr-97	LLII/Excavation	402	8.67E-13		9.85E-15		1.97E-15	1.73E-04	77,550
14-Apr-97	LLII/Excavation	403	8.03E-13		1.10E-14		2.19E-15	1.70E-04	77,550
14-Apr-97	LLII/Excavation	404	5.41E-13		1.37E-14		2.75E-15	2.14E-04	77,550
15-Apr-97	LLII/Excavation	401	1.68E-12		9.87E-15		1.97E-15	2.97E-04	81,780
15-Apr-97	LLII/Excavation	402	2.10E-12		1.20E-14		2.39E-15	1.71E-04	81,780
15-Apr-97	LLII/Excavation	403	1.88E-12		9.34E-15		1.87E-15	2.05E-04	81,780
15-Apr-97	LLII/Excavation	404	1.76E-12		7.77E-15		1.55E-15	1.81E-04	81,780
16-Apr-97	LLII/Excavation	401	5.33E-13		6.19E-15		1.24E-15	1.10E-04	81,780
16-Apr-97	LLII/Excavation	402	6.77E-13		9.34E-15		1.87E-15	6.97E-05	81,780
16-Apr-97	LLII/Excavation	403	3.46E-13		5.67E-15		1.13E-15	5.99E-05	81,780
16-Apr-97	LLII/Excavation	404	7.13E-13		8.82E-15		1.76E-15	1.75E-04	81,780
17-Apr-97	LLII/Excavation	401	5.77E-13		7.24E-15		1.45E-15	2.25E-04	81,780

April 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
17-Apr-97	LLII/Excavation	402	5.93E-13		6.72E-15		1.34E-15	7.95E-05	81,780
17-Apr-97	LLII/Excavation	403	5.06E-13		1.41E-14		2.81E-15	1.00E-04	81,780
17-Apr-97	LLII/Excavation	404	7.32E-13		6.72E-15		1.34E-15	1.83E-04	81,780
21-Apr-97	LLII/Excavation	401	1.03E-13	<	6.21E-15	<	1.24E-15	1.10E-04	82,485
21-Apr-97	LLII/Excavation	402	1.19E-13		1.20E-14		2.39E-15	3.64E-05	82,485
21-Apr-97	LLII/Excavation	403	2.62E-14		5.72E-15		1.14E-15	6.06E-06	82,485
21-Apr-97	LLII/Excavation	404	1.04E-13		6.76E-15		1.35E-15	8.00E-05	82,485
22-Apr-97	LLII/Excavation	401	3.55E-13		4.98E-15		9.95E-16	1.07E-04	77,550
22-Apr-97	LLII/Excavation	402	6.14E-13	<	4.65E-15	<	9.31E-16	1.01E-04	77,550
22-Apr-97	LLII/Excavation	403	4.96E-13		9.40E-15		1.88E-15	1.61E-04	77,550
22-Apr-97	LLII/Excavation	404	6.71E-13		4.42E-15		8.85E-16	1.73E-04	77,550
23-Apr-97	LLII/Excavation	401	3.82E-13	<	8.54E-15	<	1.71E-15	1.24E-04	77,550
23-Apr-97	LLII/Excavation	402	3.16E-13		6.64E-15		1.33E-15	7.48E-05	77,550
23-Apr-97	LLII/Excavation	403	3.01E-13	<	7.25E-15	<	1.45E-15	1.68E-04	77,550
23-Apr-97	LLII/Excavation	404	1.66E-13		7.69E-15		1.54E-15	2.86E-04	77,550
29-Apr-97	LLII/Excavation	401	1.73E-12		6.26E-15		1.25E-15	3.77E-04	76,140
29-Apr-97	LLII/Excavation	402	2.25E-12	<	7.25E-15	<	1.45E-15	3.20E-04	76,140
29-Apr-97	LLII/Excavation	403	2.08E-12	<	5.26E-15	<	1.05E-15	3.85E-04	76,140
29-Apr-97	LLII/Excavation	404	2.53E-12	<	9.87E-15	<	1.97E-15	2.64E-04	76,140
30-Apr-97	LLII/Excavation	401	2.25E-12		5.97E-15		1.19E-15	6.06E-04	72,615
30-Apr-97	LLII/Excavation	402	2.98E-12		5.37E-15		1.07E-15	2.45E-04	72,615
30-Apr-97	LLII/Excavation	403	3.10E-12		7.76E-15		1.55E-15	1.64E-04	72,615
30-Apr-97	LLII/Excavation	404	3.46E-12	<	1.03E-14	<	2.07E-15	3.21E-04	72,615

May 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml		Th-Alpha uCi/ml		Th-232 uCi/ml	TSP g/m3	Volume liters
05-May-97	LLII/Excavation	401	2.22E-12	<	8.68E-15	<	1.74E-15	1.14E-04	67,680
05-May-97	LLII/Excavation	401	2.22E-12	<	8.68E-15	<	1.74E-15	1.14E-04	67,680
05-May-97	LLII/Excavation	401	2.22E-12	<	8.68E-15	<	1.74E-15	1.14E-04	67,680
05-May-97	LLII/Excavation	401	2.22E-12	<	8.68E-15	<	1.74E-15	1.14E-04	67,680
05-May-97	LLII/Excavation	402	2.04E-12		8.01E-15		1.60E-15	9.01E-05	67,680
05-May-97	LLII/Excavation	403	2.55E-12		9.28E-15		1.86E-15	1.37E-04	67,680
05-May-97	LLII/Excavation	404	1.97E-12		8.01E-15		1.60E-15	6.80E-05	67,680
07-May-97	LLII/Excavation	401	8.43E-13		9.26E-15		1.85E-15	2.67E-04	81,780
07-May-97	LLII/Excavation	402	1.15E-12	<	4.71E-15	<	9.41E-16	1.97E-04	81,780
07-May-97	LLII/Excavation	403	1.01E-12		1.14E-14		2.27E-15	1.10E-04	81,780
07-May-97	LLII/Excavation	404	7.57E-13		5.57E-15		1.11E-15	5.04E-04	81,780
08-May-97	LLII/Excavation	401	2.21E-12		1.13E-14		2.27E-15	1.46E-04	70,500
08-May-97	LLII/Excavation	402	2.55E-12		1.38E-14		2.76E-15	1.73E-04	70,500
08-May-97	LLII/Excavation	403	2.14E-12		7.69E-15		1.54E-15	1.55E-04	70,500
08-May-97	LLII/Excavation	404	2.13E-12		5.86E-15		1.17E-15	1.06E-04	70,500

June 1997 Air Sampling Summary
Lindsay Light II

Date	Excavation ID	Sample ID	Pb-212 uCi/ml	Th-Alpha uCi/ml	Th-232 uCi/ml	TSP g/m3	Volume liters
17-Jun-97	LLII/Excavation	401	4.47E-13	1.48E-14	2.97E-15	1.60E-04	33,135

ATTACHMENT H

PHASE 1 PERMITS

1214141

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
ROM 316 E TO ILLINOIS ST. EXPIR.DT 11/09/96
****

ERMIT # 2632932 COMPANY NAME STS CONSULTANTS LTD
EM.PER # ADDRESS(1) 1415 LAKE COOK ROAD ZIP CODE 60613
ERMIT TYPE B ADDRESS(2) CITY DEERFIELD STATE IL
SSUE DT 08/27/96 REPRESENTATIVE CHUCK LEUCHT PHONE 708-272-6520
XPIR.DT 11/09/96
OMPL.DT PRED# SUCC# PROJ# CONTRACT #
EE AMT $1,000.00 ADDRESS LOCATION : FROM 316 DIR E TO DIR WARD 42
EP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
ERMISSION TO: MAKE NUMEROUS BORINGS IN SIDEWALK AND STREET ON GRAND AVENUE
AND ILLINOIS STREET
(STREET TRAFFIC DECTOR COMPLETED ON 12/31/96 EXPIR. DATE: 12/31/98)
TRANSCONTINENTAL INS. CO. POL. # CCP502074647 POL. EXPIR. DATE: 7/1/97
CONTINENTAL INS. CO. POL. # BUA102074649 POL. EXPIR. DATE: 7/1/97

ESTRICTIONS: STARTING DATE : SEPTEMBER 9,1996 TO NOVEMBER 9,1996
OCCUPY ONLY ONE LANE AT A TIME. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. PAVEMENT OPENING TO BE BACKFILLED TO GRADE/OR PLATED DURING OFF WORK PERIODS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO
DIGGER NUMBER 1214938

1010/24 27Aug96 2/83 $1000.00 BC34842560 MISC

LL II 1.4-5

27313-XA

2

Permit on attached page.

City of Chicago
Richard M. Daley, Mayor

Department of Water

Bureau of Water Engineering
Plumbing Inspection Division
Jardine Water Purification Plant
1000 East Ohio Street
Chicago, Illinois 60611
(312) 744-7017 (VOICE)
(312) 744-3289 (FAX)

September 12, 1996

John S. Esser, P.E.
STS Consultants, Ltd.
1415 Lake Cook Road
Deerfield, Illinois 60015

Re: 316 E. Illinois

Dear Mr. Esser:

After reviewing your request to the City of Chicago to use fire hydrant(s), your request has been granted for the above referenced location.

You are required to go to City Hall, Room 103, Water Collection, Plumbing Inspection/Plan and Permit Section to receive your permit (Please bring this letter with you)

In order to prevent damage to the hydrant due to freezing, please instruct your personnel to follow this procedure:

> Do not use hydrant below 32 degrees Fahrenheit. After the hydrant has been turned down, the operator should insert his hand as far as possible to ascertain if the water has drained properly. If water remains in the hydrant barrel, please notify Assistant Commissioner, Robert Harmening at (312) 744-7010 and necessary steps will be taken to repair hydrant.

If further information is required regarding this matter, please contact Fred Barone or Michael McGinnis by calling (312) 744-3765 or 3764.

Very truly yours,

John F. Gallagher

John F. Gallagher
Deputy Commissioner

Originated by:

Neil R. Ward

Neil R. Ward
Chief Plumbing Inspector

JFG:NRW:dcs

LL II 1.4-5-1

An American Celebration

Chicago '96

Chicago Works Together

Form W. & S. 115

Receipt Not Valid Unless Stamped ENTERED by Registrar.

CITY OF CHICAGO — DEPARTMENT OF WATER

BUREAU OF WATER SERVICES

1st Floor, CITY HALL, La Salle Street Entrance

MAKE CHECKS PAYABLE TO ORDER OF "SUPERINTENDENT OF WATER COLLECTIONS"

No. 44970

Chicago, 9-19 1996

M STS Consultants Ltd

Charge for Use of Water Hydrants	448	59
PAID B.W.E. Grand & McClurg Ct. SEP 19 1996		
	448	59

V Thomas

M J Burnyeat

ASST. SUPT. OF WATER COLL.

RICHARD M. DALEY, MAYOR

CITY OF CHICAGO
DEPARTMENT OF WATER
BUREAU OF ENGINEERING
PLUMBING SECTION

44970 96-315

Permit No.

PERMIT FOR TEMPORARY USE OF WATER

THIS PERMIT MUST BE IN POSSESSION OF PERSON DRAWING WATER

Permission is hereby granted to STS Consultants Ltd

to draw water from City fixtures at NEX Grand & McClurg Ct

for Subsurface drilling purpose, from 9-23-96 to 12-10-96

Payment for water see V Thomas

Received $ 448.59 for Bureau of Water Distribution services.

Neil R Ward M J Burnyeat

CHIEF PLUMBING INSPECTOR

NOTE: PLEASE REPORT ANY HYDRANT THAT MALFUNCTIONS OR DOES NOT OPERATE PROPERLY TO THE BUREAU OF WATER DISTRIBUTION BY CALLING 744-7038 OR FOR 24 HOUR SERVICE CALL WATER-11.

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 01/30/97
****

PERMIT # 2642624 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE PM ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 10/07/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT $500.00 ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: MOVE TWO (2) SIGNS - ONE WEST EXIT (ONE WAY/TOW ZONE
EAST ENTRANCE TOW ZONE)
ALSO THREE (3) PARKING METERS ON SOUTH SIDE OF GRAND AVE IN 300 BLK BET.
COLUMBUS AND MCCLURG. CT.
METER NUMBERS: 73479 73478 73467
HARTFORD INS. CO. POL. # 83UUNPJ1659 POL. EXPIR.DATE: 1/1/97

RESTRICTIONS: WORK ESTIMATED TO BE COMPLETED BY JANUARY 30,1997
CONTRACTOR TO NOTIFY THIS DIVISION IN WRITING WHEN WORK HAS BEEN COMPLETED
ALL METERS,SIGNS MUST BE REMOVED AND REPLACED BY CITY OF CHICAGO FORCES ONLY
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS
WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR
INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE
AFFIXED TO CONSTRUCTION BARRICADES. O.K.MORSOVILLO

2303/172 7Oct96 2/76 $500.00 BB57844901 MISC
CHECK

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 01/30/97
****

PERMIT # 2642626 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE BD ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 10/07/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT $5,250.00 STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPLACE 2,000 SQ. FEET OF SIDEWALK
HARTFORD INS. CO. POL. # 83UUNPJ1659 POL. EXPIR.DATE: 1/1/97
(GUARANTEE RESTORATION)

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

2303/171 7Oct96 2/76 $5250.00 BB96846002 MISC

CHECK

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 01/30/97
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PERMIT # 2645701 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE BD ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 10/21/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# 2642626 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT $3,125.00 STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPALCE 25 SQUARES OF SIDEWALK ON ILLINOIS ST.
HARTFORD INS. CO. POL. # 83UUNPJ1659 POL. EXPIR.DATE: 1/1/97
GUARANTEE RESTORATION OF PUBLIC SIDEWALK
ISSUED IN CONJUNCTION WITH PERMIT BD 2642626 TO EXTEND JOB

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 01/30/97
****

PERMIT # 2645702 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE PM ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 10/21/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# 2642624 SUCC# PROJ# CONTRACT #
FEE AMT $300.00 ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPLACE THREE (3) PARKING METERS
S.S.OF EAST GRAND AV. - 300 BLOCK
PARKING METERS -- 73464 - 73465 - 73466
HARTFORD INS. CO. POL NO. 83 UUNPJ1659 EXP. 1/31/97

RESTRICTIONS: WORK ESTIMATED TO BE COMPLETED BY JANUARY 30,1997
CONTRACTOR TO NOTIFY THIS DIVISION IN WRITING WHEN WORK HAS BEEN COMPLETED
ALL METERS,SIGNS MUST BE REMOVED AND REPLACED BY CITY OF CHICAGO FORCES ONLY
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS
WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR
INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE
AFFIXED TO CONSTRUCTION BARRICADES. O.K.MORSOVILLO

2356/89 210c696 2/76 $300.00 3557844901 MISC
CHECK

The Chicago Dock & Canal Trust

455 East Illinois Street
Suite 565
Chicago, Illinois 60611
312/467-1870
FAX 312/467-9647

FAXED 11/1/96

November 1, 1996

VIA FAX AND MAIL

Mr. Daniel F. Morsovillo
Acting Director of Construction Compliance
Department of Transportation
Construction Compliance Division
City Hall, Room 804
Chicago, IL 60602

Re: Special Permit Exemption during Holiday Restrictions
November 25, 1996 - January 3, 1997

Dear Mr. Morsovillo:

Thank you for meeting with me this week to discuss special permit exemptions required by the Bureau of Inspections to work during the holidays. I wanted to confirm our conversation, in which you said Chicago Dock will not need special permit exemptions for Permits #2642624, #2642626, #2645701 and #2645702 to continue with the ongoing remediation project underway at 321 East Grand Avenue. Further, if anyone inquires about a special permit, they should be referred to contact you at 312-744-4656.

If my recollection is inaccurate and you believe further action should be taken on Chicago Dock's behalf, please call me by November 15th. Thanks again for your time.

Sincerely,

Tammy Walsh

Tammy Walsh

cc: Charles R. Gardner, *The Chicago Dock and Canal Trust*
Bernard A. Bono, *Kerr-McGee Corporation*
Dan White, *Kerr-McGee Corporation*
Verneta Simon, *US Environmental Protection Agency*

THE CHICAGO DOCK AND CANAL TRUST IS AN ILLINOIS BUSINESS TRUST ESTABLISHED UNDER A DECLARATION OF TRUST DATED JANUARY 22, 1962, RESTATED AS OF SEPTEMBER 16, 1986, AND SUBSEQUENTLY AMENDED, A COPY OF WHICH IS ON FILE AT THE OFFICE OF THE TRUST AND IS AVAILABLE FOR EXAMINATION. THE NAME "THE CHICAGO DOCK AND CANAL TRUST" REFERS TO THE TRUSTEES UNDER SAID DECLARATION AS TRUSTEES AND NOT PERSONALLY. NO TRUSTEE, BENEFICIARY, OFFICER OR AGENT OF THE CHICAGO DOCK AND CANAL TRUST SHALL BE HELD TO ANY PERSONAL LIABILITY IN CONNECTION WITH ANY REPRESENTATION OR AGREEMENT CONTAINED IN THIS LETTER OR IN CONNECTION WITH THE AFFAIRS OF SAID TRUST, AND OTHER PARTIES SHALL LOOK ONLY TO THE FUNDS AND PROPERTY OF THE TRUST FOR THE PAYMENT OF ANY DEBT, DEMAND OR LIABILITY.

LL II 1.4-5-1

7

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO 400 E ILLINOIS ST. EXPIR.DT 01/30/97
****

PERMIT # 2650235 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) 565 CITY CHICAGO STATE IL
ISSUE DT 11/08/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT $0.00 ADDRESS LOCATION : FROM 301 DIR E TO 400 DIR E WARD 42
DEP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: ILLINOIS STREET (500 N) BET. COLUMBUS DRIVE (301 E.) AND MCCLURG COURT (400 E) . CLOSE THE LEFT LANE OF ILLINOIS FOR SITE REMEDIATION. A PREVIOUS PERMIT COVERS THE CURB LANE PROPER BARRIERS ARE TO BE PLACED TO INSURE THE SAFETY OF PEDESTRAINS ROUTED ONTO THE ROADWAY AROUND THE WORK AREA
HARTFORD INS.CO. POL. # 83UUNPJ1659 POL. EXPIR. DATE: 1/1/97

RESTRICTIONS: PERMIT VALID FROM NOVEMBER 7,1996 TO JANUARY 30,1997
(THIS PERMIT IS EXEMPT FROM THE HOLIDAY RESTRICTIONS)
PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY.
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES.

LL II 1.4-5-1

B

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO 400 E ILLINOIS ST. EXPIR.DT 01/30/97
****

PERMIT # 2650237 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE BD ADDRESS(2) 565 CITY CHICAGO STATE IL
ISSUE DT 11/08/96 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 01/30/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 301 DIR E TO 400 DIR E WARD 42
DEP.AMT $1,000.00 STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: GUARANTEE RESTORATION OF PUBLIC WAY
HARTFORD INS. CO. POL. # 83UUNDJ1659 POL. EXPIR.DATE: 1/1/97
(ISSUED IN CONJUNCTION WITH PERMIT # M 2650235)

RESTRICTIONS: PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

6004/83 8Nov96 2/76 $1000.00 BB96846002 MISC

LL II 1.4-5-1

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO 400 E ILLINOIS ST. EXPIR.DT 03/31/97
****

PERMIT # 2664073 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) 565 CITY CHICAGO STATE IL
ISSUE DT 01/15/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 03/31/97
COMPL.DT PRED# 2650237 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 301 DIR E TO 400 DIR E WARD 42
DEP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: GUARANTEE RESTORATION OF PUBLIC WAY
ISSUED IN CONJUNCTION WITH PERMIT BD 2650237 AND M 2650235
HARTFORD INS. CO. POL NO. 83 UUNPJ1659 G AND A EXP. 1/1/98

RESTRICTIONS: PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

10

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO 400 E ILLINOIS ST. EXPIR.DT 03/31/97
****

PERMIT # 2664082 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) 565 CITY CHICAGO STATE IL
ISSUE DT 01/15/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 03/31/97
COMPL.DT PRED# 2650235 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 301 DIR E TO 400 DIR E WARD 42
DEP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: ILLINOIS STREET (500 N) BET. COLUMBUS DRIVE (301 E.) AND
MCCLURG COURT (400 E) . CLOSE THE LEFT LANE OF ILLINOIS FOR SITE
REMEDIATION. A PREVIOUS PERMIT COVERS THE CURB LANE
PROPER BARRIERS ARE TO BE PLACED TO INSURE THE SAFETY OF PEDESTRAINS
ROUTED ONTO THE ROADWAY AROUND THE WORK AREA
HARTFORD INS. CO. POLNO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY
ISSUED IN CONJUNCTION WITH PERMIT M 2650235 TO EXTEND

RESTRICTIONS: PERMIT VALID UNTIL MARCH 31, 1997
PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY.
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES.
OK MORSOVILLO

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 03/31/97
****

PERMIT # 2664087 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 01/15/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 03/31/97
COMPL.DT PRED# SUCC# 2645701 PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPLACE 2,000 SQ. FEET OF SIDEWALK
HARTFORD INS. CO. POLNO. 83 UUNPJ 11659 EXP. 1/1/98
ISSUED IN CONJUNCTION WITH PERMIT M 2642626

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 03/31/97
****

PERMIT # 2664089 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 01/15/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 03/31/97
COMPL.DT PRED# 2645701 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPALCE 25 SQUARES OF SIDEWALK ON ILLINOIS ST.
GUARANTEE RESTORATION OF PUBLIC SIDEWALK
ISSUED IN CONJUNCTION WITH PERMTI BD 2645701 AND 2642626
HARTFORD INS. POL NO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. O.K.MORSOVILLO

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 03/31/97
****

PERMIT # 2664097 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 01/15/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 03/31/97
COMPL.DT PRED# SUCC# 2645702 PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: MOVE TWO (2) SIGNS - ONE WEST EXIT (ONE WAY/TOW ZONE
EAST ENTRANCE TOW ZONE)
ALSO THREE (3) PARKING METERS ON SOUTH SIDE OF GRAND AVE IN 300 BLK BET.
COLUMBUS AND MCCLURG. CT.
METER NUMBERS 73479 AND 73478
HARTFORD IS. CO. POL NO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY
ISSUED IN CONJUNCTION WITH PERMIT M 2642624

RESTRICTIONS: WORK ESTIMATED TO BE COMPLETED BY MARCH 31, 1997
CONTRACTOR TO NOTIFY THIS DIVISION IN WRITING WHEN WORK HAS BEEN COMPLETED
ALL METERS, SIGNS MUST BE REMOVED AND REPLACED BY CITY OF CHICAGO FORCES ONLY
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS
WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR
INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE
AFFIXED TO CONSTRUCTION BARRICADES. O.K.MORSOVILLO

BERNIE : 1/15/97

UPDATED PERMITS

ALL TO EXPIRE
MARCH 31, 1997

TAMMY

LL II 1.4-5-1

BB 1/20/97

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 05/31/97
****

PERMIT # 2674367 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# SUCC# 2645702 PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: MOVE TWO (2) SIGNS - ONE WEST EXIT (ONE WAY/TOW ZONE
EAST ENTRANCE TOW ZONE)
ALSO THREE (3) PARKING METERS ON SOUTH SIDE OF GRAND AVE IN 300 BLK BET.
COLUMBUS AND MCCLURG. CT.
METER NUMBERS 73479 AND 73478
HARTFORD IS. CO. POL NO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY
(RE ISSUED IN CONJUNCTION WITH PERMIT NO# 2664097 M. DATE EXTENSION).

RESTRICTIONS: WORK ESTIMATED TO BE COMPLETED BY MAY 31, 1997.
CONTRACTOR TO NOTIFY THIS DIVISION IN WRITING WHEN WORK HAS BEEN COMPLETED
ALL METERS,SIGNS MUST BE REMOVED AND REPLACED BY CITY OF CHICAGO FORCES ONLY
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS
WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR
INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE
AFFIXED TO CONSTRUCTION BARRICADES. OK K. GIBSON

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 05/31/97
****

PERMIT # 2674372 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# SUCC# 2645701 PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPLACE 2,000 SQ. FEET OF SIDEWALK
HARTFORD INS. CO. POLNO. 83 UUNPJ 11659 EXP. 1/1/98
REISSUED IN CONJUNCTION WITH PERMIT NO# 2664087- DATE EXTENSION.

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. OK K. GIBSON

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 321 E TO GRAND AV. EXPIR.DT 05/31/97
****

PERMIT # 2674376 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) SUITE 565 CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# 2645701 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 321 DIR E TO DIR WARD 42
DEP.AMT STREET NAME GRAND ST.SUFFIX AV.
PERMISSION TO: REMOVE AND REPALCE 25 SQUARES OF SIDEWALK ON ILLINOIS ST.
GUARANTEE RESTORATION OF PUBLIC SIDEWALK
RE-ISSUED IN CONJUNCTION WITH PERMIT NO# 2664089 DATE EXTENSION.
HARTFORD INS. POL NO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY

RESTRICTIONS: PERMITTEE RESPONSIBLE FOR FULL RESTORATION OF PUBLIC SIDEWALK OCCUPY CURB LANE ONLY. PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. FULL WIDTH OF STREET TO REMAIN OPEN DURING OFF WORK PERIODS. WORK PERMITTED ONLY BETWEEN 9:00 AM AND 4:00 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. OK K. GIBSON

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CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO ILLINOIS ST. EXPIR.DT 05/31/97
****

PERMIT # 2674378
TEM.PER #
PERMIT TYPE M
ISSUE DT 03/11/97
EXPIR.DT 05/31/97
COMPL.DT
FEE AMT
DEP.AMT

COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
ADDRESS(2) 565 CITY CHICAGO STATE IL
REPRESENTATIVE TAMMY WALSH PHONE 467-1870

PRED# 2650235 SUCC# PROJ# CONTRACT #
ADDRESS LOCATION : FROM 301 DIR E TO DIR WARD 42
STREET NAME ILLINOIS ST.SUFFIX ST.

PERMISSION TO: ILLINOIS STREET (500 N) BET. COLUMBUS DRIVE (301 E.) AND MCCLURG COURT (400 E) . CLOSE THE LEFT LANE OF ILLINOIS FOR SITE REMEDIATION. A PREVIOUS PERMIT COVERS THE CURB LANE PROPER BARRIERS ARE TO BE PLACED TO INSURE THE SAFETY OF PEDESTRAINS ROUTED ONTO THE ROADWAY AROUND THE WORK AREA
HARTFORD INS. CO. POLNO. 83 UUNPJ 1659 EXP. 1/1/98
FOR THIS JOB ONLY
(RE-ISSUED IN CONJUNCTION WITH PERMIT NO# 2664082 FOR DATE EXTENSION.

RESTRICTIONS: PERMIT VALID UNTIL MAY 31, 1997.
PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY.
PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES.
OK K. GIBSON

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 301 E TO ILLINOIS ST. EXPIR.DT 05/31/97
****

PERMIT # 2674380 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 EAST ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) 565 CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# 2650237 SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 301 DIR E TO DIR WARD 42
DEP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: GUARANTEE RESTORATION OF PUBLIC WAY
RE-ISSUED IN CONJUNCTION WITH PERMIT NO# 2664073 M FOR DATE EXTENSION.
HARTFORD INS. CO. POL NO. 83 UUNPJ1659 G AND A EXP. 1/1/98

RESTRICTIONS: PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION. K. GIBSON

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 316 E TO ILLINOIS ST. EXPIR.DT 05/31/97
****

PERMIT # 2674385 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 E. ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE M ADDRESS(2) CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 312-467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT $0.00 ADDRESS LOCATION : FROM 316 DIR E TO DIR WARD 42
DEP.AMT STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: SIDEWALK ON COLUMBUS SIDE OF BLDG.
FREIGHT TUNNEL IS BELOW STREET SEGMENT.
OPEN SIDEWALK.
REMOVE / REPLACE 4 SQUARES OF SIDEWALK ON COLUMBUS DRIVE.
HARTFORD INS POL NO# 83 UUNPJ1659 G&A EXPIRE: 1/1/98

RESTRICTIONS: PERMITEE TO PROVIDE ALL BARRICADES, SIGNS AND/OR FLAGMEN AS NECESSARY. WORK PERMITTED ONLY BETWEEN 9:30 AM AND 3:30 PM. MAINTAIN PEDESTRIAN AND/OR VEHICULAR TRAFFIC AT ALLTIMES. SIDEWALK PAVEMENT BROKEN BY HAND OR WITH PNEUMATIC HAMMER ONLY. PERMITTEE'S COPY MUST BE AVAILABLE FOR INSPECTION AT JOB SITE. WORK PERFORMED PER PLANS AND SPECIFICATIONS. THIS PERMIT IS INVALID IF STREET PAVEMENTS HAVE BEEN RECONSTRUCTED OR RESURFACED WITHIN THREE (3) YEARS PRECEEDING DATE OF PERMIT. PAVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION STANDARDS. PAVEMENT OPENING TO BE BACKFILLED TO GRADE/OR PLATED DURING OFF WORK PERIODS. ALL PERSONS WORKING IN THE PUBLIC WAY MUST PROVIDE A SIGN WHICH IDENTIFIES THE COMPANY OR INDIVIDUAL PERFORMING THE WORK AND TELEPHONE NUMBER. SUCH INFORMATION MAY BE AFFIXED TO CONSTRUCTION BARRICADES. PERMANENT BASE PAVEMENT RESTORATION TO FOLLOW WITHIN 5 DAYS FOLLOWING THE COMPLETION OF UNDERGROUND WORK. PARKWAY AND/OR SIDEWALK RESTORATION TO FOLLOW IMMEDIATELY UPON COMPLETION OF UNDERGROUND WORK, PENDING WEATHER CONDITIONS. CONTRACTOR MUST NOTIFY CUAN 744-7000 48 HOURS PRIOR TO EXCAVATION.
(PERMIT VALID UNTIL MAY 31, 1997). OK K. GIBSON

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
BUREAU OF INSPECTIONS
CONSTRUCTION COMPLIANCE
121 N. LASALLE STREET, ROOM 804, CITY HALL,
CHICAGO, ILLINOIS 60602. PHONE (312)744-4652.

****
FROM 316 E TO ILLINOIS ST. EXPIR.DT 05/31/97
****

PERMIT # 2674386 COMPANY NAME THE CHICAGO DOCK & CANAL TRUST
TEM.PER # ADDRESS(1) 455 E. ILLINOIS STREET ZIP CODE 60611
PERMIT TYPE BD ADDRESS(2) CITY CHICAGO STATE IL
ISSUE DT 03/11/97 REPRESENTATIVE TAMMY WALSH PHONE 312-467-1870
EXPIR.DT 05/31/97
COMPL.DT PRED# SUCC# PROJ# CONTRACT #
FEE AMT ADDRESS LOCATION : FROM 316 DIR E TO DIR WARD 42
DEP.AMT $500.00 STREET NAME ILLINOIS ST.SUFFIX ST.
PERMISSION TO: ISSUED IN CONJUNCTION WITH PERMIT NO# 2674385 M

RESTRICTIONS: PLEASE RETAIN THIS PERMIT FOR REFUND.

6525/55 11Mar97 2/79 $500.00 BB96846002 MISC

BOS 3/12/97

City of Chicago
Richard M. Daley, Mayor

Department of Planning
and Development

Christopher R. Hill
Commissioner

City Hall, Room 1000
121 North LaSalle Street
Chicago, Illinois 60602
(312) 744-1471 (Voice)
(312) 744-6550 (FAX)
(312) 744-2578 (TTY)
www.cityofchicago.org

Mr. Paul Woznicki
Zoning Administrator
Department of Zoning
City Hall Room 800
Chicago, Il 60602

PD/Lakefront
Permit 06/10/97

Re: PD No. 368 CC Approval: 11/06/85
CITY FRONT CENTER

Dear Mr. Woznicki:

You have referred to this office an application for the following address:
316 EAST ILLINOIS

The requested application is for the following work:
Repair: drainage modifications and parking lot restorations.

Based on our review the application is hereby:
Approved - Complies with the P.D. Ordinance.
Exempt under the Lakefront Protection Ordinance (Section 16-4-150).
The proposed work is valued at 50% or less the replacement cost of the existing building.

Please note the following additional concurrence received:
Lakefront #175 approved by the Chicago Plan Commission on September 12, 1985.

Thank you for your cooperation,

Philip Levin
Assistant Commissioner

2010 / 08 / 12

CHICAGO Blue a g PECYCLING
Please Recycle!

CHICAGO WORKS TOGETHER

D E P A R T M E N T O F P L A N N I N G
A N D D E V E L O P M E N T

06/10/97

PERMIT REVIEW RECEIPT - PERMIT

DATE RECEIVED : 06/10/97

Permit	: 52P0697
Address of Work to be done	: 316 EAST ILLINOIS
Number of Sets of Plans	: 1 Pls.
Applicant's Name	: TONY STORTO
Applicant's Address	:
Applicant's Phone	: (773) 204-0583
Contact Person	: BARBARA DUNIGAN
Contact Person's Address	: CITY HALL - ROOM 1003
Contact Person's Phone	: 744-6439

Chicago Blue Bag Recycling
Please Recycle!

Chicago Works Together

ATTACHMENT I

PHASE 1 FILL MATERIAL

RADIOLOGICAL & CHEMICAL ANALYSES

To: B. Ganados
Health Physics Supervisor

From: R. Lancaster
Laboratory Supervisor

Date: 10/29/96

Subj: Analysis Report on Soil Samples for Lindsey Light II Project

Two (2) samples were received from the Vulcan Materials Company McCook Quarry. The samples were labeled:

Chip Plant (377) CA-6 (grade - 8) McCook	and	Main Plant (378) CA-16 3/8" chips McCook (whitestone)

Both samples were put through the Bico jaw crusher. Each sample was then blended to ensure homogeneity. The samples were analyzed for moisture and radioisotopic. The radioisotopic analysis was performed on the High Purity Germanium detector (HPGe) and on the Minaxi Sodium Iodide detector (NaI). The results are listed below:

Sample CA-6

Percent Moisture 3.66% Moisture Content 3.80%

	NaI	HPGe
U-238	<1.10 pCi/g*	0.99 pCi/g +/- 0.59
Th-232	0.49 pCi/g +/- 0.18	0.89 pCi/g +/- 0.65
Ra-226	0.98 pCi/g +/- 0.25	0.38 pCi/g +/- 0.42

*The MDA value for U-238

LLII 6.2-1

Sample CA-16

Percent Moisture 2.58% Moisture Content 2.65%

	NaI	HPGe
U-238	<1.10 pCi/g*	<0.54 pCi/g*
Th-232	<0.32 pCi/g**	0.48 pCi/g +/- 0.42
Ra-226	0.57 pCi/g +/- 0.32	0.77 pCi/g +/- 0.47

*The MDA value for U-238

**The MDA value for Th-232

All analysis results are for dry samples.

R.E.Lancaster

SC Samples For Linsay Light Proj - Kerr McGee

Attn: Ray Lancaster

REVISED PER NON-CONFIRMITY REPORT No LL II 96-001

CHAIN OF CUSTODY RECORD – ENVIRONMENTAL SAMPLES

FACILITY	SAMPLING FIRM	SAMPLE
NAME: Vulcan Materials Co	NAME: Vulcan Materials	☐ Effluent ☐ Groundwater
ADDRESS: McCook Quarry, Joliet Rd + 55th Street, McCook IL 60525	ADDRESS: 747 E 22nd, Suite 200, Lombard IL 60148	☐ Solid ☐ Surface Water
	SIGNATURE: Dan Brown	☒ Soil

NO.	LOCATION	DATE	TIME	WEATHER TEMP.	WEATHER PREC.	SAMPLE TYPE AND METHOD COMP.	GRAB	MECH.	MAN.	TIME CASING CLEARED	NO. OF CONTAINERS	ANALYSIS REQUIRED	REMARKS
1	CA-6 McCook Quarry	10/9/96	10:30 AM									RADIOACTIVITY U-238, Th-232, RA-226, Moisture Content	
2	CA-16 McCook Quarry	10/9/96	10:40 AM									RADIOACTIVITY U-238, Th 232, RA 226, Moisture Content	

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	ADDITIONAL REMARKS
Gerald Kemp	x [signature]	10/17/96	0540	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

DISPATCHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY (SIGNATURE)	DATE	TIME

CARRIER: Vulcan QC Tech

ADDRESS:

METHOD OF SHIPMENT:

LABORATORY: K M Corporation

ADDRESS: 800 Weyrauch Street, West Chicago IL 60185

ALL ANALYSIS PERFORMED BY EPA APPROVED PROCEDURES

☒ Yes ☐ No, explain above

SOIL SAMP FOR LINDSAY LIGHT PROJECT - KERR McGEE : ~~XXXXXXXXXXXXXX~~ Ray Lancaster

CHAIN OF CUSTODY RECORD – ENVIRONMENTAL SAMPLES

FACILITY	SAMPLING FIRM	SAMPLE
NAME: Vulcan materials Co	NAME: Grant Environmental, Inc.	☐ Effluent ☐ Groundwater
ADDRESS: 747 E. 22nd Street - Suite 200 Lemont, IL 60148	ADDRESS: 12150 East Briarwood, #200 Englewood, CO 80112 303-790-7400	☐ Solid ☐ Surface Water
JERRY KRZYZSK	SIGNATURE: Dan Brown	☒ SOIL

NO.	LOCATION	DATE	TIME	WEATHER TEMP.	WEATHER PREC.	SAMPLE TYPE AND METHOD COMP.	GRAB	MECH.	MAN.	TIME CASING CLEARED	NO. OF CONTAINERS	ANALYSIS REQUIRED	REMARKS
1	CA-6, McCook Quarry	10/09/96	10:30 AM								1	Corrosivity (PH) Ignitiblity Reactivity TCLP Metal-Extraction 1311 ~~TCLP Organics - Extraction 1311~~	
2	CA-16, McCook Quarry	10/09/96	10:40 am								1	~~XXXXXXXXXXXXXX~~ Corrosivity (PH) Ignitibility Reactivity TCLP Metals- Extraction 1311 TCLP Organics - Extraction 1311	

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	ADDITIONAL REMARKS
		10/10/96	3:00P.M.	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

DISPATCHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY (SIGNATURE)	DATE	TIME
			[signature]	10/14/96	0915

CARRIER: Vulcan - Q.C. tech

LABORATORY: K M Corporation

ADDRESS: 800 Weyrauch Street

West Chicago, IL 60185

METHOD OF SHIPMENT:

ALL ANALYSIS PERFORMED BY EPA APPROVED PROCEDURES

☐ Yes ☐ No, explain above

630-293-6330

MOISTURE ANALYSIS LOG

SAMPLE NUMBER	DATE ANALYZED	TIME ANALYZED	MAX-50 USED Y/N	SCALE SERIAL NUMBER	AS RECEIVED NET WEIGHT	DRY NET WEIGHT	% MOISTURE	TECH. INIT.
CA-6	10/22/96	0930	Y	NA	NA	NA	3.66	[illegible]
CA-16	10/22/96	0950	Y	NA	NA	NA	2.58	[illegible]

APPROVED BY: [illegible] DATE: 10/24/96

Analysis by West Chicago site procedure WCP-366.

Batch Title: dock fill
Date & Time Analyzed: 22-OCT-1996 14:26:02 Analyzed by:_____
Calibration Date: 30-SEP-1996 00:00:00.00
Activity is reported on a AS RECEIVED basis

U-238 pCi/g		Th-232 pCi/g		Ra-226 pCi/g		K-40 pCi/g		Total Radium pCi/g		U+Th+Ra pCi/g		
Samp: 23778 Btch: 1 Wt: 20.00 Desc:					Loc:							
217.50+/-	13.51	113.49+/-	3.65	248.00+/-	5.46	15.66+/-	55.90	361.49+/-	6.57	361.49+/-	15.02	STD
Samp: 23779 Btch: 2 Wt: 20.00 Desc:					Loc:							
-20.14+/-	4.41	148.76+/-	1.38	10.72+/-	1.59	22.11+/-	17.24	159.48+/-	2.11	159.48+/-	4.89	
* 46.48+/-	560.87	146.27+/-	2.01	11.00+/-	2.63	19.08+/-	26.31	157.27+/-	3.31	0.00+/-	0.00	
Samp: 23782 Btch: 3 Wt: 20.00 Desc:					Loc:							
125.14+/-	18.62	6.05+/-	4.86	337.95+/-	8.63	-93.24+/-	87.27	344.00+/-	9.90	344.00+/-	21.09	
Samp: 23783 Btch: 4 Wt: 20.00 Desc:					Loc:							
-0.66+/-	1.00	-0.41+/-	0.26	0.72+/-	0.37	160.81+/-	9.16	0.31+/-	0.45	0.31+/-	1.10	
Samp: 23784 Btch: 5 Wt: 20.00 Desc:					Loc:							
-0.85+/-	0.80	-0.30+/-	0.23	0.66+/-	0.35	12.62+/-	5.42	0.36+/-	0.42	0.36+/-	0.90	BKGD
S 6 Btch: 6 Wt: 20.00 Desc:					Loc:							
0.11+/-	1.10	0.02+/-	0.32	1.29+/-	0.49	23.62+/-	7.69	1.31+/-	0.59	1.31+/-	1.25	MDA

* Recalculated results with U-238 removed from calibration.
< Recalculated results with U-238 and K-40 removed from calibration.

Reviewed
10/24/96

Analysis by West Chicago site procedure WCP-366.

Batch Title: dock fill
Date & Time Analyzed: 22-OCT-1996 16:29:21 Analyzed by:_____
Calibration Date: 30-SEP-1996 00:00:00.00
Activity is reported on a AS RECEIVED basis

U-238 pCi/g		Th-232 pCi/g		Ra-226 pCi/g		K-40 pCi/g		Total Radium pCi/g		U+Th+Ra pCi/g		
Samp: 23786 Btch: 7 Wt: 20.00 Desc:					Loc:							
-1.03+/-	0.58	0.49+/-	0.18	0.98+/-	0.25	16.35+/-	3.94	1.47+/-	0.31	1.47+/-	0.66	CA-6
* -216.33+/-	47.99	0.19+/-	0.14	0.50+/-	0.22	8.40+/-	3.30	0.69+/-	0.26	0.00+/-	0.00	
Samp: 23787 Btch: 8 Wt: 20.00 Desc:					Loc:							
-0.81+/-	0.75	0.10+/-	0.22	0.57+/-	0.32	19.51+/-	5.21	0.67+/-	0.39	0.67+/-	0.84	CA-16
Samp: 23788 Btch: 9 Wt: 20.00 Desc:					Loc:							
377.81+/-	17.79	8.29+/-	4.10	331.63+/-	7.26	-24.94+/-	74.13	339.92+/-	8.34	386.10+/-	19.65	STD

Reviewed STD
10/24/96

Kerr-McGee Gamma Report Generated 29-OCT-1996 10:00:20

guration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP_CA6_GE1_LSCVIAL_23856.CNF;1

---- Sample Information ----

Sample Title : EMS FILTER COMPOSITE ANALYSIS
Sample ID : CA-6 Sample Quantity : 2.00000E+01 gram
Sample Type : QTR composite Sample Geometry : EMS FILTER
Sample Number : 23856 Spctrm Collector : RAY LANCASTER
Analyzed By :

---- Sample Decay/Count Information ----

Sample Date : 28-OCT-1996 00:00:00 Acquisition date : 28-OCT-1996 15:55:43
Decay time : 0 15:55:43.65 % dead time : 0.0%
Elapsed live time: 0 18:00:00.00 Elapsed real time: 0 18:00:16.82

---- Detector Parameters ----

Energy cal. time : 30-MAY-1996 16:26:25 Energy cal. oper.: RAY LANCASTER
Detector name : GE1 Counting geometry: LSC Vial
Effic. cal. time : 28-SEP-1996 10:29:58 Effic. cal. oper.: RAY LANCASTER

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
K-40	4.262E+00	2.368E+00	6.697E-01	2.627E-01	6.363
TL-208	1.767E-01	1.242E-01	8.179E-05	6.514E-08	2160.770
PB-212	7.173E-01	2.279E-01	1.228E-01	2.814E-02	5.842
BI-214	3.803E-01	4.194E-01	1.534E-01	2.282E-02	2.479
PB-214	5.295E-01	1.926E-01	1.462E-01	3.142E-02	3.623
AC-228	8.869E-01	6.491E-01	4.327E-01	2.319E-01	2.050

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/gram)	K.L. Ided	Act error	MDA (pCi/gram)	MDA error	Act/MDA
BE-7	1.202E-01		3.833E-01	6.207E-01	1.446E-01	0.194
PB-210	1.171E+00		1.158E+00	1.715E+00	5.537E-01	0.683
BI-212	5.043E-01		8.425E-01	1.380E+00	5.504E-01	0.365
TH-234	9.871E-01	+	5.908E-01	4.829E-01	1.081E-01	2.044

REVIEWED
10/29/96

Kerr-McGee Gamma Report Generated 29-OCT-1996 09:57:22

guration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP_CA16_GE2_LSCVIAL_23857.CNF;1

---- Sample Information ----

Sample Title : FILTER ANALYSIS
Sample ID : CA-16 Sample Quantity : 2.00000E+01 gram
Sample Type : Sample Geometry :
Sample Number : 23857 Spctrm Collector : RAY LANCASTER
Analyzed By :

---- Sample Decay/Count Information ----

Sample Date : 28-OCT-1996 00:00:00 Acquisition date : 28-OCT-1996 15:56:26
Decay time : 0 15:56:26.78 % dead time : 0.1%
Elapsed live time: 0 18:00:00.00 Elapsed real time: 0 18:00:37.39

---- Detector Parameters ----

Energy cal. time : 30-MAY-1996 16:03:28 Energy cal. oper.: RAY LANCASTER
Detector name : GE2 Counting geometry: LSC Vial
Effic. cal. time : 30-MAY-1996 16:06:46 Effic. cal. oper.: RAY LANCASTER

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
K-40	3.250E+00	2.633E+00	7.[illegible]42E-01	4.126E-01	4.615
TL-208	2.458E-01	1.470E-01	3.190E-04	1.767E-06	770.404
BI-212	2.409E+00	1.629E+00	1.124E+00	5.725E-01	2.143
PB-212	1.314E+00	3.164E-01	1.140E-01	2.049E-02	11.523
BI-214	7.727E-01	4.715E-01	1.625E-01	6.508E-02	4.754
PB-214	7.031E-01	2.824E-01	1.521E-01	2.544E-02	4.624

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/gram)	K.L. Ided	Act error	MDA (pCi/gram)	MDA error	Act/MDA
BE-7	5.004E-02		3.498E-01	5.649E-01	1.084E-01	0.089
PB-210	5.911E-01		9.155E-01	1.387E+00	3.524E-01	0.426
AC-228	4.802E-01		4.009E-01	4.197E-01	2.818E-01	1.144
TH-234	1.595E-02		3.305E-01	5.405E-01	1.110E-01	0.029

Reviewed 10/29/96

Backfill Sample Analysis Report

TOPSOIL

mple Date: 4/9/97

Location: Pheasant Run Smith RD.

; Recieved Basis — Dry Weight Basis

Sample Number	Sample Moisture in percent	U-238 in pCi/g	2 sigma uncertainty in pCi/g	Ra-228 in pCi/g	2 sigma uncertainty in pCi/g	Ra-226 in pCi/g	2 sigma uncertainty in pCi/g	U-238 in pCi/g	2 sigma uncertainty in pCi/g	Ra-228 in pCi/g	2 sigma uncertainty in pCi/g	Ra-226 in pCi/g	2 sigma uncertainty in pCi/g	Total Radium in pCi/g
PRT - 2B	21.5	1.5	0.7	1.0	0.2	<MDA	na	1.9	0.7	1.2	0.2	<MDA	na	1.2
PRT - 3B	23.4	<MDA	na	1.1	0.2	<MDA	na	<MDA	na	1.5	0.2	<MDA	na	1.5
PRT - 4B	24.3	<MDA	na	0.6	0.2	<MDA	na	<MDA	na	0.8	0.2	<MDA	na	0.8
PRT - 5B	25.2	<MDA	na	0.7	0.3	0.7	0.4	<MDA	na	1.0	0.3	0.9	0.4	1.9
PRT - 9B	21.7	<MDA	na	1.1	0.2	0.7	0.3	<MDA	na	1.4	0.2	0.9	0.3	2.3
PRT - 10B	24.2	<MDA	na	0.9	0.3	0.8	0.4	<MDA	na	1.2	0.3	1.1	0.4	2.3
PRT - 12B	23.4	<MDA	na	1.1	0.2	<MDA	na	<MDA	na	1.4	0.2	<MDA	na	1.4
PRT - 13B	28.6	<MDA	na	0.9	0.2	0.5	0.3	<MDA	na	1.3	0.2	0.8	0.3	2.0
PRT - 14B	22.7	<MDA	na	1.3	0.2	<MDA	na	<MDA	na	1.7	0.2	<MDA	na	1.7
PRT - 17B	28.6	1.5	0.9	0.9	0.3	0.7	0.4	2.1	0.9	1.2	0.3	1.0	0.4	2.2
RT - QC1B	22.9	<MDA	na	1.0	0.3	<MDA	na	<MDA	na	1.2	0.3	<MDA	na	1.2
RT - QC2B	24.5	<MDA	na	1.0	0.2	<MDA	na	<MDA	na	1.4	0.2	<MDA	na	1.4

ıe MDA values are: U-238 1.19 pCi/g; Ra-228 0.37 pCi/g; and Ra-226 0.54 pCi/g.

ımples analyzed using method SOP-RAR 366.

ımples counted for ten minutes.

4/10/97

RA 4/11/97

4-11-97

RECEIVED

RECEIVED APR 11 1997

SAMPLE TRACKING FORMS

Date: 4/25/97

Sample Number	Matrix (S/W)	Location	Collected For	Comments	Collected By
PRT-2B	S	Phemsant Run	P.H		Dean Black
PRT-3B			P.H		
PRT-4B					
PRT-5B					
PRT-9B					
PRT-10B					
PRT-12B					
PRT-13B					
PRT-14B					
PRT-17B					
PRT-QC1B					
PRT-QC2B					

Released by/Company ENVIROCON INC	All samples are listed above are hereby released except for: N/A	Date/Time 4/25/ 2:05
Received by/Company [signature] / YANKEE	All samples are listed above are hereby received except for: NA	Date/Time 4/25/97 1422
Received by/Company [signature] / KMCC	Data for all samples listed above are hereby received except for:	Date/Time 4-25-97 1635

GRANT
ENVIRONMENTAL

FGEKM-032-096

November 21, 1996

Mr. Bernard Bono
Kerr-McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, Oklahoma 73102

Subject: Offsite Backfill Analytical Results
Grant Correspondence Number 5055.09

Dear Mr. Bono:

In compliance with Section 3 of the Engineering and Field Services Agreement, dated July 1, 1996, Grant Environmental, Inc. (Grant) has solicited three bids for offsite backfill materials during restoration activities. From these three bids, Grant recommends using Vulcan Materials to conduct services. Our recommendation is based on price, availability of services, and references. The material (CA-6 and CA-16) needed for backfill has been analyzed for hazardous materials and radionuclides as required by the Scoping and Planning Documents. The laboratory results are discussed below.

The table below summarizes the bid information Grant received by prospective backfill sources.

Company	CA-6	CA-16
Vulcan Materials - McCook Quarry	$8.40/ton	$12.45/ton
Elmhurst Chicago Stone	$10.05/ton	10.55/ton
Lindall Brothers*	$7.65/ton	-

* Recommended not to use unless absolutely necessary.

The laboratory results for offsite backfill supplied by Vulcan Materials from Quanterra are summarized below. Analysis results for these analysis are included in attachment 1 of this submittal.

Analyte	CA-6 McCook*	CA-16 McCook	Common Fill REF	Top Soil REF	Lemont Quarry	McCook CA-6	RFF CA-6
Date	10-11-96	10-11-96	N/A	N/A	N/A	N/A	N/A
U-238	0.99 pCi/g	<0.54 pCi/g	N/A	N/A	N/A	N/A	N/A
Th-232	0.89 pCi/g	0.48 pCi/g	N/A	N/A	N/A	N/A	N/A
Ra-226	0.38 pCi/g	0.77 pCi/g	N/A	N/A	N/A	N/A	N/A
Date	10-11-96	10-11-96	11-8/96	11-8-96	11-8-96	11-8-96	11-8-96
TCLP Metals+	ND-9530**	ND-144	ND-1210	ND-739	ND-204	ND-313	ND-94.8
pH	8.81	9.14	8.28	6.37	8.94	8.83	8.87
Flashpoint	48 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C
Reactive Cyanide	ND	ND	ND	ND	ND	ND	ND
Reactive Sulfide	ND	ND	ND	ND	ND	ND	ND
TCLP BNA	ND	ND	ND	ND	ND	ND	ND
TCLP VOA	ND	ND	***	***	***	***	***
TCLP Herbicide	ND	ND	ND	ND	ND	ND	ND
TCLP Pesticide	ND	ND	ND	ND	ND	ND	ND

Units are ug/l.

+ high metal concentration is barium unless otherwise indicated
* CA-6 McCook quarry 10-12-96 sample was received by laboratory in an open container.
** 9530 ug/l is for lead.
*** TCLP VOA results will not be complete until 11-23-96.

12150 East Briarwood Ave., Suite 200, Englewood, Colorado 80112
(303) 790-7400 FAX (303) 799-6993

The high TCLP lead and failed flashpoint for CA-6 at the McCook quarry sample dated 10-11-96 is attributed to the container used to collect the sample. Reportedly the quarry used an old paint can for the sample. This can may have contained some residual paint causing this analytical result. The CA-6 material at the McCook quarry was resampled with laboratory-certified clean sample jars in November and the results indicate that this material is acceptable.

Grant will place Vulcan Materials, for the McCook quarry, under contract for backfill materials upon your approval. If you have any questions, please do not hesitate to contact the undersigned at 312-527-5434. We look forward to the successful completion of this project.

Sincerely,
GRANT ENVIRONMENTAL, INC.

William Gowey
Project Manager

cc:	J. Dan White,	Kerr-McGee w/o Attachment
	Dave Jedlicka,	Kerr-McGee w/o Attachment
	Jeffrey Williams,	Kerr-McGee
	Jennifer Day,	Grant w/o Attachment

Attachments: Analytical Results

File: WDG-KM-96-041

Attachment 1

Analytical Results

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 1, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	October 31, 1996
NUMBER OF SAMPLES	:	Two (2)
SAMPLE MATRIX	:	Solid

I. Introduction

On October 11, 1996, two (2) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation and Vulcan Materials Company. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
CA-6-MCCOOK QUARRY	12484-001
CA-6-MCCOOK QUARRY	12484-001MS
CA-6-MCCOOK QUARRY	12484-001MSD
CA-16-MCCOOK QUARRY	12484-002
CA-16-MCCOOK QUARRY	12484-002DUP
CA-16-MCCOOK QUARRY	12484-002MS
CA-16-MCCOOK QUARRY	12484-002MSD

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide CA-16-MCCOOK QUARRY (12484-002DUP).

Matrix spike and matrix spike duplicate analyses were performed for TCLP Pesticide for sample CA-6-MCCOOK QUARRY (12484-001MS-001MSD) and for TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA for sample CA-16-MCCOOK QUARRY (12484-002MS,002MSD).

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL
J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect

Abbreviations/Definitions:

MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

Sample CA-6 was received open. The temperature of the samples was received at room temperature. The client was notified in the CUR.

The COC was received with being relinquished.

TCLP METALS

All ICP results wre reported from the ICAP Trace instrument at a 10X dilution.

TCLP VOA

There are no comments for nonconformaces associated with this analysis.

TCLP BNA

There are no comments for nonconformaces associated with this analysis.

TCLP HERBICIDE

There are no comments for nonconformaces associated with this analysis.

TCLP PESTICIDE

There are no comments for nonconformaces associated with this analysis.

FLASHPOINT

There are no comments for nonconformaces associated with this analysis.

PH

There are no comments for nonconformaces associated with this analysis.

REACTIVE CYANIDE
REACTIVE SULFIDE

CA-16-MCCOOK QUARRY (12484-002DUP) RPD cannot be calculated for Reactive Cyanide or Reactive Cyanide since all values are below the detection limit.

Quanterra
Environmental Services

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	October 15, 1996	**TIME:**	3:34 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET: 5

Attached are the following:

The signed and dated copy of COC from Volcan Materials Co. Was not relinquished to Quanterra lab.

Quanterra's in-house COC (Login Number 12484) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On October 11, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at room temperature. Sample CA-6 was received with container open.

The TAT requested on the ARCOC is a 21 day TAT.

FAXED

Quanterra October 25, 1996 04:12 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12484

Changed BTE X... /MSD from Sample - COC to - OCY

Project Manager: D. Mueller

Draft: Final Entered and Reviewed by: [signature] PM Review: Duane W Mueller 10-25-96

Sample Header Template:

Sample No. / #	Client ID / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal. Due Date	Shipper / Hold Date	Site	Rad Category / Comments / Data:	Rad Sample No. / (Container Numbers:% Filled)
12484-001	CA-6-MCCOOK QUARRY	Solid	09-OCT-96 10:30	11-OCT-96 09:30	01-NOV-96	FED-EX		3	R5473-001
1	C - Can-12oz	BNA/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257343:30)
1		EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257343:30)
1		EXTMETAL/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA		(257343:30)
1		FLPT/1010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA		(257343:30)
1		HERB/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257343:30)
1		HG/TCLP/Q4	S	COLD	25-OCT-96	20-NOV-96	109AA		(257343:30)
1		ICAP/TCLP/Q4	S	COLD	25-OCT-96	21-APR-97	109AA		(257343:30)
1		PEST/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257343:30)
1		PH/9045/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257343:30)
1		REAC/9010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA		(257343:30)
1		REAC/9030/Q4	S	COLD	25-OCT-96	16-OCT-96	109AA		(257343:30)
1		VOA/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA		(257343:30)
1		ZERO/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257343:30)
12484-001MS	CA-6-MCCOOK QUARRY	Solid	09-OCT-96 10:30	11-OCT-96 09:30	01-NOV-96	FED-EX		3	R5473-001
1	C - Can-12oz	EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257343:30)
1		PEST/TCLP/Q4	S	COLD	25-OCT-96	16-OCT-96	109AA		(257343:30)
12484-001MSD	CA-6-MCCOOK QUARRY	Solid	09-OCT-96 10:30	11-OCT-96 09:30	01-NOV-96	FED-EX		3	R5473-001
1	C - Can-12oz	EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257343:30)
1		PEST/TCLP/Q4	S	COLD	25-OCT-96	16-OCT-96	109AA		(257343:30)
12484-002	CA-16-MCCOOK QUARRY	Solid	09-OCT-96 10:40	11-OCT-96 09:30	01-NOV-96	FED-EX		3	R5473-002
1	C - Can-12oz	BNA/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257344:30)
1		EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257344:30)
1		EXTMETAL/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA		(257344:30)
1		FLPT/1010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA		(257344:30)
1		HERB/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257344:30)
1		HG/TCLP/Q4	S	COLD	25-OCT-96	20-NOV-96	109AA		(257344:30)
1		ICAP/TCLP/Q4	S	COLD	25-OCT-96	21-APR-97	109AA		(257344:30)
1		PEST/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA		(257344:30)
1		PH/9045/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA		(257344:30)
1		REAC/9010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA		(257344:30)
1		REAC/9030/Q4	S	COLD	25-OCT-96	16-OCT-96	109AA		(257344:30)

3*=Sample has not been rad screened.

Quanterra October 25, 1996 04:12 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12484

oject Manager: D. Mueller

aft: Final: Entered and Reviewed by:_____ PM Review:_____

mple Header Template: _____

mple No. / #	Comments / Container Type	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
ita:									
1									
1									
2484-002DUP		CA-16-MCCOOK QUARRY	Solid	09-OCT-96 10:40	11-OCT-96 09:30	01-NOV-96	FED-EX	3	R5473-002
1	C - Can-12oz								
1									
1									
1									
2484-002MS		CA-16-MCCOOK QUARRY	Solid	09-OCT-96 10:40	11-OCT-96 09:30	01-NOV-96	FED-EX	3	R5473-002
1	C - Can-12oz								
1									
1									
1									
1									
1									
1									
1									
2484-002MSD		CA-16-MCCOOK QUARRY	Solid	09-OCT-96 10:40	11-OCT-96 09:30	01-NOV-96	FED-EX	3	R5473-002
1	C - Can-12oz								
1									
1									
1									
1									
1									
1									
1									

Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
VOA/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA	(257344:30)
ZERO/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)
FLPT/1010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA	(257344:30)
PH/9045/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)
REAC/9010/Q4	S	COLD	25-OCT-96	07-APR-97	109AA	(257344:30)
REAC/9030/Q4	S	COLD	25-OCT-96	16-OCT-96	109AA	(257344:30)
BNA/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA	(257344:30)
EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)
EXTMETAL/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA	(257344:30)
HERB/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA	(257344:30)
HG/TCLP/Q4	S	COLD	25-OCT-96	20-NOV-96	109AA	(257344:30)
ICAP/TCLP/Q4	S	COLD	25-OCT-96	21-APR-97	109AA	(257344:30)
VOA/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA	(257344:30)
ZERO/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)
BNA/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA	(257344:30)
EXT/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)
EXTMETAL/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA	(257344:30)
HERB/TCLP/Q4	S	COLD	25-OCT-96	30-OCT-96	109AA	(257344:30)
HG/TCLP/Q4	S	COLD	25-OCT-96	20-NOV-96	109AA	(257344:30)
ICAP/TCLP/Q4	S	COLD	25-OCT-96	21-APR-97	109AA	(257344:30)
VOA/TCLP/Q4	S	COLD	25-OCT-96	06-NOV-96	109AA	(257344:30)
ZERO/TCLP/Q4	S	COLD	25-OCT-96	23-OCT-96	109AA	(257344:30)

;*=Sample has not been rad screened.

Temp NA, Cure 8591

SOIL SA(ES FOR LINDSAY LIGHT PROJECT _ KERR McG(Atten: Diane Mueller

CHAIN OF CUSTODY RECORD— ENVIRONMENTAL SAMPLES

CHAIN OF CUSTODY FORM

FACILITY	SAMPLING FIRM	SAMPLE
NAME: Vulcan Materials Co.	NAME: Grant Environmental, Inc.	☐ Effluent ☐ Groundwater
ADDRESS: East 22nd Street - Suite 200, Lombard, Illinois 60148	ADDRESS: 12150 East Briarwood, #200 Englewood, CO 80112 303-790-7400	☐ Solid ☐ Surface Water
Jerry Krzyzak	SIGNATURE: Dan Brown Dan Brown	☒ soil

NO	LOCATION	DATE	TIME	WEATHER TEMP	WEATHER PREC	SAMPLE TYPE AND METHOD COMP	GRAB	MECH	MAN	TIMES CASING CLEARED	NO OF CONTAINERS	ANALYSIS REQUIRED	REMARKS
1	CA-6 - McCook Quarry	10/9/96	10:30 AM								1	Corrosivity (pH), Ignitibility, Reactivity, TCLP Metals - extraction 1311, TCLP Organics - extraction 1311	Recovered Spilled 30%
2	CA-16 - McCook Quarry	10/9/96	10:40 AM								1	Corrosivity (pH), Ignitibility, Reactivity, TCLP Metals - extraction 1311, TCLP Organics - extraction 1311	100%
											↑ Gallon can Rocks		

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
		10/11/96	3:00 pm
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE) Fred Mitchell	10-11-96	09:30
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)		

DISPATCHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY (SIGNATURE)	DATE	TIME

CARRIER: Fed-Ex

ADDRESS:

METHOD OF SHIPMENT:

LABORATORY: Quanterra Lab

ADDRESS: 13715 Rider Trail North, Earth City, MO 63045

ADDITIONAL REMARKS:

ALL ANALYSIS PERFORMED BY EPA APPROVED PROCEDURES

☐ Yes ☐ No, explain above

Quanterra Environmental Services

BWS DM
10-11-96
0945
2m

Login No.: 12484

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Kerr McGee
Date: 10 11-96 Time: 09:30
Project No: 578.07
Initiated by: [illegible]
Shipper/No: FedEx 478 4733 973
RFA/COC Numbers: None

Condition/Variance (Check all that apply):

1. ☑ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☐ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: NA

Notes: CA-6 Container spilled 30 % of Sample
Sample saved in plastic Bag
Coc not Relinquished

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____
☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____
☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) [signature] Date: 10-11-96
Project Management Review: Diane W Mueller Date: 10-14-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 1, 1996	**TIME:**	5:00 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

NUMBER OF PAGES INCLUDING COVER SHEET: 47

Results for 2 samples from Lindsay Light Project are attached. The full report and EDD will arrive by FED-EX on Monday to you, Grant Environmental and Mark Krippel.

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: CA-6-MCCOOK QUARRY

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Quanterra ID : 12484-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK118245-1	10/25/96	10/29/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK118245-1	10/25/96	10/29/96	68	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118245-1	10/25/96	10/29/96	70	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118245-1	10/25/96	10/29/96	47	%REC			1
Phenol-d5	13127-88-3	EXTBLK118245-1	10/25/96	10/29/96	27	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118245-1	10/25/96	10/29/96	43	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118245-1	10/25/96	10/29/96	73	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK118244-1	10/25/96	10/29/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK118244-1	10/25/96	10/29/96	66	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118244-1	10/25/96	10/29/96	73	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118244-1	10/25/96	10/29/96	53	%REC			1
Phenol-d5	13127-88-3	EXTBLK118244-1	10/25/96	10/29/96	27	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118244-1	10/25/96	10/29/96	46	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118244-1	10/25/96	10/29/96	86	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118244-1	10/25/96	10/29/96	49	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK118244-1	10/25/96	10/29/96	73	%REC			1
2-Methylphenol	95-48-7	EXTBLK118244-1	10/25/96	10/29/96	63	%REC			1
Cresol, M&P	65794-96-9	EXTBLK118244-1	10/25/96	10/29/96	62	%REC			1
Hexachloroethane	67-72-1	EXTBLK118244-1	10/25/96	10/29/96	71	%REC			1
Nitrobenzene	98-95-3	EXTBLK118244-1	10/25/96	10/29/96	75	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK118244-1	10/25/96	10/29/96	73	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118244-1	10/25/96	10/29/96	82	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118244-1	10/25/96	10/29/96	76	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK118244-1	10/25/96	10/29/96	74	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK118244-1	10/25/96	10/29/96	82	%REC			1
Pentachlorophenol	87-86-5	EXTBLK118244-1	10/25/96	10/29/96	53	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK118244-1	10/25/96	10/29/96	74	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118244-1	10/25/96	10/29/96	74	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118244-1	10/25/96	10/29/96	47	%REC			1
Phenol-d5	13127-88-3	EXTBLK118244-1	10/25/96	10/29/96	32	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118244-1	10/25/96	10/29/96	49	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118244-1	10/25/96	10/29/96	84	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118244-1	10/25/96	10/29/96	44	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK118244-1	10/25/96	10/29/96	67	%REC			1
2-Methylphenol	95-48-7	EXTBLK118244-1	10/25/96	10/29/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK118244-1	10/25/96	10/29/96	58	%REC			1
Hexachloroethane	67-72-1	EXTBLK118244-1	10/25/96	10/29/96	68	%REC			1
Nitrobenzene	98-95-3	EXTBLK118244-1	10/25/96	10/29/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK118244-1	10/25/96	10/29/96	72	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118244-1	10/25/96	10/29/96	78	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118244-1	10/25/96	10/29/96	72	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK118244-1	10/25/96	10/29/96	70	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK118244-1	10/25/96	10/29/96	76	%REC			1
Pentachlorophenol	87-86-5	EXTBLK118244-1	10/25/96	10/29/96	61	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK118244-1	10/25/96	10/29/96	67	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118244-1	10/25/96	10/29/96	69	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118244-1	10/25/96	10/29/96	47	%REC			1
Phenol-d5	13127-88-3	EXTBLK118244-1	10/25/96	10/29/96	30	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118244-1	10/25/96	10/29/96	49	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118244-1	10/25/96	10/29/96	80	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118244-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK118244-1	10/25/96	10/29/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK118244-1	10/25/96	10/29/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK118244-1	10/25/96	10/29/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118244-1	10/25/96	10/29/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118244-1	10/25/96	10/29/96	51	%REC			1
Phenol-d5	13127-88-3	EXTBLK118244-1	10/25/96	10/29/96	30	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118244-1	10/25/96	10/29/96	48	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118244-1	10/25/96	10/29/96	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118245-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK118245-1	10/25/96	10/29/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK118245-1	10/25/96	10/29/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK118245-1	10/25/96	10/29/96	76	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118245-1	10/25/96	10/29/96	81	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118245-1	10/25/96	10/29/96	50	%REC			1
Phenol-d5	13127-88-3	EXTBLK118245-1	10/25/96	10/29/96	29	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118245-1	10/25/96	10/29/96	47	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118245-1	10/25/96	10/29/96	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCSPK118412-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK118244-1	10/25/96	10/29/96	45	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK118244-1	10/25/96	10/29/96	67	%REC			1
2-Methylphenol	95-48-7	EXTBLK118244-1	10/25/96	10/29/96	60	%REC			1
Cresol, M&P	65794-96-9	EXTBLK118244-1	10/25/96	10/29/96	58	%REC			1
Hexachloroethane	67-72-1	EXTBLK118244-1	10/25/96	10/29/96	66	%REC			1
Nitrobenzene	98-95-3	EXTBLK118244-1	10/25/96	10/29/96	72	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK118244-1	10/25/96	10/29/96	72	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK118244-1	10/25/96	10/29/96	80	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK118244-1	10/25/96	10/29/96	73	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK118244-1	10/25/96	10/29/96	75	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK118244-1	10/25/96	10/29/96	79	%REC			1
Pentachlorophenol	87-86-5	EXTBLK118244-1	10/25/96	10/29/96	44	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK118244-1	10/25/96	10/29/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK118244-1	10/25/96	10/29/96	74	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK118244-1	10/25/96	10/29/96	50	%REC			1
Phenol-d5	13127-88-3	EXTBLK118244-1	10/25/96	10/29/96	29	%REC			1
2-Fluorophenol	367-12-4	EXTBLK118244-1	10/25/96	10/29/96	47	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK118244-1	10/25/96	10/29/96	84	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	18.0	UG/L	U	100	10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	322	UG/L	B	2000	10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	6.0	UG/L	U	50.0	10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	9530	UG/L		30.0	10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	28.0	UG/L	U	50.0	10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	18.0	UG/L	U	100	10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	144	UG/L	B	2000	10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	6.0	UG/L	U	50.0	10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	8.0	UG/L	U	30.0	10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	28.0	UG/L	U	50.0	10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	106	%REC			10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	101	%REC			10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	101	%REC			10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	97	%REC			10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	96	%REC			10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	104	%REC			10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	90	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	104	%REC			10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	98	%REC			10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	99	%REC			10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	95	%REC			10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	93	%REC			10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	100	%REC			10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	90	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118244-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	49.4	UG/L	B	100	10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	160	UG/L	B	2000	10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	6.0	UG/L	U	50.0	10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	8.0	UG/L	U	30.0	10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	28.0	UG/L	U	50.0	10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118245-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	18.0	UG/L	U	100	10
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	6.0	UG/L	U	2000	10
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	6.0	UG/L	U	50.0	10
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	8.0	UG/L	U	30.0	10
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	28.0	UG/L	U	50.0	10
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	15.0	UG/L	U	100	10

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCLCS118380-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	103	%REC			1
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	100	%REC			1
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	99	%REC			1
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	99	%REC			1
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	95	%REC			1
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	99	%REC			1
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	69	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCBLK118380-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK118380-1	10/24/96	10/25/96	1.8	UG/L	U	10.0	1
Barium	7440-39-3	QCBLK118380-1	10/24/96	10/25/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK118380-1	10/24/96	10/25/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK118380-1	10/24/96	10/25/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK118380-1	10/24/96	10/25/96	0.80	UG/L	U	3.0	1
Selenium	7782-49-2	QCBLK118380-1	10/24/96	10/25/96	2.8	UG/L	U	5.0	1
Silver	7440-22-4	QCBLK118380-1	10/24/96	10/25/96	1.5	UG/L	U	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6-MCCOOK QUARRY	12484-001	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	13.3	UG/L		0.40	2
CA-16-MCCOOK QUARR	12484-002	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	0.35	UG/L		0.20	1
CA-16-MCCOOK QUARR	12484-002MS	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	87	%REC			1
CA-16-MCCOOK QUARR	12484-002MSD	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	90	%REC			1
NA	EXTBLK118244-1	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	0.10	UG/L	U	0.20	1
NA	EXTBLK118245-1	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS118429-1	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	98	%REC			1
NA	QCBLK118429-1	Mercury	7439-97-6	QCBLK118429-1	10/25/96	10/25/96	0.14	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6-MCCOOK QUARRY	12484-001	Flashpoint	10-36-6	NA	10/15/96	10/15/96	48.0	DEG C			1
CA-16-MCCOOK QUARR	12484-002	Flashpoint	10-36-6	NA	10/15/96	10/15/96	>60.0	DEG C			1
CA-16-MCCOOK QUARR	12484-002DUP	Flashpoint	10-36-6	NA	10/15/96	10/15/96	>60.0	DEG C			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6-MCCOOK QUARRY	12484-001	pH	C-006	QCBLK117065-1	10/15/96	10/15/96	8.81	PH UNITS			1
CA-16-MCCOOK QUARR	12484-002	pH	C-006	QCBLK117065-1	10/15/96	10/15/96	9.14	PH UNITS			1
CA-16-MCCOOK QUARR	12484-002DUP	pH	C-006	QCBLK117065-1	10/15/96	10/15/96	9.09	PH UNITS			1
NA	QCBLK117065-1	pH	C-006	QCBLK117065-1	10/15/96	10/15/96	6.02	PH UNITS			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6-MCCOOK QUARRY	12484-001	Reactive Sulfid	18496-25-8A	QCBLK117189-1	10/16/96	10/16/96	22.2	MG/KG	U	22.2	1
CA-16-MCCOOK QUARR	12484-002	Reactive Sulfid	18496-25-8A	QCBLK117189-1	10/16/96	10/16/96	22.2	MG/KG	U	22.2	1
CA-16-MCCOOK QUARR	12484-002DUP	Reactive Sulfid	18496-25-8A	QCBLK117189-1	10/16/96	10/16/96	22.2	MG/KG	U	22.2	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK117189-1	Reactive Sulfid	18496-25-8A	QCBLK117189-1	10/16/96	10/16/96	4.44	MG/KG	U	4.44	1
NA	QCLCS117189-1	Reactive Sulfid	18496-25-8A	QCBLK117189-1	10/16/96	10/16/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6-MCCOOK QUARRY	12484-001	Reactive Cyanid	57-12-5A	QCBLK117171-1	10/16/96	10/16/96	0.05	MG/KG	U	0.05	1
CA-16-MCCOOK QUARR	12484-002	Reactive Cyanid	57-12-5A	QCBLK117171-1	10/16/96	10/16/96	0.05	MG/KG	U	0.05	1
CA-16-MCCOOK QUARR	12484-002DUP	Reactive Cyanid	57-12-5A	QCBLK117171-1	10/16/96	10/16/96	0.05	MG/KG	U	0.05	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK117171-1	Reactive Cyanid	57-12-5A	QCBLK117171-1	10/16/96	10/16/96	0.01	MG/KG	U	0.01	1
NA	QCLCS117171-1	Reactive Cyanid	57-12-5A	QCBLK117171-1	10/16/96	10/16/96	18	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118245-1	10/24/96	10/28/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118245-1	10/24/96	10/28/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK118245-1	10/24/96	10/28/96	61	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118244-1	10/24/96	10/28/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118244-1	10/24/96	10/28/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK118244-1	10/24/96	10/28/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118244-1	10/24/96	10/28/96	81	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118244-1	10/24/96	10/28/96	53	%REC			1
2,4-DCPA	19719-28-9	EXTBLK118244-1	10/24/96	10/28/96	71	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118244-1	10/24/96	10/28/96	82	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118244-1	10/24/96	10/28/96	56	%REC			1
2,4-DCPA	19719-28-9	EXTBLK118244-1	10/24/96	10/28/96	72	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118244-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118244-1	10/24/96	10/28/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118244-1	10/24/96	10/28/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK118244-1	10/24/96	10/28/96	63	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118245-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118245-1	10/24/96	10/28/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118245-1	10/24/96	10/28/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK118245-1	10/24/96	10/28/96	59	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Sludge

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCSPK118383-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK118245-1	10/24/96	10/28/96	75	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK118245-1	10/24/96	10/28/96	49	%REC			1
2,4-DCPA	19719-28-9	EXTBLK118245-1	10/24/96	10/28/96	67	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK118245-1	10/25/96	10/28/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK118245-1	10/25/96	10/28/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK118245-1	10/25/96	10/28/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK118245-1	10/25/96	10/28/96	73	%REC			1
TCMX	877-09-8	EXTBLK118245-1	10/25/96	10/28/96	108	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118245-1	10/25/96	10/28/96	119	%REC			1
Heptachlor	76-44-8	EXTBLK118245-1	10/25/96	10/28/96	99	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK118245-1	10/25/96	10/28/96	82	%REC			1
Endrin	72-20-8	EXTBLK118245-1	10/25/96	10/28/96	109	%REC			1
Methoxychlor	72-43-5	EXTBLK118245-1	10/25/96	10/28/96	85	%REC			1
DCB	2051-24-3	EXTBLK118245-1	10/25/96	10/28/96	60	%REC			1
TCMX	877-09-8	EXTBLK118245-1	10/25/96	10/28/96	108	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118245-1	10/25/96	10/28/96	120	%REC			1
Heptachlor	76-44-8	EXTBLK118245-1	10/25/96	10/28/96	100	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK118245-1	10/25/96	10/28/96	83	%REC			1
Endrin	72-20-8	EXTBLK118245-1	10/25/96	10/28/96	111	%REC			1
Methoxychlor	72-43-5	EXTBLK118245-1	10/25/96	10/28/96	85	%REC			1
DCB	2051-24-3	EXTBLK118245-1	10/25/96	10/28/96	66	%REC			1
TCMX	877-09-8	EXTBLK118245-1	10/25/96	10/28/96	108	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK118244-1	10/25/96	10/28/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK118244-1	10/25/96	10/28/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK118244-1	10/25/96	10/28/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK118244-1	10/25/96	10/28/96	60	%REC			1
TCMX	877-09-8	EXTBLK118244-1	10/25/96	10/28/96	112	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118244-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK118244-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK118244-1	10/25/96	10/28/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK118244-1	10/25/96	10/28/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK118244-1	10/25/96	10/28/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK118244-1	10/25/96	10/28/96	42	%REC			1
TCMX	877-09-8	EXTBLK118244-1	10/25/96	10/28/96	100	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118245-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK118245-1	10/25/96	10/28/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK118245-1	10/25/96	10/28/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK118245-1	10/25/96	10/28/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK118245-1	10/25/96	10/28/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK118245-1	10/25/96	10/28/96	74	%REC			1
TCMX	877-09-8	EXTBLK118245-1	10/25/96	10/28/96	106	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCSPK118413-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK118245-1	10/25/96	10/28/96	121	%REC			1
Heptachlor	76-44-8	EXTBLK118245-1	10/25/96	10/28/96	95	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK118245-1	10/25/96	10/28/96	83	%REC			1
Endrin	72-20-8	EXTBLK118245-1	10/25/96	10/28/96	106	%REC			1
Methoxychlor	72-43-5	EXTBLK118245-1	10/25/96	10/28/96	84	%REC			1
DCB	2051-24-3	EXTBLK118245-1	10/25/96	10/28/96	70	%REC			1
TCMX	877-09-8	EXTBLK118245-1	10/25/96	10/28/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-6-MCCOOK QUARRY

Quanterra ID : 12484-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	100	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	97	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	99	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: CA-16-MCCOOK QUARRY

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Quanterra ID : 12484-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	101	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	95	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	102	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	92	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	118	%REC			10
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	110	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	115	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	105	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	112	%REC			10
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	99	%REC			10
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	100	%REC			10
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	99	%REC			10
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	97	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	97	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	99	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	119	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 10/09/96
Receipt Date : 10/11/96
Report Date : 10/31/96

Client ID: CA-16-MCCOOK QUARRY

Quanterra ID : 12484-002MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118776-1	10/27/96	10/27/96	80	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK118776-1	10/27/96	10/27/96	123	%REC			10
Chloroform	67-66-3	QCBLK118776-1	10/27/96	10/27/96	106	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK118776-1	10/27/96	10/27/96	110	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK118776-1	10/27/96	10/27/96	118	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK118776-1	10/27/96	10/27/96	106	%REC			10
Trichloroethene	79-01-6	QCBLK118776-1	10/27/96	10/27/96	101	%REC			10
Benzene	71-43-2	QCBLK118776-1	10/27/96	10/27/96	103	%REC			10
Tetrachloroethene	127-18-4	QCBLK118776-1	10/27/96	10/27/96	108	%REC			10
Chlorobenzene	108-90-7	QCBLK118776-1	10/27/96	10/27/96	100	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK118776-1	10/27/96	10/27/96	109	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK118776-1	10/27/96	10/27/96	101	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118776-1	10/27/96	10/27/96	118	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : EXTBLK118215-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	99	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	96	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	119	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCBLK118752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	97	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	96	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	98	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCBLK118776-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118776-1	10/27/96	10/27/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK118776-1	10/27/96	10/27/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK118776-1	10/27/96	10/27/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK118776-1	10/27/96	10/27/96	108	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK118776-1	10/27/96	10/27/96	104	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118776-1	10/27/96	10/27/96	117	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCLCS118752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118752-1	10/25/96	10/25/96	118	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK118752-1	10/25/96	10/25/96	131	%REC			1
Chloroform	67-66-3	QCBLK118752-1	10/25/96	10/25/96	101	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK118752-1	10/25/96	10/25/96	94	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK118752-1	10/25/96	10/25/96	86	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK118752-1	10/25/96	10/25/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK118752-1	10/25/96	10/25/96	104	%REC			1
Benzene	71-43-2	QCBLK118752-1	10/25/96	10/25/96	104	%REC			1
Tetrachloroethene	127-18-4	QCBLK118752-1	10/25/96	10/25/96	100	%REC			1
Chlorobenzene	108-90-7	QCBLK118752-1	10/25/96	10/25/96	94	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK118752-1	10/25/96	10/25/96	96	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK118752-1	10/25/96	10/25/96	97	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118752-1	10/25/96	10/25/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 10/31/96

Quanterra ID : QCLCS118776-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK118776-1	10/27/96	10/27/96	102	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK118776-1	10/27/96	10/27/96	124	%REC			1
Chloroform	67-66-3	QCBLK118776-1	10/27/96	10/27/96	102	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK118776-1	10/27/96	10/27/96	96	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK118776-1	10/27/96	10/27/96	94	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK118776-1	10/27/96	10/27/96	98	%REC			1
Trichloroethene	79-01-6	QCBLK118776-1	10/27/96	10/27/96	95	%REC			1
Benzene	71-43-2	QCBLK118776-1	10/27/96	10/27/96	97	%REC			1
Tetrachloroethene	127-18-4	QCBLK118776-1	10/27/96	10/27/96	102	%REC			1
Chlorobenzene	108-90-7	QCBLK118776-1	10/27/96	10/27/96	94	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK118776-1	10/27/96	10/27/96	104	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK118776-1	10/27/96	10/27/96	99	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK118776-1	10/27/96	10/27/96	110	%REC			1

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, One (1) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
LEMONT QUARRY #1	12752-001
LEMONT QUARRY #1	12752-001MS
LEMONT QUARRY #1	12752-001MSD
LEMONT QUARRY #1	12752-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions cf the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:20 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET: 5

Attached are the following:

The signed and dated copy of COC from The Linday Light Project from William for the Lemont Quarry.

Quanterra's in-house COC (Login Number 12752) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 4C.

The TAT requested on the COC is 7 days.

Quanterra November 12, 1996 05:15 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12752

Project Manager: D. Mueller

Draft: (Final) Entered and Reviewed by: Sue Wilson PM Review: Dan W. Mueller 11-12-96

Sample Header Template:

Sample No. / # Data:	Client ID / Comments / Container Type	C-Matrix / Analysis	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No. (Container Numbers:% Filled)
12752-001	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059 99)
1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262057:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262057:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262058:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B	(262058:98)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)

12752-001DUP	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262057:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262057:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262058:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B	(262058:98)

12752-001MS	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)

12752-001MSD	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)

3*=Sample has not been rad screened.

Quanterra November 12, 1996 05:15 pm

Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0

Master Sample Login: 12752

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. #	Client ID / Comments / Container Type	C-Matrix / Analysis	Class	Date: Collected / Preservative	Received / Anal. Due Date	Due / Hold Date	Shipper / Site	Rad Category / (Container Numbers:% Filled)	Rad Sample No.
Data:									
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)	
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)	
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)	
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)	
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)	
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)	
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)	

3*=Sample has not been rad screened.

[redacted]

Chai[redacted] Custody Record

Temp HOC CUR# 8893

Quantel_a Environmental Services

QUA-4124

Client	Project Manager	Date	Chain Of Custody Number
Kerr McGee	William Gowey	11/13/96	12719
Address: 321 E C Land	Telephone Number (Area Code)/Fax Number: 312 527 5434 527-5307	Lab Number	Page ____ of ____
City: Chicago; State: Il; Zip Code: [illegible]	Site Contact: William Gowey		
Project Name: Lindsey Light 2	Carrier/Waybill Number: FED EX 2357405960		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: TCLP VOA	Analysis: TCLP	Analysis: WET Chem
LEMONT QUARRY #1	11/6/96	1430	TCLP VOA	120 ML	CL GL	1	N.	X1	X		
LEMONT QUARRY #2	11/6/96	1430	TCLP	500 ML	BRNG	2	N.	X2		X	
LEMONT QUARRY #3	11/6/96	1430	WET CHEM	250 ML	CLR G	2	N.	X2			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [X] Archive For 3 Months

Turn Around Time Required: [ ] Normal [X] Rush

QC Level: [X] I. [ ] II. [ ] III.

Project Specific (Specify): LINDSAY LIGHT #2

1. Relinquished By: William Gowey TO LAB	Date: 11/14/96	Time: 1600	1. Received By: Karrien Akter	Date: 11/15/96	Time: 0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Quanterra Environmental Services

BW / DM
11/8/96
2:15
KA

Login No.: 12752

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Kerr McGee

Date: 11/8/96 Time: 0900

Project No: 578.07

Initiated by: Karriem Akbar

Shipper/No: Fed Ex 235 7405 960

RFA/COC Numbers: 12718 / 12719

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 4°C

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) [signature] Date: 11-8-96

Project Management Review: Diane D Mueller Date: 11-11-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Conversation Record

Quanterra Environmental Services

QUA-4137

Time	Date	Project Number	Routing Name/Symbol	Routing Initial
	11-15-96			

Type of Contact: ☐ Visit ☐ Conference ☐ Telephone ☐ Incoming ☐ Outgoing

Location of Visit or Conference:

Name of Person(s) Contacted	Organization (Office, Dept, etc.)	Telephone Number
Lorel Van De Zeeg	Kerr McGee	

Subject

Summary

Not enough TCLP extract to perform QC on the TCLP test. I spoke to Lorel about this & he did not see this as a problem QC was perform on the Common Fill Sample

Action Required

Name of Person Documenting Conversation	Signature	Date
D.W. Mueller	D.W. Mueller	

Action Taken

Signature	Title	Date

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	57	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	54	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	21	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	37	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	36	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	59	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	73	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	73	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	76	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	60	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	74	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	59	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	26	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	79	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	30	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	58	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	53	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	52	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	69	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	75	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	68	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	58	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	53	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	38	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	72	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	0.70	UG/L	U	0.70	.5
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	3.5	UG/L	U	3.5	.5
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	14	UG/L	U	14	.5
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	58	%REC			.5
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			.5

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	62	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	74	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	48	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	65	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	79	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	52	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	204	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	B	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	4.8	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	5.6	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	103	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	95	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	91	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	102	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	93	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	100	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
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MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	Three (3)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, three (3) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
CA-6	12743-001
CA-6	12743-001MS
CA-6	12743-001MSD
CA-6	12743-001DUP
COMMON FILL	12743-002
COMMON FILL	12743-002MS
COMMON FILL	12743-002MSD
TOP SOIL	12743-003

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide CA-16 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for ,TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA for sample CA-6 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for TCLP Pesticide for COMMON FILL (12743-002).

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL
J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect

Abbreviations/Definitions:

MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

Sample CA-6 (12743-001MSD) gave no recovery for pyridine, while the MS of this sample, the LCS, and two other sets of MS/MSD's extracted in this batch all gave normal recoveries. The cause is unknown.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

Quanterra
Environmental Services

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:26 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET: 4

Attached are the following:

The signed and dated copy of COC from The Linday Light Project West Chicago site for CA-6, TOP SOIL and COMMON FILL

Quanterra's in-house COC (Login Number 12743) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 2C.

The TAT requested on the COC is 7 days.

Quanterra November 14, 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by: PM Review: 11-15-96

Sample Header Template:

Sample No. / # / Data:	Client ID / Comments / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal. Due Date	Shipper / Hold Date	Site	Rad Category	Rad Sample No. (Container Numbers:% Filled)
12743-001	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX		3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A		(261888:100)
1		FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261888:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A		(261888:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A		(261888:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261888:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A		(261888:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A		(261888:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
12743-001DUP	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX		3*	R5540-003
1	AN - Amber Glass-2.5L	FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261888:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261888:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A		(261888:100)
12743-001MS	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX		3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A		(261888:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A		(261888:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A		(261888:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A		(261888:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
12743-001MSD	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX		3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A		(261888:100)

3*=Sample has not been rad screened.

Quanterra November 14, 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / Comments / # Container Type / Data:	Client ID	C-Matrix / Analysis	Class	Date: Collected / Preservative	Received / Anal. Due Date	Due / Hold Date	Shipper / Site	Rad Category	Rad Sample No. / (Container Numbers:% Filled)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261888:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A		(261888:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A		(261888:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A		(261888:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261888:100)
12743-002	COMMON FILL	Solid		06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-002
1 C - Can-2.5 Liter		BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261890:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261890:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A		(261890:100)
1		FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261890:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261890:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A		(261890:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A		(261890:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261890:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261890:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261890:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A		(261890:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A		(261890:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261890:100)
12743-002MS	COMMON FILL	Solid		06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-002
1 C - Can-2.5 Liter		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261890:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A		(261890:100)
12743-002MSD	COMMON FILL	Solid		06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-002
1 C - Can-2.5 Liter		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261890:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A		(261890:100)
12743-003	TOP SOIL	Solid		06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-001
1 C - Can-2.5 Liter		BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261891:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A		(261891:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A		(261891:100)
1		FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A		(261891:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A		(261891:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A		(261891:100)

3*=Sample has not been rad screened.

Quanterra November 14, 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
Comments								
#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
Data:								
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A	(261891:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261891:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261891:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261891:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A	(261891:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A	(261891:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261891:100)

3*=Sample has not been rad screened.

KERR-McGEE CORPORATION

CHAIN OF CUSTODY RECORD— ENVIRONMENTAL SAMPLES KM 4775

FACILITY	SAMPLING FIRM	SAMPLE
NAME: KERR McGEE CHEMICAL CORP.	NAME: SAME AS FACILITY	☐ Effluent ☐ Groundwater
ADDRESS: 400 WEYRAUCH ST W. CHICAGO IL 60185	ADDRESS:	☒ Solid ☐ Surface Water
	SIGNATURE:	☐

NO	LOCATION	DATE	TIME	WEATHER TEMP	WEATHER PREC	SAMPLE TYPE AND METHOD COMP.	GRAB	MECH	MAN.	TIMES CASING CLEARED	NO OF CONTAINERS	ANALYSIS REQUIRED	REMARKS
NA	CA-6	11/6/96					X	① 2.5L Jug			1	ALL SAMPLES TO BE ANALYZED FOR RCRA HAZARDOUS WASTE CHARACTERISTICS AS PER G.E. VAN DE STEEG. IGNITABILITY, CORROSIVITY, REACTIVITY, AND TCLP	
	COMMON FILL						X	① 2.5L CAN			1		
	TOP SOIL						X	① 2.5L CAN.			1		

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
[signature]	[signature]	11/8/96	0900
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME

ADDITIONAL REMARKS: THE ABOVE SAMPLES ARE KERR McGEE REF BARROW SOURCE SAMPLE

DISPATCHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY (SIGNATURE)	DATE	TIME

CARRIER: FED EX

LABORATORY: QUANTERRA

ADDRESS: 13715 RIDER TRAIL NORTH EARTH CITY MO 63045

METHOD OF SHIPMENT: PRIORITY OVERNIGHT.

ALL ANALYSIS PERFORMED BY EPA APPROVED PROCEDURES

☐ Yes ☐ No, explain above

Quanterra
Environmental Services

COC
BW/DM
11/14/96
10:50
By: KA

Login No.: 12837

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Lowry trust,
Date: 11/14/96 Time: 0915
Project No: 1639.01
Initiated by: Karsiem Akbar
Shipper/No: Fed ex
RFA/COC Numbers: 67454

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°C

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) [signature] Date: 11-14-96

Project Management Review: Diane W. Mueller Date: 11-14-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	2.4	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	94.8	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	5.2	UG/L	B	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	5.5	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	102	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	91	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	93	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	87	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	100	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	87	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	2.6	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	1210	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	1.6	UG/L	B	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	5.6	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	3.8	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	739	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.76	UG/L	B	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	2.2	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	4.3	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	3.7	UG/L	B	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	60	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	76	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	51	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	69	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: CA-6

Quanterra ID : 12743-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	75	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	49	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	67	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	65	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120734-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120734-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120734-1	11/13/96	11/15/96	60	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.68	UG/L	U	0.68	.5
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.68	UG/L	U	0.68	.5
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.68	UG/L	U	0.68	.5
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.68	UG/L	U	0.68	.5
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.4	UG/L	U	1.4	.5
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	6.8	UG/L	U	6.8	.5
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	27	UG/L	U	27	.5
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	67	%REC			.5
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			.5

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: COMMON FILL

Quanterra ID : 12743-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	108	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-002MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	106	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	91	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	102	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	105	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-002MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	103	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	88	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	93	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	58	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	103	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	105	%REC			1

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: CA-6

Quanterra ID : 12743-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	67	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	25	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	44	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	100	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	22	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	53	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	51	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	58	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	72	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	85	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	67	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	72	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	67	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	21	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	37	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	95	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	0	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	58	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	67	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	78	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	91	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	82	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	72	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	38	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	100	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/16/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/16/96	62	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/16/96	68	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/16/96	54	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/16/96	22	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/16/96	38	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/16/96	88	%REC			1

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
N	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, One (1) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
MC COOK QUARRY #1	12751-001
MC COOK QUARRY #1	12751-001MS
MC COOK QUARRY #1	12751-001MSD
MC COOK QUARRY #1	12751-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. *Comments/Nonconformances*

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

The Silver matrix spike duplicate recovery (76.0%) was less than 80%, therefore all associated data was flagged with a " N " in the full data package. The matrix spike recovery for Silver (85.4%) was within range.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:17 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET:

Attached are the following:

The signed and dated copy of COC for the Lindsay Light Project from William Gowey for the Mc Cook Quarry.

Quanterra's in-house COC (Login Number 12751) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 4C. container open.

The TAT requested on the ARCOC is a 7 day TAT.

Quanterra November 12, 1996 05:17 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12751

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by: PM Review: Diana W Mueller 11-11-96

Sample Header Template:

Sample No. / # / Data:	Client ID / Comments / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal. Due Date	Shipper / Hold Date	Site	Rad Category	Rad Sample No. (Container Numbers:% Filled)
12751-001	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00		15-NOV-96	FED-EX	3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B		(262040:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B		(262040:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B		(262040:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B		(262037:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B		(262037:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B		(262038:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B		(262038:98)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X		(262036:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X		(262036:99)
12751-001DUP	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00		15-NOV-96	FED-EX	3*	R5543-001
1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B		(262037:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B		(262037:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B		(262038:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B		(262038:98)
12751-001MS	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00		15-NOV-96	FED-EX	3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B		(262040:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B		(262040:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B		(262040:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X		(262036:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X		(262036:99)
12751-001MSD	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00		15-NOV-96	FED-EX	3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)

3*=Sample has not been rad screened.

Quanterra November 12, 1996 05:17 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12751

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. #	Client ID / Comments / Container Type	Analysis	C-Matrix / Class	Date: Collected / Preservative	Received / Anal. Due Date	Due / Hold Date	Shipper / Site	Rad Category Rad Sample No. (Container Numbers:% Filled)
Data:								
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262040:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262039:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262040:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262040:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262039:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262036:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262036:99)

3*=Sample has not been rad screened.

Chain of Custody Record

CUR#8893 TEMP 4°C

Quanterra Environmental Services

QUA-4124

Client: KeeMcGee	Project Manager: William Gowey	Date: 11/6/96	Chain Of Custody Number: 12718
Address: 321 E Grand	Telephone Number (Area Code)/Fax Number: 312 527 5434 / 527 5307	Lab Number:	Page 1 of 1
City: Chicago; State: Ill; Zip Code: 60611	Site Contact: William Gowey		
Project Name: Lindsay Light II	Carrier/Waybill Number: Fed Ex ~~237~~ 2357405960		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: TCLP VOA	Analysis: TCLP	Analysis: Leachate
MC Cook Quarr #1	11/6/96	1313	TCLP VOA	120 ml	CL Glas	1	None	X1-120 ml	X		
MC Cook Quarry #2	11/6/96	1313	TCLP	500 ml	BR Gl	2	None	X2-500 ml		X	
MC Cook Quarry #3	11/6/96	1313	Leachate	250 ml	125 ml	2	None	X2-250 ml			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [X] Archive For 3 Months

Turn Around Time Required: [ ] Normal [X] Rush

QC Level: [X] I. [ ] II. [ ] III.

Project Specific (Specify): Lindsay Light #2

	Date	Time		Date	Time
1. Relinquished By: W.D. Gowey TO LAB	11/6/96	1600	1. Received By: Karrem Akkar	11/8/96	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report; PINK - Field Copy

Quanterra Environmental Services

BW / DM
11/8/96
2:15
KA

Login No.: 12751

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Kerr McGee

Date: 11/8/96 Time: 0900

Project No: 578.07

Initiated by: Karriem Allen

Shipper/No: Fed Ex 235 7405 960

RFA/COC Numbers: 12718 / 12719

Condition/Variance (Check all that apply):

1. ☐ *Sample received broken/leaking.*
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 4°C

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) Gregory Byrd Date: 11-8-96

Project Management Review: Diane D. Mueller Date: 11-11-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Conversation Record

Quanterra Environmental Services

QUA-4137

Time	Date	Project Number	Routing Name/Symbol	Routing Initial
	11-15-96			

Type of Contact: ☐ Visit ☐ Conference ☐ Telephone ☐ Incoming ☐ Outgoing

Location of Visit or Conference:

Name of Person(s) Contacted	Organization (Office, Dept, etc.)	Telephone Number
Lane Van De Berg	Kerr McGee	

Subject

Summary

Not enough TCLP extract to perform QC on the TCLP test. I spoke to Gerald about this & he did not see this as a problem. QC was perform on the Common Fill Sample

Action Required

Name of Person Documenting Conversation	Signature	Date
D.W. Mueller	D.W. Mueller	

Action Taken

Signature	Title	Date

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	73	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	57	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	27	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	93	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	19	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	60	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	51	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	51	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	58	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	64	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	69	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	75	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	85	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	72	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	59	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	39	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	17	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	61	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	53	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	52	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	58	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	65	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	65	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	75	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	85	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	66	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	22	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	93	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	0.71	UG/L	U	0.71	.5
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	3.6	UG/L	U	3.6	.5
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	14	UG/L	U	14	.5
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	57	%REC			.5
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			.5

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	77	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	50	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	67	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	80	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	53	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	69	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	2.0	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	313	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	2.5	UG/L	B	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	7.0	UG/L		250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	93	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	85	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	86	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	82	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	83	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	81	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	85	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	76	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra
Environmental Services

RECEIVED
NOV 27 1996
WEST CHICAGO PROJECT

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 26, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, three (3) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. **On November 20, a certificate of analysis and data were submitted for all analysis excluding TCLP VOA. This report addresses the TCLP VOA analysis.** The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
LEMONT QUARRY #1	12752-001
LEMONT QUARRY #1	12752-001MS
LEMONT QUARRY #1	12752-001MSD
LEMONT QUARRY #1	12752-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

LLII 6.2-1

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

There are no comments or nonconformances associated with this analysis.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, One (1) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
LEMONT QUARRY #1	12752-001
LEMONT QUARRY #1	12752-001MS
LEMONT QUARRY #1	12752-001MSD
LEMONT QUARRY #1	12752-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

Quanterra
Environmental Services

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:20 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET: 5

Attached are the following:

The signed and dated copy of COC from The Linday Light Project from William for the Lemont Quarry.

Quanterra's in-house COC (Login Number 12752) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 4C.

The TAT requested on the COC is 7 days.

Quanterra November 12, 1996 05:15 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12752

Project Manager: D. Mueller

Draft: Final Entered and Reviewed by: Sue Nelson PM Review: Diane Mueller 11-12-96

Sample Header Template:

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
12752-001	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

#	Comments Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262057:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262057:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262058:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B	(262058:98)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
12752-001DUP	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	GN - Glass Jar-250ML	FLPT/1010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262057:99)
1		PH/9045/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262057:99)
1		REAC/9010/Q4	S	COLD	14-NOV-96	05-MAY-97	S10B	(262058:98)
1		REAC/9030/Q4	S	COLD	14-NOV-96	13-NOV-96	S10B	(262058:98)

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
12752-001MS	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
12752-001MSD	LEMONT QUARRY	Solid	06-NOV-96 14:30	08-NOV-96 09:00	15-NOV-96	FED-EX	3*	R5544-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		EXT/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	S10B	(262059:99)

3*=Sample has not been rad screened.

Quanterra November 12, 1996 05:15 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12752

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
Comments								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
Data:								
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262060:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262060:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262060:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262059:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262056:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262056:99)

3*=Sample has not been rad screened.

Chain of Custody Record

TEMP 4°C CUR# 8893

Quanterra Environmental Services

QUA-4124

Client: Kerr McGee	Project Manager: William P. Lowey	Date: 11/13/96	Chain Of Custody Number: 12719
Address: 321 E C. Land	Telephone Number (Area Code)/Fax Number: 312 527 5434 527-5307	Lab Number:	Page ____ of ____
City: Chicago; State: Il; Zip Code: 60611	Site Contact: William Gowey		
Project Name: Lindsey Light 2	Carrier/Waybill Number: FED EX 2357405960		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: TCLP VOA	Analysis: TCLP	Analysis: WET Chem
LEMONT QUARRY #1	11/6/96	1930	TCLP VOA	120 ML	CL GL	1	N.	X1	X		
LEMONT QUARRY #2	11/6/96	1430	TCLP	500 ML	BRNG	2	N.	X2		X	
LEMONT QUARRY #3	11/6/96	1430	WET CHEM	250 ML	CLR G	2	N.	X2			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [X] Archive For 3 Mont s

Turn Around Time Required: [ ] Normal [X] Rush

QC Level: [X] I. [ ] II. [ ] III.

Project Specific (Specify): LINDSAY LIGHT #2

1. Relinquished By: William P Lowey TO LAB	Date: 11/14/96	Time: 1600	1. Received By: Karrien Akter	Date: 11/15/96	Time: 0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Quanterra Environmental Services

BW / DM
11/8/96
2:15
KA

Login No.: 12752

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Kerr McGee

Date: 11/8/96 Time: 0900

Project No: 578.07

Initiated by: Karriem Akbar

Shipper/No: Fed Ex 235 7405 960

RFA/COC Numbers: 12718 / 12719

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 4°C

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) [signature] Date: 11-8-96

Project Management Review: Diane M. Mueller Date: 11-11-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Conversation Record

Quanterra Environmental Services

QUA-4137

Time	Date	Project Number	Routing Name/Symbol	Routing Initial
	11-15-96			

Type of Contact: ☐ Visit ☐ Conference ☐ Telephone ☐ Incoming ☐ Outgoing

Location of Visit or Conference:

Name of Person(s) Contacted	Organization (Office, Dept, etc.)	Telephone Number
Lorel Van Der Berg	Kerr McGee	

Subject

Summary

Not enough TCLP extract to perform QC on the TCLP test. I spoke to Lorel about this & he did not see this as a problem QC was perform on the Common Fill Sample

Action Required

Name of Person Documenting Conversation	Signature	Date
D.W. Mueller	D.W. Mueller	

Action Taken

Signature	Title	Date

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	57	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	54	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	21	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	37	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	68	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	36	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	59	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	73	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	73	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	76	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	60	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	74	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	59	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	26	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	79	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/18/96	30	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/18/96	58	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/18/96	53	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/18/96	52	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/18/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/18/96	69	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/18/96	66	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/18/96	75	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/18/96	61	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/18/96	68	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/18/96	58	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/18/96	53	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/18/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/18/96	38	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/18/96	72	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-'

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.35	UG/L	U	0.35	.5
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	0.70	UG/L	U	0.70	.5
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	3.5	UG/L	U	3.5	.5
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	14	UG/L	U	14	.5
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	58	%REC			.5
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			.5

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	62	%REC			1

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	74	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	48	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	65	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	79	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	52	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-

Analyte	CAS Number	Blank Sample Name	Prep Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	204	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	B	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	4.8	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	5.6	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	103	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	95	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	91	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	102	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	93	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	100	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	84	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	99	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	111	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	74	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	94	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	102	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	117	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	69	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	101	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	117	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	111	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	104	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	87	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	109	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Client ID: NA

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

Quanterra
Environmental Services

RECEIVED
NOV 27 1996
WEST CHICAGO PROJECT

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 26, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, three (3) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. **On November 20, a certificate of analysis and data were submitted for all analysis excluding TCLP VOA. This report addresses the TCLP VOA analysis.** The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
MC COOK QUARRY #1	12751-001
MC COOK QUARRY #1	12751-001MS
MC COOK QUARRY #1	12751-001MSD
MC COOK QUARRY #1	12751-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

LLII 6.2-1

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

The Silver matrix spike duplicate recovery (76.0%) was less than 80%, therefore all associated data was flagged with a " N " in the full data package. The matrix spike recovery for Silver (85.4%) was within range.

TCLP VOA

There are no comments or nonconformances associated with this analysis.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

Quanterra
Environmental Services

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	Lindsay Light Project
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	One (1)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, One (1) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
MC COOK QUARRY #1	12751-001
MC COOK QUARRY #1	12751-001MS
MC COOK QUARRY #1	12751-001MSD
MC COOK QUARRY #1	12751-001DUP

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Matrix spike and matrix spike duplicate analyses were performed for, TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA.

Matrix spike and matrix spike duplicate analyses was not performed for TCLP Pesticide. There was not enough TCLP extract to perform the QC for Pesticide. The lab would have had to releach the original sample for additional leachate. QC was performed for TCLP Pesticide on one of the samples on the CA6 COC. Please refer to the conversation record attached dated 11-15-96.

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ND	=	Non - detect
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PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
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MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL

Abbreviations/Definitions:

J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

The Silver matrix spike duplicate recovery (76.0%) was less than 80%, therefore all associated data was flagged with a " N " in the full data package. The matrix spike recovery for Silver (85.4%) was within range.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

There are no comments or nonconformances associated with this analysis.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:17 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET:

Attached are the following:

The signed and dated copy of COC for the Lindsay Light Project from William Gowey for the Mc Cook Quarry.

Quanterra's in-house COC (Login Number 12751) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 4C. container open.

The TAT requested on the ARCOC is a 7 day TAT.

Quanterra November 12, 1996 05:17 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12751

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by: [illegible] PM Review: Diana W Mueller 11-11-96

Sample Header Template:

Sample No. / # Data:	Client ID / Comments / Container Type	C-Matrix / Analysis	Date: Collected	Received	Due	Shipper	Class	Preservative	Anal. Due Date	Hold Date	Site	Rad Category	Rad Sample No. (Container Numbers:% Filled)
12751-001	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00	15-NOV-96	FED-EX						3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4					S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)
1		EXTMETAL/TCLP/Q4					S	COLD	14-NOV-96	04-DEC-96	S10B		(262040:98)
1		HERB/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		HG/TCLP/Q4					S	COLD	13-NOV-96	10-DEC-96	S10B		(262040:98)
1		ICAP/TCLP/Q4					S	COLD	14-NOV-96	11-MAY-97	S10B		(262040:98)
1		PEST/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1	GN - Glass Jar-250ML	FLPT/1010/Q4					S	COLD	14-NOV-96	05-MAY-97	S10B		(262037:99)
1		PH/9045/Q4					S	COLD	14-NOV-96	20-NOV-96	S10B		(262037:99)
1		REAC/9010/Q4					S	COLD	14-NOV-96	05-MAY-97	S10B		(262038:98)
1		REAC/9030/Q4					S	COLD	14-NOV-96	13-NOV-96	S10B		(262038:98)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4					S	COLD	14-NOV-96	26-NOV-96	109X		(262036:99)
1		ZERO/TCLP/Q4					S	COLD	14-NOV-96	20-NOV-96	109X		(262036:99)
12751-001DUP	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00	15-NOV-96	FED-EX						3*	R5543-001
1	GN - Glass Jar-250ML	FLPT/1010/Q4					S	COLD	14-NOV-96	05-MAY-97	S10B		(262037:99)
1		PH/9045/Q4					S	COLD	14-NOV-96	20-NOV-96	S10B		(262037:99)
1		REAC/9010/Q4					S	COLD	14-NOV-96	05-MAY-97	S10B		(262038:98)
1		REAC/9030/Q4					S	COLD	14-NOV-96	13-NOV-96	S10B		(262038:98)
12751-001MS	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00	15-NOV-96	FED-EX						3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4					S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)
1		EXTMETAL/TCLP/Q4					S	COLD	14-NOV-96	04-DEC-96	S10B		(262040:98)
1		HERB/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		HG/TCLP/Q4					S	COLD	13-NOV-96	10-DEC-96	S10B		(262040:98)
1		ICAP/TCLP/Q4					S	COLD	14-NOV-96	11-MAY-97	S10B		(262040:98)
1		PEST/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4					S	COLD	14-NOV-96	26-NOV-96	109X		(262036:99)
1		ZERO/TCLP/Q4					S	COLD	14-NOV-96	20-NOV-96	109X		(262036:99)
12751-001MSD	MC COOK QUARRY	Solid	06-NOV-96 13:13	08-NOV-96 09:00	15-NOV-96	FED-EX						3*	R5543-001
1	AN - Amber Glass-500ml	BNA/TCLP/Q4					S	COLD	14-NOV-96	19-NOV-96	S10B		(262039:99)
1		EXT/TCLP/Q4					S	COLD	14-NOV-96	20-NOV-96	S10B		(262039:99)

3*=Sample has not been rad screened.

Quanterra November 12, 1996 05:17 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12751

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.

#	Comments Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
Data:								
1		EXTMETAL/TCLP/Q4	S	COLD	14-NOV-96	04-DEC-96	S10B	(262040:98)
1		HERB/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262039:99)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10B	(262040:98)
1		ICAP/TCLP/Q4	S	COLD	14-NOV-96	11-MAY-97	S10B	(262040:98)
1		PEST/TCLP/Q4	S	COLD	14-NOV-96	19-NOV-96	S10B	(262039:99)
1	GN - Glass Jar-120ML	VOA/TCLP/Q4	S	COLD	14-NOV-96	26-NOV-96	109X	(262036:99)
1		ZERO/TCLP/Q4	S	COLD	14-NOV-96	20-NOV-96	109X	(262036:99)

3*=Sample has not been rad screened.

Chain of Custody Record

CUR#8893 TEMP 4oC

Quanterra Environmental Services

QUA-4124

Client: KeeMcGee	Project Manager: William Gowey	Date: 11/6/96	Chain Of Custody Number: 12718
Address: 321 E Grand	Telephone Number (Area Code)/Fax Number: 312 527 5434 / 527 5307	Lab Number:	Page 1 of 1
City: Chicago; State: Ill; Zip Code: 60611	Site Contact: William Gowey		
Project Name: Lindsay Light II	Carrier/Waybill Number: Fed EX ~~237~~ 2357405960		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: TCLP VOA	Analysis: TCLP	Analysis: LOETCHER
MC Cook Quarry #1	11/6/96	1313	TCLP VOA	120ml	CL Glass	1	None	X1-120ml	X		
MC Cook Quarry #2	11/6/96	1313	TCLP	500ml	BR Gl	2	None	X2-500ml		X	
MC Cook Quarry #3	11/6/96	1313	LOETCHER	250ml	125ml	2	None	X2-250ml			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [X] Archive For 3 Months

Turn Around Time Required: [ ] Normal [X] Rush

QC Level: [X] I. [ ] II. [ ] III.

Project Specific (Specify): Lindsay Light #2

	Date	Time		Date	Time
1. Relinquished By: W. Gowey TO LAB	11/6/96	1600	1. Received By: Karrieni Cikter	11/8/96	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report, PINK - Field Copy

Quanterra Environmental Services

BW/DM
11/8/96
2:15
KA

Login No.: 12751

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Kerr McGee

Date: 11/8/96 Time: 0900

Project No: 578.07

Initiated by: Karriem Akbar

Shipper/No: Fed Ex 235 7405 960

RFA/COC Numbers: 12718 / 12719

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ **No variances were noted during sample receipt.** **Cooler Temperature Upon Receipt:** 4°C

Notes: _____

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) Gregory Byrd Date: 11-8-96

Project Management Review: Diane D. Mueller Date: 11-11-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Conversation Record

Quanterra Environmental Services

QUA-4137

Time	Date	Project Number	Routing Name/Symbol	Routing Initial
	11-15-96			

Type of Contact: ☐ Visit ☐ Conference ☐ Telephone ☐ Incoming ☐ Outgoing

Location of Visit or Conference:

Name of Person(s) Contacted	Organization (Office, Dept, etc.)	Telephone Number
Carol Ann Seeg	Kerr McGee	

Subject

Summary

Not enough TCLP extract to perform QC on the TCLP test. I spoke to Carol about this & he did not see this as a problem. QC was perform on the Common Fill Sample

Action Required

Name of Person Documenting Conversation	Signature	Date
DW Mueller	DW Mueller	

Action Taken

Signature	Title	Date

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	73	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	57	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	27	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	93	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	19	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	60	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	51	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	51	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	58	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	64	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	69	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	75	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	85	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	72	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	59	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	39	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/16/96	17	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/16/96	61	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/16/96	53	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/16/96	52	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/16/96	58	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/16/96	65	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/16/96	65	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/16/96	75	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/16/96	68	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/16/96	85	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/16/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/16/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/16/96	66	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/16/96	22	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/16/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/16/96	93	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.36	UG/L	U	0.36	.5
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	0.71	UG/L	U	0.71	.5
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	3.6	UG/L	U	3.6	.5
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	14	UG/L	U	14	.5
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	57	%REC			.5
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			.5

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	77	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	50	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	67	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	80	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	53	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	69	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	2.0	UG/L	B	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	313	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	2.5	UG/L	B	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	7.0	UG/L		250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	93	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	88	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	89	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	101	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	85	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	90	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	86	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	82	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	83	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	81	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	85	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	76	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : CCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra Inc.
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	101	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/26/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	78	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	99	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	113	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	102	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	81	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	118	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	110	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	110	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

Quanterra
Environmental Services

RECEIVED
APR 30 1997
WEST CHICAGO PROJECT

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

May 29, 1997

PROJE7T NUMBER	: 578.07
DATES RECEIVED	: April 16, 1997
NUMBER OF SAMPLES	: One (1)
SAMPLE MATRIX	: (1) Water
PROJECT NAME	: Lindsay Light II
COC NUMBER	: 13478

I. Introduction

On April 16, 1997, one (1) samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
McCook 97-001-004	14331-001

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

LL II - 6.2-1

The analyses requested includes:

TCLP Extraction by SW848 1311
TCLP BNA by SW846 8470
TCLP VOA by SW846 8240
Total VOA by SW846 8240
TCLP Pesticide by SW846 8080
TCLP Herbicide by SW848 8150
TCLP Metals by SW846 6010
TCLP Mercury by SW846 7470
Flashpoint by SW 846 1010
pH by SW846 9045
Reactive Cyanide by SW846 9010
Reactive Sulfide by SW846 9030

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

A Matrix spike and matrix duplicate analysis were performed for the following analysis: TCLP BNA, VOA, Pesticide, Metals and Herbicide.

A Duplicate analysis was performed for the following analysis: Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit

Abbreviations/Definitions:

DL	=	PQL
J	=	Estimated Value (Organics only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (Metals only)
B	=	Analyte found in the blank (Organics only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

The sample was received, samples were received at a temperature of 2 degrees C.

TCLP BNA

There are no comments or nonconformances associated with this analysis..

TCLP VOA

There are no comments or nonconformances associated with this analysis.

TCLP Pesticide

There are no comments or nonconformances associated with this analysis.

TCLP Herbicide

There are no comments or nonconformances associated with this analysis.

TCLP Metals

All samples and the extraction blank were prepped 25 mls to 100 mls for both ICP and Mercury.

The Extraction prep blank had "B" flags for: Barium at 3.0 ug/l and Zinc at 44.6 ug/l.
The prep blank had "B" flags for: Barium at 0.77 ug/L (lower than several of the continuing calibration blanks), Chromium at 11.3 ug/L (Flagged with a B as a convention of the software) and Zinc at 4.0 ug/L (compared to a reporting limit of 20 ug/L).

Quanterra
Environmental Services

Kerr - McGee Corporation
Project Number: 578.07
April 29, 1997

Flashpoint

There are no comments or nonconformances associated with this analysis.

pH

There are no comments or nonconformances associated with this analysis.

Reactive Cyanide

There are no comments or nonconformances associated with this analysis.

Reactive Sulfide

There are no comments or nonconformances associated with this analysis.

V. Disposal

All remaining sample volume will be returned.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

MK 5-7-97

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: MCCOOK 97-001-004 CA-6

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	34	UG/L	J	50	10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	91	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	96	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	102	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	107	%REC			10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	101	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	108	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	107	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	93	%REC			10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	105	%REC			10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	82	%REC			10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	95	%REC			10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	90	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	113	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	109	%REC			10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	99	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	108	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	118	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	98	%REC			10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	96	%REC			10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	88	%REC			10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	95	%REC			10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXT3LK138241-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	92	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	85	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	98	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138455-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	99	%REC			1
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	85	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	95	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138455-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	132	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	115	%REC			1
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	102	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	104	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	134	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	95	%REC			1
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	96	%REC			1
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	107	%REC			1
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	91	%REC			1
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	96	%REC			1
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			1
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	84	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	99	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	73	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	60	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	35	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	50	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	97	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	52	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	86	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	74	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	70	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	82	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	95	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	82	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	84	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	89	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	96	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	92	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	84	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	86	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	83	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	64	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	40	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	57	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	103	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	56	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	80	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	68	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	75	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	88	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	77	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	66	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	95	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	96	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	90	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	81	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	74	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	37	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	53	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	85	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/21/97	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/21/97	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/21/97	61	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/21/97	65	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/21/97	30	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/21/97	44	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/21/97	93	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK138077-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/21/97	44	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/21/97	67	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/21/97	64	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/21/97	63	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/21/97	59	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/21/97	80	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/21/97	60	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/21/97	72	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/21/97	79	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/21/97	91	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/21/97	92	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/21/97	43	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/21/97	73	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/21/97	70	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/21/97	87	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/21/97	33	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/21/97	49	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/21/97	103	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Client ID: MCCOOK 97-001-004 CA-6

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK137823-1	04/22/97	04/22/97	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK137823-1	04/22/97	04/22/97	20	UG/L	U	20	1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	84	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	117	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	95	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	102	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	95	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	90	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	123	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	98	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	106	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	97	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	92	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK137823-1	04/22/97	04/22/97	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK137823-1	04/22/97	04/22/97	20	UG/L	U	20	1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	92	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK138078-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	117	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	88	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	101	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	96	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	90	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	146	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	140	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	85	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	142	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	134	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	74	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK137968-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	139	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	140	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	82	%REC			1

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	156	UG/L	U	1200	4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	263	UG/L	B	800	4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	13.6	UG/L	U	20.0	4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	10.8	UG/L	U	40.0	4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	30.0	UG/L	U	100	4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	104	UG/L	U	400	4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	220	UG/L	U	1000	4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	30.4	UG/L	B	40.0	4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	156	UG/L		80.0	4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.40	UG/L	U	0.80	4

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	92	%REC			4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	98	%REC			4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	102	%REC			4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	95	%REC			4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	95	%REC			4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	99	%REC			4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	101	%REC			4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	83	%REC			4

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	93	%REC			4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	99	%REC			4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	107	%REC			4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	100	%REC			4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	106	%REC			4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	83	%REC			4

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	156	UG/L	U	1200	4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	3.0	UG/L	B	800	4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	13.6	UG/L	U	20.0	4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	10.8	UG/L	U	40.0	4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	30.0	UG/L	U	100	4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	104	UG/L	U	400	4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	220	UG/L	U	1000	4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	14.4	UG/L	U	40.0	4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	44.6	UG/L	B	80.0	4

Quanterra
Environmental Services

Kerr McGee
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Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.40	UG/L	U	0.80	4

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138090-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	38.9	UG/L	U	300	1
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	0.77	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	3.4	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	2.7	UG/L	U	10.0	1
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	11.3	UG/L	B	25.0	1
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	26.0	UG/L	U	100	1
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	55.0	UG/L	U	250	1
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	3.6	UG/L	U	10.0	1
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	4.0	UG/L	B	20.0	1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138131-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.10	UG/L	U	0.20	1

Quanterra
Environmental Services

Kerr McGee
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MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138090-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	97	%REC			1
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			1
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	99	%REC			1
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	96	%REC			1
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	71	%REC			1
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
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MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138131-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Flashpoint	10-36-6	NA	04/22/97	04/22/97	>60.0	UG/L			1
MCCOOK 97-001-004	14331-001DUP	Flashpoint	10-36-6	NA	04/22/97	04/22/97	>60.0	UG/L			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: Flashpoint
Method: EPA 1010
Matrix: Soil

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS138296-1	Flashpoint	10-36-6	NA	04/22/97	04/22/97	27.0	UG/L			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	8.85	PH UNITS			1
MCCOOK 97-001-004	14331-001DUP	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	8.83	PH UNITS			1
NA	QCBLK138042-1	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	5.93	PH UNITS			1

Quanterra
Environmental Services

Kerr McGee
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	22.2	MG/KG	U	22.2	1
MCCOOK 97-001-004	14331-001DUP	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	22.2	MG/KG	U	22.2	1
NA	QCBLK138262-1	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	4.44	MG/KG	U	4.44	1
NA	QCLCS138262-1	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	101	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.05	MG/KG	U	0.05	1
MCCOOK 97-001-004	14331-001DUP	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.05	MG/KG	U	0.05	1
NA	QCBLK138261-1	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.01	MG/KG	U	0.01	1
NA	QCLCS138261-1	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	21	%REC			1

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EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	April 18, 1997	**TIME:**	9:20 AM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	(405) 270-3574 (405) 270-3504
FROM:	Diane Mueller Quanterra	**PHOME:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Samples Received		
CC:	Diane Mueller		

NUMBER OF PAGES INCLUDING COVER SHEET: 5 pages

Attached are the following for samples taken on April 15, 1997 received on April 16, 1997 for Chain of Custody 13478 for McCool Quarry.

Quanterra's in-house COC (Login Number 14331) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On April 16, 1997, one (1) cooler was received at Quanterra, St. Louis. Samples received at 4 degrees C temperature.

A trip blank was included with the samples but not listed on the COC, this was logged in.

The samples have been logged in for a 7 day TAT. I will keep you posted on the progress of this project.

Quanterra April 17, 1997 04:35 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 2
Master Sample Login: 14331

ject Manager: D. Mueller

ft: Final: Entered and Reviewed by: PM Review: 04/- 17 -97

ple Header Template:

ple No. / Comments / Container Type	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
a:								
31-001	MCCOOK 97-001-004	CA-6	Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3* R6065-001
IF ENOUGH SAMPLE VOLUME, PERFORM Q.C. LISTED								

	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1		EXT/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293955:99)
1		EXTMETAL/TCLP/Q4	S	COLD	24-APR-97	13-MAY-97	S17B	(293955:99)
1		HERB/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1		HG/TCLP/Q4	S	COLD	24-APR-97	15-MAY-97	S17B	(293955:99)
1		ICAP/TCLP/Q4	S	COLD	24-APR-97	14-OCT-97	S17B	(293955:99)
1		PEST/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1	AN - Amber Glass-250ML	FLPT/1010/Q4	S	COLD	24-APR-97	12-OCT-97	S17B	(293957:99)
1		PH/9045/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293957:99)
1		RAD/CSCREEN/Q4	S	COLD	24-APR-97	13-OCT-97	S17B	(293957:99)
1		REAC/9010/Q4	S	COLD	24-APR-97	12-OCT-97	S17B	(293957:99)
1		REAC/9030/Q4	S	COLD	24-APR-97	22-APR-97	S17B	(293957:99)
2	AN - Amber Glass-120ML	VOA/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)
2		ZERO/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)

331-001DUP	MCCOOK 97-001-004	CA-6	Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3* R6065-001
Plus Cu & Zn								

	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-250ML	FLPT/1010/Q4	S	COLD	24-APR-97	12-OCT-97	S17B	(293957:99)
1		PH/9045/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293957:99)
1		REAC/9010/Q4	S	COLD	24-APR-97	12-OCT-97	S17B	(293957:99)
1		REAC/9030/Q4	S	COLD	24-APR-97	22-APR-97	S17B	(293957:99)

331-001MS	MCCOOK 97-001-004	CA-6	Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3* R6065-001
Plus Cu & Zn								

	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1		EXT/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293955:99)
1		EXTMETAL/TCLP/Q4	S	COLD	24-APR-97	13-MAY-97	S17B	(293955:99)
1		HERB/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1		HG/TCLP/Q4	S	COLD	24-APR-97	15-MAY-97	S17B	(293955:99)
1		ICAP/TCLP/Q4	S	COLD	24-APR-97	14-OCT-97	S17B	(293955:99)
1		PEST/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
2	AN - Amber Glass-120ML	VOA/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)
2		ZERO/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)

331-001MSD	MCCOOK 97-001-004	CA-6	Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3* R6065-001
Plus Cu & Zn								

	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)

*=Sample has not been rad screened.

Quanterra April 17, 1997 04:35 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 2
Master Sample Login: 14331

ject Manager: D. Mueller

't: Final: Entered and Reviewed by:_____ PM Review:_____

ple Header Template: _____

ple No. / Comments / Container Type	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category Rad Sample No.
		Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3:							
1		EXT/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293955:99)
1		EXTMETAL/TCLP/Q4	S	COLD	24-APR-97	13-MAY-97	S17B	(293955:99)
1		HERB/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
1		HG/TCLP/Q4	S	COLD	24-APR-97	15-MAY-97	S17B	(293955:99)
1		ICAP/TCLP/Q4	S	COLD	24-APR-97	14-OCT-97	S17B	(293955:99)
1		PEST/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
2	AN - Amber Glass-120ML	VOA/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)
2		ZERO/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)

Sample has not been rad screened.

[redacted] 5-17-15

Chain of Custody Record

Quanterra Environmental Services

QUA-4124

Client	Project Manager	Date	Chain Of Custody Number
Kerr McGee Chemical Corp	Bernie Bono	4-14-97	10478
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
321 E. Grand	312-464-9546		Page 1 of 1
City / State / Zip Code	**Site Contact**		
Chicago / IL / 60611	Bill Gowey		
Project Name	**Carrier/Waybill Number**		
Lindsay light II	Federal Express 3698095505		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	TCLP Full	Wet Chem	TCLP VOA, ZHE										
McCook 97-001 CA-6	4-15-97	0920	DRY	500ml	Amber Glass	1	Cool		X									10°			
McCook 97-002 CA-6	4-15-97	0918	DRY	250ml	Glass	1	Cool			X											
McCook 97-003 CA-6	4-15-97	0921	DRY	120ml	Glass	1	Cool				X										
McCook 97-004 CA-6	4-15-97	0922	DRY	120ml	Glass	1	Cool				X										

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Turn Around Time Required: [X] Normal [ ] Rush

QC Level: [X] I. [ ] II. [ ] III.

Project Specific (Specify):

	Date	Time		Date	Time
1. Relinquished By: William D. Gowey	4/15/97	1200	1. Received By: Denise W. Byrd	4-16-97	0925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with Sample. CANARY - Returned to Client with Report. PINK - Field Copy

Quanterra Environmental Services

BW DM
4-16-97
1000
DWB

11550

Login No.: 14331

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: KERR McGEE

Date: 4-16-97 Time: 0925

Project No: 578.07

Initiated by: Dwayne W Byrd

Shipper/No: 3698095505

RFA/COC Numbers: 13478

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 4°

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) Dwayne W Byrd Date: 4-16-97

Project Management Review: Diane A Mueller Date: 4-16-97

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

QUANTERRA ENVIRONMENTAL SERVICES

13715 Rider Trail North
Earth City, Missouri 63045

F A X C O V E R S H E E T

DATE:	April 29, 1997	TIME:	9:26 AM
TO:	Garet Van De Steeg	PHONE:	1-405-270-3574
	Kerr McGee	FAX:	1-405-270-3504
FROM:	Diane Mueller Quanterra	PHONE: FAX:	1-800-333-3305 1-314-298-8757

RE: FAXED FINAL RESULTS FOR THE MC COOK QUARRY SAMPLES - SAMPLE DATE 4-15-97.

NUMBER OF PAGES INCLUDING COVER SHEET : 36

MESSAGE

Garet, attached ~~is~~ are the final results. The hardcopy, full data packages and EDD will be sent today.

In regards to the Thorium results for the groundwater and surface water samples - there were a couple of batches that had to be re-analyzed. John Hudak hopes to have all the results turned in this Friday. I apologize for this inconvenience.

GRANT ENVIRONMENTAL

FGCKM-041-096

December 4, 1996

Mr. Bernard Bono
Kerr-McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, Oklahoma 73102

Subject: Final Analytical Results

Reference: Letter WDG-KM-96 041; "Offsite Backfill Analytical Results"

Dear Mr. Bono:

In compliance with Section 3 of the Engineering and Field Services Agreement, dated July 1, 1996, Grant Environmental, Inc. (Grant) has solicited three bids for offsite backfill materials during restoration activities. From these three bids, Grant recommends using Vulcan Materials to conduct services. Our recommendation is based on price, availability of services, and references. The material (CA-6 and CA-16) needed for backfill has been analyzed for hazardous materials and radionuclides as required by the Scoping and Planning Documents and found to be within the required analytical parameters containing no radioactive or hazardous materials above the current background levels at the Lindsay Light II Project Site. The laboratory results are discussed below.

The laboratory results for offsite backfill supplied by Vulcan Materials from Quanterra are summarized below. Final VOA results for these analysis which were not available with the above referenced letter are included in attachment 1 of this submittal.

Analyte	CA-6 McCook*	CA-16 McCook	Common Fill REF	Top Soil REF	Lemont Quarry	McCook CA-6	REF CA-6
Date	10-11-96	10-11-96	N/A	N/A	N/A	N/A	N/A
U-238	0.99 pCi/g	<0.54 pCi/g	N/A	N/A	N/A	N/A	N/A
Th-232	0.89 pCi/g	0.48 pCi/g	N/A	N/A	N/A	N/A	N/A
Ra-226	0.38 pCi/g	0.77 pCi/g	N/A	N/A	N/A	N/A	N/A
Date	10-11-96	10-11-96	11-8/96	11-8-96	11-8-96	11-8-96	11-8-96
TCLP Metals+	ND-9530**	ND-144	ND-1210	ND-739	ND-204	ND-313	ND-94.8
pH	8.81	9.14	8.28	6.37	8.94	8.83	8.87
Flashpoint	48 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C	>60 deg C
Reactive Cyanide	ND	ND	ND	ND	ND	ND	ND
Reactive Sulfide	ND	ND	ND	ND	ND	ND	ND
TCLP BNA	ND	ND	ND	ND	ND	ND	ND
TCLP VOA	ND	ND	ND	ND	ND	ND	ND
TCLP Herbicide	ND	ND	ND	ND	ND	ND	ND
TCLP Pesticide	ND	ND	ND	ND	ND	ND	ND

Units are ug/l.

+ high metal concentration is barium unless otherwise indicated
* CA-6 McCook quarry 10-12-96 sample was received by laboratory in an open container.
** 9530 ug/l is for lead.

The high TCLP lead and failed flashpoint for CA-6 at the McCook quarry sample dated 10-11-96 is attributed to the container used to collect the sample. Reportedly the quarry used an old paint can for the sample. This can may have contained some residual paint causing this analytical result. The CA-6

12150 East Briarwood Ave., Suite 200, Englewood, Colorado 80112
(303) 790-7400 FAX (303) 799-6993

BB 12/4/96

LL IT 4.1-5

material at the McCook quarry was resampled with laboratory-certified clean sample jars in November and the results indicate that this material is acceptable.

Grant will place Vulcan Materials, for the McCook quarry, under contract for backfill materials upon your approval. If you have any questions, please do not hesitate to contact the undersigned at 312-527-5434. We look forward to the successful completion of this project.

Sincerely,
GRANT ENVIRONMENTAL, INC.

William Gowey
Project Manager

cc:	J. Dan White,	Kerr-McGee w/o Attachment
	Dave Jedlicka,	Kerr-McGee w/o Attachment
	Jeffrey Williams,	Kerr-McGee
	Jennifer Day,	Grant w/o Attachment

Attachments: Analytical Results

File: WDG-KM-96-047

Attachment 1

Analytical Results

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12752-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	84	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	99	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	111	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: LEMONT QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12752-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	74	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	94	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	102	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	117	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10

2

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: LEMONT QUARRY

Quanterra ID : 12752-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	69	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	101	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	117	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	111	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	104	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	87	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	109	%REC			10

3

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: MC COOK QUARRY

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12751-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	101	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/26/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	78	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	99	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	113	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	102	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	95	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Client ID: MC COOK QUARRY

Quanterra ID : 12751-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	81	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	118	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	110	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	110	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	96	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Client ID: NA

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Aralyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	116	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	112	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	106	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	98	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	85	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	99	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			10

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Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: CA-6

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	84	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	117	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	108	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	111	%REC			10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	109	%REC			10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	110	%REC			10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	87	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	100	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10

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Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: COMMON FILL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	87	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	106	%REC			10

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Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	86	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10

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Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Client ID: NA

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

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Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Client ID: NA

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

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Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

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QUANTERRA ENVIRONMENTAL SERVICES

13715 Rider Trail North
Earth City, Missouri 63045

F A X C O V E R S H E E T

DATE:	November 26, 1996	TIME:	10:45 AM
TO:	Bernie Bono	PHONE:	1-312-464-9019
	Kerr McGee	FAX:	1-312-464-9547
FROM:	Diane Mueller Quanterra	PHONE: FAX:	1-800-333-3305 1-314-298-8757

RE: TCLP REGS

NUMBER OF PAGES INCLUDING COVER SHEET : 3

MESSAGE

Bernie, attached is a copy of our summary of the TCLP regs. Please note that the TCLP regs are in mg/l and your results are in our standard reporting limits of ug/l.

I double checked your metals analysis. The detection limits (CRDL) are correct. A "U" flag means the result was nondetected and the IDL value is used as the sample value because this is the lowest value we can see. A "B" flag means the result is greater then the IDL but below the CRDL (the detection limit).

For example, sample CA-6 (12743-001) for Arsenic the value is 2.4 ug/l with a "B" flag. The IDL is below 2.4 ug/l, but 2.4 is less than the 300 ug/l, which is the Detection limit or CRDL so it is flagged with a "B". The IDL value is 1.8 ug/l.

I hope this helps.!!!!

Table II.2 - Toxicity Characteristic Constituents & Reg. Levels

Constituent	Chronic toxicity level(mg/L)	Regulatory level(mg/L)
Metals		
Arsenic	0.05	5.0
Barium	1.0	100.0
Cadmium	0.01	1.0
Chromium	0.05	5.0
Lead	0.05	5.0
Mercury	0.002	0.2
Selenium	0.01	1.0
Silver	0.05	5.0
Pesticides		
Chlordane	0.0003	0.03
Endrin	0.0002	0.02
Heptachlor	0.00008	0.008
Heptachlor epoxide	0.00008	0.008
Lindane	0.004	0.4
Methoxychlor	0.1	10.0
Toxaphene	0.005	0.5
Herbicides		
2,4-D	0.1	10.0
2,4,5-TP (Silvex)	0.01	1.0
Semivolatile Compounds		
o-Cresol (3-Methylphenol)	2	200.0 *
m-Cresol (3-Methylphenol)	2	200.0 *
p-Cresol (4-Methylphenol)	2	200.0 *
1,4-Dichlorobenzene	0.075	7.5
2,4-Dinitrotoluene	0.0005	0.13
Hexachlorobenzene	0.0002	0.13
Hexachloro-1,3-butadiene	0.005	0.5
Hexachloroethane	0.03	3.0
Nitrobenzene	0.02	2.0
Pentachlorophenol	1	100.0
Pyridine	0.04	5.0
2,4,5-Trichlorophenol	4	400.0
2,4,6-Trichlorophenol	0.02	2.0
Volatile Compounds		
Benzene	0.005	0.5
Carbon tetrachloride	0.005	0.5
Chlorobenzene	1	100.0
Chloroform	0.06	6.0
1,2-dichloroethane	0.005	0.5
1,1-dichloroethylene	0.007	0.7
Methyl ethyl ketone	2	200.0
Tetrachloroethylene	0.007	0.7
Trichloroethylene	0.005	0.5
Vinyl chloride	0.002	0.2

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* If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used. The regulatory level for total cresol is 200 mg/L.

The Federal Register TCLP List contains compounds that have equivalent IUPAC names used by ITAS, academia, and other laboratories. The compounds and their equivalents are listed below.

List of compounds with equivalent names:

IUPAC	Federal Register TCLP List
gamma BHC	Lindane
Chlordane (Tech)	Chlordane
2-methylphenol	o-Cresol
3-methylphenol	m-Cresol
4-methylphenol	p-Cresol
1,1-Dichloroethene	1,1-Dichloroethylene
2-butanone	Methyl ethyl ketone
Tetrachloroethene	Tetrachloroethylene
Trichloroethene	Trichloroethylene

GRANT
ENVIRONMENTAL, INC.

FGEKM-056-097

July 17, 1997

Mr. Bernard Bono
Field Team Leader
Kerr- McGee Corporation
800 Weyrauch
West Chicago, IL 60185

Subject: Chemical and Physical Data for Topsoil at Lindsay Light II
Grant Correspondence No. 5055.026

Reference: Lindsay Light II Project, Scoping and Planning Document for Excavation and Restoration Activities, Section 02200, Contaminated Material and Earthwork, Section 1.7.E.

Dear Mr. Bono:

Grant submits the attached chemical and physical data for topsoil used for restoration activities at the Lindsay Light II site. The data included in this submittal include:

1. Topsoil laboratory analytical data from Pheasant Run Field East End in St. Charles, Illinois and analyzed by Quarterra Laboratory.
2. Physical soil analysis of topsoil including Classification/Particle Size Analysis, Specific Gravity, Moisture-Density, and Atterberg Limits. — SEE GEOTECHNICAL DATA
3. Results of Radiological testing on the topsoil material.
4. Results of pH testing.
5. Internal Correspondence Garet Van De Steeg to Dave Jedlicka regarding RCRA Hazardous Waste Test Results, dated April 10, 1997.

If you have any questions or require any additional information, please contact the undersigned at 303-790-7400.

Sincerely,
GRANT ENVIRONMENAL, INC.

Jennifer E. Day

Jennifer E. Day
Project Engineer

WEST CHICAGO PROJECT
CMI 7/22/97
JUL 22 1997
QUALITY ASSURANCE DEPT.

Attachments: as noted

cc: Mr. Dave Jedlicka
Mr. Jeff Williams

LL II 4.1-5

BB 7/22/97

12150 East Briarwood Ave., Suite 200, Englewood, Colorado 80112
(303) 790-7400 FAX (303) 799-6993

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 26, 1996

Project Name	:	RAR-RKP ~~Lindsay Light~~ Projects
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	Three (3)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, three (3) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. **On November 20, a certificate of analysis and data were submitted for all analysis excluding TCLP VOA. This report addresses the TCLP VOA analysis.** The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
CA-6	12743-001
CA-6	12743-001MS
CA-6	12743-001MSD
CA-6	12743-001DUP
COMMON FILL	12743-002
COMMON FILL	12743-002MS
COMMON FILL	12743-002MSD
TOP SOIL	12743-003

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

CORPORATE SAFETY &
ENVIRONMENT AFFAIRS

NOV 27 1996

RECEIVED

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide CA-16 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for ,TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA for sample CA-6 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for TCLP Pesticide for COMMON FILL (12743-002).

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL
J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect

Abbreviations/Definitions:

MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

There are no comments or nonconformances associated with this analysis.

TCLP BNA

Sample CA-6 (12743-001MSD) gave no recovery for pyridine, while the MS of this sample, the LCS, and two other sets of MS/MSD's extracted in this batch all gave normal recoveries. The cause is unknown.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W Mueller

Diane W. Mueller
Project Manager

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

November 20, 1996

Project Name	:	~~Lindsay Light~~ RAR-RXP Project 456
PROJECT NUMBER	:	578.07
DATES RECEIVED	:	November 8, 1996
NUMBER OF SAMPLES	:	Three (3)
SAMPLE MATRIX	:	Solid

I. Introduction

On November 8, 1996, three (3) solid samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
CA-6	12743-001
CA-6	12743-001MS
CA-6	12743-001MSD
CA-6	12743-001DUP
COMMON FILL	12743-002
COMMON FILL	12743-002MS
COMMON FILL	12743-002MSD
TOP SOIL	12743-003

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Mercury by EPA method 7470
TCLP Metals by EPA method 6010
TCLP VOA by EPA method 8240
TCLP BNA by EPA method 8270
TCLP Herbicide by EPA method 8150
TCLP Pesticide by EPA method 8080
Flashpoint by EPA method 1010
pH by EPA method 9045
Reactive Cyanide by EPA method 9010
Reactive Sulfide by EPA method 9030
TCLP Extraction by EPA method 1311

III. *Quality Control*

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

Duplicate analysis were performed for Flashpoint, pH, Reactive Cyanide and Reactive Sulfide CA-16 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for ,TCLP BNA, TCLP Herbicide, TCLP Metals and TCLP VOA for sample CA-6 (12743-001).

Matrix spike and matrix spike duplicate analyses were performed for TCLP Pesticide for COMMON FILL (12743-002).

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit
DL	=	PQL
J	=	Estimated Value (organic analysis only)
D	=	Diluted
U	=	Non - Detect

Abbreviations/Definitions:

MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (inorganic only)
B	=	Analyte found in the blank (organic only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

All analysis has been completed except for the TCLP VOA analysis. Please refer to the comment below.

TCLP METALS

There are no comments or nonconformances associated with this analysis.

TCLP VOA

As per conversations with Garet Van De Steeg, the TCLP VOA analysis will not be completed until after November 22, 1996 due to scheduling problems. The samples do not go out of hold time until after November 26, 1996. The data will be forwarded as soon as it is completed.

TCLP BNA

Sample CA-6 (12743-001MSD) gave no recovery for pyridine, while the MS of this sample, the LCS, and two other sets of MS/MSD's extracted in this batch all gave normal recoveries. The cause is unknown.

TCLP HERBICIDE

There are no comments or nonconformances associated with this analysis.

TCLP PESTICIDE

There are no comments or nonconformances associated with this analysis.

FLASHPOINT

There are no comments or nonconformances associated with this analysis.

PH

There are no comments or nonconformances associated with this analysis.

REACTIVE CYANIDE

There are no comments or nonconformances associated with this analysis.

REACTIVE SULFIDE

There are no comments or nonconformances associated with this analysis.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	November 11, 1996	**TIME:**	12:26 PM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	405-270-3574 405-270-3504
FROM:	Diane Mueller Quanterra	**PHONE:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Analytical Results		

CC: Tim Redmond (Grant Environmental) **Fax:** 303-799-6993

NUMBER OF PAGES INCLUDING COVER SHEET: 4

Attached are the following:

The signed and dated copy of COC from The ~~Linday Light~~ RAR + RKP Project West Chicago site for CA-6, TOP SOIL and COMMON FILL

Quanterra's in-house COC (Login Number 12743) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On November 8, 1996, one container (1) was received at Quanterra, St. Louis. Samples were received at 2C.

The TAT requested on the COC is 7 days.

Quanterra November ., 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by: [illegible] PM Review: Diane W Mueller 11-15-96

Sample Header Template:

Sample No. / # / Date:	Client ID / Comments / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal., Due Date	Shipper / Hold Date	Rad Category / Site	Rad Sample No. (Container Numbers:% Filled)
12743-001	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A	(261888:100)
1		FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261888:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A	(261888:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A	(261888:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261888:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A	(261888:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A	(261888:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
12743-001DUP	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-003
1	AN - Amber Glass-2.5L	FLPT/1010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261888:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261888:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A	(261888:100)
12743-001MS	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A	(261888:100)
1		HERB/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		HG/TCLP/Q4	S	COLD	13-NOV-96	10-DEC-96	S10A	(261888:100)
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A	(261888:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A	(261888:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
12743-001MSD	CA-6	Solid	06-NOV-96 00:00	08-NOV-96 09:00	15-NOV-96	FED EX	3*	R5540-003
1	AN - Amber Glass-2.5L	BNA/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261888:100)
1		EXT/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261888:100)
1		EXTMETAL/TCLP/Q4	S	COLD	13-NOV-96	04-DEC-96	S10A	(261888:100)

3*=Sample has not been rad screened.

Quanterra November , 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / # / Date:	Client ID / Comments / Container Type	C-Matrix	Analysis	Class	Preservative	Date: Collected	Received	Anal. Due Date	Due / Hold Date	Shipper / Site	Rad Category	Rad Sample No. (Container Numbers:% Filled)
1			HERB/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261888:100)
1			HG/TCLP/Q4	S	COLD			13-NOV-96	10-DEC-96	S10A		(261888:100)
1			ICAP/TCLP/Q4	S	COLD			13-NOV-96	11-MAY-97	S10A		(261888:100)
1			VOA/TCLP/Q4	S	COLD			13-NOV-96	26-NOV-96	S10A		(261888:100)
1			ZERO/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261888:100)
12743-002	COMMON FILL	Solid				06-NOV-96 00:00	08-NOV-96 09:00		15-NOV-96	FED EX	3*	R5540-002
1	C - Can-2.5 Liter		BNA/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261890:100)
1			EXT/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261890:100)
1			EXTMETAL/TCLP/Q4	S	COLD			13-NOV-96	04-DEC-96	S10A		(261890:100)
1			FLPT/1010/Q4	S	COLD			13-NOV-96	05-MAY-97	S10A		(261890: 0)
1			HERB/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261890:100)
1			HG/TCLP/Q4	S	COLD			13-NOV-96	10-DEC-96	S10A		(261890:100)
1			ICAP/TCLP/Q4	S	COLD			13-NOV-96	11-MAY-97	S10A		(261890:100)
1			PEST/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261890:100)
1			PH/9045/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261890:100)
1			REAC/9010/Q4	S	COLD			13-NOV-96	05-MAY-97	S10A		(261890:100)
1			REAC/9030/Q4	S	COLD			13-NOV-96	13-NOV-96	S10A		(261890:100)
1			VOA/TCLP/Q4	S	COLD			13-NOV-96	26-NOV-96	S10A		(261890:100)
1			ZERO/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261890:100)
12743-002MS	COMMON FILL	Solid				06-NOV-96 00:00	08-NOV-96 09:00		15-NOV-96	FED EX	3*	R5540-002
1	C - Can-2.5 Liter		EXT/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261890:100)
1			PEST/TCLP/Q4	S	COLD			13-NOV-96	13-NOV-96	S10A		(261890:100)
12743-002MSD	COMMON FILL	Solid				06-NOV-96 00:00	08-NOV-96 09:00		15-NOV-96	FED EX	3*	R5540-002
1	C - Can-2.5 Liter		EXT/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261890:100)
1			PEST/TCLP/Q4	S	COLD			13-NOV-96	13-NOV-96	S10A		(261890:100)
12743-003	TOP SOIL	Solid				06-NOV-96 00:00	08-NOV-96 09:00		15-NOV-96	FED EX	3*	R5540-001
1	C - Can-2.5 Liter		BNA/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261891:100)
1			EXT/TCLP/Q4	S	COLD			13-NOV-96	20-NOV-96	S10A		(261891:100)
1			EXTMETAL/TCLP/Q4	S	COLD			13-NOV-96	04-DEC-96	S10A		(261891:100)
1			FLPT/1010/Q4	S	COLD			13-NOV-96	05-MAY-97	S10A		(261891:100)
1			HERB/TCLP/Q4	S	COLD			13-NOV-96	19-NOV-96	S10A		(261891:100)
1			HG/TCLP/Q4	S	COLD			13-NOV-96	10-DEC-96	S10A		(261891:100)

3*=Sample has not been rad screened.

Quanterra November 14, 1996 03:45 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 0
Master Sample Login: 12743

Project Manager: D. Mueller

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. #	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
Comments								
Container Type		Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
Data:								
1		ICAP/TCLP/Q4	S	COLD	13-NOV-96	11-MAY-97	S10A	(261891:100)
1		PEST/TCLP/Q4	S	COLD	13-NOV-96	19-NOV-96	S10A	(261891:100)
1		PH/9045/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261891:100)
1		REAC/9010/Q4	S	COLD	13-NOV-96	05-MAY-97	S10A	(261891:100)
1		REAC/9030/Q4	S	COLD	13-NOV-96	13-NOV-96	S10A	(261891:100)
1		VOA/TCLP/Q4	S	COLD	13-NOV-96	26-NOV-96	S10A	(261891:100)
1		ZERO/TCLP/Q4	S	COLD	13-NOV-96	20-NOV-96	S10A	(261891:100)

3*=Sample has not been rad screened.

CHAIN OF CUSTODY RECORD— ENVIRONMENTAL SAMPLES KM-4778

FACILITY	SAMPLING FIRM	SAMPLE
NAME: KERR McGEE CHEMICAL CORP	NAME: SAME AS FACILITY	☐ Effluent ☐ Groundwater
ADDRESS: 600 WEYRAUCH ST	ADDRESS:	☒ Solid ☐ Surface Water
W. CHICAGO IL 60185	SIGNATURE:	☐

NO.	LOCATION	DATE	TIME	WEATHER TEMP.	WEATHER PREC.	SAMPLE TYPE AND METHOD COMP.	GRAB	MECH	MAN.	TIMES CASING CLEARED	NO OF CONTAINERS	ANALYSIS REQUIRED	REMARKS
NA	CA-6	11/6/96					X	2.5L Jug			1	ALL SAMPLES	TO BE
↓	COMMON FILL	↓					X	2.5L CAN			1	ANALYZED FOR	RCRA
↓	TOP SOIL	↓					X	2.5L CAN.			1	HAZARDOUS	WASTE
												CHARACTERISTICS	
												PER G.E.	VAN DE STEEG
												IGNITABILITY,	CORROSIVITY,
												REACTIVITY,	AND TCLP

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
[signature]	[signature]	11/8/96	0900
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME

ADDITIONAL REMARKS: THE ABOVE SAMPLES ARE KERR McGEE REF BARROW SOURCE SAMPLE

DISPATCHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY (SIGNATURE)	DATE	TIME

CARRIER: FED EX

ADDRESS:

METHOD OF SHIPMENT: PRIORITY OVERNIGHT

LABORATORY: QUANTERRA

ADDRESS: 13715 RIDGE TOWN NORTH
EARTH CITY MO 63045

ALL ANALYSIS PERFORMED BY EPA APPROVED PROCEDURES

☐ Yes ☐ No, explain above

Quanterra Environmental Services

C... COC
C... BW/DM
D... 11-8-96
T... 11:00
BY: BWB

S10A

Login No.: 12743

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: KERR MCGEE

Date: 11-8-96 Time: 0900

Project No: 578.07

Initiated by: [signature]

Shipper/No: 986 1182-702

RFA/COC Numbers:

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature:
   - ☐ pH
   - ☐ other:
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain:
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain:
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below):

☒ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°

Notes:

Corrective Action:

☐ Client's Name: Informed verbally on: By:

☐ Client's Name: Informed in writing on: By:

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: If released, notify:

Sample Control Supervisor Review: (or designate) [signature] Date: 11-8-96

Project Management Review: Diane W Mueller Date: 11-18-96 DWM

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	739	UG/L		200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.76	UG/L	B	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	2.2	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	4.3	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	3.7	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	101	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	4.1	UG/L	B	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	3.0	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/15/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/15/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/15/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/15/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/15/96	4.1	UG/L	B	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/15/96	7.3	UG/L	B	10.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCLCS121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	98	%REC			1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	96	%REC			1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	94	%REC			1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	68	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : QCBLK121114-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK121114-1	11/14/96	11/14/96	1.8	UG/L	U	300	1
Barium	7440-39-3	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	200	1
Cadmium	7440-43-9	QCBLK121114-1	11/14/96	11/14/96	0.60	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1
Lead	7439-92-1	QCBLK121114-1	11/14/96	11/14/96	0.80	UG/L	U	100	1
Selenium	7782-49-2	QCBLK121114-1	11/14/96	11/14/96	2.8	UG/L	U	250	1
Silver	7440-22-4	QCBLK121114-1	11/14/96	11/14/96	1.5	UG/L	U	10.0	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: TOP SOIL

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120734-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120734-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120734-1	11/13/96	11/15/96	60	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	58	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	66	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120752-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK120733-1	11/13/96	11/15/96	70	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK120733-1	11/13/96	11/15/96	46	%REC			1
2,4-DCPA	19719-28-9	EXTBLK120733-1	11/13/96	11/15/96	64	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	105	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120733-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120733-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	69	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK120734-1	11/14/96	11/15/96	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK120734-1	11/14/96	11/15/96	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK120734-1	11/14/96	11/15/96	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK120734-1	11/14/96	11/15/96	20	UG/L	U	20	1
DCB	2051-24-3	EXTBLK120734-1	11/14/96	11/15/96	75	%REC			1
TCMX	877-09-8	EXTBLK120734-1	11/14/96	11/15/96	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120997-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK120733-1	11/14/96	11/15/96	104	%REC			1
Heptachlor	76-44-8	EXTBLK120733-1	11/14/96	11/15/96	89	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Endrin	72-20-8	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1
Methoxychlor	72-43-5	EXTBLK120733-1	11/14/96	11/15/96	97	%REC			1
DCB	2051-24-3	EXTBLK120733-1	11/14/96	11/15/96	45	%REC			1
TCMX	877-09-8	EXTBLK120733-1	11/14/96	11/15/96	107	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID: TOP SOIL

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/16/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/16/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/16/96	62	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/16/96	68	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/16/96	54	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/16/96	22	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/16/96	38	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/16/96	88	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/20/96

Quanterra ID : EXTBLK120733-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	63	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	75	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	40	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	94	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID: NA

Quanterra ID : EXTBLK120734-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK120734-1	11/14/96	11/15/96	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK120734-1	11/14/96	11/15/96	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK120734-1	11/14/96	11/15/96	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120734-1	11/14/96	11/15/96	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120734-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120734-1	11/14/96	11/15/96	23	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120734-1	11/14/96	11/15/96	41	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120734-1	11/14/96	11/15/96	96	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Quanterra ID : QCSPK120993-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK120733-1	11/14/96	11/15/96	33	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK120733-1	11/14/96	11/15/96	62	%REC			1
2-Methylphenol	95-48-7	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Cresol, M&P	65794-96-9	EXTBLK120733-1	11/14/96	11/15/96	55	%REC			1
Hexachloroethane	67-72-1	EXTBLK120733-1	11/14/96	11/15/96	56	%REC			1
Nitrobenzene	98-95-3	EXTBLK120733-1	11/14/96	11/15/96	68	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK120733-1	11/14/96	11/15/96	66	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK120733-1	11/14/96	11/15/96	74	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK120733-1	11/14/96	11/15/96	77	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK120733-1	11/14/96	11/15/96	71	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK120733-1	11/14/96	11/15/96	84	%REC			1
Pentachlorophenol	87-86-5	EXTBLK120733-1	11/14/96	11/15/96	49	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK120733-1	11/14/96	11/15/96	70	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK120733-1	11/14/96	11/15/96	76	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK120733-1	11/14/96	11/15/96	73	%REC			1
Phenol-d5	4165-62-2	EXTBLK120733-1	11/14/96	11/15/96	24	%REC			1
2-Fluorophenol	367-12-4	EXTBLK120733-1	11/14/96	11/15/96	42	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK120733-1	11/14/96	11/15/96	98	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
CA-6	12743-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	106	%REC			1
CA-6	12743-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	110	%REC			1
COMMON FILL	12743-002	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
TOP SOIL	12743-003	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
MC COOK QUARRY	12751-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	108	%REC			1
MC COOK QUARRY	12751-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
LEMONT QUARRY	12752-001MS	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
LEMONT QUARRY	12752-001MSD	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	107	%REC			1
NA	EXTBLK120733-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1
	EXTBLK120734-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.16	UG/L	B	0.20	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	103	%REC			1
NA	QCBLK121103-1	Mercury	7439-97-6	QCBLK121103-1	11/14/96	11/14/96	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
CA-6	12743-001DUP	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
COMMON FILL	12743-002	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
TOP SOIL	12743-003	Flashpoint	10-36-6	QCBLK120693-1	11/12/96	11/12/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
MC COOK QUARRY	12751-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1
LEMONT QUARRY	12752-001DUP	Flashpoint	10-36-6	QCBLK120880-1	11/13/96	11/13/96	>60.0	DEG C			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.87	PH UNITS			1
CA-6	12743-001DUP	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.90	PH UNITS			1
COMMON FILL	12743-002	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	8.28	PH UNITS			1
TOP SOIL	12743-003	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	6.37	PH UNITS			1
MC COOK QUARRY	12751-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.83	PH UNITS			1
MC COOK QUARRY	12751-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.79	PH UNITS			1
LEMONT QUARRY	12752-001	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.94	PH UNITS			1
LEMONT QUARRY	12752-001DUP	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	8.93	PH UNITS			1
NA	QCBLK120588-1	pH	C-006	QCBLK120588-1	11/11/96	11/11/96	5.76	PH UNITS			1
NA	QCBLK120883-1	pH	C-006	QCBLK120883-1	11/13/96	11/13/96	4.96	PH UNITS			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
CA-6	12743-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
COMMON FILL	12743-002	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
TOP SOIL	12743-003	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
MC COOK QUARRY	12751-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1
LEMONT QUARRY	12752-001DUP	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.050	MG/KG	U	0.050	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010/9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	0.010	MG/KG	U	0.010	1
NA	QCLCS120688-1	Reactive Cyanid	57-12-5A	QCBLK120688-1	11/12/96	11/12/96	20	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
CA-6	12743-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
CA-6	12743-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
COMMON FILL	12743-002	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
TOP SOIL	12743-003	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
MC COOK QUARRY	12751-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1
LEMONT QUARRY	12752-001DUP	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	22.2	MG/KG	U	22.2	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Solid

Sample Date : NA
Receipt Date : NA
Report Date : 11/19/96

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCBLK120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	4.44	MG/KG	U	4.44	1
NA	QCLCS120689-1	Reactive Sulfid	18496-25-8A	QCBLK120689-1	11/12/96	11/12/96	91	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: TOP SOIL

Sample Date : 11/06/96
Receipt Date : 11/08/96
Report Date : 11/25/96

Quanterra ID : 12743-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	86	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	103	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			10

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : EXTBLK120651-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	50	UG/L	U	50	10
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	88	%REC			10
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	105	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCBLK122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	5	UG/L	U	5	1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Solid

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 11/25/96

Quanterra ID : QCLCS122378-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK122378-1	11/24/96	11/24/96	86	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK122378-1	11/24/96	11/24/96	82	%REC			1
Chloroform	67-66-3	QCBLK122378-1	11/24/96	11/24/96	92	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK122378-1	11/24/96	11/24/96	105	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK122378-1	11/24/96	11/24/96	107	%REC			1
Trichloroethene	79-01-6	QCBLK122378-1	11/24/96	11/24/96	95	%REC			1
Benzene	71-43-2	QCBLK122378-1	11/24/96	11/24/96	101	%REC			1
Tetrachloroethene	127-18-4	QCBLK122378-1	11/24/96	11/24/96	88	%REC			1
Chlorobenzene	108-90-7	QCBLK122378-1	11/24/96	11/24/96	90	%REC			1
Toluene-d8 (SURR)	2037-26-5	QCBLK122378-1	11/24/96	11/24/96	89	%REC			1
Bromofluorobenzene (SURR)	460-00-4	QCBLK122378-1	11/24/96	11/24/96	106	%REC			1
1,2-Dichloroethane-d4 (SURR)	17070-07-0	QCBLK122378-1	11/24/96	11/24/96	104	%REC			1

pH DATA SHEET

SAMPLE NUMBER	DATE ANALYZED	TIME ANALYZED	pH MEASURED
PRT-2B	4/25/96	1452	7.285
PRT-3B		1506	7.485
PRT-4B		1509	7.431
PRT-5B		1545	7.683
PRT-9B		1550	7.408
PRT-10B		1554	7.387
PRT-12B		1600	7.308
PRT-13B		1603	7.158
PRT-14B		1605	7.115
PRT-17B		1607	7.255
PRT-QC1B		1609	7.330
PRT-QC2B		1611	7.426

REVIEWED BY: [signature] 4/25/97

INT .NAL CORRESPONDENCE Fi · "BACKFILL"

S&EA (Unit)	**To:** Dave Jedlicka	**Date:**	April 10, 1997
	From: Garet Van De Steeg	**Subject:**	RAR & RKP Backfill: RCRA Hazardous Waste Test Results

Three backfill materials were submitted by the REF laboratory to Quanterra (Earth City, MO) for determining if the materials would be considered "Hazardous Waste" as defined by RCRA. The materials were identified as CA-6 (common limestone "crusher run"), Common Fill (common sub-soil from borrow source) and Top Soil.

Four tests are specified by RCRA to determine whether "unlisted" materials exhibit the "Characteristics" associated with a RCRA "Hazardous Waste". The tests are: TCLP (for selected VOCs, SVOCs, herbicides, pesticides and metals), Reactivity (for cyanide and sulfide), Igniteability (flashpoint < 60 °C) and Corrosivity (pH <2 or >12).

The attachment, dated November 26, 1996, provides the results of testing the three backfill materials for the four RCRA Hazardous Waste Characteristics defined in the above paragraph.

Note that Quanterra's cover letter incorrectly ascribes the three materials as coming from the Lindsay Light II Site but the Chain-of-Custody correctly ascribes the three materials as having been submitted by the REF laboratory (in support of the RAR and RKP Projects). [Samples of CA-6 and CA-16 were concurrently submitted from Lindsay Light II; hence Quanterra's confusion as the proper source of these samples.]

All three materials (the CA-6, Common Fill and Top Soil) tested well below the limits specified in RCRA (and U.S. EPA document SW-846) for classification as a Characteristic RCRA Hazardous Waste.

These three materials meet U.S. EPA's criteria for nonhazardous materials and may be used as backfill at any of Kerr-McGee Chemical Corporation's West Chicago or downtown Chicago CERCLA Sites or at the REF.

Cc: w/attachment
Mark Krippel/Jeff Williams
Rex Long (Envirocon)

w/o attachment
Dan White

File: w/attachment
RKP

NOTE:
MATERIAL SAMPLES CAME FROM THE INDICATED LOCATIONS:

(1) COMMON FILL - ST. CHARLES, TOWNSHIP
(2) CA-6 - BOUGHTON MAT.S, PLAINFIELD QUARRY
(3) TOPSOIL - PHEASANT RUN, SMITH RD., ST. CHARL

THESE SAME MATERIALS WILL BE USED ON THE RAR and RKP Site until the [illegible]

RECEIVED
APR 11 1997

RKP 4/11/97

GRANT ENVIRONMENTAL

FGEKM-024-097

March 4, 1997

Kerr McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, Oklahoma 73102

Attention: Mr. Bernard Bono

Subject: Sampling of Borrow Material Testing

Dear Mr. Bono,

Attached you will find copy of the telephone minutes of a conversation between Ms. Jennifer day (Grant Environmental, Inc.) and Mr. Garret Vandersteg (Kerr McGee Chemical Corporation) stating that no new sampling is required for CA-1 material as long as it comes from a previously sampled location for similar material (i.e. CA-6 form McCook Quarry) as long as the 10,000 cubic yard requirements are met for the total amount of material from this location.

If you have any questions concerning these documents please feel free to contact me at (312) 527-5434.

Sincerely,

William D. Gowey
Project Manager
Grant Environmental, Inc.

cc: Ms. Jennifer Day Grant
file: WDG-KM-97-039
Attachments: As Stated

MAR 04 1997

12150 East Briarwood Ave., Suite 200, Englewood, Colorado 80112
(303) 790-7400 FAX (303) 799-6993

BB 3/8/97

Post-it® Fax Note 7671	Date 2/13/97 # of pages ▶ 1
To Bill Bowey	From Jennifer Day
Co./Dept.	Co.
Phone #	Phone #
Fax #	Fax #

GRANT EI
Denv

DOCUMENTATION O

(✓) Telephone call ( ) In-person conversation at (*location*):

Date: 2/11/97 Time: 1100 am / pm

Persons involved (*note who initiated the conversation with an "X"*)

(X) Who: Jennifer Day
of: Grant
Telephone No: ( )

( ) Who: Garet VandeStog
of: RMCC
Telephone No: (405) 270 3574

Copy distribution:

Filing instructions: Project No. 5055 File category:

Subject of conversation: Sample jars.

Conversation notes:

Bill needs to get sample jars for 3" River Run to use as backfill will test for Rad at REF and hazWaste at Quanterra. Send to:

Bill Bowey
440 N McClurg Court #406
Chicago IL 60611

Jed Ricka has ok'd the use of 3" River Run at base - it is within SIPD specs.

Garet has call into the lab
Garet says:
*Same Quarry New sampled not needed.
avoid fine dust.

CA-6 is ok to use after testing

Page ___ of ___

GRANT
ENVIRONMENTAL, INC.

FGEKM-055-097
~~FGEKM-055-097~~

June 17, 1997

Mr. Bernard Bono
Kerr-McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, Oklahoma 73102

Subject: Offsite Backfill Analytical Results
Grant Correspondence Number 5055.09

Dear Mr. Bono:

In compliance with Section 3 of the Engineering and Field Services Agreement, dated July 1,1996, Grant Environmental, Inc. (Grant) has obtained a second sample of CA-6 material for analytical analysis. The material (CA-6 and CA-16) has been analyzed for hazardous materials and radionuclides as required by the Scoping and Planning Documents. The laboratory results are discussed below.

The laboratory results for offsite backfill supplied by Vulcan Materials from Quanterra are summarized below. Results for these analysis are included in Attachment 1 of this submittal.

Analyte	Date Sampled	Result	Regulatory Limit
TCLP Volatiles	4/15/97	ND	
TCLP BNA	4/15/97	ND	
TCLP Pesticides	4/15/97	ND	
TCLP Herbicides	4/15/97	ND	
TCLP Arsenic	4/15/97	ND	
TCLP Barium	4/15/97	ND	
TCLP Cadmium	4/15/97	ND	
TCLP Chromium	4/15/97	ND	
TCLP Copper	4/15/97	ND	
TCLP Lead	4/15/97	ND	
TCLP Selenium	4/15/97	ND	
TCLP Silver	4/1597	ND	
TCLP Zinc	4/15/97	0.156 mg/l	500 mg/l
TCLP Mercury	4/15/97	ND	
Flashpoint	4/15/97	>60	
pH	4/15/97	8.85	
Reactivity - Sulfide	4/15/97	ND	
Reactivity	4/15/97	ND	

WEST CHICAGO PROJECT
CMI 7/17/97
JUL 17 1997
QUALITY ASSURANCE DEPT.

LLII 4.1-5

12150 East Briarwood Ave., Suite 200, Englewood, Colorado 80112
(303) 790-7400 FAX (303) 799-6993

BB 6/30/97

If you have any questions, please do not hesitate to contact the undersigned at 312-527-5434.

Sincerely,
GRANT ENVIRONMENTAL, INC.

Jennifer E. Day
FOR William Gowey
Project Manager

cc:	Dave Jedlicka,	Kerr-McGee w/o attachment
	Jeffrey Williams,	Kerr-McGee
	Jennifer Day,	Grant w/o attachment

Attachments: Analytical Results

File: WDG-KM-97-079

Quanterra Analytical Results
CA-6 Material - Vulcan Materials
McCook Quarry

Sample Id. McCook 97-001-004 CA-6

Analyte	Date Sampled	Result	Regulatory Limit
TCLP Volatiles	4/15/97	ND	
TCLP BNA	4/15/97	ND	
TCLP Pesticides	4/15/97	ND	
TCLP Herbicides	4/15/97	ND	
TCLP Arsenic	4/15/97	ND	
TCLP Barium	4/15/97	ND	
TCLP Cadmium	4/15/97	ND	
TCLP Chromium	4/15/97	ND	
TCLP Copper	4/15/97	ND	
TCLP Lead	4/15/97	ND	
TCLP Selenium	4/15/97	ND	
TCLP Silver	4/15/97	ND	
TCLP Zinc	4/15/97	0.156 mg/l	500 mg/l
TCLP Mercury	4/15/97	ND	
Flashpoint	4/15/97	>60	
pH	4/15/97	8.85	
Reactivity - Sulfide	4/15/97	ND	
Reactivity	4/15/97	ND	

QUANTERRA ENVIRONMENTAL SERVICES

13715 Rider Trail North
Earth City, Missouri 63045

F A X C O V E R S H E E T

DATE:	April 29, 1997	TIME:	9:26 AM
TO:	Garet Van De Steeg	PHONE:	1-405-270-3574
	Kerr McGee	FAX:	1-405-270-3504
FROM:	Diane Mueller Quanterra	PHONE: FAX:	1-800-333-3305 1-314-298-8757

RE: FAXED FINAL RESULTS FOR THE MC COOK QUARRY SAMPLES - SAMPLE DATE 4-15-97

NUMBER OF PAGES INCLUDING COVER SHEET : 36

MESSAGE

Garet, attached ~~is~~ are the final results. The hardcopy, full data packages and EDD will be sent today.

In regards to the Thorium results for the groundwater and surface water samples - there were a couple of batches that had to be re-analyzed. John Hudak hopes to have all the results turned in this Friday. I apologize for this inconvenience.

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Kerr - McGee Corporation
123 Robert S. Kerr Avenue
Oklahoma City OK 73102

ATTENTION: Garet Van De Steeg

May 29, 1997

PROJE7T NUMBER	: 578.07
DATES RECEIVED	: April 16, 1997
NUMBER OF SAMPLES	: One (1)
SAMPLE MATRIX	: (1) Water
PROJECT NAME	: Lindsay Light II
COC NUMBER	: 13478

I. Introduction

On April 16, 1997, one (1) samples were received at Quanterra Environmental Services at St. Louis from Kerr - McGee Corporation. The list of analytical tests performed, as well as receipt and analysis, can be found in the attached report. The samples were labeled as follows:

CLIENT SAMPLE ID	QUANTERRA SAMPLE ID
McCook 97-001-004	14331-001

II. Analytical Results/Methodology

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

The analyses requested includes:

TCLP Extraction by SW848 1311
TCLP BNA by SW846 8470
TCLP VOA by SW846 8240
Total VOA by SW846 8240
TCLP Pesticide by SW846 8080
TCLP Herbicide by SW848 8150
TCLP Metals by SW846 6010
TCLP Mercury by SW846 7470
Flashpoint by SW 846 1010
pH by SW846 9045
Reactive Cyanide by SW846 9010
Reactive Sulfide by SW846 9030

III. Quality Control

The QA/QC information can be found immediately following the analytical data. This QA/QC data are used to assess the laboratory's accuracy and precision during the analytical procedure.

A Matrix spike and matrix duplicate analysis were performed for the following analysis: TCLP BNA, VOA, Pesticide, Metals and Herbicide.

A Duplicate analysis was performed for the following analysis: Flashpoint, pH, Reactive Cyanide and Reactive Sulfide.

Abbreviations/Definitions:

NC	=	No criteria at this time
NA	=	Not applicable
ND	=	Non - detect
PCI/L	=	Picocuries per liter
PCI/G	=	Picocuries per gram
MG/L	=	Milligrams per liter
UG/L	=	Micrograms per liter
MG/KG	=	Milligrams per kilogram
UG/G	=	Micrograms per gram
%REC	=	Percent Recovery
QCBLK	=	Method Blank
QCLCS	=	Laboratory Control Sample
CRDL	=	Customer Required Detection Limit
RPD	=	Relative Percent Difference
IDL	=	Instrument detection limit

Kerr - McGee Corporation
Project Number: 578.07
April 29, 1997

Abbreviations/Definitions:

DL	=	PQL
J	=	Estimated Value (Organics only)
D	=	Diluted
U	=	Non - Detect
MDA	=	Minimal detectable activity
B	=	Value greater than IDL but less than CRDL (Metals only)
B	=	Analyte found in the blank (Organics only)
E	=	Exceeds calibration

IV. Comments/Nonconformances

The sample was received, samples were received at a temperature of 2 degrees C.

TCLP BNA

There are no comments or nonconformances associated with this analysis..

TCLP VOA

There are no comments or nonconformances associated with this analysis.

TCLP Pesticide

There are no comments or nonconformances associated with this analysis.

TCLP Herbicide

There are no comments or nonconformances associated with this analysis.

TCLP Metals

All samples and the extraction blank were prepped 25 mls to 100 mls for both ICP and Mercury.

The Extraction prep blank had "B" flags for: Barium at 3.0 ug/l and Zinc at 44.6 ug/l.
The prep blank had "B" flags for: Barium at 0.77 ug/L (lower than several of the continuing calibration blanks), Chromium at 11.3 ug/L (Flagged with a B as a convention of the software) and Zinc at 4.0 ug/L (compared to a reporting limit of 20 ug/L).

Kerr - McGee Corporation
Project Number: 578.07
April 29, 1997

Flashpoint

There are no comments or nonconformances associated with this analysis.

pH

There are no comments or nonconformances associated with this analysis.

Reactive Cyanide

There are no comments or nonconformances associated with this analysis.

Reactive Sulfide

There are no comments or nonconformances associated with this analysis.

V. Disposal

All remaining sample volume will be returned.

I certify that this Case Narrative in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Reviewed and approved:

Diane W. Mueller

Diane W. Mueller
Project Manager

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	34	UG/L	J	50	10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	91	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	96	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	102	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	107	%REC			10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	101	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	108	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	107	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	93	%REC			10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	105	%REC			10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	82	%REC			10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	95	%REC			10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	90	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	113	%REC			10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	109	%REC			10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	99	%REC			10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	108	%REC			10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	118	%REC			10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	98	%REC			10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	96	%REC			10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	88	%REC			10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	95	%REC			10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	83	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	103	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK138241-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	100	UG/L	U	100	10
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	200	UG/L	U	200	10
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	50	UG/L	U	50	10
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	92	%REC			10
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	85	%REC			10
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	98	%REC			10

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138455-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	10	UG/L	U	10	1
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	20	UG/L	U	20	1
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	5	UG/L	U	5	1
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	99	%REC			1
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	85	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	95	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Volatiles
Method: EPA 8240
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138455-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Vinyl Chloride	75-01-4	QCBLK138455-1	04/23/97	04/23/97	132	%REC			1
1,1-Dichloroethene	75-35-4	QCBLK138455-1	04/23/97	04/23/97	115	%REC			1
Chloroform	67-66-3	QCBLK138455-1	04/23/97	04/23/97	102	%REC			1
1,2-Dichloroethane	107-06-2	QCBLK138455-1	04/23/97	04/23/97	104	%REC			1
2-Butanone (MEK)	78-93-3	QCBLK138455-1	04/23/97	04/23/97	134	%REC			1
Carbon Tetrachloride	56-23-5	QCBLK138455-1	04/23/97	04/23/97	95	%REC			1
Trichloroethene	79-01-6	QCBLK138455-1	04/23/97	04/23/97	96	%REC			1
Benzene	71-43-2	QCBLK138455-1	04/23/97	04/23/97	107	%REC			1
Tetrachloroethene	127-18-4	QCBLK138455-1	04/23/97	04/23/97	91	%REC			1
Chlorobenzene	108-90-7	QCBLK138455-1	04/23/97	04/23/97	96	%REC			1
Toluene-d8	2037-26-5	QCBLK138455-1	04/23/97	04/23/97	94	%REC			1
Bromofluorobenzene	460-00-4	QCBLK138455-1	04/23/97	04/23/97	84	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK138455-1	04/23/97	04/23/97	99	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	73	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	60	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	35	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	50	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	97	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	52	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	86	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	74	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	70	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	82	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	95	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	82	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	84	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	89	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	96	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	92	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	84	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	86	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	83	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	64	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	40	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	57	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	103	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/22/97	56	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/22/97	80	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/22/97	68	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/22/97	75	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/22/97	88	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/22/97	77	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/22/97	66	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/22/97	71	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/22/97	95	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/22/97	96	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/22/97	90	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/22/97	81	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/22/97	64	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/22/97	74	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/22/97	37	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/22/97	53	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/22/97	85	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/21/97	50	UG/L	U	50	1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/21/97	250	UG/L	U	250	1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/21/97	64	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/21/97	61	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/21/97	65	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/21/97	30	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/21/97	44	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/21/97	93	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP BNA 8270
Method: EPA 8270
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK138077-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Pyridine	110-86-1	EXTBLK137823-1	04/21/97	04/21/97	44	%REC			1
1,4-Dichlorobenzene	106-46-7	EXTBLK137823-1	04/21/97	04/21/97	67	%REC			1
2-Methylphenol	95-48-7	EXTBLK137823-1	04/21/97	04/21/97	64	%REC			1
Cresol, M&P	65794-96-9	EXTBLK137823-1	04/21/97	04/21/97	63	%REC			1
Hexachloroethane	67-72-1	EXTBLK137823-1	04/21/97	04/21/97	59	%REC			1
Nitrobenzene	98-95-3	EXTBLK137823-1	04/21/97	04/21/97	80	%REC			1
Hexachlorobutadiene	87-68-3	EXTBLK137823-1	04/21/97	04/21/97	60	%REC			1
2,4,6-Trichlorophenol	88-06-2	EXTBLK137823-1	04/21/97	04/21/97	72	%REC			1
2,4,5-Trichlorophenol	95-95-4	EXTBLK137823-1	04/21/97	04/21/97	79	%REC			1
2,4-Dinitrotoluene	121-14-2	EXTBLK137823-1	04/21/97	04/21/97	91	%REC			1
Hexachlorobenzene	118-74-1	EXTBLK137823-1	04/21/97	04/21/97	92	%REC			1
Pentachlorophenol	87-86-5	EXTBLK137823-1	04/21/97	04/21/97	43	%REC			1
Nitrobenzene-d5	4165-60-0	EXTBLK137823-1	04/21/97	04/21/97	73	%REC			1
2-Fluorobiphenyl	321-60-8	EXTBLK137823-1	04/21/97	04/21/97	70	%REC			1
Terphenyl-d14	1718-51-0	EXTBLK137823-1	04/21/97	04/21/97	87	%REC			1
Phenol-d5	4165-62-2	EXTBLK137823-1	04/21/97	04/21/97	33	%REC			1
2-Fluorophenol	367-12-4	EXTBLK137823-1	04/21/97	04/21/97	49	%REC			1
2,4,6-Tribromophenol	118-79-6	EXTBLK137823-1	04/21/97	04/21/97	103	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK137823-1	04/22/97	04/22/97	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK137823-1	04/22/97	04/22/97	20	UG/L	U	20	1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	84	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	117	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	95	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	102	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	95	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	90	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	123	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	98	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	106	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	97	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	92	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	0.50	UG/L	U	0.50	1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	1.0	UG/L	U	1.0	1
Chlordane	57-74-9	EXTBLK137823-1	04/22/97	04/22/97	5.0	UG/L	U	5.0	1
Toxaphene	8001-35-2	EXTBLK137823-1	04/22/97	04/22/97	20	UG/L	U	20	1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	92	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP PESTICIDES
Method: EPA 8080
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK138078-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	EXTBLK137823-1	04/22/97	04/22/97	117	%REC			1
Heptachlor	76-44-8	EXTBLK137823-1	04/22/97	04/22/97	88	%REC			1
Heptachlor Epoxide	1024-57-3	EXTBLK137823-1	04/22/97	04/22/97	94	%REC			1
Endrin	72-20-8	EXTBLK137823-1	04/22/97	04/22/97	101	%REC			1
Methoxychlor	72-43-5	EXTBLK137823-1	04/22/97	04/22/97	96	%REC			1
TCMX	877-09-8	EXTBLK137823-1	04/22/97	04/22/97	90	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	146	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	140	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	85	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	142	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	134	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	83	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	40	UG/L	U	40	1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	10	UG/L	U	10	1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	74	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP HERBS
Method: EPA 8150
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCSPK137968-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
2,4-D	94-75-7	EXTBLK137823-1	04/18/97	04/23/97	139	%REC			1
2,4,5-TP (Silvex)	93-72-1	EXTBLK137823-1	04/18/97	04/23/97	140	%REC			1
2,4-DCPA	19719-28-9	EXTBLK137823-1	04/18/97	04/23/97	82	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	156	UG/L	U	1200	4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	263	UG/L	B	800	4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	13.6	UG/L	U	20.0	4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	10.8	UG/L	U	40.0	4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	30.0	UG/L	U	100	4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	104	UG/L	U	400	4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	220	UG/L	U	1000	4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	30.4	UG/L	B	40.0	4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	156	UG/L		80.0	4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.40	UG/L	U	0.80	4

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
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Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: MCCOOK 97-001-004 CA-6

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Quanterra ID : 14331-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	92	%REC			4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	98	%REC			4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	102	%REC			4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	95	%REC			4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	95	%REC			4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	99	%REC			4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	101	%REC			4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	83	%REC			4

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID: MCCOOK 97-001-004 CA-6

Quanterra ID : 14331-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	93	%REC			4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	99	%REC			4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	107	%REC			4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	96	%REC			4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	97	%REC			4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	100	%REC			4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	106	%REC			4
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	83	%REC			4

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	156	UG/L	U	1200	4
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	3.0	UG/L	B	800	4
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	13.6	UG/L	U	20.0	4
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	10.8	UG/L	U	40.0	4
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	30.0	UG/L	U	100	4
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	104	UG/L	U	400	4
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	220	UG/L	U	1000	4
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	14.4	UG/L	U	40.0	4
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	44.6	UG/L	B	80.0	4

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : EXTBLK137823-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.40	UG/L	U	0.80	4

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138090-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	38.9	UG/L	U	300	1
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	0.77	UG/L	B	200	1
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	3.4	UG/L	U	5.0	1
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	2.7	UG/L	U	10.0	1
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	11.3	UG/L	B	25.0	1
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	26.0	UG/L	U	100	1
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	55.0	UG/L	U	250	1
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	3.6	UG/L	U	10.0	1
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	4.0	UG/L	B	20.0	1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCBLK138131-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	0.10	UG/L	U	0.20	1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP ICAP
Method: EPA 6010
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138090-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Arsenic	7440-38-2	QCBLK138090-1	04/21/97	04/21/97	97	%REC			1
Barium	7440-39-3	QCBLK138090-1	04/21/97	04/21/97	97	%REC			1
Cadmium	7440-43-9	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Chromium	7440-47-3	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Copper	7440-50-8	QCBLK138090-1	04/21/97	04/21/97	100	%REC			1
Lead	7439-92-1	QCBLK138090-1	04/21/97	04/21/97	99	%REC			1
Selenium	7782-49-2	QCBLK138090-1	04/21/97	04/21/97	96	%REC			1
Silver	7440-22-4	QCBLK138090-1	04/21/97	04/21/97	71	%REC			1
Zinc	7440-66-6	QCBLK138090-1	04/21/97	04/21/97	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: TCLP Metals
Method: EPA 7470
Matrix: Soil

Client ID: NA

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Quanterra ID : QCLCS138131-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Mercury	7439-97-6	QCBLK138131-1	04/21/97	04/21/97	102	%REC			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: FLASHPOINT
Method: EPA 1010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Flashpoint	10-36-6	NA	04/22/97	04/22/97	>60.0	UG/L			1
MCCOOK 97-001-004	14331-001DUP	Flashpoint	10-36-6	NA	04/22/97	04/22/97	>60.0	UG/L			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: Flashpoint
Method: EPA 1010
Matrix: Soil

Sample Date : NA
Receipt Date : NA
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
NA	QCLCS138296-1	Flashpoint	10-36-6	NA	04/22/97	04/22/97	27.0	UG/L			1

Quanterra
Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: pH
Method: EPA 9045
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	8.85	PH UNITS			1
MCCOOK 97-001-004	14331-001DUP	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	8.83	PH UNITS			1
NA	QCBLK138042-1	pH	C-006	QCBLK138042-1	04/18/97	04/18/97	5.93	PH UNITS			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY-SULFIDE
Method: EPA 9030
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	22.2	MG/KG	U	22.2	1
MCCOOK 97-001-004	14331-001DUP	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	22.2	MG/KG	U	22.2	1
NA	QCBLK138262-1	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	4.44	MG/KG	U	4.44	1
NA	QCLCS138262-1	Reactive Sulfid	18496-25-8A	QCBLK138262-1	04/22/97	04/22/97	101	%REC			1

Quanterra Environmental Services

Kerr McGee
123 Robert S. Kerr
MT-2606
Oklahoma City, OK 73102

Project: Kerr McGee

Category: REACTIVITY
Method: EPA 9010
Matrix: Soil

Sample Date : 04/15/97
Receipt Date : 04/16/97
Report Date : 04/28/97

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
MCCOOK 97-001-004	14331-001	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.05	MG/KG	U	0.05	1
MCCOOK 97-001-004	14331-001DUP	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.05	MG/KG	U	0.05	1
NA	QCBLK138261-1	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	0.01	MG/KG	U	0.01	1
NA	QCLCS138261-1	Reactive Cyanid	57-12-5A	QCBLK138261-1	04/22/97	04/22/97	21	%REC			1

QUANTERRA, ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045

F A X C O V E R S H E E T

DATE:	April 18, 1997	**TIME:**	9:20 AM
TO:	Garet Van De Steeg Kerr-McGee	**PHONE:** **FAX:**	(405) 270-3574 (405) 270-3504
FROM:	Diane Mueller Quanterra	**PHOME:** **FAX:**	(314) 298-8566 (314) 298-8757
RE:	Samples Received		
CC:	Diane Mueller		

NUMBER OF PAGES INCLUDING COVER SHEET: 5 pages

Attached are the following for samples taken on April 15, 1997 received on April 16, 1997 for Chain of Custody 13478 for McCool Quarry.

Quanterra's in-house COC (Login Number 14331) which can be used as a cross reference for client and lab sample I.D's

Signed and dated Quanterra Condition Upon Receipt

On April 16, 1997, one (1) cooler was received at Quanterra, St. Louis. Samples received at 4 degrees C temperature.

A trip blank was included with the samples but not listed on the COC, this was logged in.

The samples have been logged in for a 7 day TAT. I will keep you posted on the progress of this project.

Quanterra April 17, 1997 04:35 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 2
Master Sample Login: 14331

·oject Manager: D. Mueller

·aft: Final: Entered and Reviewed by: Sherry K Mahaney PM Review: Diane W. Muller Oct 4 - 17 - 97

ample Header Template:

ample No. / #	Client ID / Container Type	C-Matrix / Analysis	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No. (Container Numbers:% Filled)
Comments / ata:								
4331-001	MCCOOK 97-001-004	CA-6 / Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3*	R6065-001
IF ENOUGH SAMPLE VOLUME, PERFORM Q.C. LISTED								
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
1		EXT/TCLP/Q4	S COLD	24-APR-97	29-APR-97	S17B		(293955:99)
1		EXTMETAL/TCLP/Q4	S COLD	24-APR-97	13-MAY-97	S17B		(293955:99)
1		HERB/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
1		HG/TCLP/Q4	S COLD	24-APR-97	15-MAY-97	S17B		(293955:99)
1		ICAP/TCLP/Q4	S COLD	24-APR-97	14-OCT-97	S17B		(293955:99)
1		PEST/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
1	AN - Amber Glass-250ML	FLPT/1010/Q4	S COLD	24-APR-97	12-OCT-97	S17B		(293957:99)
1		PH/9045/Q4	S COLD	24-APR-97	29-APR-97	S17B		(293957:99)
1		RAD/CSCREEN/Q4	S COLD	24-APR-97	13-OCT-97	S17B		(293957:99)
1		REAC/9010/Q4	S COLD	24-APR-97	12-OCT-97	S17B		(293957:99)
1		REAC/9030/Q4	S COLD	24-APR-97	22-APR-97	S17B		(293957:99)
2	AN - Amber Glass-120ML	VOA/TCLP/Q4	S COLD	24-APR-97	29-APR-97	109A		(293953:100 293956:99)
2		ZERO/TCLP/Q4	S COLD	24-APR-97	29-APR-97	109A		(293953:100 293956:99)
4331-001DUP	MCCOOK 97-001-004	CA-6 / Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3*	R6065-001
Plus Cu & Zn								
1	AN - Amber Glass-250ML	FLPT/1010/Q4	S COLD	24-APR-97	12-OCT-97	S17B		(293957:99)
1		PH/9045/Q4	S COLD	24-APR-97	29-APR-97	S17B		(293957:99)
1		REAC/9010/Q4	S COLD	24-APR-97	12-OCT-97	S17B		(293957:99)
1		REAC/9030/Q4	S COLD	24-APR-97	22-APR-97	S17B		(293957:99)
4331-001MS	MCCOOK 97-001-004	CA-6 / Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3*	R6065-001
Plus Cu & Zn								
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
1		EXT/TCLP/Q4	S COLD	24-APR-97	29-APR-97	S17B		(293955:99)
1		EXTMETAL/TCLP/Q4	S COLD	24-APR-97	13-MAY-97	S17B		(293955:99)
1		HERB/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
1		HG/TCLP/Q4	S COLD	24-APR-97	15-MAY-97	S17B		(293955:99)
1		ICAP/TCLP/Q4	S COLD	24-APR-97	14-OCT-97	S17B		(293955:99)
1		PEST/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)
2	AN - Amber Glass-120ML	VOA/TCLP/Q4	S COLD	24-APR-97	29-APR-97	109A		(293953:100 293956:99)
2		ZERO/TCLP/Q4	S COLD	24-APR-97	29-APR-97	109A		(293953:100 293956:99)
14331-001MSD	MCCOOK 97-001-004	CA-6 / Soil	15-APR-97 09:18	16-APR-97 09:25	25-APR-97	FED EX	3*	R6065-001
Plus Cu & Zn								
1	AN - Amber Glass-500ml	BNA/TCLP/Q4	S COLD	24-APR-97	24-APR-97	S17B		(293955:99)

3*=Sample has not been rad screened.

Quanterra April 17, 1997 04:35 pm
Account: 11185 Project: 578.07 Kerr McGee QAS No. 578.07 Rev. 2
Master Sample Login: 14331

:ct Manager: D. Mueller

: Final: Entered and Reviewed by:_____ PM Review:_____

e Header Template: _____

e No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
Comments								

Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
	EXT/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	S17B	(293955:99)
	EXTMETAL/TCLP/Q4	S	COLD	24-APR-97	13-MAY-97	S17B	(293955:99)
	HERB/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
	HG/TCLP/Q4	S	COLD	24-APR-97	15-MAY-97	S17B	(293955:99)
	ICAP/TCLP/Q4	S	COLD	24-APR-97	14-OCT-97	S17B	(293955:99)
	PEST/TCLP/Q4	S	COLD	24-APR-97	24-APR-97	S17B	(293955:99)
AN - Amber Glass-120ML	VOA/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)
	ZERO/TCLP/Q4	S	COLD	24-APR-97	29-APR-97	109A	(293953:100 293956:99)

mple has not been rad screened.

Item 4 CUC 010522 5-17-13

[redacted]

Chain of Custody Record

Quanterra Environmental Services

QUA-4:21

Client	Project Manager	Date	Chain Of Custody Number
KERR McGee Chemical Corp	Bernie Bono	4-14-97	10478
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
321 E. Grand	312-464-9546	~~36~~	

City	State	Zip Code	Site Contact
Chicago	IL	60611	Bill Gowey

Project Name	Carrier/Waybill Number
Lindsay light II	Federal Express 3698095505

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	TCLP Full	WET Chem	TCLP VOA, ZHE									
McCook 97-001 CA-6	4-15-97	0920	DRY	500ml	500ml Amb	1	Cool		X									10%		
McCook 97-002 CA-6	4-15-97	0918	DRY	250ml	GLASS	1	Cool			X										
McCook 97-003 CA-6	4-15-97	0921	DRY	120ml	Glass	1	Cool				X									
McCook 97-004 CA-6	4-15-97	0922	DRY	120ml	Glas	1	Cool				X									

Special Instructions

Possible Hazard Identification

[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal

[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Turn Around Time Required

[X] Normal [ ] Rush

QC Level

[X] I. [ ] II. [ ] III.

Project Specific (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
William D Gowey	4/15/97	1200	Denise W Byrd	4-16-97	0925
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Quanterra
Environmental Services

BW DM
4-16-97
1000
DWB

Login No.: 14331

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: KERR McGEE
Date: 4-16-97 Time: 0925
Project No: 578.07
Initiated by: Dwayne W Byrd
Shipper/No: 3698095505
RFA/COC Numbers: 13478

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
   ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below):

☑ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 4°

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ *If released, notify:* _____

Sample Control Supervisor Review: (or designate) Dwayne W Byrd Date: 4-16-97

Project Management Review: Diane A Mueller Date: 4-16-97

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 11/24/95