AP - 2

STAGE 1 & 2 REPORTS

(APPENDIX VII - VIII)

DATE:

Nov. 1998

WESTGATE SUBDIVISION, GRIMES BATTERY and TASKER ROAD

STAGE 1 ABATEMENT PLAN INTERIM REPORT (SITE ASSESSMENT INVESTIGATION)

November 1998

Shell Exploration and Production Technology Company
Houston, Texas

Prepared by

Philip Services Corporation
Midland, Texas

BBC International Incorporated
Hobbs, New Mexico

Appendix VII

SVE Analytical

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 7/27/98
Time: 10:23

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.24	92
Toluene	10.00	µg/L	8.50	85
Chlorobenzene	10.00	µg/L	11.46	115
Ethylbenzene	10.00	µg/L	10.72	107
Total Xylenes	30.00	µg/L	32.10	107
Vinyl chloride	10.00	µg/L	9.12	91
1,1- Dichloroethene	10.00	µg/L	9.74	97
Trans-1,2-dichloroethene	10.00	µg/L	9.21	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.56	96
Chloroform	10.00	µg/L	10.13	101
1,1,1-Trichloroethane	10.00	µg/L	9.43	94
Carbon Tetrachloride	10.00	µg/L	6.22	62
Trichloroethene	10.00	µg/L	9.05	91
Tetrachloroethene	10.00	µg/L	10.27	103
TPH	1000.00	ppmv	844	84
Methane	5000.00	ppmv	4300	86
Ethane	1000.00	ppmv	769	77
Propane	1000.00	ppmv	800	80
Butane	1000.00	ppmv	886	89
Pentane	1000.00	ppmv	970	97
Hexane	1000.00	ppmv	1200	120

Date: 7/27/98
Time: 18:03

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.07	91
Toluene	10.00	µg/L	8.46	85
Chlorobenzene	10.00	µg/L	9.73	97
Ethylbenzene	10.00	µg/L	8.79	88
Total Xylenes	30.00	µg/L	27.59	92
Vinyl chloride	10.00	µg/L	8.06	81
1,1- Dichloroethene	10.00	µg/L	8.95	90
Trans-1,2-dichloroethene	10.00	µg/L	9.07	91
Cis-1,2-Dichloroethene	10.00	µg/L	8.92	89
Chloroform	10.00	µg/L	11.41	114
1,1,1-Trichloroethane	10.00	µg/L	9.78	98
Carbon Tetrachloride	10.00	µg/L	6.71	67
Trichloroethene	10.00	µg/L	8.98	90
Tetrachloroethene	10.00	µg/L	9.16	92
TPH	1000.00	ppmv	1200	120
Methane	5000.00	ppmv	4000	80
Ethane	1000.00	ppmv	985	99
Propane	1000.00	ppmv	973	97
Butane	1000.00	ppmv	1038	104
Pentane	1000.00	ppmv	1051	105
Hexane	1000.00	ppmv	1200	120

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/28/98
Time: 8:06

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.37	94
Toluene	10.00	µg/L	8.76	88
Chlorobenzene	10.00	µg/L	9.78	98
Ethylbenzene	10.00	µg/L	9.11	91
Total Xylenes	30.00	µg/L	28.19	94
Vinyl chloride	10.00	µg/L	8.56	86
1,1- Dichloroethene	10.00	µg/L	9.02	90
Trans-1,2-dichloroethene	10.00	µg/L	9.29	93
Cis-1,2-Dichloroethene	10.00	µg/L	9.21	92
Chloroform	10.00	µg/L	11.05	111
1,1,1-Trichloroethane	10.00	µg/L	9.24	92
Carbon Tetrachloride	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	9.13	91
Tetrachloroethene	10.00	µg/L	9.32	93
TPH	1000.00	ppmv	984	98
Methane	5000.00	ppmv	4300	86
Ethane	1000.00	ppmv	660	66
Propane	1000.00	ppmv	652	65
Butane	1000.00	ppmv	682	68
Pentane	1000.00	ppmv	691	69
Hexane	1000.00	ppmv	737	74

Date: 7/28/98
Time: 12:09

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.84	88
Toluene	10.00	µg/L	8.21	82
Chlorobenzene	10.00	µg/L	9.45	95
Ethylbenzene	10.00	µg/L	9.19	92
Total Xylenes	30.00	µg/L	27.92	93
Vinyl chloride	10.00	µg/L	8.21	82
1,1- Dichloroethene	10.00	µg/L	8.52	85
Trans-1,2-dichloroethene	10.00	µg/L	8.93	89
Cis-1,2-Dichloroethene	10.00	µg/L	9.01	90
Chloroform	10.00	µg/L	10.95	110
1,1,1-Trichloroethane	10.00	µg/L	9.80	98
Carbon Tetrachloride	10.00	µg/L	6.58	66
Trichloroethene	10.00	µg/L	8.21	82
Tetrachloroethene	10.00	µg/L	9.20	92
TPH	1000.00	ppmv	800	80
Methane	5000.00	ppmv	4900	98
Ethane	1000.00	ppmv	683	68
Propane	1000.00	ppmv	684	68
Butane	1000.00	ppmv	710	71
Pentane	1000.00	ppmv	700	70
Hexane	1000.00	ppmv	737	74

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/28/98
Time: 17:06

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.05	91
Toluene	10.00	µg/L	8.47	85
Chlorobenzene	10.00	µg/L	9.55	96
Ethylbenzene	10.00	µg/L	9.14	91
Total Xylenes	30.00	µg/L	27.51	92
Vinyl chloride	10.00	µg/L	9.05	91
1,1- Dichloroethene	10.00	µg/L	8.61	86
Trans-1,2-dichloroethene	10.00	µg/L	8.92	89
Cis-1,2-Dichloroethene	10.00	µg/L	9.24	92
Chloroform	10.00	µg/L	11.45	115
1,1,1-Trichloroethane	10.00	µg/L	10.11	101
Carbon Tetrachloride	10.00	µg/L	6.69	67
Trichloroethene	10.00	µg/L	8.95	90
Tetrachloroethene	10.00	µg/L	9.45	95
TPH	1000.00	ppmv	1180	118
Methane	5000.00	ppmv	4500	90
Ethane	1000.00	ppmv	800	80
Propane	1000.00	ppmv	800	80
Butane	1000.00	ppmv	800	80
Pentane	1000.00	ppmv	800	80
Hexane	1000.00	ppmv	900	90

Date: 7/29/98
Time: 7:26

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.41	94
Toluene	10.00	µg/L	8.69	87
Chlorobenzene	10.00	µg/L	10.19	102
Ethylbenzene	10.00	µg/L	8.82	88
Total Xylenes	30.00	µg/L	27.45	92
Vinyl chloride	10.00	µg/L	9.13	91
1,1- Dichloroethene	10.00	µg/L	8.88	89
Trans-1,2-dichloroethene	10.00	µg/L	8.97	90
Cis-1,2-Dichloroethene	10.00	µg/L	9.14	91
Chloroform	10.00	µg/L	10.98	110
1,1,1-Trichloroethane	10.00	µg/L	8.71	87
Carbon Tetrachloride	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	9.04	90
Tetrachloroethene	10.00	µg/L	10.79	108
TPH	1000.00	ppmv	994	99
Methane	5000.00	ppmv	4824	96
Ethane	1000.00	ppmv	898	90
Propane	1000.00	ppmv	888	89
Butane	1000.00	ppmv	938	94
Pentane	1000.00	ppmv	943	94
Hexane	1000.00	ppmv	1100	110

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/29/98
Time: 12:25

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.47	85
Toluene	10.00	µg/L	8.00	80
Chlorobenzene	10.00	µg/L	9.14	91
Ethylbenzene	10.00	µg/L	8.79	88
Total Xylenes	30.00	µg/L	26.44	88
Vinyl chloride	10.00	µg/L	8.06	81
1,1- Dichloroethene	10.00	µg/L	10.28	103
Trans-1,2-dichloroethene	10.00	µg/L	8.44	84
Cis-1,2-Dichloroethene	10.00	µg/L	8.57	86
Chloroform	10.00	µg/L	9.90	99
1,1,1-Trichloroethane	10.00	µg/L	8.70	87
Carbon Tetrachloride	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	8.42	84
Tetrachloroethene	10.00	µg/L	9.38	94
TPH	1000.00	ppmv	998	100
Methane	5000.00	ppmv	4413	88
Ethane	1000.00	ppmv	862	86
Propane	1000.00	ppmv	854	85
Butane	1000.00	ppmv	901	90
Pentane	1000.00	ppmv	893	89
Hexane	1000.00	ppmv	990	99

Date: 7/29/98
Time: 16:57

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.19	92
Toluene	10.00	µg/L	8.59	86
Chlorobenzene	10.00	µg/L	9.17	92
Ethylbenzene	10.00	µg/L	10.18	102
Total Xylenes	30.00	µg/L	28.48	95
Vinyl chloride	10.00	µg/L	8.50	85
1,1- Dichloroethene	10.00	µg/L	8.50	85
Trans-1,2-dichloroethene	10.00	µg/L	9.26	93
Cis-1,2-Dichloroethene	10.00	µg/L	9.45	95
Chloroform	10.00	µg/L	10.95	110
1,1,1-Trichloroethane	10.00	µg/L	9.56	96
Carbon Tetrachloride	10.00	µg/L	6.21	62
Trichloroethene	10.00	µg/L	9.17	92
Tetrachloroethene	10.00	µg/L	10.60	106
TPH	1000.00	ppmv	1017	102
Methane	5000.00	ppmv	4368	87
Ethane	1000.00	ppmv	889	89
Propane	1000.00	ppmv	879	88
Butane	1000.00	ppmv	950	95
Pentane	1000.00	ppmv	970	97
Hexane	1000.00	ppmv	1100	110

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/30/98
Time: 6:45

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.51	95
Toluene	10.00	µg/L	9.00	90
Chlorobenzene	10.00	µg/L	10.76	108
Ethylbenzene	10.00	µg/L	9.93	99
Total Xylenes	30.00	µg/L	32.88	110
Vinyl chloride	10.00	µg/L	8.19	82
1,1- Dichloroethene	10.00	µg/L	8.94	89
Trans-1,2-dichloroethene	10.00	µg/L	9.30	93
Cis-1,2-Dichloroethene	10.00	µg/L	10.00	100
Chloroform	10.00	µg/L	10.18	102
1,1,1-Trichloroethane	10.00	µg/L	7.54	75
Carbon Tetrachloride	10.00	µg/L	5.00	50
Trichloroethene	10.00	µg/L	9.20	92
Tetrachloroethene	10.00	µg/L	9.30	93
TPH	1000.00	ppmv	999	100
Methane	5000.00	ppmv	4937	99
Ethane	1000.00	ppmv	990	99
Propane	1000.00	ppmv	976	98
Butane	1000.00	ppmv	1025	103
Pentane	1000.00	ppmv	987	99
Hexane	1000.00	ppmv	1052	105

Date: 7/30/98
Time: 12:30

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.22	92
Toluene	10.00	µg/L	8.61	86
Chlorobenzene	10.00	µg/L	9.96	100
Ethylbenzene	10.00	µg/L	9.55	96
Total Xylenes	30.00	µg/L	28.94	96
Vinyl chloride	10.00	µg/L	7.01	70
1,1- Dichloroethene	10.00	µg/L	8.50	85
Trans-1,2-dichloroethene	10.00	µg/L	9.17	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.40	94
Chloroform	10.00	µg/L	10.27	103
1,1,1-Trichloroethane	10.00	µg/L	9.59	96
Carbon Tetrachloride	10.00	µg/L	6.27	63
Trichloroethene	10.00	µg/L	9.01	90
Tetrachloroethene	10.00	µg/L	11.26	113
TPH	1000.00	ppmv	983	98
Methane	5000.00	ppmv	4022	80
Ethane	1000.00	ppmv	756	76
Propane	1000.00	ppmv	745	75
Butane	1000.00	ppmv	781	78
Pentane	1000.00	ppmv	773	77
Hexane	1000.00	ppmv	839	84

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/30/98
Time: 17:22

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.11	91
Toluene	10.00	µg/L	8.72	87
Chlorobenzene	10.00	µg/L	10.02	100
Ethylbenzene	10.00	µg/L	9.37	94
Total Xylenes	30.00	µg/L	28.04	93
Vinyl chloride	10.00	µg/L	7.99	80
1,1- Dichloroethene	10.00	µg/L	8.30	83
Trans-1,2-dichloroethene	10.00	µg/L	8.99	90
Cis-1,2-Dichloroethene	10.00	µg/L	9.30	93
Chloroform	10.00	µg/L	10.67	107
1,1,1-Trichloroethane	10.00	µg/L	9.66	97
Carbon Tetrachloride	10.00	µg/L	6.42	64
Trichloroethene	10.00	µg/L	8.91	89
Tetrachloroethene	10.00	µg/L	10.20	102
TPH	1000.00	ppmv	978	98
Methane	5000.00	ppmv	4300	86
Ethane	1000.00	ppmv	765	77
Propane	1000.00	ppmv	761	76
Butane	1000.00	ppmv	807	81
Pentane	1000.00	ppmv	805	81
Hexane	1000.00	ppmv	895	90

Date: 7/31/98
Time: 6:48

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.15	92
Toluene	10.00	µg/L	8.34	83
Chlorobenzene	10.00	µg/L	11.10	111
Ethylbenzene	10.00	µg/L	9.43	94
Total Xylenes	30.00	µg/L	28.10	94
Vinyl chloride	10.00	µg/L	8.19	82
1,1- Dichloroethene	10.00	µg/L	8.48	85
Trans-1,2-dichloroethene	10.00	µg/L	9.00	90
Cis-1,2-Dichloroethene	10.00	µg/L	8.81	88
Chloroform	10.00	µg/L	8.60	86
1,1,1-Trichloroethane	10.00	µg/L	7.00	70
Carbon Tetrachloride	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	8.94	89
Tetrachloroethene	10.00	µg/L	8.78	88
TPH	1000.00	ppmv	1000	100
Methane	5000.00	ppmv	4500	90
Ethane	1000.00	ppmv	835	84
Propane	1000.00	ppmv	838	84
Butane	1000.00	ppmv	881	88
Pentane	1000.00	ppmv	870	87
Hexane	1000.00	ppmv	941	94

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 7/31/98
Time: 13:15

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.87	89
Toluene	10.00	µg/L	8.38	84
Chlorobenzene	10.00	µg/L	9.06	91
Ethylbenzene	10.00	µg/L	9.60	96
Total Xylenes	30.00	µg/L	27.33	91
Vinyl chloride	10.00	µg/L	7.52	75
1,1- Dichloroethene	10.00	µg/L	9.44	94
Trans-1,2-dichloroethene	10.00	µg/L	8.67	87
Cis-1,2-Dichloroethene	10.00	µg/L	8.97	90
Chloroform	10.00	µg/L	9.96	100
1,1,1-Trichloroethane	10.00	µg/L	8.86	89
Carbon Tetrachloride	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	8.74	87
Tetrachloroethene	10.00	µg/L	9.05	91
TPH	1000.00	ppmv	913	91
Methane	5000.00	ppmv	4400	88
Ethane	1000.00	ppmv	811	81
Propane	1000.00	ppmv	801	80
Butane	1000.00	ppmv	833	83
Pentane	1000.00	ppmv	805	81
Hexane	1000.00	ppmv	849	85

Date: 7/31/98
Time: 16:23

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.24	92
Toluene	10.00	µg/L	8.96	90
Chlorobenzene	10.00	µg/L	9.66	97
Ethylbenzene	10.00	µg/L	9.29	93
Total Xylenes	30.00	µg/L	28.58	95
Vinyl chloride	10.00	µg/L	7.59	76
1,1- Dichloroethene	10.00	µg/L	7.90	79
Trans-1,2-dichloroethene	10.00	µg/L	9.01	90
Cis-1,2-Dichloroethene	10.00	µg/L	9.45	95
Chloroform	10.00	µg/L	10.34	103
1,1,1-Trichloroethane	10.00	µg/L	9.76	98
Carbon Tetrachloride	10.00	µg/L	6.44	64
Trichloroethene	10.00	µg/L	9.14	91
Tetrachloroethene	10.00	µg/L	9.66	97
TPH	1000.00	ppmv	1100	110
Methane	5000.00	ppmv	4700	94
Ethane	1000.00	ppmv	750	75
Propane	1000.00	ppmv	744	74
Butane	1000.00	ppmv	798	80
Pentane	1000.00	ppmv	809	81
Hexane	1000.00	ppmv	900	90

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/3/98
Time: 6:48

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.79	88
Toluene	10.00	µg/L	8.20	82
Chlorobenzene	10.00	µg/L	9.33	93
Ethylbenzene	10.00	µg/L	8.48	85
Total Xylenes	30.00	µg/L	26.26	88
Vinyl chloride	10.00	µg/L	8.87	89
1,1- Dichloroethene	10.00	µg/L	9.28	93
Trans-1,2-dichloroethene	10.00	µg/L	8.68	87
Cis-1,2-Dichloroethene	10.00	µg/L	8.58	86
Chloroform	10.00	µg/L	9.84	98
1,1,1-Trichloroethane	10.00	µg/L	8.99	90
Trichloroethene	10.00	µg/L	8.55	86
Tetrachloroethene	10.00	µg/L	8.78	88
TPH	1000.00	ppmv	963	96
Methane	5000.00	ppmv	5163	103
Ethane	1000.00	ppmv	931	93
Propane	1000.00	ppmv	921	92
Butane	1000.00	ppmv	890	89
Pentane	1000.00	ppmv	855	86
Hexane	1000.00	ppmv	811	81

Date: 8/3/98
Time: 12:33

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.88	89
Toluene	10.00	µg/L	8.40	84
Chlorobenzene	10.00	µg/L	9.70	97
Ethylbenzene	10.00	µg/L	8.63	86
Total Xylenes	30.00	µg/L	26.87	90
Vinyl chloride	10.00	µg/L	9.18	92
1,1- Dichloroethene	10.00	µg/L	8.42	84
Trans-1,2-dichloroethene	10.00	µg/L	8.88	89
Cis-1,2-Dichloroethene	10.00	µg/L	8.75	88
Chloroform	10.00	µg/L	9.45	95
1,1,1-Trichloroethane	10.00	µg/L	8.90	89
Trichloroethene	10.00	µg/L	8.58	86
Tetrachloroethene	10.00	µg/L	8.96	90
TPH	1000.00	ppmv	1038	104
Methane	5000.00	ppmv	5400	108
Ethane	1000.00	ppmv	1072	107
Propane	1000.00	ppmv	1076	108
Butane	1000.00	ppmv	1063	106
Pentane	1000.00	ppmv	1048	105
Hexane	1000.00	ppmv	1028	103

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/3/98
Time: 17:06

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.09	91
Toluene	10.00	µg/L	8.62	86
Chlorobenzene	10.00	µg/L	10.02	100
Ethylbenzene	10.00	µg/L	8.91	89
Total Xylenes	30.00	µg/L	27.60	92
Vinyl chloride	10.00	µg/L	9.19	92
1,1- Dichloroethene	10.00	µg/L	8.10	81
Trans-1,2-dichloroethene	10.00	µg/L	9.13	91
Cis-1,2-Dichloroethene	10.00	µg/L	8.77	88
Chloroform	10.00	µg/L	9.52	95
1,1,1-Trichloroethane	10.00	µg/L	9.01	90
Trichloroethene	10.00	µg/L	8.93	89
Tetrachloroethene	10.00	µg/L	9.04	90
TPH	1000.00	ppmv	912	91
Methane	5000.00	ppmv	5163	103
Ethane	1000.00	ppmv	984	98
Propane	1000.00	ppmv	977	98
Butane	1000.00	ppmv	975	98
Pentane	1000.00	ppmv	976	98
Hexane	1000.00	ppmv	965	97

Date: 8/4/98
Time: 7:59

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.01	90
Toluene	10.00	µg/L	8.53	85
Chlorobenzene	10.00	µg/L	9.77	98
Ethylbenzene	10.00	µg/L	9.11	91
Total Xylenes	30.00	µg/L	28.12	94
Vinyl chloride	10.00	µg/L	8.85	89
1,1- Dichloroethene	10.00	µg/L	8.59	86
Trans-1,2-dichloroethene	10.00	µg/L	9.02	90
Cis-1,2-Dichloroethene	10.00	µg/L	9.03	90
Chloroform	10.00	µg/L	10.13	101
1,1,1-Trichloroethane	10.00	µg/L	8.51	85
Trichloroethene	10.00	µg/L	8.89	89
Tetrachloroethene	10.00	µg/L	9.07	91
TPH	1000.00	ppmv	1125	113
Methane	5000.00	ppmv	4700	94
Ethane	1000.00	ppmv	1031	103
Propane	1000.00	ppmv	1027	103
Butane	1000.00	ppmv	1018	102
Pentane	1000.00	ppmv	1011	101
Hexane	1000.00	ppmv	990	99

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/4/98
Time: 12:36

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.04	90
Toluene	10.00	µg/L	8.51	85
Chlorobenzene	10.00	µg/L	9.83	98
Ethylbenzene	10.00	µg/L	9.32	93
Total Xylenes	30.00	µg/L	27.12	90
Vinyl chloride	10.00	µg/L	8.91	89
1,1- Dichloroethene	10.00	µg/L	8.47	85
Trans-1,2-dichloroethene	10.00	µg/L	8.96	90
Cis-1,2-Dichloroethene	10.00	µg/L	9.01	90
Chloroform	10.00	µg/L	10.86	109
1,1,1-Trichloroethane	10.00	µg/L	9.33	93
Trichloroethene	10.00	µg/L	9.01	90
Tetrachloroethene	10.00	µg/L	9.08	91
TPH	1000.00	ppmv	972	97
Methane	5000.00	ppmv	4350	87
Ethane	1000.00	ppmv	1066	107
Propane	1000.00	ppmv	1065	107
Butane	1000.00	ppmv	1053	105
Pentane	1000.00	ppmv	1053	105
Hexane	1000.00	ppmv	1035	104

Date: 8/4/98
Time: 15:37

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.08	91
Toluene	10.00	µg/L	8.57	86
Chlorobenzene	10.00	µg/L	9.75	98
Ethylbenzene	10.00	µg/L	8.96	90
Total Xylenes	30.00	µg/L	27.28	91
Vinyl chloride	10.00	µg/L	8.63	86
1,1- Dichloroethene	10.00	µg/L	8.17	82
Trans-1,2-dichloroethene	10.00	µg/L	9.05	91
Cis-1,2-Dichloroethene	10.00	µg/L	9.09	91
Chloroform	10.00	µg/L	10.74	107
1,1,1-Trichloroethane	10.00	µg/L	9.32	93
Trichloroethene	10.00	µg/L	8.89	89
Tetrachloroethene	10.00	µg/L	9.13	91
TPH	1000.00	ppmv	1100	110
Methane	5000.00	ppmv	4500	90
Ethane	1000.00	ppmv	895	90
Propane	1000.00	ppmv	895	90
Butane	1000.00	ppmv	866	87
Pentane	1000.00	ppmv	838	84
Hexane	1000.00	ppmv	813	81

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/4/98
Time: 7:58

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.65	87
Toluene	10.00	µg/L	8.11	81
Chlorobenzene	10.00	µg/L	9.57	96
Ethylbenzene	10.00	µg/L	8.61	86
Total Xylenes	30.00	µg/L	26.76	89
Vinyl chloride	10.00	µg/L	7.63	76
1,1- Dichloroethene	10.00	µg/L	7.69	77
Trans-1,2-dichloroethene	10.00	µg/L	8.76	88
Cis-1,2-Dichloroethene	10.00	µg/L	8.72	87
Chloroform	10.00	µg/L	10.33	103
1,1,1-Trichloroethane	10.00	µg/L	8.70	87
Trichloroethene	10.00	µg/L	8.76	88
Tetrachloroethene	10.00	µg/L	8.74	87
TPH	1000.00	ppmv	992	99
Methane	5000.00	ppmv	4081	82
Ethane	1000.00	ppmv	1086	109
Propane	1000.00	ppmv	1083	108
Butane	1000.00	ppmv	1068	107
Pentane	1000.00	ppmv	1052	105
Hexane	1000.00	ppmv	1007	101

Date: 8/5/98
Time: 12:26

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.83	88
Toluene	10.00	µg/L	8.32	83
Chlorobenzene	10.00	µg/L	9.65	97
Ethylbenzene	10.00	µg/L	8.83	88
Total Xylenes	30.00	µg/L	27.13	90
Vinyl chloride	10.00	µg/L	8.05	81
1,1- Dichloroethene	10.00	µg/L	9.88	99
Trans-1,2-dichloroethene	10.00	µg/L	8.77	88
Cis-1,2-Dichloroethene	10.00	µg/L	8.93	89
Chloroform	10.00	µg/L	10.86	109
1,1,1-Trichloroethane	10.00	µg/L	9.23	92
Trichloroethene	10.00	µg/L	8.95	90
Tetrachloroethene	10.00	µg/L	8.94	89
TPH	1000.00	ppmv	1072	107
Methane	5000.00	ppmv	5500	110
Ethane	1000.00	ppmv	1098	110
Propane	1000.00	ppmv	1079	108
Butane	1000.00	ppmv	1065	107
Pentane	1000.00	ppmv	1050	105
Hexane	1000.00	ppmv	1013	101

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/5/98
Time: 16:17

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.39	94
Toluene	10.00	µg/L	8.81	88
Chlorobenzene	10.00	µg/L	10.09	101
Ethylbenzene	10.00	µg/L	9.19	92
Total Xylenes	30.00	µg/L	28.45	95
Vinyl chloride	10.00	µg/L	8.13	81
1,1- Dichloroethene	10.00	µg/L	10.11	101
Trans-1,2-dichloroethene	10.00	µg/L	9.23	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.30	93
Chloroform	10.00	µg/L	10.97	110
1,1,1-Trichloroethane	10.00	µg/L	10.18	102
Trichloroethene	10.00	µg/L	9.23	92
Tetrachloroethene	10.00	µg/L	9.47	95
TPH	1000.00	ppmv	1128	113
Methane	5000.00	ppmv	5244	105
Ethane	1000.00	ppmv	905	91
Propane	1000.00	ppmv	888	89
Butane	1000.00	ppmv	852	85
Pentane	1000.00	ppmv	823	82
Hexane	1000.00	ppmv	780	78

Date: 8/6/98
Time: 7:52

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.72	87
Toluene	10.00	µg/L	8.32	83
Chlorobenzene	10.00	µg/L	9.34	93
Ethylbenzene	10.00	µg/L	8.84	88
Total Xylenes	30.00	µg/L	26.93	90
Vinyl chloride	10.00	µg/L	9.85	99
1,1- Dichloroethene	10.00	µg/L	9.48	95
Trans-1,2-dichloroethene	10.00	µg/L	8.61	86
Cis-1,2-Dichloroethene	10.00	µg/L	8.81	88
Chloroform	10.00	µg/L	9.52	95
1,1,1-Trichloroethane	10.00	µg/L	8.29	83
Trichloroethene	10.00	µg/L	8.82	88
Tetrachloroethene	10.00	µg/L	8.84	88
TPH	1000.00	ppmv	1056	106
Methane	5000.00	ppmv	4500	90
Ethane	1000.00	ppmv	946	95
Propane	1000.00	ppmv	923	92
Butane	1000.00	ppmv	915	92
Pentane	1000.00	ppmv	907	91
Hexane	1000.00	ppmv	890	89

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/6/98
Time: 12:08

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.72	87
Toluene	10.00	µg/L	8.19	82
Chlorobenzene	10.00	µg/L	9.46	95
Ethylbenzene	10.00	µg/L	8.61	86
Total Xylenes	30.00	µg/L	26.69	89
Vinyl chloride	10.00	µg/L	8.02	80
1,1- Dichloroethene	10.00	µg/L	9.05	91
Trans-1,2-dichloroethene	10.00	µg/L	8.63	86
Cis-1,2-Dichloroethene	10.00	µg/L	8.53	85
Chloroform	10.00	µg/L	9.88	99
1,1,1-Trichloroethane	10.00	µg/L	9.51	95
Trichloroethene	10.00	µg/L	8.64	86
Tetrachloroethene	10.00	µg/L	8.78	88
TPH	1000.00	ppmv	1048	105
Methane	5000.00	ppmv	4600	92
Ethane	1000.00	ppmv	898	90
Propane	1000.00	ppmv	903	90
Butane	1000.00	ppmv	887	89
Pentane	1000.00	ppmv	886	89
Hexane	1000.00	ppmv	865	87

Date: 8/6/98
Time: 16:54

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.81	88
Toluene	10.00	µg/L	8.29	83
Chlorobenzene	10.00	µg/L	8.69	87
Ethylbenzene	10.00	µg/L	9.49	95
Total Xylenes	30.00	µg/L	26.66	89
Vinyl chloride	10.00	µg/L	8.40	84
1,1- Dichloroethene	10.00	µg/L	8.97	90
Trans-1,2-dichloroethene	10.00	µg/L	8.44	84
Cis-1,2-Dichloroethene	10.00	µg/L	8.59	86
Chloroform	10.00	µg/L	10.72	107
1,1,1-Trichloroethane	10.00	µg/L	9.60	96
Trichloroethene	10.00	µg/L	8.81	88
Tetrachloroethene	10.00	µg/L	8.86	89
TPH	1000.00	ppmv	958	96
Methane	5000.00	ppmv	5200	104
Ethane	1000.00	ppmv	1148	115
Propane	1000.00	ppmv	1158	116
Butane	1000.00	ppmv	1155	116
Pentane	1000.00	ppmv	1151	115
Hexane	1000.00	ppmv	1122	112

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/7/98
Time: 7:45

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.62	86
Toluene	10.00	µg/L	8.20	82
Chlorobenzene	10.00	µg/L	9.27	93
Ethylbenzene	10.00	µg/L	8.55	86
Total Xylenes	30.00	µg/L	26.23	87
Vinyl chloride	10.00	µg/L	8.17	82
1,1- Dichloroethene	10.00	µg/L	8.54	85
Trans-1,2-dichloroethene	10.00	µg/L	8.29	83
Cis-1,2-Dichloroethene	10.00	µg/L	8.58	86
Chloroform	10.00	µg/L	8.76	88
1,1,1-Trichloroethane	10.00	µg/L	8.33	83
Trichloroethene	10.00	µg/L	8.44	84
Tetrachloroethene	10.00	µg/L	8.92	89
TPH	1000.00	ppmv	859	86
Methane	5000.00	ppmv	5101	102
Ethane	1000.00	ppmv	983	98
Propane	1000.00	ppmv	968	97
Butane	1000.00	ppmv	945	95
Pentane	1000.00	ppmv	933	93
Hexane	1000.00	ppmv	905	91

Date: 8/7/98
Time: 11:57

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.41	84
Toluene	10.00	µg/L	8.06	81
Chlorobenzene	10.00	µg/L	9.01	90
Ethylbenzene	10.00	µg/L	8.59	86
Total Xylenes	30.00	µg/L	25.84	86
Vinyl chloride	10.00	µg/L	7.29	73
1,1- Dichloroethene	10.00	µg/L	8.31	83
Trans-1,2-dichloroethene	10.00	µg/L	8.14	81
Cis-1,2-Dichloroethene	10.00	µg/L	8.36	84
Chloroform	10.00	µg/L	9.27	93
1,1,1-Trichloroethane	10.00	µg/L	9.20	92
Trichloroethene	10.00	µg/L	8.34	83
Tetrachloroethene	10.00	µg/L	9.02	90
TPH	1000.00	ppmv	1135	114
Methane	5000.00	ppmv	5042	101
Ethane	1000.00	ppmv	910	91
Propane	1000.00	ppmv	909	91
Butane	1000.00	ppmv	905	91
Pentane	1000.00	ppmv	900	90
Hexane	1000.00	ppmv	883	88

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/7/98
Time: 16:22

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.18	82
Toluene	10.00	µg/L	7.51	75
Chlorobenzene	10.00	µg/L	8.50	85
Ethylbenzene	10.00	µg/L	8.21	82
Total Xylenes	30.00	µg/L	24.96	83
Vinyl chloride	10.00	µg/L	6.57	66
1,1- Dichloroethene	10.00	µg/L	8.10	81
Trans-1,2-dichloroethene	10.00	µg/L	7.91	79
Cis-1,2-Dichloroethene	10.00	µg/L	8.10	81
Chloroform	10.00	µg/L	8.55	86
1,1,1-Trichloroethane	10.00	µg/L	8.99	90
Trichloroethene	10.00	µg/L	8.05	81
Tetrachloroethene	10.00	µg/L	8.85	89
TPH	1000.00	ppmv	1150	115
Methane	5000.00	ppmv	5250	105
Ethane	1000.00	ppmv	1130	113
Propane	1000.00	ppmv	1135	114
Butane	1000.00	ppmv	1122	112
Pentane	1000.00	ppmv	1108	111
Hexane	1000.00	ppmv	1071	107

Date: 8/10/98
Time: 7:48

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.82	98
Toluene	10.00	µg/L	9.20	92
Chlorobenzene	10.00	µg/L	10.80	108
Ethylbenzene	10.00	µg/L	9.96	100
Total Xylenes	30.00	µg/L	29.43	98
Vinyl chloride	10.00	µg/L	10.80	108
1,1- Dichloroethene	10.00	µg/L	9.89	99
Trans-1,2-dichloroethene	10.00	µg/L	9.71	97
Cis-1,2-Dichloroethene	10.00	µg/L	9.76	98
Chloroform	10.00	µg/L	10.44	104
1,1,1-Trichloroethane	10.00	µg/L	10.26	103
Trichloroethene	10.00	µg/L	9.72	97
Tetrachloroethene	10.00	µg/L	10.05	101
TPH	1000.00	ppmv	1072	107
Methane	5000.00	ppmv	5500	110
Ethane	1000.00	ppmv	1071	107
Propane	1000.00	ppmv	1076	108
Butane	1000.00	ppmv	1071	107
Pentane	1000.00	ppmv	1066	107
Hexane	1000.00	ppmv	1045	105

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/10/98
Time: 12:07

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.63	96
Toluene	10.00	µg/L	8.88	89
Chlorobenzene	10.00	µg/L	10.65	107
Ethylbenzene	10.00	µg/L	9.53	95
Total Xylenes	30.00	µg/L	28.93	96
Vinyl chloride	10.00	µg/L	9.90	99
1,1- Dichloroethene	10.00	µg/L	9.08	91
Trans-1,2-dichloroethene	10.00	µg/L	9.52	95
Cis-1,2-Dichloroethene	10.00	µg/L	9.61	96
Chloroform	10.00	µg/L	10.43	104
1,1,1-Trichloroethane	10.00	µg/L	11.23	112
Trichloroethene	10.00	µg/L	9.30	93
Tetrachloroethene	10.00	µg/L	9.76	98
TPH	1000.00	ppmv	1017.00	102
Methane	5000.00	ppmv	4000.00	80
Ethane	1000.00	ppmv	CAL	#VALUE!
Propane	1000.00	ppmv	CAL	#VALUE!
Butane	1000.00	ppmv	CAL	#VALUE!
Pentane	1000.00	ppmv	CAL	#VALUE!

Date: 8/10/98
Time: 16:44

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.65	97
Toluene	10.00	µg/L	8.95	90
Chlorobenzene	10.00	µg/L	10.92	109
Ethylbenzene	10.00	µg/L	9.49	95
Total Xylenes	30.00	µg/L	29.00	97
Vinyl chloride	10.00	µg/L	9.09	91
1,1- Dichloroethene	10.00	µg/L	9.36	94
Trans-1,2-dichloroethene	10.00	µg/L	9.46	95
Cis-1,2-Dichloroethene	10.00	µg/L	9.91	99
Chloroform	10.00	µg/L	8.45	85
1,1,1-Trichloroethane	10.00	µg/L	6.00	60
Trichloroethene	10.00	µg/L	9.40	94
Tetrachloroethene	10.00	µg/L	9.82	98
TPH	1000.00	ppmv	1094	109
Methane	5000.00	ppmv	5021	100
Ethane	1000.00	ppmv	947	95
Propane	1000.00	ppmv	941	94
Butane	1000.00	ppmv	947	95
Pentane	1000.00	ppmv	956	96
Hexane	1000.00	ppmv	950	95

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/11/98
Time: 7:02

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.28	93
Toluene	10.00	µg/L	8.73	87
Chlorobenzene	10.00	µg/L	11.29	113
Ethylbenzene	10.00	µg/L	9.33	93
Total Xylenes	30.00	µg/L	27.94	93
Vinyl chloride	10.00	µg/L	8.68	87
1,1- Dichloroethene	10.00	µg/L	8.68	87
Trans-1,2-dichloroethene	10.00	µg/L	8.76	88
Cis-1,2-Dichloroethene	10.00	µg/L	8.81	88
Chloroform	10.00	µg/L	8.32	83
1,1,1-Trichloroethane	10.00	µg/L	6.35	64
Trichloroethene	10.00	µg/L	9.11	91
Tetrachloroethene	10.00	µg/L	9.23	92
TPH	1000.00	ppmv	993	99
Methane	5000.00	ppmv	4400	88
Ethane	1000.00	ppmv	878	88
Propane	1000.00	ppmv	884	88
Butane	1000.00	ppmv	890	89
Pentane	1000.00	ppmv	895	90
Hexane	1000.00	ppmv	880	88

Date: 8/11/98
Time: 12:21

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.53	95
Toluene	10.00	µg/L	9.24	92
Chlorobenzene	10.00	µg/L	11.90	119
Ethylbenzene	10.00	µg/L	9.24	92
Total Xylenes	30.00	µg/L	29.24	97
Vinyl chloride	10.00	µg/L	7.83	78
1,1- Dichloroethene	10.00	µg/L	8.53	85
Trans-1,2-dichloroethene	10.00	µg/L	9.11	91
Cis-1,2-Dichloroethene	10.00	µg/L	9.23	92
Chloroform	10.00	µg/L	9.32	93
1,1,1-Trichloroethane	10.00	µg/L	7.30	73
Trichloroethene	10.00	µg/L	9.38	94
Tetrachloroethene	10.00	µg/L	9.54	95
TPH	1000.00	ppmv	1106	111
Methane	5000.00	ppmv	4900	98
Ethane	1000.00	ppmv	1003	100
Propane	1000.00	ppmv	1006	101
Butane	1000.00	ppmv	999	100
Pentane	1000.00	ppmv	1001	100
Hexane	1000.00	ppmv	983	98

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/11/98
Time: 16:33

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	10.21	102
Toluene	10.00	µg/L	9.83	98
Chlorobenzene	10.00	µg/L	11.72	117
Ethylbenzene	10.00	µg/L	9.17	92
Total Xylenes	30.00	µg/L	30.18	101
Vinyl chloride	10.00	µg/L	8.20	82
1,1- Dichloroethene	10.00	µg/L	8.55	86
Trans-1,2-dichloroethene	10.00	µg/L	9.78	98
Cis-1,2-Dichloroethene	10.00	µg/L	10.37	104
Chloroform	10.00	µg/L	10.63	106
1,1,1-Trichloroethane	10.00	µg/L	8.00	80
Trichloroethene	10.00	µg/L	10.07	101
Tetrachloroethene	10.00	µg/L	10.22	102
TPH	1000.00	ppmv	839	84
Methane	5000.00	ppmv	5600	112
Ethane	1000.00	ppmv	773	77
Propane	1000.00	ppmv	776	78
Butane	1000.00	ppmv	775	78
Pentane	1000.00	ppmv	780	78
Hexane	1000.00	ppmv	775	78

Date: 8/12/98
Time: 7:07

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.95	90
Toluene	10.00	µg/L	8.34	83
Chlorobenzene	10.00	µg/L	12.27	123
Ethylbenzene	10.00	µg/L	9.24	92
Total Xylenes	30.00	µg/L	28.44	95
Vinyl chloride	10.00	µg/L	7.50	75
1,1- Dichloroethene	10.00	µg/L	8.94	89
Trans-1,2-dichloroethene	10.00	µg/L	8.37	84
Cis-1,2-Dichloroethene	10.00	µg/L	8.45	85
Chloroform	10.00	µg/L	8.66	87
1,1,1-Trichloroethane	10.00	µg/L	6.03	60
Trichloroethene	10.00	µg/L	8.80	88
Tetrachloroethene	10.00	µg/L	9.01	90
TPH	1000.00	ppmv	1100	110
Methane	5000.00	ppmv	4968	99
Ethane	1000.00	ppmv	962	96
Propane	1000.00	ppmv	969	97
Butane	1000.00	ppmv	964	96
Pentane	1000.00	ppmv	976	98
Hexane	1000.00	ppmv	942	94

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/12/98
Time: 12:12

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.27	93
Toluene	10.00	µg/L	8.62	86
Chlorobenzene	10.00	µg/L	10.14	101
Ethylbenzene	10.00	µg/L	9.04	90
Total Xylenes	30.00	µg/L	27.31	91
Vinyl chloride	10.00	µg/L	9.80	98
1,1- Dichloroethene	10.00	µg/L	8.95	90
Trans-1,2-dichloroethene	10.00	µg/L	9.21	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.34	93
Chloroform	10.00	µg/L	10.08	101
1,1,1-Trichloroethane	10.00	µg/L	7.83	78
Trichloroethene	10.00	µg/L	8.96	90
Tetrachloroethene	10.00	µg/L	9.25	93
TPH	1000.00	ppmv	1085	109
Methane	5000.00	ppmv	4900	98
Ethane	1000.00	ppmv	968	97
Propane	1000.00	ppmv	970	97
Butane	1000.00	ppmv	961	96
Pentane	1000.00	ppmv	945	95
Hexane	1000.00	ppmv	905	91

Date: 8/12/98
Time: 16:26

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.22	92
Toluene	10.00	µg/L	8.72	87
Chlorobenzene	10.00	µg/L	10.34	103
Ethylbenzene	10.00	µg/L	9.05	91
Total Xylenes	30.00	µg/L	27.82	93
Vinyl chloride	10.00	µg/L	9.38	94
1,1- Dichloroethene	10.00	µg/L	8.94	89
Trans-1,2-dichloroethene	10.00	µg/L	9.43	94
Cis-1,2-Dichloroethene	10.00	µg/L	9.20	92
Chloroform	10.00	µg/L	10.40	104
1,1,1-Trichloroethane	10.00	µg/L	8.00	80
Trichloroethene	10.00	µg/L	9.17	92
Tetrachloroethene	10.00	µg/L	9.31	93
TPH	1000.00	ppmv	1135	114
Methane	5000.00	ppmv	5089	102
Ethane	1000.00	ppmv	1140	114
Propane	1000.00	ppmv	1150	115
Butane	1000.00	ppmv	1152	115
Pentane	1000.00	ppmv	1164	116
Hexane	1000.00	ppmv	1151	115

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/13/98
Time: 7:17

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.73	87
Toluene	10.00	µg/L	8.33	83
Chlorobenzene	10.00	µg/L	9.60	96
Ethylbenzene	10.00	µg/L	8.14	81
Total Xylenes	30.00	µg/L	27.40	91
Vinyl chloride	10.00	µg/L	9.02	90
1,1- Dichloroethene	10.00	µg/L	8.38	84
Trans-1,2-dichloroethene	10.00	µg/L	8.85	89
Cis-1,2-Dichloroethene	10.00	µg/L	8.64	86
Chloroform	10.00	µg/L	8.12	81
1,1,1-Trichloroethane	10.00	µg/L	6.10	61
Trichloroethene	10.00	µg/L	8.62	86
Tetrachloroethene	10.00	µg/L	8.64	86
TPH	1000.00	ppmv	1046	105
Methane	5000.00	ppmv	4360	87
Ethane	1000.00	ppmv	1035	104
Propane	1000.00	ppmv	1029	103
Butane	1000.00	ppmv	996	100
Pentane	1000.00	ppmv	955	96
Hexane	1000.00	ppmv	904	90

Date: 8/13/98
Time: 11:44

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.58	86
Toluene	10.00	µg/L	8.15	82
Chlorobenzene	10.00	µg/L	9.57	96
Ethylbenzene	10.00	µg/L	8.39	84
Total Xylenes	30.00	µg/L	26.17	87
Vinyl chloride	10.00	µg/L	8.45	85
1,1- Dichloroethene	10.00	µg/L	8.34	83
Trans-1,2-dichloroethene	10.00	µg/L	8.39	84
Cis-1,2-Dichloroethene	10.00	µg/L	8.52	85
Chloroform	10.00	µg/L	9.41	94
1,1,1-Trichloroethane	10.00	µg/L	7.34	73
Trichloroethene	10.00	µg/L	8.60	86
Tetrachloroethene	10.00	µg/L	8.71	87
TPH	1000.00	ppmv	887	89
Methane	5000.00	ppmv	5070	101
Ethane	1000.00	ppmv	715	72
Propane	1000.00	ppmv	730	73
Butane	1000.00	ppmv	731	73
Pentane	1000.00	ppmv	738	74
Hexane	1000.00	ppmv	729	73

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/13/98
Time: 16:05

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.17	92
Toluene	10.00	µg/L	8.75	88
Chlorobenzene	10.00	µg/L	10.30	103
Ethylbenzene	10.00	µg/L	9.07	91
Total Xylenes	30.00	µg/L	27.60	92
Vinyl chloride	10.00	µg/L	8.96	90
1,1- Dichloroethene	10.00	µg/L	8.06	81
Trans-1,2-dichloroethene	10.00	µg/L	8.99	90
Cis-1,2-Dichloroethene	10.00	µg/L	8.81	88
Chloroform	10.00	µg/L	10.08	101
1,1,1-Trichloroethane	10.00	µg/L	7.68	77
Trichloroethene	10.00	µg/L	9.21	92
Tetrachloroethene	10.00	µg/L	9.29	93
TPH	1000.00	ppmv	930	93
Methane	5000.00	ppmv	5186	104
Ethane	1000.00	ppmv	959	96
Propane	1000.00	ppmv	972	97
Butane	1000.00	ppmv	970	97
Pentane	1000.00	ppmv	970	97
Hexane	1000.00	ppmv	956	96

Date: 8/14/98
Time: 6:57

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.51	85
Toluene	10.00	µg/L	8.11	81
Chlorobenzene	10.00	µg/L	9.29	93
Ethylbenzene	10.00	µg/L	8.50	85
Total Xylenes	30.00	µg/L	25.82	86
Vinyl chloride	10.00	µg/L	8.99	90
1,1- Dichloroethene	10.00	µg/L	8.09	81
Trans-1,2-dichloroethene	10.00	µg/L	8.38	84
Cis-1,2-Dichloroethene	10.00	µg/L	8.70	87
Chloroform	10.00	µg/L	8.68	87
1,1,1-Trichloroethane	10.00	µg/L	7.02	70
Trichloroethene	10.00	µg/L	8.71	87
Tetrachloroethene	10.00	µg/L	8.44	84
TPH	1000.00	ppmv	990	99
Methane	5000.00	ppmv	4838	97
Ethane	1000.00	ppmv	841	84
Propane	1000.00	ppmv	842	84
Butane	1000.00	ppmv	840	84
Pentane	1000.00	ppmv	842	84
Hexane	1000.00	ppmv	831	83

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/14/98
Time: 11:45

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.04	90
Toluene	10.00	µg/L	8.62	86
Chlorobenzene	10.00	µg/L	10.05	101
Ethylbenzene	10.00	µg/L	9.07	91
Total Xylenes	30.00	µg/L	27.42	91
Vinyl chloride	10.00	µg/L	8.75	88
1,1- Dichloroethene	10.00	µg/L	9.99	100
Trans-1,2-dichloroethene	10.00	µg/L	8.82	88
Cis-1,2-Dichloroethene	10.00	µg/L	8.84	88
Chloroform	10.00	µg/L	10.30	103
1,1,1-Trichloroethane	10.00	µg/L	8.41	84
Trichloroethene	10.00	µg/L	8.87	89
Tetrachloroethene	10.00	µg/L	9.77	98
TPH	1000.00	ppmv	970	97
Methane	5000.00	ppmv	4200	84
Ethane	1000.00	ppmv	967	97
Propane	1000.00	ppmv	976	98
Butane	1000.00	ppmv	981	98
Pentane	1000.00	ppmv	991	99
Hexane	1000.00	ppmv	991	99

Date: 8/14/98
Time: 16:42

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.12	91
Toluene	10.00	µg/L	8.79	88
Chlorobenzene	10.00	µg/L	10.26	103
Ethylbenzene	10.00	µg/L	9.38	94
Total Xylenes	30.00	µg/L	28.34	94
Vinyl chloride	10.00	µg/L	8.63	86
1,1- Dichloroethene	10.00	µg/L	8.25	83
Trans-1,2-dichloroethene	10.00	µg/L	9.24	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.25	93
Chloroform	10.00	µg/L	10.34	103
1,1,1-Trichloroethane	10.00	µg/L	8.55	86
Trichloroethene	10.00	µg/L	9.22	92
Tetrachloroethene	10.00	µg/L	9.48	95
TPH	1000.00	ppmv	979	98
Methane	5000.00	ppmv	5350	107
Ethane	1000.00	ppmv	953	95
Propane	1000.00	ppmv	949	95
Butane	1000.00	ppmv	938	94
Pentane	1000.00	ppmv	905	91
Hexane	1000.00	ppmv	849	85

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/17/98
Time: 7:07

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.12	91
Toluene	10.00	µg/L	8.62	86
Chlorobenzene	10.00	µg/L	10.05	101
Ethylbenzene	10.00	µg/L	8.76	88
Total Xylenes	30.00	µg/L	27.27	91
Vinyl chloride	10.00	µg/L	9.84	98
1,1- Dichloroethene	10.00	µg/L	9.15	92
Trans-1,2-dichloroethene	10.00	µg/L	9.14	91
Cis-1,2-Dichloroethene	10.00	µg/L	9.10	91
Chloroform	10.00	µg/L	7.78	78
1,1,1-Trichloroethane	10.00	µg/L	6.18	62
Trichloroethene	10.00	µg/L	8.81	88
Tetrachloroethene	10.00	µg/L	9.07	91
TPH	1000.00	ppmv	1069	107
Methane	5000.00	ppmv	5680	114
Ethane	1000.00	ppmv	977	98
Propane	1000.00	ppmv	987	99
Butane	1000.00	ppmv	1064	106
Pentane	1000.00	ppmv	1073	107
Hexane	1000.00	ppmv	1081	108

Date: 8/17/98
Time: 12:21

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.29	93
Toluene	10.00	µg/L	8.69	87
Chlorobenzene	10.00	µg/L	10.29	103
Ethylbenzene	10.00	µg/L	9.01	90
Total Xylenes	30.00	µg/L	27.70	92
Vinyl chloride	10.00	µg/L	9.06	91
1,1- Dichloroethene	10.00	µg/L	8.99	90
Trans-1,2-dichloroethene	10.00	µg/L	9.23	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.38	94
Chloroform	10.00	µg/L	8.58	86
1,1,1-Trichloroethane	10.00	µg/L	6.72	67
Trichloroethene	10.00	µg/L	9.10	91
Tetrachloroethene	10.00	µg/L	9.34	93
TPH	1000.00	ppmv	919	92
Methane	5000.00	ppmv	5130	103
Ethane	1000.00	ppmv	874	87
Propane	1000.00	ppmv	887	89
Butane	1000.00	ppmv	885	89
Pentane	1000.00	ppmv	893	89
Hexane	1000.00	ppmv	891	89

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/17/98
Time: 17:14

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.30	93
Toluene	10.00	µg/L	8.77	88
Chlorobenzene	10.00	µg/L	10.32	103
Ethylbenzene	10.00	µg/L	9.06	91
Total Xylenes	30.00	µg/L	28.12	94
Vinyl chloride	10.00	µg/L	8.83	88
1,1- Dichloroethene	10.00	µg/L	8.59	86
Trans-1,2-dichloroethene	10.00	µg/L	9.32	93
Cis-1,2-Dichloroethene	10.00	µg/L	9.15	92
Chloroform	10.00	µg/L	8.59	86
1,1,1-Trichloroethane	10.00	µg/L	7.32	73
Trichloroethene	10.00	µg/L	9.36	94
Tetrachloroethene	10.00	µg/L	9.38	94
TPH	1000.00	ppmv	1132	113
Methane	5000.00	ppmv	4859	97
Ethane	1000.00	ppmv	1085	109
Propane	1000.00	ppmv	1091	109
Butane	1000.00	ppmv	1101	110
Pentane	1000.00	ppmv	1195	120
Hexane	1000.00	ppmv	1026	103

Date: 8/18/98
Time: 6:28

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.78	88
Toluene	10.00	µg/L	8.18	82
Chlorobenzene	10.00	µg/L	9.79	98
Ethylbenzene	10.00	µg/L	8.65	87
Total Xylenes	30.00	µg/L	26.48	88
Vinyl chloride	10.00	µg/L	8.24	82
1,1- Dichloroethene	10.00	µg/L	8.97	90
Trans-1,2-dichloroethene	10.00	µg/L	8.74	87
Cis-1,2-Dichloroethene	10.00	µg/L	8.81	88
Chloroform	10.00	µg/L	8.66	87
1,1,1-Trichloroethane	10.00	µg/L	6.70	67
Trichloroethene	10.00	µg/L	8.95	90
Tetrachloroethene	10.00	µg/L	9.25	93
TPH	1000.00	ppmv	1036	104
Methane	5000.00	ppmv	4460	89
Ethane	1000.00	ppmv	1013	101
Propane	1000.00	ppmv	1015	102
Butane	1000.00	ppmv	1018	102
Pentane	1000.00	ppmv	1017	102
Hexane	1000.00	ppmv	1001	100

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/18/98
Time: 12:29

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.91	89
Toluene	10.00	µg/L	8.47	85
Chlorobenzene	10.00	µg/L	10.19	102
Ethylbenzene	10.00	µg/L	8.65	87
Total Xylenes	30.00	µg/L	26.01	87
Vinyl chloride	10.00	µg/L	8.20	82
1,1- Dichloroethene	10.00	µg/L	8.31	83
Trans-1,2-dichloroethene	10.00	µg/L	8.48	85
Cis-1,2-Dichloroethene	10.00	µg/L	8.85	89
Chloroform	10.00	µg/L	10.44	104
1,1,1-Trichloroethane	10.00	µg/L	8.34	83
Trichloroethene	10.00	µg/L	8.77	88
Tetrachloroethene	10.00	µg/L	9.21	92
TPH	1000.00	ppmv	980	98
Methane	5000.00	ppmv	4161	83
Ethane	1000.00	ppmv	933	93
Propane	1000.00	ppmv	940	94
Butane	1000.00	ppmv	945	95
Pentane	1000.00	ppmv	940	94
Hexane	1000.00	ppmv	935	94

Date: 8/18/98
Time: 16:43

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.96	90
Toluene	10.00	µg/L	8.37	84
Chlorobenzene	10.00	µg/L	10.09	101
Ethylbenzene	10.00	µg/L	8.57	86
Total Xylenes	30.00	µg/L	27.07	90
Vinyl chloride	10.00	µg/L	8.45	85
1,1- Dichloroethene	10.00	µg/L	8.19	82
Trans-1,2-dichloroethene	10.00	µg/L	8.54	85
Cis-1,2-Dichloroethene	10.00	µg/L	8.74	87
Chloroform	10.00	µg/L	9.70	97
1,1,1-Trichloroethane	10.00	µg/L	8.34	83
Trichloroethene	10.00	µg/L	8.86	89
Tetrachloroethene	10.00	µg/L	8.95	90
TPH	1000.00	ppmv	818	82
Methane	5000.00	ppmv	4500	90
Ethane	1000.00	ppmv	779	78
Propane	1000.00	ppmv	787	79
Butane	1000.00	ppmv	791	79
Pentane	1000.00	ppmv	800	80
Hexane	1000.00	ppmv	786	79

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/19/98
Time: 6:30

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.98	90
Toluene	10.00	µg/L	8.41	84
Chlorobenzene	10.00	µg/L	10.18	102
Ethylbenzene	10.00	µg/L	8.88	89
Total Xylenes	30.00	µg/L	27.71	92
Vinyl chloride	10.00	µg/L	8.17	82
1,1- Dichloroethene	10.00	µg/L	8.82	88
Trans-1,2-dichloroethene	10.00	µg/L	8.69	87
Cis-1,2-Dichloroethene	10.00	µg/L	9.00	90
Chloroform	10.00	µg/L	8.64	86
1,1,1-Trichloroethane	10.00	µg/L	6.47	65
Trichloroethene	10.00	µg/L	8.76	88
Tetrachloroethene	10.00	µg/L	9.06	91
TPH	1000.00	ppmv	1098	110
Methane	5000.00	ppmv	5042	101
Ethane	1000.00	ppmv	1042	104
Propane	1000.00	ppmv	1059	106
Butane	1000.00	ppmv	1047	105
Pentane	1000.00	ppmv	1049	105
Hexane	1000.00	ppmv	1044	104

Date: 8/19/98
Time: 11:55

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.03	90
Toluene	10.00	µg/L	8.50	85
Chlorobenzene	10.00	µg/L	10.03	100
Ethylbenzene	10.00	µg/L	9.10	91
Total Xylenes	30.00	µg/L	27.40	91
Vinyl chloride	10.00	µg/L	8.91	89
1,1- Dichloroethene	10.00	µg/L	8.03	80
Trans-1,2-dichloroethene	10.00	µg/L	8.76	88
Cis-1,2-Dichloroethene	10.00	µg/L	8.73	87
Chloroform	10.00	µg/L	10.11	101
1,1,1-Trichloroethane	10.00	µg/L	8.81	88
Trichloroethene	10.00	µg/L	8.94	89
Tetrachloroethene	10.00	µg/L	9.71	97
TPH	1000.00	ppmv	1109	111
Methane	5000.00	ppmv	4539	91
Ethane	1000.00	ppmv	1045	105
Propane	1000.00	ppmv	1058	106
Butane	1000.00	ppmv	1061	106
Pentane	1000.00	ppmv	1064	106
Hexane	1000.00	ppmv	1054	105

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/19/98
Time: 17:12

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.37	94
Toluene	10.00	µg/L	8.76	88
Chlorobenzene	10.00	µg/L	10.36	104
Ethylbenzene	10.00	µg/L	9.46	95
Total Xylenes	30.00	µg/L	27.57	92
Vinyl chloride	10.00	µg/L	8.67	87
1,1- Dichloroethene	10.00	µg/L	8.22	82
Trans-1,2-dichloroethene	10.00	µg/L	9.15	92
Cis-1,2-Dichloroethene	10.00	µg/L	9.42	94
Chloroform	10.00	µg/L	11.25	113
1,1,1-Trichloroethane	10.00	µg/L	9.38	94
Trichloroethene	10.00	µg/L	9.33	93
Tetrachloroethene	10.00	µg/L	10.11	101
TPH	1000.00	ppmv	999	100
Methane	5000.00	ppmv	4900	98
Ethane	1000.00	ppmv	1004	100
Propane	1000.00	ppmv	1017	102
Butane	1000.00	ppmv	1023	102
Pentane	1000.00	ppmv	1022	102
Hexane	1000.00	ppmv	991	99

Date: 8/20/98
Time: 6:35

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	9.06	91
Toluene	10.00	µg/L	8.49	85
Chlorobenzene	10.00	µg/L	9.86	99
Ethylbenzene	10.00	µg/L	9.21	92
Total Xylenes	30.00	µg/L	27.61	92
Vinyl chloride	10.00	µg/L	8.93	89
1,1- Dichloroethene	10.00	µg/L	8.21	82
Trans-1,2-dichloroethene	10.00	µg/L	8.84	88
Cis-1,2-Dichloroethene	10.00	µg/L	9.06	91
Chloroform	10.00	µg/L	8.80	88
1,1,1-Trichloroethane	10.00	µg/L	7.37	74
Trichloroethene	10.00	µg/L	8.96	90
Tetrachloroethene	10.00	µg/L	9.05	91
TPH	1000.00	ppmv	943	94
Methane	5000.00	ppmv	5300	106
Ethane	1000.00	ppmv	1066	107
Propane	1000.00	ppmv	1069	107
Butane	1000.00	ppmv	1067	107
Pentane	1000.00	ppmv	1062	106
Hexane	1000.00	ppmv	1026	103

BBC INTERNATIONAL, INC.
HOBBS, NEW MEXICO
QA/QC REPORT

Date: 8/20/98
Time: 10:33

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	µg/L	8.83	88
Toluene	10.00	µg/L	8.31	83
Chlorobenzene	10.00	µg/L	9.95	100
Ethylbenzene	10.00	µg/L	8.88	89
Total Xylenes	30.00	µg/L	27.06	90
Vinyl chloride	10.00	µg/L	7.71	77
1,1- Dichloroethene	10.00	µg/L	8.10	81
Trans-1,2-dichloroethene	10.00	µg/L	8.66	87
Cis-1,2-Dichloroethene	10.00	µg/L	8.77	88
Chloroform	10.00	µg/L	10.79	108
1,1,1-Trichloroethane	10.00	µg/L	8.82	88
Trichloroethene	10.00	µg/L	8.85	89
Tetrachloroethene	10.00	µg/L	8.94	89
TPH	1000.00	ppmv	943	94
Methane	5000.00	ppmv	5021	100
Ethane	1000.00	ppmv	996	100
Propane	1000.00	ppmv	1009	101
Butane	1000.00	ppmv	1012	101
Pentane	1000.00	ppmv	1011	101
Hexane	1000.00	ppmv	995	100

ANALYSES PERFORMED BY: Richard Rodriguez

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: PROJECT MANAGER:

DATE: 7/27/98 PAGE 1 OF
TEG PROJECT #: TS-980727
LOCATION: HOBBS NEW MEXICO
COLLECTOR: TEG DATE OF COLLECTION: 7/27/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Cl	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-13	5'	11:00	VAPOR	5cc SYR	✓	✓		✓		✓										
SV-14	5'	11:25	"	"	—	—		—		—										
SV-15	5'	11:50	"	"	—	—		—		—										
SV-68	5'	1215	"	"	—	—		—		—										
SV-16	5'	1240	"	"	—	—		—		—										
SV-17	5'	1305	"	"	—	—		—		—										
SV-18	5'	1325	"	"	—	—		—		—										
SV-19	5'	1350	"	"	—	—		—		—										
SV-44	5'	1420	"	"	—	—		—		—										
SV-43	5'	1440	"	"	—	—		—		—										
SV-42	5'	15:00	"	"	—	—		—		—										
SV-41	5'	1530	"	"	—	—		—		—										
SV-54	5'	1555	"	"	—	—		—		—										
SV-40	5'	16:20	"	"	—	—		—		—										
SV-55	5'	1640	"	"	—	—		—		—										

RELINQUISHED BY (Signature) DATE/TIME 7/27/98 5:35pm RECEIVED BY (SIGNATURE) DATE/TIME 5:35pm
RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME 7/27/98

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 7/28/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: 13-980727
PHONE: FAX:
LOCATION: HOBBS, NM.
CLIENT PROJECT #: PROJECT MANAGER:
COLLECTOR: TEG
DATE OF COLLECTION: 7/28/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-1	5'	8:30	VAPOR	5cc syr	✓	✓		✓		✓								✓			
SV-2	5'	9:05	"	"	✓	✓		✓		✓								✓			
SV-3	5'	9:45	"	"	✓	✓		✓		✓								✓			
SV-4	5'	10:05	"	"	✓	✓		✓		✓								✓			
SV-5	5'	10:30	"	"	✓	✓		✓		✓								✓			
SV-6	5'	11:00	"	"	✓	✓		✓		✓								✓			
SV-7	5'	11:20	"	"	✓	✓		✓		✓								✓			
SV-8	5'	11:45	"	"	✓	✓		✓		✓								✓			
SV-9	5'	12:05	"	"	✓	✓		✓		-								✓			
SV-10	5'	13:10	"	"	✓	✓		✓		✓								✓			
SV-11	5'	13:35	"	"	✓	✓		✓		✓								✓			
SV-12	5'	14:00	"	"	✓	✓		✓		✓								✓			
SV-HR-20	5'	14:30	"	"	✓	✓		✓		✓								✓			
SV-21	5'	14:45	"	"	✓	✓		✓		✓								✓			
SV-39	5'	15:15	"	"	✓	✓		✓		✓								✓			
SV-53	5'	15:50	"	"	✓	✓		✓		✓								✓			
SV-23B	4.5'	16:40	"	"	✓	✓		✓		✓								✓			

RELINQUISHED BY (Signature) DATE/TIME 7/28/98 5:35 RECEIVED BY (SIGNATURE) DATE/TIME 7/28/98 17:52

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 7/29/98
PAGE 1 OF
ADDRESS: 1324W. Marland P.O.Box 297 Hobbs, NM 88241
TEG PROJECT #: T3-980727
PHONE: (505) 3976388
FAX:
LOCATION: HOBBS, NEW MEXICO
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 7/29/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-22	5'	8:40	VAPOR	5cc syr	✓	✓		✓	✓									✓			
SV-23	5'	9:00	"	"	✓	✓		✓	✓									✓			
SV-24	5'	9:20	"	"	✓	✓		✓	✓									✓			
SV-25	5'	9:50	"	"	✓	✓		✓	✓									✓			
SV-26	5'	10:20	"	"	✓	✓		✓	✓									✓			
SV-52	5'	10:45	"	"	✓	✓		✓	✓									✓			
SV-51	5'	11:10	"	"	✓	✓		✓	✓									✓			
SV-50	5'	11:35	"	"	✓	✓		✓	✓									✓			
SV-49	5'	12:00	"	"	✓	✓		✓	✓									✓			
SV-48	5'	12:50	"	"	✓	✓		✓	✓									✓			
SV-47	5'	13:30	"	"	✓	✓		✓	✓									✓			
SV-46	5'	13:50	"	"	✓	✓		✓	✓									✓			
SV-45	5'	14:15	"	"	✓	✓		✓	✓									✓			
SV-59	5'	14:40	"	"	✓	✓		✓	✓									✓			
SV-58	5'	15:00	"	"	✓	✓		✓	✓									✓			
SV-57	5'	15:30	"	"	✓	✓		✓	✓									✓			
SV-56	5'	15:45	"	"	✓	✓		✓	✓									✓			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
[signature]	7/29/98 5:11PM	[signature]	7/29/98 16:00
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL

DATE: 7/29/93 PAGE 2 OF

ADDRESS:

TEG PROJECT #: 93-980727

PHONE: FAX:

LOCATION: Hobbs, NM.

CLIENT PROJECT #: PROJECT MANAGER:

COLLECTOR: TEG DATE OF COLLECTION: 7/29/93

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 sig # di	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Fe1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-60	5'	1605	VAPOR	5cc syr	/	/		✓	/									/			
SV-61	5'	1630	"	"	—	—		—	—									/			

RELINQUISHED BY (Signature) DATE/TIME 7/29/93 5:15P RECEIVED BY (SIGNATURE) DATE/TIME 7/29/93 700

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

[ ] TEG DISPOSAL/$2.00@ [ ] RETURN [ ] PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL

DATE: 7/30/98

PAGE 1 OF

ADDRESS:

TEG PROJECT #: T3-980727

PHONE: FAX:

LOCATION: HOBBS, NM

CLIENT PROJECT #:

PROJECT MANAGER: CLIFF BRUNSON

COLLECTOR: TEG

DATE OF COLLECTION: 7/29 & 7/30/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Cl-Cl6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-27	5'	845	VAPOR	5cc SYR.	/	/		/	/									/			
SV-28	5'	910	"	"	—	—		—	—									—			
SV-29	5'	933	"	"	—	—		—	—									—			
SV-30	5'	1000	"	"	—	—		—	—									—			
SV-31	5'	1025	"	"	—	—		—	—									—			
SV-33	5'	1050	"	"	—	—		—	—									—			
SV-32	5'	1115	"	"	—	—		—	—									—			
SV-34	5'	1140	"	"	—	—		—	—									—			
SV-35	5'	1200	"	"	—	—		—	—									—			
SV-36	5'	1305	"	"	—	—		—	—									—			
SV-37	5'	1330	"	"	—	—		—	—									—			
SV-38	5'	1355	"	"	—	—		—	—									—			
SV-62	5'	1415	"	"	—	—		—	—									—			
SV-63	5'	1440	"	"	—	—		—	—									—			
SV-64	5'	1500	"	"	—	—		—	—									—			
SV-65	5'	1525	"	"	—	—		—	—									—			
SV-66	5'	1550	"	"	—	—		—	—									—			

RELINQUISHED BY (Signature) DATE/TIME 7/30/98 5:30 PM RECEIVED BY (SIGNATURE) DATE/TIME 7/30/98 15:50

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL

DATE: 7/30/98 PAGE 2 OF

ADDRESS:

TEG PROJECT #: 73-980727

PHONE: FAX:

LOCATION: Hobbs, NM

CLIENT PROJECT #: PROJECT MANAGER:

COLLECTOR: TEG DATE OF COLLECTION: 7/30/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (jet fuel)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-79	5'	1610	VAPOR	5cc syr	/	/		/		/								/			
SV-78	5'	1635	"	"	/	/		/		/								/			
SV-77	5'	1700	"	"	/	/		/		/								/			

RELINQUISHED BY (Signature) DATE/TIME 7/14/98 5:30p RECEIVED BY (SIGNATURE) DATE/TIME 7/30/98 1700

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE RECEIPT

Total No. of Containers

Seals Intact? Y/N/NA

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 7/31/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: T3-980727
PHONE: FAX:
LOCATION: Hobbs, NM
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 7/31/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-76	5'	8:40	VAPOR	5cc SYR	✓	✓		✓		✓								✓			
SV-75	5'	9:00	"	"	✓	✓		✓		✓								✓			
SV-74	5'	9:20	"	"	✓	✓		✓		✓								✓			
SV-73	5'	9:40	"	"	✓	✓		✓		✓								✓			
SV-92	5'	10:05	"	"	✓	✓		✓		✓								✓			
SV-91	5'	10:30	"	"	✓	✓		✓		✓								✓			
SV-90	5'	10:50	"	"	✓	✓		✓		✓								✓			
SV-89	5'	11:15	"	"	✓	✓		✓		✓								✓			
SV-80	5'	11:40	"	"	✓	✓		✓		✓								✓			
SV-87	5'	1340	"	"	✓	✓		✓		✓								✓			
SV-86	5'	1405	"	"	✓	✓		✓		✓								✓			
SV-85	5'	1420	"	"	✓	✓		✓		✓								—			
SV-84	5'	1450	"	"	✓	✓		✓		✓								✓			
SV-83	5'	1510	"	"	✓	✓		✓		✓								✓			
SV-82	5'	1530	"	"	✓	✓		✓		✓								✓			

RELINQUISHED BY (Signature) DATE/TIME 7/31/98 4:30p RECEIVED BY (SIGNATURE) DATE/TIME

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL.
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON.

DATE: 8/3/98 PAGE 1 OF
TEG PROJECT #: T3-980727
LOCATION: HOBBS, NM.
COLLECTOR: TEG
DATE OF COLLECTION: 8/3/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-164	5'	8:30	VAPOR	5CC SYR	✓	✓		✓	✓									✓			
SV-167	5'	9:00	"	"	—	—		—	—									—			
SV-173	5'	9:20	"	"	—	—		—	—									—			
SV-181A	5'	9:55	"	"	—	—		—	—									—			
SV-181	5'	10:20	"	"	—	—		—	—									—			
SV-192	5'	11:00	"	"	—	—		—	—									—			
SV-194 (195 in)	5'	11:40	"	"	—	—		—	—									—			
SV-206	5'	11:55	"	"	—	—		—	—									—			
SV-209	5'	13:30	"	"	—	—		—	—									—			
SV-220	5'	14:00	"	"	—	—		—	—									—			
SV-222	5'	14:20	"	"	—	—		—	—									—			
SV-234	5'	14:50	"	"	—	—		—	—									—			
SV-233	5'	15:50	"	"	—	—		—	—									—			
SV-223	5'	16:05	"	"	—	—		—	—									—			
SV-191	5'	16:35	"	"	—	—		—	—									—			

RELINQUISHED BY (Signature) DATE/TIME 8/3/98 5:51pm RECEIVED BY (SIGNATURE) DATE/TIME 8/3/98 16:35
RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE RECEIPT
Total No. of Containers
Seals Intact? Y/N/NA

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON

DATE: 8/4/98 PAGE 1 OF
TEG PROJECT #: T3-980727
LOCATION: HOBBS, NM
COLLECTOR: TEG DATE OF COLLECTION: 8/4/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-205	5'	850	VAPOR	5cc SYR	✓	✓		✓		✓								✓			
SV-210	5'	930	"	"	✓	✓		✓		✓								✓			
SV-196	5'	9:55	"	"	✓	✓		✓		✓								✓			
SV-191A	5'	10:20	"	"	✓	✓		✓		✓								✓			
SV-191	5'	10:45	"	"	✓	✓		✓		✓								✓			
SV-191B	5'	11:15	"	"	✓	✓		✓		✓								✓			
SV-191C	6'	11:40	"	"	✓	✓		✓		✓								✓			
SV-191D	5'	12:10	"	"	✓	✓		✓		✓								✓			
SV-182	5'	1345	"	"	✓	✓		✓		✓								✓			
SV-177	5'	1420	"	"	✓	✓		✓		✓								✓			
SV-168	5'	14:45	"	"	✓	✓		✓		✓								✓			
SV-163	5'	1510	"	"	✓	✓		✓		✓								✓			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
[signature]	8-4-98 15:43	[signature]	8/4/98 15:30
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 8/5/98 PAGE 1 OF
ADDRESS:
TEG PROJECT #: T3-980727
PHONE: FAX:
LOCATION: HOBBS, NM
CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG DATE OF COLLECTION: 8/5/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-154	5'	7:50	VAPOR	5cc syR.	✓	✓		✓		✓								✓			
SV-153	5'	9:10	"	"	✓	✓		✓		✓								✓			
SV-152	5'	9:45	"	"	✓	✓		✓		✓								✓			
SV-165	5'	10:10	"	"	✓	✓		✓		✓								✓			
SV-166	5'	10:35	"	"	✓	✓		✓		✓								✓			
SV-179	5'	11:05	"	"	✓	✓		✓		✓								✓			
SV-180	5'	11:30	"	"	✓	✓		✓		✓								✓			
SV-193	5'	12:00	"	"	✓	✓		✓		✓								✓			
SV-194	5'	1330	"	"	✓	✓		✓		✓								✓			
SV-207	5'	14:05	"	"	✓	✓		✓		✓								✓			
SV-208	5'	14:40	"	"	✓	✓		✓		✓								✓			
SV-221	5'	15:20	"	"	✓	✓		✓		✓								✓			
SV-235	5'	15:50	"	"	✓	✓		✓		✓								✓			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
	8/5/98 5:00pm		8/5/98 15:55
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: RBC INTERNATIONAL

ADDRESS:

PHONE: FAX:

CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON

DATE: 8/6/98 PAGE 1 OF

TEG PROJECT #: T3-980727

LOCATION: HOBBS, NM

COLLECTOR: TEG DATE OF COLLECTION: 8/6/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Cl-Cl	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-236	5'	8:55	VApor	5cc SYR	✓	✓		✓	✓									✓			
SV-225	5'	9:25	"	"	—	—		—	—									—			
SV-217	5'	9:50	"	"	—	—		—	—									—			
SV-212	5'	10:20	"	"	—	—		—	—									—			
SV-203	5'	10:45	"	"	—	—		—	—									—			
SV-198	5'	11:10	"	"	—	—		—	—									—			
SV-128 (139 ARR)	5'	11:40	"	"	—	—		—	—									—			
SV-121	5'	13:40	"	"	—	—		—	—									—			
SV-175	5'	1405	"	"	—	—		—	—									—			
SV-170	5'	1430	"	"	—	—		✓	✓									✓			
SV-161	5'	1510	"	"	—	—		—	—									✓			
SV-156	5'	1545	"	"	✓	—		—	—									—			

RELINQUISHED BY (Signature) DATE/TIME 8/6/98 4:20 pm RECEIVED BY (SIGNATURE)

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME 8/6/98 1545

SAMPLE DISPOSAL INSTRUCTIONS:

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	

Laboratory Notes:

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 8/7/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: T3-980727
PHONE: FAX:
LOCATION: Hobbs, NM
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 8/7/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 Gasoline	TPH 8015 Diesel	TPH 8015 Sig # 4	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-226	5'	8:40	VAPOR	5cc SYR	✓	✓		✓	✓	✓								✓			
SV-216	5'	9:00	"	"	—	—		—	—	—								✓			
SV-213	5'	9:25	"	"	—	—		—	—	—								—			
SV-202	5'	9:50	"	"	—	—		—	—	—								—			
SV-199	5'	10:20	"	"	—	—		—	—	—								—			
SV-188	5'	11:00	"	"	—	—		—	—	—								—			
SV-185	5'	11:25	"	"	—	—		—	—	—								—			
SV-174	5'	13:20	"	"	—	—		—	—	—								—			
SV-171	5'	14:05	"	"	—	—		—	—	—								—			
SV-160	5'	14:35	"	"	—	—		—	—	—								—			
SV-157	5'	15:05	"	"	—	—		—	—	—								—			
SV-146	5'	15:30	"	"	—	—		—	—	—								—			
SV-143	5'	15:50	"	"	—	—		—	—	—								—			

RELINQUISHED BY (Signature) — DATE/TIME 8/7/98 5:00p — RECEIVED BY (SIGNATURE) — DATE/TIME 8/7/98 17:00

RELINQUISHED BY (Signature) — DATE/TIME — RECEIVED BY (SIGNATURE) — DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 8/10/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: TJ-980727
PHONE: FAX:
LOCATION: HOBBS, NM
CLIENT PROJECT #: PROJECT MANAGER:
COLLECTOR: TEG
DATE OF COLLECTION: 8/10/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Cl-Cl6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-228	5'	9:00	VAPOR	5cc syr	✓	✓		✓		✓								✓			
SV-158	5'	9:30	"	"	—	—		—		—								—			
SV-159	2'	10:15	"	"	—	—		—		—								—			
SV-172	5'	1045	"	"	—	—		—		—								—			
SV-173	5'	11:10	"	"	—	—		—		—								✓			
SV-186	5'	11:40	"	"	—	—		—		—								—			
SV-187	5'	13:55	"	"	—	—		—		—								—			
SV-200	5'	14:20	"	"	—	—		—		—								—			
SV-201	5'	1445	"	"	—	—		—		—								—			
SV-214	5'	1515	"	"	—	—		—		—								—			
SV-215	5'	1545	"	"	—	—		—		—								—			
SV-227	5'	1615	"	"	—	—		—		—								—			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
	8/10/98 5:00pm		8/10/98 16:15
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL | DATE: 8/11/98 | PAGE 1 OF

ADDRESS: | TEG PROJECT #: T3-980727

PHONE: | FAX: | LOCATION: HOSS, NM

CLIENT PROJECT #: | PROJECT MANAGER: CLIFF BRUNSON | COLLECTOR: TEG | DATE OF COLLECTION: 8/11/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 Sig fig #1	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	Cl-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-138	5'	8:25	VAPOR	SCC SYR.	✓	✓		✓	✓								✓				
SV-97	5'	8:50	"	"	—	—		—	—								—				
SV-98	5'	9:15	"	"	—	—		—	—								—				
SV-112	5'	9:40	"	"	—	—		—	—								—				
SV-113	5'	10:05	"	"	✓	—		—	—								—				
SV-120	5'	10:30	"	"	✓	—		—	—								—				
SV-121	5'	11:00	"	"	✓	—		—	✓								—				
SV-128	5'	11:25	"	"	—	—		✓	—								—				
SV-129	5'	11:55	"	"	✓	✓		✓	—								—				
SV-136	5'	13:30	"	"	—	—		—	—								—				
SV-137	5'	14:00	"	"	✓	✓		✓	—								—				
SV-144	5'	14:30	"	"	✓	✓		✓	—								✓				
SV-145	5'	14:55	"	"	✓	—		—	—								—				
SV-155	5'	15:15	"	"	✓	—		—	—								—				
SV-162	5'	15:45	"	"	—	—		—	—								—				
SV-169	5'	16:10	"	"	✓	✓		—	—								—				

RELINQUISHED BY (Signature) | DATE/TIME 8/14/98 5:00p | RECEIVED BY (SIGNATURE) | DATE/TIME 15:30

RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (SIGNATURE) | DATE/TIME 8/16/98

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL | DATE: 8/12/98 | PAGE 1 OF

ADDRESS: | TEG PROJECT #: T3-980727

PHONE: | FAX: | LOCATION: HOBBS, NM

CLIENT PROJECT #: | PROJECT MANAGER: CLIFF BRUNSON | COLLECTOR: TEG | DATE OF COLLECTION: 8/12/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (lg & di)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-176	5'	8:30	VAPOR	6cc SYR	✓	✓		✓		✓								✓			
SV-183	5'	9:00	"	"	—	—		—		—								—			
SV-190	5'	9:25	"	"	—	—		—		—								✓			
SV-197	5'	9:50	"	"	—	—		—		—								—			
SV-204	5'	10:15	"	"	—	—		—		—								—			
SV-211	5'	10:45	"	"	—	—		—		—								—			
SV-218	5'	11:15	"	"	—	—		—		—								—			
SV-224	5'	11:45	"	"	—	—		—		—								—			
SV-237	5'	13:20	"	"	—	—		—		—								—			
SV-232	5'	13:50	"	"	—	—		—		—								—			
SV-231	5'	14:15	"	"	—	—		—		—								—			
SV-230	5'	14:40	"	"	—	—		—		—								—			
SV-229	5'	15:05	"	"	—	—		—		—								—			
SV-96	5'	15:30	"	"	—	—		—		—								—			
SV-99	5'	1600	"	"	—	—		—		—								—			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
[signature]	8/12/98 5:10 pm	[signature]	8/12/98 16:00
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL

DATE: 8/13/98 PAGE 1 OF

ADDRESS:

TEG PROJECT #: T3-980727

PHONE: FAX:

LOCATION: HOBBS, NM.

CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON

COLLECTOR: TEG DATE OF COLLECTION: 8/13/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-103	5'	8:50	VAPOR	5cc SYR.	✓	✓		✓	✓									✓			
SV-106	5'	9:15	"	"	✓	✓		✓	✓									✓			
SV-111	5'	9:40	"	"	✓	✓		✓	✓									✓			
SV-114	5'	10:00	"	"	✓	✓		✓	✓									✓			
SV-119	5'	10:30	"	"	✓	✓		✓	✓									✓			
SV-122	5'	10:55	"	"	✓	✓		✓	✓									✓			
SV-127	5'	11:30	"	"	✓	✓		✓	✓									✓			
SV-130	5'	13:05	"	"	✓	✓		✓	✓									✓			
SV-135	5'	13:35	"	"	✓	✓		✓	✓									✓			
SV-195	5'	14:00	"	"	✓	✓		✓	✓									✓			
SV-100	5'	14:20	"	"	✓	✓		✓	✓									✓			
SV-102	5'	14:55	"	"	✓	✓		✓	✓									✓			
SV-107	5'	15:15	"	"	✓	✓		✓	✓									✓			
SV-110	5'	15:40	"	"	✓	✓		✓	✓									✓			
SV-115	5'	1600	"	"	✓	✓		✓	✓									✓			

RELINQUISHED BY (Signature) DATE/TIME 8/13/98 1600 RECEIVED BY (SIGNATURE) DATE/TIME 8/13/98 1610

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTL.
DATE: 8/14/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: 73-980727
PHONE: FAX:
LOCATION: Hobbs, NM.
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BROWNSON
COLLECTOR: TEG
DATE OF COLLECTION: 8/14/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-118	5'	8:30	VAPOR	5CC SYR	✓	✓		✓	✓									✓			
SV-123	5'	8:55	"	"	✓	✓		✓	✓									✓			
SV-128	5'	9:15	"	"	✓	✓		✓	✓									✓			
SV-131	5'	9:36	"	"	✓	✓		✓	✓									✓			
SV-134	5'	10:00	"	"	✓	✓		✓	✓									✓			
SV-139	5'	10:25	"	"	✓	✓		✓	✓									✓			
SV-94	5'	10:50	"	"	✓	✓		✓	✓									✓			
SV-93	5'	11:15	"	"	✓	✓		✓	✓									✓			
SV-101	5'	13:20	"	"	✓	✓		✓	✓									✓			
SV-108	5'	1350	"	"	✓	✓		✓	✓									✓			
SV-109	5'	14:15	"	"	✓	✓		✓	✓									✓			
SV-116	5'	14:40	"	"	✓	✓		✓	✓									✓			
SV-117	5'	1505	"	"	✓	✓		✓	✓									✓			
SV-124	5'	1530	"	"	✓	✓		✓	✓									✓			
SV-125	5'	1535	"	"	✓	✓		✓	✓									✓			
SV-132	5'	16:15	"	"	✓	✓		✓	✓									✓			

RELINQUISHED BY (Signature): Cliff Brownson — DATE/TIME: 8/14/98 5:26pm — RECEIVED BY (SIGNATURE): [signature] — DATE/TIME: 8/14/98 16:15

RELINQUISHED BY (Signature) — DATE/TIME — RECEIVED BY (SIGNATURE) — DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
DATE: 8/17/98
PAGE 1 OF
ADDRESS:
TEG PROJECT #: T3-980727
PHONE: FAX:
LOCATION: Hobbs, NM
CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 8/17/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
TSV I	7'	9:40	VAPOR	SCC	✓	✓		✓	✓									✓			
TSV M	5'	10:15	"	"	✓	✓		✓	✓									✓			
TSV N	5'	10:45	"	"	✓	✓		✓	✓									✓			
TSV G	5'	11:30	"	"	✓	✓		✓	✓									✓			
TSV H	5'	11:55	"	"	✓	✓		✓	✓									✓			
TSV F	5'	13:15	"	"	✓	✓		✓	✓									✓			
TSV E	5'	1345	"	"	✓	✓		✓	✓									✓			
TSV D	5'	1405	"	"	✓	✓		✓	✓									✓			
TSV C	5'	1430	"	"	✓	✓		✓	✓									✓			
TSV B	5'	1500	"	"	✓	✓		✓	✓									✓			
TSV L	5'	1550	"	"	✓	✓		✓	✓									✓			
TSV K	5'	16:50	"	"	✓	✓		✓	✓									✓			
TSV A	5'	16:40	"	"	✓	✓		✓	✓									✓			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
	8/17/98 5:15 pm		8/17/98 16:40
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

[ ] TEG DISPOSAL/$2.00@ [ ] RETURN [ ] PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL | DATE: 8/18/98 | PAGE 1 OF

ADDRESS: | TEG PROJECT #: T3-980727

PHONE: | FAX: | LOCATION: HOBBS, NM

CLIENT PROJECT #: | PROJECT MANAGER: CLIFF BRUNSON | COLLECTOR: TEG | DATE OF COLLECTION: 8/18/98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 Sig. Diesel	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
TSV J	~~8'~~ 7'	~~8:30~~ 8:30	VAPOR	5CC SYR	✓	✓		✓	✓	✓								✓			
TSV P	1'	8:55	"	"	—	—		—	—	—								—			
TSV O	1'	9:55	"	"	—	—		—	—	—								—			
TSV Q	1'	10:20	"	"	—	—		—	—	—								—			
SV-104	5'	10:45	"	"	—	—		—	—	—								—			
SV-105	5'	11:10	"	"	—	—		—	—	—								—			
SV-147	5'	11:30	"	"	—	—		—	—	—								—			
SV-142	5'	12:00	"	"	—	—		—	—	—								—			
SV-148	5'	13:25	"	"	—	—		—	—	—								—			
SV-141	5'	13:50	"	"	—	—		—	—	—								—			
SV-140	5'	14:15	"	"	—	—		—	—	—								—			
SV-139	5'	14:40	"	"	—	—		—	—	—								—			
SV-167	5'	1500	"	"	—	—		—	—	—								—			
SV-151	5'	1530	"	"	—	—		—	—	—								—			
SV-150	5'	1555	"	"	—	—		—	—	—								—			

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
[signature]	8/18/98 5:00 pm	[signature]	8/18/98 16:20
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INTERNATIONAL
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON

DATE: 8/19/98 PAGE 1 OF
TEG PROJECT #: T3-980727
LOCATION: Hobbs, NM
COLLECTOR: TEG DATE OF COLLECTION: 8/19/98.

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (C8 & C)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	CL-66	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-239	5'	8:20	VAPOR	6cc SYR.	✓	✓		✓	✓									✓			
SV-240	5'	8:45	"	"	—	—		—	—									—			
SV-149	5'	9:15	"	"	—	—		—	—									—			
SV-80	5'	9:25	"	"	—	—		—	—									—			
SV-81	5'	10:00	"	"	—	—		—	—									—			
SV-69	5'	10:20	"	"	—	—		—	—									—			
SV-70	5'	10:40	"	"	—	—		—	—									—			
SV-71	5'	11:05	"	"	—	—		—	—									—			
SV-72	5'	11:25	"	"	—	—		—	—									—			
TSV S	5'	14:00	"	"	—	—		—	—									—			
TSV V	5'	14:45	"	"	—	—		—	—									—			
TSV R	5'	15:10	"	"	—	—		—	✓									—			
TSV Y	5'	1600	"	"	—	—		—	—									—			
TSV Z	5'	16:40	"	"	—	—		—	—									—			
TSV U	5'	15:20	"	"	—	—		—	—									—			

RELINQUISHED BY (Signature): [signature] DATE/TIME: 8/19/98 5:00pm RECEIVED BY (SIGNATURE): [signature] DATE/TIME: 8/19/98 17:00

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ ☐ RETURN ☐ PICKUP

MMP 11/95

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 7/27/98 TEG Project #: _____ Client: BBC/SHELL Hobbs, N.M

Job Location: Location	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 13	5'	5'	1055	60cc	NA	NA	BENTONITE FILL.
14	5'	5'	1125	"	"	"	"
15	5'	5'	1150	60cc	"	"	"
68	5'	5'	1215	"	"	"	"
16	5'	5'	1235	"	"	"	"
17	5'	5'	1300	"	"	"	"
18	5'	5'	1315	1325	"	"	"
19	5'	5'	1349	"	"	"	"
44	5	5	1416	"	"	"	"
43	5	5	1440	"	"	"	"
42	5	5	1500	"	"	"	"
41	5	5	1526	"	"	"	"
54	5	5	1553	"	"	"	"
40	5	5	1610	"	"	"	
55	5	5	1635	"	"	"	"

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 7/28/98 TEG Project #: [illegible] Purge 600cc small Client: BBC/SHELL Hobbs, N

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 1	5'	5'	0820	600cc	NA	NA	BENTONITE FILL
SV 2	5'	5'	0855	"	"	"	"
" 3	5'	5'	0935	0935	"	"	"
" 4	5'	5'	0950	1010	"	"	"
" 5	5'	5'	1020	1030	"	"	"
" 6	5'	5'	1040	1100	"	"	"
" 7	5'	5'	1110	1120	"	"	"
8	5'	5'	1130	1145	"	"	"
9	5'	5'	1150	1245	"	"	"
10	5'	5'	1305	1310	"	"	"
11	5'	5'	1315	1330	"	"	"
12	5'	5'	1335	1400	"	"	"
20	5'	5'	1415	1435	"	"	"
21	5	5	1480	1445	"	"	"
39	5'	5'	1510	1515	"	"	8' below grade on pit
53	5'	5'	1525	1545	"	"	8' below grade
238	4½	4½	1550	1635	"	"	12' below grade

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 7/29/98 TEG Project #: _____ Client: BBC/SHELL HOBBS, N.M.

Job Location: Location	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 22	5'	5'	0835	60CC	NA	NA	BENTONITE FILL
23	5'	5'	0845	"	"	"	"
24	5'	5'	0925	"	"	"	"
25	5'	5'	0950	"	"	"	"
26	5'	5'	1025	"	"	"	"
52	5'	5'	1045	"	"	"	"
51	5'	5'	1105	"	"	"	"
50	5'	5'	1135	"	"	"	"
49	5'	5'	1200	"	"	"	"
48	5'	5'	1305	"	"	"	"
47	5'	5'	1330	"	"	"	"
46	5'	5'	1349	"	"	"	"
45	5'	5'	1415	"	"	"	"
59	5'	5'	1445	"	"	"	"
58	5'	5'	1500	"	"	"	"
57	5'	5'	1520	"	"	"	"
56	5'	5'	1550	"	"	"	"
60	5'	5'	1615				
61	5'	5'	1630				

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 7/30/98 TEG Project #: _____ Client: BBC/SHELL HOBBS, N.M.

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 27	5'	5'	0845	60cc	NA	NA	BENTONITE FILL
28	5'	5'	0910	"	"	"	"
29	5'	5'	0935	"	"	"	"
30	5'	5'	0950	"	"	"	"
31	5'	5'	1025	"	"	"	"
33	5'	5'	1045	"	"	"	"
32	5'	5'	1115	"	"	"	"
34	5	5	1140	"	"	"	"
35	5	5	1205	"	"	"	"
36	5	5	1225	"	"	"	"
37	5'	5'	1330	"	"	"	"
38	5'	5'	1355	"	"	"	"
62	5'	5'	1420	"	"	"	"
63	5'	5'	1440	"	"	"	"
64	5'	5'	1505	"	"	"	"
65	5'	5'	1525	"	"	"	"
66	5'	5'	1550	"	"	"	"
79	5'	5'	1610	"	"	"	"
78	5'	5'	1640	"	"	"	"
77	5'	5'	1700	"	"	"	"

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of ____

Date: 7/31/98 TEG Project #: _____ Client: BBC/SHELL HOBBS, NM

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 76	5'	5'	0835	600cc	NA	NA	SOFT/VOIDS
75	5'	5'	0900	"	"	"	
74	5'	5'	0920	"	"	"	
73	5'	5'	0940	"	"	"	
92	5'	5'	1005	"	"	"	
91	5'	5'	1030	"	"	"	
90	5'	5'	1050	"	"	"	
89	5'	5'	1115	"	"	"	
88	5'	5'	1140	"	"	"	
87	5'	5'	1345	"	"	"	
86	5'	5'	1410	"	"	"	
85	5'	5'	1430	"	"	"	
84	5'	5'	1450	"	"	"	
83	5'	5'	1505				
82	5'	5'	1530				

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of ____

Date: 8/3/98 TEG Project #: _____ Client: BBC

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 164	5'	5'	0835	60cc	NA	NA	CONTINUITY TEST on all BENTONITE FILL
167	5'	5'	0900	"	"	"	"
178	5'	5'	0925	"	"	"	LOT 71 LOT 70 INACCESSABL
181A	5'	5'	1000	"	"	"	LOT 69
192	5'	5'	1045	"	"	"	Lot 67 Finish S. Side of lot 66
181	5'	5'	1025	"	"	"	
195	5'	5'	1135	"	"	"	
206	5'	5'	1205	"	"	"	
209	5'	5'	1335	"	"	"	
220	5'	5'	1355	"	"	"	[redacted]
222	5'	5'	1425				N. END of LOT 60 1617
234	5'	5'	1450				
233	5'	5'	1545				
223	5'	5'	1610				to Center of LOT 56 (1620)
219	5'	5'	1635				LOT 55 WAS DRILLED IN LOT 54 (1610)

Comments:

TEG - TEXAS
FIELD LOG

Page ____ of ____

Date: 8/4/98 TEG Project #: _____ Client: BBC/SHELL HOBBS

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 205	5'	5'	0855	60CC	NA	NA	COLLECTED UTILITY TEST HOLE TO FILL BOTTOM TO BE FILL (1600)
210	5	5'	0925	"	"	"	LOT 53 WAS DRILLED LOT 51 (1520)
196	5'	5'	955	"	"	"	(1514)
191A	5'	5'	1025	"	"	"	LOT 49 1510
191	5'	5'	1045	"	"	"	1506
191B	5'	5'	1115	"	"	"	BETWEEN LOT 49 & 48 1510-1506 REAR
191C	5'	5'	1145	"	"	"	" CENTER
191D	5'	5'	1205	"	"	"	" EDGE FRONT OF WELL
182	5'	5'	1350	"	"	"	1500
177	5'	5'	1420	"	"	"	1414
168	5'	5'	1445	"	"	"	1410
163	5'	5'	1515	"	"	"	1400

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of ____

Date: 8/5/98 TEG Project #: _____ Client: BBC/SHELL 46663, N.

Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV154	5	5'	0910	60CC	NA	NA	COMMODITY TEST BENTONITE FILL
153	5'	5'	0920	"	"	"	1341
152	5'	5'	0945	"	"	"	
165	5'	5'	1015	"	"	"	
166	5'	5'	1045	"	"	"	
179	5'	5'	1105	"	"	"	
180	5'	5'	1130	"	"	"	
193	5'	5'	1200 1145	"	"	"	
194	5'	5'	1330	"	"	"	
207	5'	5'	1400	"	"	"	
208	5'	5'	1445	"	"	"	
221	5'	5'	1520	"	"	"	
235	5'	5'	1550	"	"	"	

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/6/98 TEG Project #: _____ Client: BBC/SHELL Hobbs, N.

Location Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 236	5'	5'	0900	6000	N/A	N/A	CONTINUE TO TEST BENTONITE FILL
225	5'	5'	0925	"	"	"	PUSH TO 5' 162T TASKER
217	5'	5'	0955	"	"	"	PUSH TO 41 1615 TASKER
212	5'	5'	1020	"	"	"	BETWEEN DRIVES 1605-1611 LOT 27 1605
203	5'	5'	1050	"	"	"	VOIDS - 4" DROP @ 41 1601
198	5'	5'	1115	"	"	"	PUSH TO 5' 1523
189	5'	5'	1150	"	"	"	PUSH TO 5 1517
184	5'	5'	1340	"	"	"	V. Hard 1509
175	5'	5'	1405	"	"	"	V. Hard 1425
170	5'	5'	1435	"	"	"	1419
161	5'	5	1510	"	"	"	X7 - V hard 1409
156	5'	5'	1545	"	"	"	V. Hard 1401

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/7/98 TEG Project #: _____ Client: BBC/SHELL Hobbs, N.M.

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV226	5'	5'	0845	60CC	NA	NA	CONTINUITY TEST BENTONITE FILL 1620 PUSH TO 5'
216	5'	5'	0915	60CC	"	"	PUSH TO 5 1616 TRASKER
213	5'	5'	0940	"	"	"	PUSH TO 5 1608
202	5'	5'	1010	"	"	"	
199	5'	5'	1035	"	"	"	1522
188	5'	5	1105	"	"	"	1514
185	5'	5'	1140	"	"	"	1508-1504
174	5'	5'	1330	"	"	"	1500
171	5'	5'	1415	"	"	"	V hand @1' 1418 S. Corner
160	5'	5'	1435	"	"	"	V Hand X3 DRILLED LOT 3 1406 TRASKER
157	5'	5'	1510	"	"	"	1400
146	5'	5'	1535	"	"	"	1330
143	5'	5'	1550	"	"	"	PUSH TO 5 7326 TRASKER

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 10/10/98 TEG Project #: _____ Client: BBC/SHELL HOBBS, NM

Location Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 228	5'	5'	0905	60CC	NA	NA	CONDUCTIVITY TEST BENTONITE
~~158~~	5'	5'	0930	"	"	"	(ODOR - GAS?)
159	5'	2'	1020	"	"	"	REFUSAL @ 2' X 5
172	5'	5'	1050	"	"	"	V Hand
173	5'	5'	1100	"	"	"	
186	5'	5'	1145	"	"	"	
187	5'	5'	1355	"	"	"	
200	5'	5'	1425	"	"	"	
201	5'	5'	1455	"	"	"	POOR 4 TO 5'
214	5'	5'	1520	"	"	"	
215	5'	5'	1550	"	"	"	
227	5'	5'		"	"	"	(ALL NEW PTS GPS)

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/11/98 TEG Project #: _____ Client: BBC/SHELL

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 138	5'	5'	0830	60cc	NA	NA	CONTINUITY TEST BENTONITE FILL
97	5'	5'	0855	"	"	"	"
98	5'	5'	0920	"	"	"	
112	5'	5'	0945	"	"	"	
113	5'	5'	1015	"	"	"	
120	5'	5'	1045	"	"	"	
121	5'	5'	1105	"	"	"	
128	5'	5'	1130	"	"	"	
129	5'	5'	1155	"	"	"	
136	5'	5'	1325	"	"	"	
137	5'	5'	1355	"	"	"	
144	5'	5'	1430	"	"	"	
145	5'	5'	1450	"	"	"	
155	5'	5'	1515	"	"	"	
162	5'	4'	1540	"	"	"	refusal @ 4
169	5'	5'		"	"	"	"

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/12/98 TEG Project #: _____ Client: BBC

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 176	5'	5'	0830	60CC	NA	NA	CONTINUITY TEST BENTONITE PLUG
183	5'	5'	0855	60CC	NA	NA	
190	5'	5'	0925	"	"	"	
197	5'	5'	0950	"	"	"	
204	5'	5'	1025	"	"	"	
211	5'	5	1050	"	"	"	PUSHED S
218	5'	5	1105	"	"	"	SAT
224	5'	5'	1145	"	"	"	
237	5'	5'	1320	"	"	"	
232	5'	5'	1345	"	"	"	
231	5'	5'	1415	"	"	"	
230	5'	5'	1420	"	"	"	
229	5'	5'	1510	"	"	"	
96	5'	5'	1535	"	"	"	
99	5'	5'	~~1600~~	"	"	"	

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/13/98 TEG Project #: P Client: BBC SHELL

Location Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV103	5'	5'	~~0850~~	60 CC	NA	NA	CONTINUITY TEST BENTONITE FILL
106	5'	5'	0915	"	"	"	~~1206~~
111	5'	5'	0940	"	"	"	1206
114	5'	5'	1005	"	"	"	~~1214~~ 1214 TRACKER
119	5'	5'	1030	"	"	"	~~1218~~ 1218 TR.
122	5'	5'	1055	"	"	"	~~1224~~ 1224 TR.
~~127~~	5'	5'	1140	"	"	"	~~1225~~ 1232 TR.
130	5'	5'	1310	"	"	"	1304 Tracker
135	5'	5'	1345	"	"	"	1312 Tracker
95	5'	5'	1400	"	"	"	
100	5'	5'	1425	"	"	"	
102	5'	5'	1445	"	"	"	
107	5'	5'	1515	"	"	"	
110	5'	5'	1540	"	"	"	
115	5'	5'	1605	"	"	"	

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/14/98 TEG Project #: _____ Client: BBC/Shell Hobbs N.M

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV 118	5'	5'	0830	60cc	NA	NA	CONDUCTIVITY TEST BENTONITE FILL
123	5'	5'	0850	"	"	"	2ND OF FIRE HYDRANT N OF LAUGHLIN LOT 22C SE CORNER
128	5'	5'	0915	"	"	"	
131	5'	5'	0940	"	"	"	
134	5'	5'	1000	"	"	"	
139	5'	5'	1030	"	"	"	
94	5'	5'	1055	"	"	"	
93	5'	5'	1120	"	"	"	
101	5'	5'	1325	"	"	"	"
108	5'	5'	1350	"	"	"	
109	5'	5'	~~1420~~ [illegible]	"	"	"	
116	5'	5'	1445	"	"	"	
117	5'	5'	0505	"	"	"	
124	5'	5'	1530	"	"	"	
125	5'	5'	1555	"	"	"	
132	5'	5'	1620				

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of ____

Date: 8/17/98 TEG Project #: _____ Client: BBC

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV I	7'	7'	0935	60CC	NA	NA	CONT. TO 7' - SOLID TO 7' PUSH TO 7' X2
M	5'	5'	1015	"	"	"	normal
N	5'	5'	1045	"	"	"	Push to 5
G	5'	5'	1130	"	"	"	SOFT 1'-5'
H	5'	5'	1155	"			normal
F	5'	5'	1315	"	"	"	normal
E	5'	5'	1345	"	"	"	Push to 4
D	5'	5'	1405	"	"	"	normal
C	5'	5'	1435	"	"	"	"
B	5'	5'	1510	"	"	"	"
L	5'	5'	1550	"	"	"	"
K	5'	5'	1610	"	"	"	"
A	7'	7'	1640	"	"	"	"

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/18/98 TEG Project #: _____ Client: BBC

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
TSV J	7'	7'	0825	60cc			
P	1'	1'	0920				
O	1'	1'	0955				
Q	1'	1'	1020				
SV104	5'	5'	1045				
105	5'	5'	1105				
147	5'	5'	1130				Push to 5'
142	5'	5'	1145				Push to 4
148	5'	5'	1325				hand
141	5'	5'	1350				hand
140	5'	5'	1415				
133	5'	5'	1440				
07	5'	5'	1510				
151	5'	5'	1530				
150	5'	5'	1600				x 2

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of 1

Date: 8/19/98 TEG Project #: _____ Client: BBC

Location Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
SV239	5'	5'	0820	60CC	NA	NA	~10' N of SV24
240	5'	5'	0845	60CC	"	"	~10' W of SV239
149	5'	5'	0915	"	"	"	moved ~10' to N due to water line
80	5'	5'	0935	"	"	"	
81	5'	5'	1000	"	"	"	
69	5'	5'	1025	"	"	"	
70	5'	5'	1045	"	"	"	
71	5'	5'	1105	"	"	"	
72	5'	5'	1130				
TSVW	6.5'	6.5'	1330	SUMMA CAN	003774		
S	5'	5'	1355				
T	5'	5'	1430				
U	5'	5'	1455				
V	5'	5'	1520				P-103
R	5'	5'	1545				
~~X~~	5'	5'	1605				SE Corner of house Trailer Side
Z	5'	5'	1640				SW Corner Trailer

Comments:

TEG - TEXAS
FIELD LOG

Page 1 of ____

Date: 8/20/98 TEG Project #: _____ Client: BBC

Job Location:	Target Depth	Actual Depth	Collection Time	Purge Volume	Install Well	Sample Well	Notes
TSV AA	6'	6'	0830	600cc	NA	NA	CONTINUITY TEST BENTONITE FILL SAFE
X	?	1.5	below house total depth			3' depth of foundation	ft 2 below base 1.5 below grade

Comments:

Appendix VIII

Laboratory QA/QC

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 13

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082
Sample Number: 109057

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Benzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5710	1
chlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5710	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5710	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Surr. Dibromofluoromethane		103	%	S-8260B		10/10/98	MB		5710	72-130
Surr. Toluene-d8		100	%	S-8260B		10/10/98	MB		5710	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/10/98	MB		5710	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082
Sample Number: 109055

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Benzene		(2)	ug/L	S-8260B		10/10/98	MB		5710	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5710	1
chlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5710	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5710	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Surr. Dibromofluoromethane		102	%	S-8260B		10/10/98	MB		5710	72-130
Surr. Toluene-d8		98	%	S-8260B		10/10/98	MB		5710	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/10/98	MB		5710	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082
Sample Number: 109053

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Benzene		(2)	ug/L	S-8260B		10/10/98	MB		5710	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5710	1
chlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5710	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5710	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Surr. Dibromofluoromethane		102	%	S-8260B		10/10/98	MB		5710	72-130
Surr. Toluene-d8		101	%	S-8260B		10/10/98	MB		5710	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/10/98	MB		5710	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 29

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109072

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		108	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		94	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 25

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109070

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		1.2	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		107	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		94	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 21

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109068

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		1.1	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		109	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		95	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109066

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		1.2	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		105	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		95	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109064

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		108	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		94	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 9

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109062

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Benzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5712	1
chlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5712	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5712	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5712	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Surr. Dibromofluoromethane		108	%	S-8260B		10/10/98	MB		5712	72-130
Surr. Toluene-d8		97	%	S-8260B		10/10/98	MB		5712	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		10/10/98	MB		5712	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109060

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Benzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5712	1
chlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5712	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5712	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5712	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5712	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5712	5
Surr. Dibromofluoromethane		109	%	S-8260B		10/10/98	MB		5712	72-130
Surr. Toluene-d8		98	%	S-8260B		10/10/98	MB		5712	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/10/98	MB		5712	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083
Sample Number: 109074

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Acrylonitrile		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Benzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chlorobenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Chloroform		<1	ug/L	S-8260B		10/13/98	MB		5764	1
chlorobenzene		<2	ug/L	S-8260B		10/13/98	MB		5764	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloropropenes		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylbenzene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromodichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Bromomethane		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Chloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Dichloromethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Toluene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Trichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Vinyl chloride		<1	ug/L	S-8260B		10/13/98	MB		5764	1
m,p-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
o-xylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Ethylene dibromide		<1	ug/L	S-8260B		10/13/98	MB		5764	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/13/98	MB		5764	1
Methylene chloride		<5	ug/L	S-8260B		10/13/98	MB		5764	5
Surr. Dibromofluoromethane		11	%	S-8260B		10/13/98	MB		5764	72-130
Surr. Toluene-d8		94	%	S-8260B		10/13/98	MB		5764	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/13/98	MB		5764	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 11

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164
Sample Number: 109599

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Acrylonitrile		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Benzene	*	1.8	ug/L	S-8260B		10/12/98	MB		5751	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chlorobenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chloroform		<1	ug/L	S-8260B		10/12/98	MB		5751	1
chlorobenzene		<2	ug/L	S-8260B		10/12/98	MB		5751	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloropropenes		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylbenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromodichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromomethane		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Chloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Toluene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Vinyl chloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
m,p-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
o-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylene dibromide		<1	ug/L	S-8260B		10/12/98	MB		5751	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Methylene chloride		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Surr. Dibromofluoromethane		108	%	S-8260B		10/12/98	MB		5751	72-130
Surr. Toluene-d8		94	%	S-8260B		10/12/98	MB		5751	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		10/12/98	MB		5751	72-131

2 ug/L found in method blank

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 12

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164
Sample Number: 109055

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Acrylonitrile		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Benzene	*	1.4	ug/L	S-8260B		10/12/98	MB		5751	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chlorobenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chloroform		<1	ug/L	S-8260B		10/12/98	MB		5751	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		10/12/98	MB		5751	2
1,1-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloropropenes		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylbenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromodichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromomethane		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Chloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Toluene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Vinyl chloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
m,p-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
o-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylene dibromide		<1	ug/L	S-8260B		10/12/98	MB		5751	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Methylene chloride		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Surr. Dibromofluoromethane		113	%	S-8260B		10/12/98	MB		5751	72-130
Surr. Toluene-d8		94	%	S-8260B		10/12/98	MB		5751	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		10/12/98	MB		5751	72-131

[illegible]2 ug/L found in method blank

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 13

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164
Sample Number: 109057

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Acrylonitrile		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Benzene	*	1.9	ug/L	S-8260B		10/12/98	MB		5751	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chlorobenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Chloroform		<1	ug/L	S-8260B		10/12/98	MB		5751	1
[redacted]chlorobenzene		<2	ug/L	S-8260B		10/12/98	MB		5751	2
[redacted],1-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloropropenes		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylbenzene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromodichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Bromomethane		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Chloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Dichloromethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Toluene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Trichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Vinyl chloride		<1	ug/L	S-8260B		10/12/98	MB		5751	1
m,p-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
o-xylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Ethylene dibromide		<1	ug/L	S-8260B		10/12/98	MB		5751	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/12/98	MB		5751	1
Methylene chloride		<5	ug/L	S-8260B		10/12/98	MB		5751	5
Surr. Dibromofluoromethane		104	%	S-8260B		10/12/98	MB		5751	72-130
Surr. Toluene-d8		97	%	S-8260B		10/12/98	MB		5751	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/12/98	MB		5751	72-131

[redacted] ug/L found in method blank

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page # 3

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510
Sample Number: 106104

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
chlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		99	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		93	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000195
Sample Number: 107157

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
[illegible]loroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		105	%	S-8260B		9/17/98	AG		5377	72-132
Surr. Toluene-d8		99	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		102	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488
Sample Number: 108243

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Acrylonitrile		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Benzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Chlorobenzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Chloroform		<1	ug/L	S-8260B		10/3/98	AG		5671	1
ichlorobenzene		<2	ug/L	S-8260B		10/3/98	AG		5671	2
,1-dichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichloropropenes		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Ethylbenzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Bromodichloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Bromomethane		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Chloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Toluene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Trichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Vinyl chloride		<1	ug/L	S-8260B		10/3/98	AG		5671	1
m,p-xylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
o-xylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Ethylene dibromide		<1	ug/L	S-8260B		10/3/98	AG		5671	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Methylene chloride		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Surr. Dibromofluoromethane		125	%	S-8260B		10/3/98	AG		5671	72-130
Surr. Toluene-d8		87	%	S-8260B		10/3/98	AG		5671	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B		10/3/98	AG		5671	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 13

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108
Sample Number: 106793

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		109	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		98	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		102	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544
Sample Number: 106203

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		107	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106040

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		108	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		112	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 3

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000114
Sample Number: 106832

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		110	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		98	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		104	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027
Sample Number: 106461

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[illegible]-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		117	%	S-8260B		9/7/98	AG		5220	71-132
Surr. Toluene-d8		89	%	S-8260B		9/7/98	AG		5220	82-124
Surr. 4-Bromofluorobenzene		101	%	S-8260B		9/7/98	AG		5220	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598
Sample Number: 106345

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
chlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		114	%	S-8260B		9/7/98	AG		5220	71-132
Surr. Toluene-d8		87	%	S-8260B		9/7/98	AG		5220	82-124
Surr. 4-Bromofluorobenzene		100	%	S-8260B		9/7/98	AG		5220	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159
Sample Number: 104531

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Acrylonitrile		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Benzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Carbon tetrachloride		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Chlorobenzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,2-dichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2,2-tetrachloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,1-trichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Chloroform		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
chlorobenzene		<2	ug/Kg	S-8260B		8/13/98	AG		4865	2
1,1-dichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichloropropenes		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Ethylbenzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Bromodichloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Bromomethane		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Chloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichlorodifluoromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Trichlorofluorometane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Tetrachloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Toluene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Trichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Vinyl chloride		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
m,p-xylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
o-xylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1-dichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Ethylene dibromide		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
cis-1,2-dichlorethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
trans-1,2-dichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Methylene chloride		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Surr. Dibromofluoromethane		116	%	S-8260B		8/13/98	AG		4865	72-130
Surr. Toluene-d8		115	%	S-8260B		8/13/98	AG		4865	77-127
Surr. 4-Bromofluorobenzene		110	%	S-8260B		8/13/98	AG		4865	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000168
Sample Number: 107020

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		102	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		100	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		102	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9809000167
Sample Number: 107011

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
[redacted]chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
[redacted],1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		108	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		99	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		102	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106040

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		108	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		112	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 3

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123
Sample Number: 104342

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Acrylonitrile		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Benzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Chlorobenzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Chloroform		<1	ug/L	S-8260B		8/13/98	AG		4864	1
chlorobenzene		<2	ug/L	S-8260B		8/13/98	AG		4864	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichloropropenes		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Ethylbenzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Bromodichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Bromomethane		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Chloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Toluene		2	ug/L	S-8260B		8/13/98	AG		4864	1
Trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Vinyl chloride		<1	ug/L	S-8260B		8/13/98	AG		4864	1
m,p-xylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
o-xylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Ethylene dibromide		<1	ug/L	S-8260B		8/13/98	AG		4864	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Methylene chloride		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Surr. Dibromofluoromethane		114	%	S-8260B		8/13/98	AG		4864	72-130
Surr. Toluene-d8		113	%	S-8260B		8/13/98	AG		4864	77-127
Surr. 4-Bromofluorobenzene		112	%	S-8260B		8/13/98	AG		4864	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272
Sample Number: 104947

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Acrylonitrile		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Benzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chlorobenzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chloroform		<1	ug/L	S-8260B		8/16/98	AG		4915	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/16/98	AG		4915	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloropropenes		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylbenzene		1.2	ug/L	S-8260B		8/16/98	AG		4915	1
Bromodichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Bromomethane		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Chloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Toluene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Vinyl chloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
m,p-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
o-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylene dibromide		<1	ug/L	S-8260B		8/16/98	AG		4915	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Methylene chloride		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Surr. Dibromofluoromethane		119	%	S-8260B		8/16/98	AG		4915	72-130
Surr. Toluene-d8		111	%	S-8260B		8/16/98	AG		4915	77-127
Surr. 4-Bromofluorobenzene		111	%	S-8260B		8/16/98	AG		4915	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307
Sample Number: 105070

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Acrylonitrile		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Benzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chlorobenzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chloroform		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichlorobenzene		<2	ug/L	S-8260B		8/16/98	AG		4915	2
1-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloropropenes		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylbenzene		3.7	ug/L	S-8260B		8/16/98	AG		4915	1
Bromodichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Bromomethane		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Chloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Toluene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Vinyl chloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
m,p-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
o-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylene dibromide		<1	ug/L	S-8260B		8/16/98	AG		4915	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Methylene chloride		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Surr. Dibromofluoromethane		116	%	S-8260B		8/16/98	AG		4915	72-130
Surr. Toluene-d8		112	%	S-8260B		8/16/98	AG		4915	77-127
Surr. 4-Bromofluorobenzene		116	%	S-8260B		8/16/98	AG		4915	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page # 3

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106267

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
chlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		113	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		87	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 3

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400
Sample Number: 105613

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		116	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		104	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435
Sample Number: 105741

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		2.7	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		109	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		97	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		120	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435
Sample Number: 105741

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		109	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		97	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		120	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 3

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000186
Sample Number: 104632

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Acrylonitrile		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Benzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Chlorobenzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Chloroform		<1	ug/L	S-8260B		8/13/98	AG		4865	1
[redacted]chlorobenzene		<2	ug/L	S-8260B		8/13/98	AG		4865	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichloropropenes		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Ethylbenzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Bromodichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Bromomethane		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Chloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Toluene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Vinyl chloride		<1	ug/L	S-8260B		8/13/98	AG		4865	1
m,p-xylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
o-xylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Ethylene dibromide		<1	ug/L	S-8260B		8/13/98	AG		4865	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Methylene chloride		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Surr. Dibromofluoromethane		117	%	S-8260B		8/13/98	AG		4865	71-132
Surr. Toluene-d8		112	%	S-8260B		8/13/98	AG		4865	82-124
Surr. 4-Bromofluorobenzene		117	%	S-8260B		8/13/98	AG		4865	76-126

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070
Sample Number: 104144

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
chlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		101	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		103	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070
Sample Number: 104142

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		97	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		104	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469
Sample Number: 105954

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		109	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344
Sample Number: 105223

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Acrylonitrile		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Benzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Chlorobenzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Chloroform		<1	ug/L	S-8260B		8/24/98	AG		5081	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/24/98	AG		5081	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichloropropenes		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Ethylbenzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Bromodichloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Bromomethane		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Chloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Toluene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Trichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Vinyl chloride		<1	ug/L	S-8260B		8/24/98	AG		5081	1
m,p-xylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
o-xylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Ethylene dibromide		<1	ug/L	S-8260B		8/24/98	AG		5081	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Methylene chloride		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Surr. Dibromofluoromethane		120	%	S-8260B		8/24/98	AG		5081	72-130
Surr. Toluene-d8		100	%	S-8260B		8/24/98	AG		5081	77-127
Surr. 4-Bromofluorobenzene		117	%	S-8260B		8/24/98	AG		5081	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066
Sample Number: 104159

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
[illegible]hloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		100	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		104	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380
Sample Number: 105407

Field Code: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		109	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		114	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 3

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548
Sample Number: 103763

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Acrylonitrile		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Benzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Carbon tetrachloride		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Chlorobenzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,2-dichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2,2-tetrachloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,1-trichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2-trichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2-trichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Chloroform		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichlorobenzene		<2	ug/L	S 8260B		8/3/98	AG		4726	2
1,1-dichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichloropropenes		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Ethylbenzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Bromodichloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Bromomethane		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Chloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichlorodifluoromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Trichlorofluorometane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Tetrachloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Toluene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Trichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Vinyl chloride		<1	ug/L	S 8260B		8/3/98	AG		4726	1
m,p-xylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
o-xylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1-dichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Ethylene dibromide		<1	ug/L	S 8260B		8/3/98	AG		4726	1
cis-1,2-dichlorethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
trans-1,2-dichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Methylene chloride		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Surr. Dibromofluoromethane		95	%	S 8260B		8/3/98	AG		4726	72-130
Surr. Toluene-d8		96	%	S 8260B		8/3/98	AG		4726	77-127
Surr. 4-Bromofluorobenzene		97	%	S 8260B		8/3/98	AG		4726	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518
Sample Number: 103637

Sample Description: Trip Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Acrylonitrile		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Benzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Chlorobenzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Chloroform		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichlorobenzene		<2	ug/L	S-8260B		8/3/98	AG		4726	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichloropropenes		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Ethylbenzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Bromodichloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Bromomethane		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Chloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Toluene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Trichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Vinyl chloride		<1	ug/L	S-8260B		8/3/98	AG		4726	1
m,p-xylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
o-xylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Ethylene dibromide		<1	ug/L	S-8260B		8/3/98	AG		4726	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Methylene chloride		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Surr. Dibromofluoromethane		85	%	S-8260B		8/3/98	AG		4726	72-130
Surr. Toluene-d8		100	%	S-8260B		8/3/98	AG		4726	77-127
Surr. 4-Bromofluorobenzene		95	%	S-8260B		8/3/98	AG		4726	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 14

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082
Sample Number: 109058

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Acrylonitrile		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Benzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chlorobenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Chloroform		<1	ug/L	S-8260B		10/10/98	MB		5710	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		10/10/98	MB		5710	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloropropenes		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylbenzene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromodichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Bromomethane		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Chloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Dichloromethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Toluene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Trichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Vinyl chloride		<1	ug/L	S-8260B		10/10/98	MB		5710	1
m,p-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
o-xylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Ethylene dibromide		<1	ug/L	S-8260B		10/10/98	MB		5710	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/10/98	MB		5710	1
Methylene chloride		<5	ug/L	S-8260B		10/10/98	MB		5710	5
Surr. Dibromofluoromethane		105	%	S-8260B		10/10/98	MB		5710	72-130
Surr. Toluene-d8		101	%	S-8260B		10/10/98	MB		5710	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B		10/10/98	MB		5710	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510
Sample Number: 106105

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		105	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000195
Sample Number: 107158

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		101	%	S-8260B		9/17/98	AG		5377	72-132
Surr. Toluene-d8		102	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		103	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488
Sample Number: 108242

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Acrylonitrile		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Benzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Carbon tetrachloride		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Chlorobenzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,2-dichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Chloroform		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichlorobenzene		<2	ug/L	S-8260B		10/3/98	AG		5671	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
[illegible]ichloropropenes		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Ethylbenzene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Bromodichloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Bromomethane		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Chloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Dichloromethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Trichlorofluorometane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Tetrachloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Toluene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Trichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Vinyl chloride		<1	ug/L	S-8260B		10/3/98	AG		5671	1
m,p-xylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
o-xylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
1,1-dichloroethane		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Ethylene dibromide		<1	ug/L	S-8260B		10/3/98	AG		5671	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		10/3/98	AG		5671	1
Methylene chloride		<5	ug/L	S-8260B		10/3/98	AG		5671	5
Surr. Dibromofluoromethane		101	%	S-8260B		10/3/98	AG		5671	72-130
Surr. Toluene-d8		99	%	S-8260B		10/3/98	AG		5671	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B		10/3/98	AG		5671	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108
Sample Number: 106792

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/7/98	AG		5220	71-132
Surr. Toluene-d8		87	%	S-8260B		9/7/98	AG		5220	82-124
Surr. 4-Bromofluorobenzene		103	%	S-8260B		9/7/98	AG		5220	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544
Sample Number: 106204

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[redacted]ichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[redacted],1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		106	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106039

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]ichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		120	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		110	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000114
Sample Number: 106831

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		104	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		101	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		103	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027
Sample Number: 106460

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		114	%	S-8260B		9/7/98	AG		5220	71-132
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	82-124
Surr. 4-Bromofluorobenzene		100	%	S-8260B		9/7/98	AG		5220	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598
Sample Number: 106346

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		114	%	S-8260B		9/7/98	AG		5220	71-132
Surr. Toluene-d8		87	%	S-8260B		9/7/98	AG		5220	82-124
Surr. 4-Bromofluorobenzene		100	%	S-8260B		9/7/98	AG		5220	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: '9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159
Sample Number: 104530

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Acrylonitrile		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Benzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Carbon tetrachloride		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Chlorobenzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,2-dichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2,2-tetrachloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,1-trichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Chloroform		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
chlorobenzene		<2	ug/Kg	S-8260B		8/13/98	AG		4865	2
,1-dichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichloropropenes		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Ethylbenzene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Bromodichloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Bromomethane		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Chloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichlorodifluoromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Dichloromethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Trichlorofluorometane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Tetrachloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Toluene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Trichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Vinyl chloride		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
m,p-xylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
o-xylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
1,1-dichloroethane		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Ethylene dibromide		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
cis-1,2-dichlorethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
trans-1,2-dichloroethylene		<1	ug/Kg	S-8260B		8/13/98	AG		4865	1
Methylene chloride		<5	ug/Kg	S-8260B		8/13/98	AG		4865	5
Surr. Dibromofluoromethane		120	%	S-8260B		8/13/98	AG		4865	72-130
Surr. Toluene-d8		113	%	S-8260B		8/13/98	AG		4865	77-127
Surr. 4-Bromofluorobenzene		110	%	S-8260B		8/13/98	AG		4865	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 2

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000168
Sample Number: 107021

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		106	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		100	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		104	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 2

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9809000167
Sample Number: 107010

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Acrylonitrile		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Benzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chlorobenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Chloroform		<1	ug/L	S-8260B		9/17/98	AG		5377	1
chlorobenzene		<2	ug/L	S-8260B		9/17/98	AG		5377	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloropropenes		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylbenzene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromodichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Bromomethane		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Chloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Dichloromethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Toluene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Trichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Vinyl chloride		<1	ug/L	S-8260B		9/17/98	AG		5377	1
m,p-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
o-xylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Ethylene dibromide		<1	ug/L	S-8260B		9/17/98	AG		5377	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/17/98	AG		5377	1
Methylene chloride		<5	ug/L	S-8260B		9/17/98	AG		5377	5
Surr. Dibromofluoromethane		101	%	S-8260B		9/17/98	AG		5377	71-132
Surr. Toluene-d8		101	%	S-8260B		9/17/98	AG		5377	82-124
Surr. 4-Bromofluorobenzene		101	%	S-8260B		9/17/98	AG		5377	76-126

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106039

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]ichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		120	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		110	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123
Sample Number: 104341

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Acrylonitrile		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Benzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Chlorobenzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Chloroform		<1	ug/L	S-8260B		8/13/98	AG		4864	1
chlorobenzene		<2	ug/L	S-8260B		8/13/98	AG		4864	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichloropropenes		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Ethylbenzene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Bromodichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Bromomethane		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Chloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Dichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Toluene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Vinyl chloride		<1	ug/L	S-8260B		8/13/98	AG		4864	1
m,p-xylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
o-xylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Ethylene dibromide		<1	ug/L	S-8260B		8/13/98	AG		4864	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4864	1
Methylene chloride		<5	ug/L	S-8260B		8/13/98	AG		4864	5
Surr. Dibromofluoromethane		114	%	S-8260B		8/13/98	AG		4864	72-130
Surr. Toluene-d8		113	%	S-8260B		8/13/98	AG		4864	77-127
Surr. 4-Bromofluorobenzene		113	%	S-8260B		8/13/98	AG		4864	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272
Sample Number: 104946

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Acrylonitrile		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Benzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chlorobenzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chloroform		<1	ug/L	S-8260B		8/16/98	AG		4915	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		8/16/98	AG		4915	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloropropenes		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylbenzene		1.2	ug/L	S-8260B		8/16/98	AG		4915	1
Bromodichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Bromomethane		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Chloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Toluene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Vinyl chloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
m,p-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
o-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylene dibromide		<1	ug/L	S-8260B		8/16/98	AG		4915	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Methylene chloride		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Surr. Dibromofluoromethane		117	%	S-8260B		8/16/98	AG		4915	72-130
Surr. Toluene-d8		112	%	S-8260B		8/16/98	AG		4915	77-127
Surr. 4-Bromofluorobenzene		116	%	S-8260B		8/16/98	AG		4915	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307
Sample Number: 105069

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Acrylonitrile		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Benzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chlorobenzene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Chloroform		<1	ug/L	S-8260B		8/16/98	AG		4915	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		8/16/98	AG		4915	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloropropenes		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylbenzene		1.2	ug/L	S-8260B		8/16/98	AG		4915	1
Bromodichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Bromomethane		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Chloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Dichloromethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Toluene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Trichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Vinyl chloride		<1	ug/L	S-8260B		8/16/98	AG		4915	1
m,p-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
o-xylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Ethylene dibromide		<1	ug/L	S-8260B		8/16/98	AG		4915	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/16/98	AG		4915	1
Methylene chloride		<5	ug/L	S-8260B		8/16/98	AG		4915	5
Surr. Dibromofluoromethane		119	%	S-8260B		8/16/98	AG		4915	72-130
Surr. Toluene-d8		110	%	S-8260B		8/16/98	AG		4915	77-127
Surr. 4-Bromofluorobenzene		117	%	S-8260B		8/16/98	AG		4915	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488
Sample Number: 106266

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Acrylonitrile		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Benzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chlorobenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Chloroform		<1	ug/L	S-8260B		9/7/98	AG		5220	1
[illegible]ichlorobenzene		<2	ug/L	S-8260B		9/7/98	AG		5220	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloropropenes		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylbenzene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromodichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Bromomethane		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Chloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Dichloromethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Toluene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Trichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Vinyl chloride		<1	ug/L	S-8260B		9/7/98	AG		5220	1
m,p-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
o-xylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Ethylene dibromide		<1	ug/L	S-8260B		9/7/98	AG		5220	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/7/98	AG		5220	1
Methylene chloride		<5	ug/L	S-8260B		9/7/98	AG		5220	5
Surr. Dibromofluoromethane		112	%	S-8260B		9/7/98	AG		5220	72-130
Surr. Toluene-d8		88	%	S-8260B		9/7/98	AG		5220	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		9/7/98	AG		5220	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400
Sample Number: 105612

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
[illegible]1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
[illegible]ichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000186
Sample Number: 104631

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Acrylonitrile		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Benzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Chlorobenzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Chloroform		<1	ug/L	S-8260B		8/13/98	AG		4865	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/13/98	AG		4865	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichloropropenes		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Ethylbenzene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Bromodichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Bromomethane		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Chloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Dichloromethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Toluene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Trichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Vinyl chloride		<1	ug/L	S-8260B		8/13/98	AG		4865	1
m,p-xylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
o-xylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Ethylene dibromide		<1	ug/L	S-8260B		8/13/98	AG		4865	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/13/98	AG		4865	1
Methylene chloride		<5	ug/L	S-8260B		8/13/98	AG		4865	5
Surr. Dibromofluoromethane		116	%	S-8260B		8/13/98	AG		4865	71-132
Surr. Toluene-d8		114	%	S-8260B		8/13/98	AG		4865	82-124
Surr. 4-Bromofluorobenzene		119	%	S-8260B		8/13/98	AG		4865	76-126

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070
Sample Number: 104143

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
1,1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		101	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		103	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		104	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070
Sample Number: 104145

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		103	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		103	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		104	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469
Sample Number: 105953

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
chloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		119	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		107	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		109	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344
Sample Number: 105222

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Acrylonitrile		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Benzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Chlorobenzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Chloroform		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichlorobenzene		<2	ug/L	S-8260B		8/24/98	AG		5081	2
1-dichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichloropropenes		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Ethylbenzene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Bromodichloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Bromomethane		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Chloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Dichloromethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Toluene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Trichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Vinyl chloride		<1	ug/L	S-8260B		8/24/98	AG		5081	1
m,p-xylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
o-xylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Ethylene dibromide		<1	ug/L	S-8260B		8/24/98	AG		5081	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/24/98	AG		5081	1
Methylene chloride		<5	ug/L	S-8260B		8/24/98	AG		5081	5
Surr. Dibromofluoromethane		115	%	S-8260B		8/24/98	AG		5081	72-130
Surr. Toluene-d8		104	%	S-8260B		8/24/98	AG		5081	77-127
Surr. 4-Bromofluorobenzene		113	%	S-8260B		8/24/98	AG		5081	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066
Sample Number: 104160

Sample Description: *Field Blank*

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Acrylonitrile		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Benzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chlorobenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Chloroform		<1	ug/L	S-8260B		8/6/98	AG		4735	1
[illegible]chlorobenzene		<2	ug/L	S-8260B		8/6/98	AG		4735	2
[illegible],1-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloropropenes		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylbenzene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromodichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Bromomethane		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Chloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Dichloromethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Toluene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Trichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Vinyl chloride		<1	ug/L	S-8260B		8/6/98	AG		4735	1
m,p-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
o-xylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Ethylene dibromide		<1	ug/L	S-8260B		8/6/98	AG		4735	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/6/98	AG		4735	1
Methylene chloride		<5	ug/L	S-8260B		8/6/98	AG		4735	5
Surr. Dibromofluoromethane		101	%	S-8260B		8/6/98	AG		4735	72-130
Surr. Toluene-d8		104	%	S-8260B		8/6/98	AG		4735	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B		8/6/98	AG		4735	72-131

Analytical Results Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380
Sample Number: 105406

Field Code: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Acrylonitrile		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Benzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Carbon tetrachloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chlorobenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,2-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Chloroform		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorobenzene		<2	ug/L	S-8260B		9/1/98	AG		5183	2
1,1-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloropropenes		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylbenzene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromodichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Bromomethane		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Chloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Dichloromethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichlorofluorometane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Tetrachloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Toluene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Trichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Vinyl chloride		<1	ug/L	S-8260B		9/1/98	AG		5183	1
m,p-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
o-xylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
1,1-dichloroethane		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Ethylene dibromide		<1	ug/L	S-8260B		9/1/98	AG		5183	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		9/1/98	AG		5183	1
Methylene chloride		<5	ug/L	S-8260B		9/1/98	AG		5183	5
Surr. Dibromofluoromethane		118	%	S-8260B		9/1/98	AG		5183	72-130
Surr. Toluene-d8		109	%	S-8260B		9/1/98	AG		5183	77-127
Surr. 4-Bromofluorobenzene		117	%	S-8260B		9/1/98	AG		5183	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548
Sample Number: 103762

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Acrylonitrile		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Benzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Carbon tetrachloride		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Chlorobenzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,2-dichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2,2-tetrachloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,1-trichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2-trichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1,2-trichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Chloroform		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichlorobenzene		<2	ug/L	S 8260B		8/3/98	AG		4726	2
1,1-dichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichloropropenes		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Ethylbenzene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Bromodichloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Bromomethane		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Chloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichlorodifluoromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Dichloromethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Trichlorofluorometane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Tetrachloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Toluene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Trichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Vinyl chloride		<1	ug/L	S 8260B		8/3/98	AG		4726	1
m,p-xylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
o-xylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
1,1-dichloroethane		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Ethylene dibromide		<1	ug/L	S 8260B		8/3/98	AG		4726	1
cis-1,2-dichlorethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
trans-1,2-dichloroethylene		<1	ug/L	S 8260B		8/3/98	AG		4726	1
Methylene chloride		<5	ug/L	S 8260B		8/3/98	AG		4726	5
Surr. Dibromofluoromethane		88	%	S 8260B		8/3/98	AG		4726	72-130
Surr. Toluene-d8		99	%	S 8260B		8/3/98	AG		4726	77-127
Surr. 4-Bromofluorobenzene		95	%	S 8260B		8/3/98	AG		4726	72-131

Analytical Results Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518
Sample Number: 103638

Sample Description: Field Blank

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Acrylonitrile		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Benzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Carbon tetrachloride		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Chlorobenzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,2-dichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Chloroform		<1	ug/L	S-8260B		8/3/98	AG		4726	1
chlorobenzene		<2	ug/L	S-8260B		8/3/98	AG		4726	2
,1-dichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichloropropenes		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Ethylbenzene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Bromodichloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Bromomethane		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Chloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Dichloromethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Trichlorofluorometane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Tetrachloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Toluene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Trichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Vinyl chloride		<1	ug/L	S-8260B		8/3/98	AG		4726	1
m,p-xylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
o-xylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
1,1-dichloroethane		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Ethylene dibromide		<1	ug/L	S-8260B		8/3/98	AG		4726	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		8/3/98	AG		4726	1
Methylene chloride		<5	ug/L	S-8260B		8/3/98	AG		4726	5
Surr. Dibromofluoromethane		87	%	S-8260B		8/3/98	AG		4726	72-130
Surr. Toluene-d8		99	%	S-8260B		8/3/98	AG		4726	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		8/3/98	AG		4726	72-131

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-21-98
Page # 1

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
109052	TMW-1	10/1/98	1:25	10/3/98
109053	Trip Blank			10/3/98
109054	TMW-2	10/1/98	1:54	10/3/98
109055	Trip Blank			10/3/98
109056	TMW-3	10/1/98	2:20	10/3/98
109057	Trip Blank			10/3/98
109058	Field Blank	10/1/98	2:54	10/3/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	10/10/98		5710
Acrylonitrile		<5	ug/L	5	10/10/98		5710
Benzene		<1	ug/L	1	10/10/98		5710
Carbon tetrachloride		<1	ug/L	1	10/10/98		5710
Chlorobenzene		<1	ug/L	1	10/10/98		5710
1,2-dichloroethane		<1	ug/L	1	10/10/98		5710
1,1,2,2-tetrachloroethane		<1	ug/L	1	10/10/98		5710
1,1,1-trichloroethane		<1	ug/L	1	10/10/98		5710
1,1,2-trichloroethane		<1	ug/L	1	10/10/98		5710
1,1,2-trichloroethylene		<1	ug/L	1	10/10/98		5710
Chloroform		<1	ug/L	1	10/10/98		5710
Dichlorobenzene		<2	ug/L	2	10/10/98		5710
1-dichloroethylene		<1	ug/L	1	10/10/98		5710
Dichloropropenes		<1	ug/L	1	10/10/98		5710
Ethylbenzene		<1	ug/L	1	10/10/98		5710
Bromodichloromethane		<1	ug/L	1	10/10/98		5710
Bromomethane		<5	ug/L	5	10/10/98		5710
Chloromethane		<1	ug/L	1	10/10/98		5710
Dichlorodifluoromethane		<1	ug/L	1	10/10/98		5710
Dichloromethane		<1	ug/L	1	10/10/98		5710
Trichlorofluoromethane		<1	ug/L	1	10/10/98		5710
Tetrachloroethylene		<1	ug/L	1	10/10/98		5710
Toluene		<1	ug/L	1	10/10/98		5710
Trichloroethylene		<1	ug/L	1	10/10/98		5710
Vinyl chloride		<1	ug/L	1	10/10/98		5710
m,p-xylene		<1	ug/L	1	10/10/98		5710
o-xylene		<1	ug/L	1	10/10/98		5710
1,1-dichloroethane		<1	ug/L	1	10/10/98		5710
Ethylene dibromide		<1	ug/L	1	10/10/98		5710
cis-1,2-dichlorethylene		<1	ug/L	1	10/10/98		5710
trans-1,2-dichloroethylene		<1	ug/L	1	10/10/98		5710
Methylene chloride		<5	ug/L	5	10/10/98		5710
Surr. Dibromofluoromethane		97	%	71-132	10/10/98		5710
Surr. Toluene-d8		103	%	82-124	10/10/98		5710
Surr. 4-Bromofluorobenzene		99	%	76-126	10/10/98		5710

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		<0.1	mg/L	0.1	10/6/98		5697
Nitrate		<0.1	mg/L	0.1	10/9/98		5706
Chloride		<0.5	mg/L	0.5	10/6/98		5697
Sulfate		<0.5	mg/L	0.5	10/6/98		5697
Fluoride		<0.1	mg/L	0.1	10/7/98		5698
Chloride		<0.5	mg/L	0.5	10/7/98		5698
Sulfate		<0.5	mg/L	0.5	10/7/98		5698
PCB		<0.001	mg/L	0.001	10/13/98	5366	5670
Cyanide		<0.01	mg/L	0.01	10/9/98		5699
Benzidine		<0.01	mg/L	0.01	10/9/98	5358	5708
Hexachlorobenzene		<0.001	mg/L	0.001	10/9/98	5358	5708
Pentachlorobenzene		<0.001	mg/L	0.001	10/9/98	5358	5708
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	10/9/98	5358	5708
Hexachloroethane		<0.001	mg/L	0.001	10/9/98	5358	5708
2,4-dichlorophenol		<0.005	mg/L	0.005	10/9/98	5358	5708
2,4,5-trichlorophenol		<0.005	mg/L	0.005	10/9/98	5358	5708
2,4,6-trichlorophenol		<0.005	mg/L	0.005	10/9/98	5358	5708
bis (2-chloroethl) ether		<0.005	mg/L	0.005	10/9/98	5358	5708
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	10/9/98	5358	5708
bis (chloromethyl) ether		<0.005	mg/L	0.005	10/9/98	5358	5708
3,3-dichlorobenzidine		<0.005	mg/L	0.005	10/9/98	5358	5708
2,4-dinitrotoluene		<0.001	mg/L	0.001	10/9/98	5358	5708
Diphenylhydrazine		<0.005	mg/L	0.005	10/9/98	5358	5708
Hexachlorobutadiene		<0.001	mg/L	0.001	10/9/98	5358	5708
Hexachlorocyclopentadiene		<0.001	mg/L	0.001	10/9/98	5358	5708
Isophorone		<0.005	mg/L	0.005	10/9/98	5358	5708
Nitrobenzene		<0.001	mg/L	0.001	10/9/98	5358	5708
2,4-dinitro-o-cresol		<0.001	mg/L	0.001	10/9/98	5358	5708
2,4-dinitrophenols		<0.005	mg/L	0.005	10/9/98	5358	5708
N-nitrosodiethylamine		<0.001	mg/L	0.001	10/9/98	5358	5708
N-nitrosodimethylamine		<0.001	mg/L	0.001	10/9/98	5358	5708
N-nitrosodibutylamine		<0.005	mg/L	0.005	10/9/98	5358	5708
N-nitrosodiphenylamine		<0.001	mg/L	0.001	10/9/98	5358	5708
N-nitrosopyrrolidine		<0.001	mg/L	0.001	10/9/98	5358	5708
Pentachlorophenol		<0.005	mg/L	0.005	10/9/98	5358	5708
Phenol		<0.001	mg/L	0.001	10/9/98	5358	5708
Dibutyl phthalate		<0.001	mg/L	0.001	10/9/98	5358	5708
bis(2-ethylhexyl) phthalate		0.030	mg/L	0.001	10/9/98	5358	5708
Diethyl phthalate		<0.001	mg/L	0.001	10/9/98	5358	5708
Dimethyl phthalate		<0.001	mg/L	0.001	10/9/98	5358	5708
Anthracene		<0.001	mg/L	0.001	10/9/98	5358	5708
Benzo(b)fluoranthene		<0.001	mg/L	0.001	10/9/98	5358	5708
Benzo(k)fluoranthene		<0.001	mg/L	0.001	10/9/98	5358	5708

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoranthene		<0.001	mg/L	0.001	10/9/98	5358	5708
Fluorene		<0.001	mg/L	0.001	10/9/98	5358	5708
Phenanthrene		<0.001	mg/L	0.001	10/9/98	5358	5708
Pyrene		<0.001	mg/L	0.001	10/9/98	5358	5708
Naphthalene		<0.001	mg/L	0.001	10/9/98	5358	5708
1-methylnaphthalene		<0.001	mg/L	0.001	10/9/98	5358	5708
2-methylnaphthalene		<0.001	mg/L	0.001	10/9/98	5358	5708
Benzo-a-pyrene		<0.001	mg/L	0.001	10/9/98	5358	5708
Surr. 2-Fluorophenol		51	%	1-85	10/9/98	5358	5708
Surr. Phenol-d6		59	%	0-82	10/9/98	5358	5708
Surr. Nitroobenzene-d5		55	%	38-111	10/9/98	5358	5708
Surr. 2-Fluorobiphenyl		61	%	38-103	10/9/98	5358	5708
Surr. 2,4,6-Tribromophenol		80	%	1-127	10/9/98	5358	5708
Surr. Terphenyl-d14		77	%	38-122	10/9/98	5358	5708
Arsenic		<0.10	mg/L	0.10	10/15/98	5398	5785
Barium		<0.10	mg/L	0.10	10/15/98	5398	5785
Cadmium		<0.01	mg/L	0.01	10/15/98	5398	5785
Chromium		<0.05	mg/L	0.05	10/15/98	5398	5785
Lead		<0.05	mg/L	0.05	10/15/98	5398	5785
Total Mercury		<0.0002	mg/L	0.0002	10/11/98	5365	5725
Selenium		<0.05	mg/L	0.05	10/15/98	5398	5785
Silver		<0.05	mg/L	0.05	10/17/98	5398	5795
Uranium		<0.10	mg/L	0.10	10/15/98	5398	5785
Copper		<0.10	mg/L	0.10	10/15/98	5398	5785
Iron		<0.10	mg/L	0.10	10/18/98	5398	5812
Manganese		<0.10	mg/L	0.10	10/15/98	5398	5785
Zinc		<0.10	mg/L	0.10	10/15/98	5398	5785
Aluminum		<0.10	mg/L	0.10	10/18/98	5398	5812
Boron		<0.10	mg/L	0.10	10/17/98	5398	5795
Cobalt		<0.05	mg/L	0.05	10/15/98	5398	5785
Molybdenum		<0.10	mg/L	0.10	10/18/98	5398	5812
Nickel		<0.10	mg/L	0.10	10/15/98	5398	5785
Total Phenols		<0.01	mg/L	0.01	10/15/98		5787
TRPHC		<0.500	mg/L	0.500	10/7/98	5342	5700

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	115	115	10/10/98	5710
1,1-Dichloroethene		100	ug/L	112	112	10/10/98	5710
Chloroform		100	ug/L	117	117	10/10/98	5710
1,2-Dichloropropane		100	ug/L	115	115	10/10/98	5710
Toluene		100	ug/L	117	117	10/10/98	5710
Chlorobenzene		100	ug/L	112	112	10/10/98	5710
Ethylbenzene		100	ug/L	119	119	10/10/98	5710
Fluoride		2.5	mg/L	2.430	97	10/6/98	5697
Nitrate		0.133	mg/L	0.117	88	10/9/98	5706
Chloride		12.5	mg/L	12.415	99	10/6/98	5697
Sulfate		12.5	mg/L	12.32	99	10/6/98	5697
Fluoride		2.5	mg/L	2.415	97	10/7/98	5698
Chloride		12.5	mg/L	12.3	98	10/7/98	5698
Sulfate		12.5	mg/L	11.95	96	10/7/98	5698
Total Mercury		0.0010	mg/L	0.0011	110	10/11/98	5725
PCB		0.40	mg/L	0.39	98	10/13/98	5670
Cyanide		0.12	mg/L	0.12	100	10/9/98	5699
Phenol		80	mg/L	83	104	10/9/98	5708
1,4-Dichlorobenzene		80	mg/L	83	104	10/9/98	5708
2-nitrophenol		80	mg/L	91	114	10/9/98	5708
2,4-Dichlorophenol		80	mg/L	89	111	10/9/98	5708
Hexachlorobutadiene		80	mg/L	84	105	10/9/98	5708
4-Chloro-3-methylphenol		80	mg/L	8	109	10/9/98	5708
2,4,6-Trichlorophenol		80	mg/L	75	94	10/9/98	5708
Acenaphthene		80	mg/L	85	106	10/9/98	5708
n-Nitrosodiphenylamine		80	mg/L	80	100	10/9/98	5708
Pentachlorophenol		80	mg/L	81	101	10/9/98	5708
Fluoranthene		80	mg/L	87	109	10/9/98	5708
Di-n-octylphthalate		80	mg/L	76	95	10/9/98	5708
Benzo(a)pyrene		80	mg/L	80	100	10/9/98	5708
TDS		1,000	mg/L	956	96	10/5/98	5680
Total Phenol		0.80	mg/L	0.79	99	10/15/98	5787
Arsenic		1.0	mg/L	1.0	100	10/15/98	5785
Barium		1.0	mg/L	0.98	98	10/15/98	5785
Cadmium		1.0	mg/L	1.0	100	10/15/98	5785
Chromium		1.0	mg/L	1.0	100	10/15/98	5785

Project Number: 19350
Order ID Number: 9810000082
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Lead		1.0	mg/L	1.0	100	10/15/98	5785
Selenium		1.0	mg/L	1.0	100	10/15/98	5785
Silver		1.0	mg/L	0.94	94	10/17/98	5795
Uranium		1.0	mg/L	0.94	94	10/15/98	5785
Copper		1.0	mg/L	1.0	100	10/15/98	5785
Iron		1.0	mg/L	0.96	96	10/18/98	5812
Manganese		1.0	mg/L	1.0	100	10/15/98	5785
Zinc		1.0	mg/L	1.0	100	10/15/98	5785
Aluminum		1.0	mg/L	0.90	90	10/18/98	5812
Boron		1.0	mg/L	0.93	93	10/17/98	5795
Cobalt		1.0	mg/L	1.0	100	10/15/98	5785
Molybdenum		1.0	mg/L	1.0	100	10/18/98	5812
Nickel		1.0	mg/L	1.0	100	10/15/98	5785
pH		7.0	mg/L	7.0	100	10/3/98	5670
TRPHC		100	mg/L	104	104	10/7/98	5700

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	127	127	100	126	126	1	10/10/98		5710
Benzene		ug/L	<1	100	108	108	100	108	108	0	10/10/98		5710
Trichloroethene		ug/L	<1	100	114	114	100	112	112	2.0	10/10/98		5710
Toluene		ug/L	<1	100	118	118	100	118	118	0	10/10/98		5710
Chlorobenzene		ug/L	<1	100	112	112	100	113	113	0	10/10/98		5710
Fluoride		mg/L	1.7	12.5	14.03	99	12.5	14.12	99	0	10/6/98		5697
Nitrate		mg/L	<0.10	0.133	0.136	102	0.133	0.133	100	2.0	10/9/98		5706
Chloride		mg/L	46	62.5	107.51	98	62.5	108.01	100	2.0	10/6/98		5697
Sulfate		mg/L	79	62.5	138.43	95	62.5	138.35	95	0.0	10/6/98		5697
[redacted]uoride		mg/L	5.44	12.5	17.25	94	12.5	17.49	96	2.1	10/7/98		5698
Chloride		mg/L	19.24	62.5	76.56	92	62.5	78.92	95	3.2	10/7/98		5698
Sulfate		mg/L	5.16	62.5	64.07	94	62.5	64.7	95	1.0	10/7/98		5698
Total Phenol		mg/L	<0.01	0.80	0.79	99	0.80	0.81	101	2	10/15/98		5787
PCB		mg/L	<0.001	0.005	0.0037	74	0.005	0.0038	76	2.7	10/13/98	5366	5670
Cyanide		mg/L	<0.01	0.12	0.107	89	0.12	0.112	93	4.4	10/9/98		5699
Phenol		mg/L	<0.001	0.10	0.0381	38	0.10	0.0376	38	0	10/9/98	5358	5708
2-Chlorophenol		mg/L	<0.001	0.10	0.0748	75	0.10	0.0724	72	3	10/9/98	5358	5708
1,4-Dichlorobenzene		mg/L	<0.001	0.10	0.0597	60	0.10	0.0520	52	14	10/9/98	5358	5708
n-Nitrosodi-n-propylamine		mg/L	<0.001	0.10	0.0776	78	0.10	0.0796	80	3	10/9/98	5358	5708
1,2,4-trichlorobenzene		mg/L	<0.001	0.10	0.0697	70	0.10	0.0631	63	10	10/9/98	5358	5708
4-Chloro-3-methylphenol		mg/L	<0.001	0.10	0.0863	86	0.10	0.0830	83	4	10/9/98	5358	5708
Acenaphthene		mg/L	<0.001	0.10	0.0809	81	0.10	0.0772	77	5	10/9/98	5358	5708
4-Nitrophenol		mg/L	<0.001	0.10	0.0109	11	0.10	0.0095	10	14	10/9/98	5358	5708
2,4-Dinitrotoluene		mg/L	<0.001	0.10	0.0837	84	0.10	0.0881	88	5	10/9/98	5358	5708
Pentachlorophenol		mg/L	<0.001	0.10	0.0674	67	0.10	0.0647	65	4	10/9/98	5358	5708
Pyrene		mg/L	<0.001	0.10	0.0997	100	0.10	0.0816	82	20	10/9/98	5358	5708
TRPHC		mg/L	<0.500	8.5	9.34	110	8.5	10.9	128	15	10/7/98	5342	5700
Arsenic		mg/L	<0.10	2.0	1.8	90	2.0	1.9	95	5.4	10/15/98	5398	5785
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	2.4	10/15/98	5398	5785
Cadmium		mg/L	<0.01	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5398	5785
Chromium		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Lead		mg/L	<0.05	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5398	5785
Selenium		mg/L	<0.05	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5398	5785
[redacted]ilver		mg/L	<0.05	0.32	0.31	97	0.32	0.33	103	6.0	10/17/98	5398	5795
[redacted]ranium		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9810000082

Parameter		Sample	Spike Amount	Matrix Spike	MS Percent	Duplicate Spike Amount	MSD	MSD Percent	MS/MSD	Date	Prep	Run
Copper	mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Iron	mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/18/98	5398	5812
Manganese	mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	4.9	10/15/98	5398	5785
Zinc	mg/L	<0.10	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5398	5785
Aluminum	mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	10/18/98	5398	5812
Boron	mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/17/98	5398	5795
Cobalt	mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Molybdenum	mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	10/18/98	5398	5812
Nickel	mg/L	<0.10	2.0	2.0	100	2.0	1.9	95	5.1	10/15/98	5398	5785
Total Mercury	mg/L	<0.0002	0.0010	0.0011	110	0.0010	0.0012	120	8.7	10/11/98	5365	5725

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9810000082

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.0	7.0	0	10/3/98		5670
TDS		mg/L	430	425	1.2	10/5/98		5680

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
109439	GMW-1	10/7/98	10:15	10/8/98
109440	GMW-3	10/7/98	9:25	10/8/98
109441	GMW-5	10/7/98	11:00	10/8/98
[illegible]09599	Trip Blank			10/8/98
[illegible]09600	Trip Blank			10/8/98
109601	Trip Blank			10/8/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	10/12/98		5790
Acrylonitrile		<5	ug/L	5	10/12/98		5790
Benzene		2	ug/L	1	10/12/98		5790
Carbon tetrachloride		<1	ug/L	1	10/12/98		5790
Chlorobenzene		<1	ug/L	1	10/12/98		5790
1,2-dichloroethane		<1	ug/L	1	10/12/98		5790
1,1,2,2-tetrachloroethane		<1	ug/L	1	10/12/98		5790
1,1,1-trichloroethane		<1	ug/L	1	10/12/98		5790
1,1,2-trichloroethane		<1	ug/L	1	10/12/98		5790
1,1,2-trichloroethylene		<1	ug/L	1	10/12/98		5790
Chloroform		<1	ug/L	1	10/12/98		5790
Dichlorobenzene		<2	ug/L	2	10/12/98		5790
1-dichloroethylene		<1	ug/L	1	10/12/98		5790
Dichloropropenes		<1	ug/L	1	10/12/98		5790
Ethylbenzene		<1	ug/L	1	10/12/98		5790
Bromodichloromethane		<1	ug/L	1	10/12/98		5790
Bromomethane		<5	ug/L	5	10/12/98		5790
Chloromethane		<1	ug/L	1	10/12/98		5790
Dichlorodifluoromethane		<1	ug/L	1	10/12/98		5790
Dichloromethane		<1	ug/L	1	10/12/98		5790
Trichlorofluoromethane		<1	ug/L	1	10/12/98		5790
Tetrachloroethylene		<1	ug/L	1	10/12/98		5790
Toluene		<1	ug/L	1	10/12/98		5790
Trichloroethylene		<1	ug/L	1	10/12/98		5790
Vinyl chloride		<1	ug/L	1	10/12/98		5790
m,p-xylene		<1	ug/L	1	10/12/98		5790
o-xylene		<1	ug/L	1	10/12/98		5790
1,1-dichloroethane		<1	ug/L	1	10/12/98		5790
Ethylene dibromide		<1	ug/L	1	10/12/98		5790
cis-1,2-dichlorethylene		<1	ug/L	1	10/12/98		5790
trans-1,2-dichloroethylene		<1	ug/L	1	10/12/98		5790
Methylene chloride		<5	ug/L	5	10/12/98		5790
Surr. Dibromofluoromethane		93	%	71-132	10/12/98		5790
Surr. Toluene-d8		95	%	82-124	10/12/98		5790
Surr. 4-Bromofluorobenzene		94	%	76-126	10/12/98		5790

Order ID Number: 9810000164

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		<0.1	mg/L	0.1	10/12/98		5705
Nitrate		<0.2	mg/L	0.2	10/12/98		5705
Chloride		<0.5	mg/L	0.5	10/12/98		5705
Sulfate		<0.5	mg/L	0.5	10/12/98		5705
PCB		<0.001	mg/L	0.001	10/13/98	5366	5888
Cyanide		<0.01	mg/L	0.01	10/13/98		5761
Benzidine		<0.01	mg/L	0.01	10/14/98	5396	5781
Hexachlorobenzene		<0.001	mg/L	0.001	10/14/98	5396	5781
Pentachlorobenzene		<0.001	mg/L	0.001	10/14/98	5396	5781
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	10/14/98	5396	5781
Hexachloroethane		<0.001	mg/L	0.001	10/14/98	5396	5781
2,4-dichlorophenol		<0.005	mg/L	0.005	10/14/98	5396	5781
2,4,5-trichlorophenol		<0.005	mg/L	0.005	10/14/98	5396	5781
2,4,6-trichlorophenol		<0.005	mg/L	0.005	10/14/98	5396	5781
bis (2-chloroethl) ether		<0.005	mg/L	0.005	10/14/98	5396	5781
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	10/14/98	5396	5781
bis (chloromethyl) ether		<0.005	mg/L	0.005	10/14/98	5396	5781
3,3-dichlorobenzidine		<0.005	mg/L	0.005	10/14/98	5396	5781
4-dinitrotoluene		<0.001	mg/L	0.001	10/14/98	5396	5781
Diphenylhydrazine		<0.005	mg/L	0.005	10/14/98	5396	5781
Hexachlorobutadiene		<0.001	mg/L	0.001	10/14/98	5396	5781
Hexachlorocyclopentadiene		<0.001	mg/L	0.001	10/14/98	5396	5781
Isophorone		<0.005	mg/L	0.005	10/14/98	5396	5781
Nitrobenzene		<0.001	mg/L	0.001	10/14/98	5396	5781
2,4-dinitro-o-cresol		<0.001	mg/L	0.001	10/14/98	5396	5781
2,4-dinitrophenols		<0.005	mg/L	0.005	10/14/98	5396	5781
i-nitrosodiethylamine		<0.001	mg/L	0.001	10/14/98	5396	5781
N-nitrosodimethylamine		<0.001	mg/L	0.001	10/14/98	5396	5781
N-nitrosodibutylamine		<0.005	mg/L	0.005	10/14/98	5396	5781
N-nitrosodiphenylamine		<0.001	mg/L	0.001	10/14/98	5396	5781
N-nitrosopyrrolidine		<0.001	mg/L	0.001	10/14/98	5396	5781
Pentachlorophenol		<0.005	mg/L	0.005	10/14/98	5396	5781
Phenol		<0.001	mg/L	0.001	10/14/98	5396	5781
Dibutyl phthalate		<0.001	mg/L	0.001	10/14/98	5396	5781
bis(2-ethylhexyl) phthalate		0.051	mg/L	0.001	10/14/98	5396	5781
Diethyl phthalate		<0.001	mg/L	0.001	10/14/98	5396	5781
Dimethyl phthalate		<0.001	mg/L	0.001	10/14/98	5396	5781
Anthracene		<0.001	mg/L	0.001	10/14/98	5396	5781
Benzo(b)fluoranthene		<0.001	mg/L	0.001	10/14/98	5396	5781
Benzo(k)fluoranthene		<0.001	mg/L	0.001	10/14/98	5396	5781
Fluoranthene		<0.001	mg/L	0.001	10/14/98	5396	5781
Fluorene		<0.001	mg/L	0.001	10/14/98	5396	5781
Phenanthrene		<0.001	mg/L	0.001	10/14/98	5396	5781
Pyrene		<0.001	mg/L	0.001	10/14/98	5396	5781

Date: 10-20-98
Page # 16
Order ID Number: 9810000164

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Naphthalene		<0.001	mg/L	0.001	10/14/98	5396	5781
1-methylnaphthalene		<0.001	mg/L	0.001	10/14/98	5396	5781
2-methylnaphthalene		<0.001	mg/L	0.001	10/14/98	5396	5781
Benzo-a-pyrene		<0.001	mg/L	0.001	10/14/98	5396	5781
Surr. 2-Fluorophenol		25	%	1-85	10/14/98	5396	5781
Surr. Phenol-d6		13	%	0-82	10/14/98	5396	5781
Surr. Nitroobenzene-d5		78	%	38-111	10/14/98	5396	5781
Surr. 2-Fluorobiphenyl		79	%	38-103	10/14/98	5396	5781
Surr. 2,4,6-Tribromophenol		71	%	1-127	10/14/98	5396	5781
Surr. Terphenyl-d14		72	%	38-122	10/14/98	5396	5781
Benzidine		<0.01	mg/L	0.01	10/17/98	5396	5799
Hexachlorobenzene		<0.001	mg/L	0.001	10/17/98	5396	5799
Pentachlorobenzene		<0.001	mg/L	0.001	10/17/98	5396	5799
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	10/17/98	5396	5799
Hexachloroethane		<0.001	mg/L	0.001	10/17/98	5396	5799
2,4-dichlorophenol		<0.005	mg/L	0.005	10/17/98	5396	5799
2,4,5-trichlorophenol		<0.005	mg/L	0.005	10/17/98	5396	5799
2,4,6-trichlorophenol		<0.005	mg/L	0.005	10/17/98	5396	5799
s (2-chloroethl) ether		<0.005	mg/L	0.005	10/17/98	5396	5799
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	10/17/98	5396	5799
bis (chloromethyl) ether		<0.005	mg/L	0.005	10/17/98	5396	5799
3,3-dichlorobenzidine		<0.005	mg/L	0.005	10/17/98	5396	5799
2,4-dinitrotoluene		<0.001	mg/L	0.001	10/17/98	5396	5799
Diphenylhydrazine		<0.005	mg/L	0.005	10/17/98	5396	5799
Hexachlorobutadiene		<0.001	mg/L	0.001	10/17/98	5396	5799
Hexachlorocyclopentadiene		<0.001	mg/L	0.001	10/17/98	5396	5799
Isophorone		<0.005	mg/L	0.005	10/17/98	5396	5799
Nitrobenzene		<0.001	mg/L	0.001	10/17/98	5396	5799
2,4-dinitro-o-cresol		<0.001	mg/L	0.001	10/17/98	5396	5799
2,4-dinitrophenols		<0.005	mg/L	0.005	10/17/98	5396	5799
i-nitrosodiethylamine		<0.001	mg/L	0.001	10/17/98	5396	5799
N-nitrosodimethylamine		<0.001	mg/L	0.001	10/17/98	5396	5799
N-nitrosodibutylamine		<0.005	mg/L	0.005	10/17/98	5396	5799
N-nitrosodiphenylamine		<0.001	mg/L	0.001	10/17/98	5396	5799
N-nitrosopyrrolidine		<0.001	mg/L	0.001	10/17/98	5396	5799
Pentachlorophenol		<0.005	mg/L	0.005	10/17/98	5396	5799
Phenol		<0.001	mg/L	0.001	10/17/98	5396	5799
Dibutyl phthalate		<0.001	mg/L	0.001	10/17/98	5396	5799
bis(2-ethylhexyl) phthalate		0.051	mg/L	0.001	10/17/98	5396	5799
Diethyl phthalate		<0.001	mg/L	0.001	10/17/98	5396	5799
Dimethyl phthalate		<0.001	mg/L	0.001	10/17/98	5396	5799
Anthracene		<0.001	mg/L	0.001	10/17/98	5396	5799
Benzo(b)fluoranthene		<0.001	mg/L	0.001	10/17/98	5396	5799
enzo(k)fluoranthene		<0.001	mg/L	0.001	10/17/98	5396	5799

Order ID Number: 9810000164

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoranthene		<0.001	mg/L	0.001	10/17/98	5396	5799
Fluorene		<0.001	mg/L	0.001	10/17/98	5396	5799
Phenanthrene		<0.001	mg/L	0.001	10/17/98	5396	5799
Pyrene		<0.001	mg/L	0.001	10/17/98	5396	5799
Naphthalene		<0.001	mg/L	0.001	10/17/98	5396	5799
1-methylnaphthalene		<0.001	mg/L	0.001	10/17/98	5396	5799
2-methylnaphthalene		<0.001	mg/L	0.001	10/17/98	5396	5799
Benzo-a-pyrene		<0.001	mg/L	0.001	10/17/98	5396	5799
Surr. 2-Fluorophenol		25	%	1-85	10/17/98	5396	5799
Surr. Phenol-d6		13	%	0-82	10/17/98	5396	5799
Surr. Nitroobenzene-d5		78	%	38-111	10/17/98	5396	5799
Surr. 2-Fluorobiphenyl		79	%	38-103	10/17/98	5396	5799
Surr. 2,4,6-Tribromophenol		71	%	1-127	10/17/98	5396	5799
Surr. Terphenyl-d14		72	%	38-122	10/17/98	5396	5799
Arsenic		<0.10	mg/L	0.10	10/15/98	5398	5785
Barium		<0.10	mg/L	0.10	10/15/98	5398	5785
Cadmium		<0.01	mg/L	0.01	10/15/98	5398	5785
Chromium		<0.05	mg/L	0.05	10/15/98	5398	5785
Lead		<0.05	mg/L	0.05	10/15/98	5398	5785
Total Mercury		<0.001	mg/L	0.0010	10/11/98	5367	5726
Selenium		<0.05	mg/L	0.05	10/15/98	5398	5785
Silver		<0.05	mg/L	0.05	10/17/98	5398	5795
Uranium		<0.10	mg/L	0.10	10/15/98	5398	5785
Copper		<0.10	mg/L	0.10	10/15/98	5398	5785
Iron		<0.10	mg/L	0.10	10/18/98	5398	5812
Manganese		<0.10	mg/L	0.10	10/15/98	5398	5785
Zinc		<0.10	mg/L	0.10	10/15/98	5398	5785
Aluminum		<0.10	mg/L	0.10	10/18/98	5398	5812
Boron		<0.10	mg/L	0.10	10/17/98	5398	5795
Cobalt		<0.05	mg/L	0.05	10/15/98	5398	5785
Molybdenum		<0.10	mg/L	0.10	10/18/98	5398	5812
Nickel		<0.10	mg/L	0.10	10/15/98	5398	5785
Total Phenols		<0.01	mg/L	0.01	10/15/98		5781
TRPHC		<0.500	mg/L	0.5	10/12/98	5372	5750
PCB		<0.001	mg/L	<0.001	10/13/98	5366	5670
PCB		<0.001	mg/L	<0.001	10/21/98	5366	5888

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	108	108	10/16/98	5790
1,1-Dichloroethene		100	ug/L	100	100	10/16/98	5790
Chloroform		100	ug/L	80	80	10/16/98	5790
1,2-Dichloropropane		100	ug/L	85	85	10/16/98	5790
Toluene		100	ug/L	89	89	10/16/98	5790
Chlorobenzene		100	ug/L	90	90	10/16/98	5790
Ethylbenzene		100	ug/L	89	89	10/16/98	5790
Fluoride		2.5	mg/L	2.575	103	10/12/98	5705
Nitrate		5	mg/L	4.73	95	10/12/98	5705
Chloride		12.5	mg/L	12.265	98	10/12/98	5705
Sulfate		12.5	mg/L	11.68	93	10/12/98	5705
Total Mercury		5.0	mg/L	5.2	102	10/11/98	5726
PCB		0.40	mg/L	0.39	98	10/13/98	5888
Cyanide		0.12	mg/L	0.12	100	10/13/98	5761
Phenol		80	mg/L	90	113	10/14/98	5781
1,4-Dichlorobenzene		80	mg/L	86	108	10/14/98	5781
2-nitrophenol		80	mg/L	93	116	10/14/98	5781
2,4-Dichlorophenol		80	mg/L	78	98	10/14/98	5781
Hexachlorobutadiene		80	mg/L	88	110	10/14/98	5781
4-Chloro-3-methylphenol		80	mg/L	96	120	10/14/98	5781
2,4,6-Trichlorophenol		80	mg/L	77	96	10/14/98	5781
Acenaphthene		80	mg/L	85	106	10/14/98	5781
n-Nitrosodiphenylamine		80	mg/L	75	94	10/14/98	5781
Pentachlorophenol		80	mg/L	71	89	10/14/98	5781
Fluoranthene		80	mg/L	83	104	10/14/98	5781
Di-n-octylphthalate		80	mg/L	73	91	10/14/98	5781
Benzo(a)pyrene		80	mg/L	78	99	10/14/98	5781
Phenol		80	mg/L	65	81	10/17/98	5799
1,4-Dichlorobenzene		80	mg/L	72	90	10/17/98	5799
2-nitrophenol		80	mg/L	74	93	10/17/98	5799
2,4-Dichlorophenol		80	mg/L	76	95	10/17/98	5799
Hexachlorobutadiene		80	mg/L	72	90	10/17/98	5799
4-Chloro-3-methylphenol		80	mg/L	76	95	10/17/98	5799
2,4,6-Trichlorophenol		80	mg/L	74	93	10/17/98	5799
Acenaphthene		80	mg/L	71	89	10/17/98	5799
n-Nitrosodiphenylamine		80	mg/L	73	91	10/17/98	5799

Project Number: 19349
Order ID Number: 9810000164
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Pentachlorophenol		80	mg/L	86	108	10/17/98	5799
Fluoranthene		80	mg/L	78	98	10/17/98	5799
Di-n-octylphthalate		80	mg/L	93	116	10/17/98	5799
Benzo(a)pyrene		80	mg/L	74	93	10/17/98	5799
TDS		1,000	mg/L	1,026	103	10/7/02	5728
Total Phenol		0.80	mg/L	0.79	99	10/15/98	5781
Arsenic		1.0	mg/L	1.0	100	10/15/98	5785
Barium		1.0	mg/L	0.98	98	10/15/98	5785
Cadmium		1.0	mg/L	1.0	100	10/15/98	5785
Chromium		1.0	mg/L	1.0	100	10/15/98	5785
Lead		1.0	mg/L	1.0	100	10/15/98	5785
Selenium		1.0	mg/L	1.0	100	10/15/98	5785
Silver		1.0	mg/L	0.94	94	10/17/98	5795
Uranium		1.0	mg/L	0.94	94	10/15/98	5785
Copper		1.0	mg/L	1.0	100	10/15/98	5785
Iron		1.0	mg/L	0.96	96	10/18/98	5812
Manganese		1.0	mg/L	1.0	100	10/15/98	5785
Zinc		1.0	mg/L	1.0	100	10/15/98	5785
[illegible]uminum		1.0	mg/L	0.90	90	10/18/98	5812
Boron		1.0	mg/L	0.93	93	10/17/98	5795
Cobalt		1.0	mg/L	1.0	100	10/15/98	5785
Molybdenum		1.0	mg/L	1.0	100	10/18/98	5812
Nickel		1.0	mg/L	1.0	100	10/15/98	5785
pH		7.0	mg/L	7.0	100	10/8/98	5707
TRPHC		100	mg/L	105	105	10/12/98	5750
PCB		0.40	mg/L	0.39	98	10/13/98	5670
PCB		0.40	mg/L	0.43	108	1/21/98	5888

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	115	115	100	118	118	2.6	10/16/98		5790
Benzene		ug/L	<1	100	101	101	100	102	102	0.99	10/16/98		5790
Trichloroethene		ug/L	<1	100	104	104	100	106	106	1.9	10/16/98		5790
Toluene		ug/L	<1	100	108	108	100	110	110	0.9	10/16/98		5790
Chlorobenzene		ug/L	<1	100	107	107	100	105	105	1.9	10/16/98		5790
Fluoride		mg/L	2.0	12.5	14.71	102	12.5	14.97	104	1.9	10/12/98		5705
Nitrate		mg/L	3.6	25.0	26.58	92	25.0	26.51	92	0.0	10/12/98		5705
Chloride		mg/L	150	62.5	202.48	84	62.5	205.3	88	4.7	10/12/98		5705
Sulfate		mg/L	160	62.5	214.35	87	62.5	214.35	87	0	10/12/98		5705
Total Phenol		mg/L	<0.01	0.80	0.79	99	0.80	0.81	101	2	10/15/98		5781
PCB		mg/L	<0.001	0.005	0.004	75	0.005	0.004	75	3	10/13/98	5366	5888
[illegible]yanide		mg/L	<0.01	0.12	0.107	89	0.12	0.112	93	4.4	10/9/98		5699
[illegible]henol		mg/L	<0.001	0.10	0.0169	17	0.10	0.0168	17	0	10/14/98	5396	5781
2-Chlorophenol		mg/L	<0.001	0.10	0.0623	62	0.10	0.0584	58	6.7	10/14/98	5396	5781
1,4-Dichlorobenzene		mg/L	<0.001	0.10	0.0501	50	0.10	0.0457	46	8.3	10/14/98	5396	5781
n-Nitrosodi-n-propylamine		mg/L	<0.001	0.10	0.0702	70	0.10	0.0718	72	2.8	10/14/98	5396	5781
1,2,4-trichlorobenzene		mg/L	<0.001	0.10	0.054	54	0.10	0.0515	52	3.8	10/14/98	5396	5781
4-Chloro-3-methylphenol		mg/L	<0.001	0.10	0.0692	69	0.10	0.0720	72	4.3	10/14/98	5396	5781
Acenaphthene		mg/L	<0.001	0.10	0.0683	68	0.10	0.0712	71	4.3	10/14/98	5396	5781
4-Nitrophenol		mg/L	<0.001	0.10	0.0246	25	0.10	0.0249	25	0	10/14/98	5396	5781
2,4-Dinitrotoluene		mg/L	<0.001	0.10	0.0738	74	0.10	0.0807	81	9.0	10/14/98	5396	5781
Pentachlorophenol		mg/L	<0.001	0.10	0.0701	70	0.10	0.0747	75	6.9	10/14/98	5396	5781
Pyrene		mg/L	<0.001	0.10	0.0699	70	0.10	0.0794	79	12	10/14/98	5396	5781
Phenol		mg/L	<0.001	0.10	0.0169	17	0.10	0.0168	17	0	10/17/98	5396	5799
2-Chlorophenol		mg/L	<0.001	0.10	0.0623	62	0.10	0.0584	58	6.7	10/17/98	5396	5799
1,4-Dichlorobenzene		mg/L	<0.001	0.10	0.0501	50	0.10	0.0457	46	8.3	10/17/98	5396	5799
n-Nitrosodi-n-propylamine		mg/L	<0.001	0.10	0.0702	70	0.10	0.0718	72	2.8	10/17/98	5396	5799
1,2,4-trichlorobenzene		mg/L	<0.001	0.10	0.054	54	0.10	0.0515	52	3.8	10/17/98	5396	5799
4-Chloro-3-methylphenol		mg/L	<0.001	0.10	0.0692	69	0.10	0.0720	72	4.3	10/17/98	5396	5799
Acenaphthene		mg/L	<0.001	0.10	0.0683	68	0.10	0.0712	71	4.3	10/17/98	5396	5799
4-Nitrophenol		mg/L	<0.001	0.10	0.0246	25	0.10	0.0249	25	0	10/17/98	5396	5799
2,4-Dinitrotoluene		mg/L	<0.001	0.10	0.0738	74	0.10	0.0807	81	9.0	10/17/98	5396	5799
Pentachlorophenol		mg/L	<0.001	0.10	0.0701	70	0.10	0.0747	75	6.9	10/17/98	5396	5799
Pyrene		mg/L	<0.001	0.10	0.0699	70	0.10	0.0794	79	12	10/17/98	5396	5799
TRPHC		mg/L	<0.500	8.5	9.85	116	8.5	10.4	122	5.0	10/12/98	5372	5750
Arsenic		mg/L	<0.10	2.0	1.8	90	2.0	1.9	95	5.4	10/15/98	5398	5785
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	2.4	10/15/98	5398	5785
Cadmium		mg/L	<0.01	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5398	5785
[illegible]hromium		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
[illegible]ead		mg/L	<0.05	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5398	5785

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Parameter		Sample	Spike Amount	Matrix Spike	MS Percent	Duplicate Spike Amount	MSD	MSD Percent	MS/MSD	Date	Prep	Run
Selenium	mg/L	<0.05	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5398	5785
Silver	mg/L	<0.05	0.32	0.31	97	0.32	0.33	103	6.0	10/17/98	5398	5795
Uranium	mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Copper	mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Iron	mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/18/98	5398	5812
Manganese	mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	4.9	10/15/98	5398	5785
Zinc	mg/L	<0.10	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5398	5785
Aluminum	mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	10/18/98	5398	5812
Boron	mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/17/98	5398	5795
Cobalt	mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5398	5785
Molybdenum	mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	10/18/98	5398	5812
Nickel	mg/L	<0.10	2.0	2.0	100	2.0	1.9	95	5.1	10/15/98	5398	5785
Total Mercury	mg/L	<0.001	0.0050	0.0050	100	0.0050	0.0051	102	2	10/11/98	5367	5726
Cyanide	mg/L	<0.01	0.12	0.104	87	0.12	0.103	86	1.2	10/13/98		5761
PCB	mg/L	<0.001	0.005	0.0037	74	0.005	0.0038	76	2.7	10/13/98	5366	5670
PCB	mg/L	<0.001	0.005	0.0051	102	0.005	0.0054	108	5.7	10/21/98	5366	5670

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000164

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.8	8.8	0	10/8/98		5707
TDS		mg/L	790	818	3.5	10/11/98		5728

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Avenue, Ste. 9
Lubbock, TX 79424
Phone:806-794-1296
Fax:806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

otes: **American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.**

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-21-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
109059	GMW-2	10/1/98	8:56	10/3/98
109060	Trip Blank			10/3/98
109061	GMW-4	10/1/98	10:20	10/3/98
109062	Trip Blank			10/3/98
109063	GMW-6	10/1/98	9:32	10/3/98
109064	Trip Blank			10/3/98
109065	GMW-7	10/1/98	11:50	10/3/98
109066	Trip Blank			10/3/98
109067	GMW-8	10/1/98	11:20	10/3/98
109068	Trip Blank			10/3/98
109069	GMW-9	10/1/98	2:46	10/3/98
109070	Trip Blank			10/3/98
109071	GMW-10	10/1/98	8:15	10/3/98
109072	Trip Blank			10/3/98
109073	MW-9D	10/1/98	2:46	10/3/98
109074	Trip Blank			10/3/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	10/10/98		5712
Acrylonitrile		<5	ug/L	5	10/10/98		5712
Benzene		<1	ug/L	1	10/10/98		5712
Carbon tetrachloride		<1	ug/L	1	10/10/98		5712
Chlorobenzene		<1	ug/L	1	10/10/98		5712
1,2-dichloroethane		<1	ug/L	1	10/10/98		5712
1,1,2,2-tetrachloroethane		<1	ug/L	1	10/10/98		5712
1,1,1-trichloroethane		<1	ug/L	1	10/10/98		5712
1,1,2-trichloroethane		<1	ug/L	1	10/10/98		5712
1,1,2-trichloroethylene		<1	ug/L	1	10/10/98		5712
Chloroform		<1	ug/L	1	10/10/98		5712
Dichlorobenzene		<2	ug/L	2	10/10/98		5712
l-dichloroethylene		<1	ug/L	1	10/10/98		5712
Dichloropropenes		<1	ug/L	1	10/10/98		5712
Ethylbenzene		<1	ug/L	1	10/10/98		5712
Bromodichloromethane		<1	ug/L	1	10/10/98		5712
Bromomethane		<5	ug/L	5	10/10/98		5712
Chloromethane		<1	ug/L	1	10/10/98		5712
Dichlorodifluoromethane		<1	ug/L	1	10/10/98		5712
Dichloromethane		<1	ug/L	1	10/10/98		5712
Trichlorofluoromethane		<1	ug/L	1	10/10/98		5712
Tetrachloroethylene		<1	ug/L	1	10/10/98		5712
Toluene		<1	ug/L	1	10/10/98		5712
Trichloroethylene		<1	ug/L	1	10/10/98		5712
Vinyl chloride		<1	ug/L	1	10/10/98		5712
m,p-xylene		<1	ug/L	1	10/10/98		5712
o-xylene		<1	ug/L	1	10/10/98		5712
1,1-dichloroethane		<1	ug/L	1	10/10/98		5712
Ethylene dibromide		<1	ug/L	1	10/10/98		5712
cis-1,2-dichlorethylene		<1	ug/L	1	10/10/98		5712
trans-1,2-dichloroethylene		<1	ug/L	1	10/10/98		5712
Methylene chloride		<5	ug/L	5	10/10/98		5712
Surr. Dibromofluoromethane		97	%	71-132	10/10/98		5712
Surr. Toluene-d8		103	%	82-124	10/10/98		5712
Surr. 4-Bromofluorobenzene		99	%	76-126	10/10/98		5712
Acrolein		<5	ug/L	5	10/13/98		5764
Acrylonitrile		<5	ug/L	5	10/13/98		5764
enzene		<1	ug/L	1	10/13/98		5764

Project Number: 19349
Project Name: *Shell Grimes Tank Battery*
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Carbon tetrachloride		<1	ug/L	1	10/13/98		5764
Chlorobenzene		<1	ug/L	1	10/13/98		5764
1,2-dichloroethane		<1	ug/L	1	10/13/98		5764
1,1,2,2-tetrachloroethane		<1	ug/L	1	10/13/98		5764
1,1,1-trichloroethane		<1	ug/L	1	10/13/98		5764
1,1,2-trichloroethane		<1	ug/L	1	10/13/98		5764
1,1,2-trichloroethylene		<1	ug/L	1	10/13/98		5764
Chloroform		<1	ug/L	1	10/13/98		5764
Dichlorobenzene		<2	ug/L	2	10/13/98		5764
1,1-dichloroethylene		<1	ug/L	1	10/13/98		5764
Dichloropropenes		<1	ug/L	1	10/13/98		5764
Ethylbenzene		<1	ug/L	1	10/13/98		5764
Bromodichloromethane		<1	ug/L	1	10/13/98		5764
Bromomethane		<5	ug/L	5	10/13/98		5764
Chloromethane		<1	ug/L	1	10/13/98		5764
Dichlorodifluoromethane		<1	ug/L	1	10/13/98		5764
Dichloromethane		<1	ug/L	1	10/13/98		5764
Trichlorofluoromethane		<1	ug/L	1	10/13/98		5764
[redacted]etrachloroethylene		<1	ug/L	1	10/13/98		5764
[redacted]oluene		<1	ug/L	1	10/13/98		5764
Trichloroethylene		<1	ug/L	1	10/13/98		5764
Vinyl chloride		<1	ug/L	1	10/13/98		5764
m,p-xylene		<1	ug/L	1	10/13/98		5764
o-xylene		<1	ug/L	1	10/13/98		5764
1,1-dichloroethane		<1	ug/L	1	10/13/98		5764
Ethylene dibromide		<1	ug/L	1	10/13/98		5764
cis-1,2-dichlorethylene		<1	ug/L	1	10/13/98		5764
trans-1,2-dichloroethylene		<1	ug/L	1	10/13/98		5764
Methylene chloride		<5	ug/L	5	10/13/98		5764
Surr. Dibromofluoromethane		106	%	71-132	10/13/98		5764
Surr. Toluene-d8		96	%	82-124	10/13/98		5764
Surr. 4-Bromofluorobenzene		100	%	76-126	10/13/98		5764
Benzidine		<0.01	mg/L	0.01	10/9/98	5355	5713
Hexachlorobenzene		<0.001	mg/L	0.001	10/9/98	5355	5713
Pentachlorobenzene		<0.001	mg/L	0.001	10/9/98	5355	5713
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	10/9/98	5355	5713
Hexachloroethane		<0.001	mg/L	0.001	10/9/98	5355	5713
2,4-dichlorophenol		<0.005	mg/L	0.005	10/9/98	5355	5713
2,4,5-trichlorophenol		<0.005	mg/L	0.005	10/9/98	5355	5713
2,4,6-trichlorophenol		<0.005	mg/L	0.005	10/9/98	5355	5713
bis (2-chloroethl) ether		<0.005	mg/L	0.005	10/9/98	5355	5713
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	10/9/98	5355	5713
bis (chloromethyl) ether		<0.005	mg/L	0.005	10/9/98	5355	5713
[redacted]3-dichlorobenzidine		<0.005	mg/L	0.005	10/9/98	5355	5713

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM
Order ID Number: 9810000083

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-dinitrotoluene		<0.001	mg/L	0.001	10/9/98	5355	5713
Diphenylhydrazine		<0.005	mg/L	0.005	10/9/98	5355	5713
Hexachlorobutadiene		<0.001	mg/L	0.001	10/9/98	5355	5713
Hexachlorocyclopentadiene		<0.001	mg/L	0.001	10/9/98	5355	5713
Isophorone		<0.005	mg/L	0.005	10/9/98	5355	5713
Nitrobenzene		<0.001	mg/L	0.001	10/9/98	5355	5713
2,4-dinitro-o-cresol		<0.001	mg/L	0.001	10/9/98	5355	5713
2,4-dinitrophenols		<0.005	mg/L	0.005	10/9/98	5355	5713
i-nitrosodiethylamine		<0.001	mg/L	0.001	10/9/98	5355	5713
N-nitrosodimethylamine		<0.001	mg/L	0.001	10/9/98	5355	5713
N-nitrosodibutylamine		<0.005	mg/L	0.005	10/9/98	5355	5713
N-nitrosodiphenylamine		<0.001	mg/L	0.001	10/9/98	5355	5713
N-nitrosopyrrolidine		<0.001	mg/L	0.001	10/9/98	5355	5713
Pentachlorophenol		<0.005	mg/L	0.005	10/9/98	5355	5713
Phenol		<0.001	mg/L	0.001	10/9/98	5355	5713
Dibutyl phthalate		<0.001	mg/L	0.001	10/9/98	5355	5713
bis(2-ethylhexyl) phthalate		0.030	mg/L	0.001	10/9/98	5355	5713
Diethyl phthalate		<0.001	mg/L	0.001	10/9/98	5355	5713
imethyl phthalate		<0.001	mg/L	0.001	10/9/98	5355	5713
nthracene		<0.001	mg/L	0.001	10/9/98	5355	5713
Benzo(b)fluoranthene		<0.001	mg/L	0.001	10/9/98	5355	5713
Benzo(k)fluoranthene		<0.001	mg/L	0.001	10/9/98	5355	5713
Surr. Terphenyl-d14		94	%	38-122	10/9/98	5355	5713
Arsenic		<0.10	mg/L	0.10	10/15/98	5380	5782
Barium		<0.10	mg/L	0.10	10/15/98	5380	5782
Cadmium		<0.01	mg/L	0.01	10/15/98	5380	5782
Chromium		<0.05	mg/L	0.05	10/15/98	5380	5782
Lead		<0.05	mg/L	0.05	10/15/98	5380	5782
Total Mercury		<0.0002	mg/L	0.0002	10/11/98	5365	5725
Selenium		<0.05	mg/L	0.05	10/15/98	5380	5782
Silver		<0.05	mg/L	0.05	10/17/98	5380	5800
Uranium		<0.10	mg/L	0.10	10/15/98	5380	5782
Copper		<0.10	mg/L	0.10	10/15/98	5380	5782
Fluoranthene		<0.001	mg/L	0.001	10/9/98	5355	5713
Fluorene		<0.001	mg/L	0.001	10/9/98	5355	5713
Phenanthrene		<0.001	mg/L	0.001	10/9/98	5355	5713
Pyrene		<0.001	mg/L	0.001	10/9/98	5355	5713
Naphthalene		<0.001	mg/L	0.001	10/9/98	5355	5713
1-methylnaphthalene		<0.001	mg/L	0.001	10/9/98	5355	5713
2-methylnaphthalene		<0.001	mg/L	0.001	10/9/98	5355	5713
Benzo-a-pyrene		<0.001	mg/L	0.001	10/9/98	5355	5713
Surr. 2-Fluorophenol		57	%	1-85	10/9/98	5355	5713
Surr. Phenol-d6		43	%	0-82	10/9/98	5355	5713
urr. Nitroobenzene-d5		89	%	38-111	10/9/98	5355	5713

Order ID Number: 9810000083

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Surr. 2-Fluorobiphenyl		91	%	38-103	10/9/98	5355	5713
Surr. 2,4,6-Tribromophenol		84	%	1-127	10/9/98	5355	5713
Zinc		<0.10	mg/L	0.10	10/15/98	5380	5782
Boron		<0.10	mg/L	0.10	10/17/98	5380	5800
Cobalt		<0.05	mg/L	0.05	10/15/98	5380	5782
Nickel		<0.10	mg/L	0.10	10/15/98	5380	5782
Arsenic		<0.10	mg/L	0.10	10/15/98	5389	5782
Barium		<0.10	mg/L	0.10	10/15/98	5389	5782
Cadmium		<0.01	mg/L	0.01	10/15/98	5389	5782
Chromium		<0.05	mg/L	0.05	10/15/98	5389	5782
Lead		<0.05	mg/L	0.05	10/15/98	5389	5782
Total Mercury		<0.0002	mg/L	0.0002	10/13/98	5375	5763
Selenium		<0.05	mg/L	0.05	10/15/98	5389	5782
Silver		<0.05	mg/L	0.05	10/17/98	5389	5800
Uranium		<0.10	mg/L	0.10	10/15/98	5389	5782
Copper		<0.10	mg/L	0.10	10/15/98	5389	5782
Iron		<0.10	mg/L	0.10	10/18/98	5380	5812
Manganese		<0.10	mg/L	0.10	10/15/98	5389	5782
[illegible]nc		<0.10	mg/L	0.10	10/15/98	5389	5782
[illegible]luminum		<0.10	mg/L	0.10	10/18/98	5380	5812
Boron		<0.10	mg/L	0.10	10/17/98	5389	5800
Cobalt		<0.05	mg/L	0.05	10/15/98	5389	5782
Molybdenum		<0.10	mg/L	0.10	10/18/98	5380	5812
Nickel		<0.10	mg/L	0.10	10/15/98	5389	5782
Total Phenols		<0.01	mg/L	0.01	10/15/98		5783
TRPHC		<0.500	mg/L	0.500	10/7/98	5342	5700
Fluoride		<0.1	mg/L	0.1	10/6/98		5695
Nitrate		<0.1	mg/L	0.1	10/9/98		5711
Chloride		<0.5	mg/L	0.5	10/6/98		5695
Sulfate		<0.5	mg/L	0.5	10/6/98		5695
Fluoride		<0.1	mg/L	0.1	10/6/98		5696
Chloride		<0.5	mg/L	0.5	10/6/98		5696
Sulfate		<0.5	mg/L	0.5	10/6/98		5696
PCB		<0.001	mg/L	0.001	10/13/98	5366	5670
PCB		<0.001	mg/L	0.001	10/21/98	5366	5888
Cyanide		<0.01	mg/L	0.01	10/9/98		5709
Cyanide		<0.01	mg/L	0.01	10/9/98		5710

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	115	115	10/10/98	5712
1,1-Dichloroethene		100	ug/L	112	112	10/10/98	5712
Chloroform		100	ug/L	117	117	10/10/98	5712
1,2-Dichloropropane		100	ug/L	115	115	10/10/98	5712
Toluene		100	ug/L	117	117	10/10/98	5712
Chlorobenzene		100	ug/L	112	112	10/10/98	5712
Ethylbenzene		100	ug/L	119	119	10/10/98	5712
Vinyl chloride		100	ug/L	117	117	10/13/98	5764
1,1-Dichloroethene		100	ug/L	84	84	10/13/98	5764
Chloroform		100	ug/L	91	91	10/13/98	5764
1,2-Dichloropropane		100	ug/L	94	94	10/13/98	5764
Toluene		100	ug/L	99	99	10/13/98	5764
Chlorobenzene		100	ug/L	95	95	10/13/98	5764
Ethylbenzene		100	ug/L	95	95	10/13/98	5764
Fluoride		2.5	mg/L	2.430	97	10/6/98	5695
Nitrate		0.133	mg/L	0.119	89	10/9/98	5711
Chloride		12.5	mg/L	12.415	99	10/6/98	5695
Sulfate		12.5	mg/L	12.32	99	10/6/98	5695
Fluoride		2.5	mg/L	2.425	97	10/6/98	5696
Chloride		12.5	mg/L	12.415	99	10/6/98	5696
Sulfate		12.5	mg/L	12.28	98	10/6/98	5696
PCB		0.40	mg/L	0.39	98	10/13/98	5670
PCB		0.40	mg/L	0.43	108	10/21/98	5888
Cyanide		0.12	mg/L	0.113	94	10/6/98	5709
Cyanide		0.12	mg/L	0.112	93	10/6/98	5710
Phenol		80	mg/L	83	104	10/9/98	5712
1,4-Dichlorobenzene		80	mg/L	83	104	10/9/98	5713
2-nitrophenol		80	mg/L	91	114	10/9/98	5713
2,4-Dichlorophenol		80	mg/L	89	111	10/9/98	5713
Hexachlorobutadiene		80	mg/L	84	105	10/9/98	5713
4-Chloro-3-methylphenol		80	mg/L	87	109	10/9/98	5713
2,4,6-Trichlorophenol		80	mg/L	75	94	10/9/98	5713
Acenaphthene		80	mg/L	85	106	10/9/98	5713
n-Nitrosodiphenylamine		80	mg/L	80	100	10/9/98	5713
Pentachlorophenol		80	mg/L	81	101	10/9/98	5713
Fluoranthene		80	mg/L	87	109	10/9/98	5713
Di-n-octylphthalate		80	mg/L	76	95	10/9/98	5713
Benzo(a)pyrene		80	mg/L	80	100	10/9/98	5713

Project Number: 19349
Order ID Number: 9810000083
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Total Phenol		0.80	mg/L	0.79	99	10/15/98	5783
Arsenic		1.0	mg/L	1.0	100	10/15/98	5782
Barium		1.0	mg/L	0.98	98	10/15/98	5782
Cadmium		1.0	mg/L	1.0	100	10/15/98	5782
Chromium		1.0	mg/L	1.0	100	10/15/98	5782
Lead		1.0	mg/L	1.0	100	10/15/98	5782
Selenium		1.0	mg/L	1.0	100	10/15/98	5782
Silver		1.0	mg/L	0.94	94	10/17/98	5800
Uranium		1.0	mg/L	0.94	94	10/15/98	5782
Copper		1.0	mg/L	1.0	100	10/15/98	5782
Zinc		1.0	mg/L	1.0	100	10/15/98	5782
Boron		1.0	mg/L	0.93	93	10/17/98	5800
Cobalt		1.0	mg/L	1.0	100	10/15/98	5782
Nickel		1.0	mg/L	1.0	100	10/15/98	5782
Arsenic		1.0	mg/L	0.99	99	10/15/98	5783
Barium		1.0	mg/L	0.92	92	10/15/98	5783
Cadmium		1.0	mg/L	0.95	95	10/15/98	5783
Chromium		1.0	mg/L	0.95	95	10/15/98	5783
Lead		1.0	mg/L	0.98	98	10/15/98	5783
Selenium		1.0	mg/L	1.0	100	10/15/98	5783
Silver		1.0	mg/L	0.99	99	10/17/98	5800
Uranium		1.0	mg/L	0.94	94	10/15/98	5783
Copper		1.0	mg/L	0.94	94	10/15/98	5783
Iron		1.0	mg/L	0.96	96	10/18/98	5812
Manganese		1.0	mg/L	0.95	95	10/15/98	5783
Zinc		1.0	mg/L	0.97	97	10/15/98	5783
Aluminum		1.0	mg/L	0.95	95	10/18/98	5812
Boron		1.0	mg/L	0.98	98	10/17/98	5800
Cobalt		1.0	mg/L	1.0	100	10/15/98	5783
Molybdenum		1.0	mg/L	1.0	100	10/18/98	5812
Nickel		1.0	mg/L	1.0	100	10/15/98	5783
Total Mercury		0.0010	mg/L	0.0011	110	10/11/98	5725
Total Mercury		1.0	mg/L	1.0	100	10/13/98	5763
pH		7.0	mg/L	7.0	100	10/3/98	5669
TRPHC		100	mg/L	105	105	10/7/98	5700
TDS		1,000	mg/L	956	96	10/5/98	5682
TDS		1,000	mg/L	983	98	10/6/98	5693

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	127	127	100	126	126	1	10/10/98		5712
Benzene		ug/L	<1	100	108	108	100	108	108	0	10/10/98		5712
Trichloroethene		ug/L	<1	100	114	114	100	112	112	2.0	10/10/98		5712
Toluene		ug/L	<1	100	118	118	100	118	118	0	10/10/98		5712
Chlorobenzene		ug/L	<1	100	112	112	100	113	113	0	10/10/98		5712
1,1-Dichloroethene		ug/L	<1	100	84	84	100	86	86	2.4	10/13/98		5764
Benzene		ug/L	<1	100	101	101	100	101	101	0	10/13/98		5764
Trichloroethene		ug/L	<1	100	104	104	100	103	103	0.97	10/13/98		5764
Toluene		ug/L	<1	100	108	108	100	109	109	0.92	10/13/98		5764
Chlorobenzene		ug/L	<1	100	102	102	100	103	103	0.98	10/13/98		5764
Fluoride		mg/L	1.7	12.5	14.03	99	12.5	14.12	99	0	10/6/98		5695
trate		mg/L	4.81	13.3	15.57	81	13.3	15.45	80	1.2	10/9/98		5711
Chloride		mg/L	46	62.5	107.51	98	62.5	108.01	99	1.0	10/6/98		5695
Sulfate		mg/L	79	62.5	138.43	95	62.5	138.35	95	0	10/6/98		5695
Fluoride		mg/L	2.3	12.5	14.37	97	12.5	14.36	96	1.0	10/6/98		5696
Chloride		mg/L	64	62.5	121.99	93	62.5	122.7	94	1.1	10/6/98		5696
Sulfate		mg/L	87	62.5	149.23	100	62.5	149.26	100	0	10/6/98		5696
PCB		mg/L	<0.001	0.005	0.0037	74	0.005	0.0038	76	2.7	10/13/98	5366	5670
PCB		mg/L	<0.001	0.005	0.0051	102	0.005	0.0054	108	5.7	10/21/98	5366	5888
Cyanide		mg/L	<0.01	0.12	0.107	89	0.12	0.112	93	4.4	10/6/98		5709
Cyanide		mg/L	<0.01	0.12	0.107	89	0.12	0.099	83	7.0	10/6/98		5710
Phenol		mg/L	<0.001	0.10	0.0381	38	0.10	0.0376	38	0	10/9/98	5355	5713
2-Chlorophenol		mg/L	<0.001	0.10	0.0748	75	0.10	0.0724	72	4.1	10/9/98	5355	5713
1,4-Dichlorobenzene		mg/L	<0.001	0.10	0.0597	60	0.10	0.0520	52	14	10/9/98	5355	5713
n-Nitrosodi-n-propylamine		mg/L	<0.001	0.10	0.0776	78	0.10	0.0796	80	2.5	10/9/98	5355	5713
1,2,4-trichlorobenzene		mg/L	<0.001	0.10	0.0697	70	0.10	0.0631	63	11	10/9/98	5355	5713
4-Chloro-3-methylphenol		mg/L	<0.001	0.10	0.0863	86	0.10	0.0830	83	3.6	10/9/98	5355	5713
Acenaphthene		mg/L	<0.001	0.10	0.0809	81	0.10	0.0772	77	5.1	10/9/98	5355	5713
4-Nitrophenol		mg/L	<0.001	0.10	0.0109	11	0.10	0.0095	10	9.5	10/9/98	5355	5713
2,4-Dinitrotoluene		mg/L	<0.001	0.10	0.0837	84	0.10	0.0881	88	4.7	10/9/98	5355	5713
Pentachlorophenol		mg/L	<0.001	0.10	0.0674	67	0.10	0.0647	65	3.0	10/9/98	5355	5713
Pyrene		mg/L	<0.001	0.10	0.0997	100	0.10	0.0816	82	20	10/9/98	5355	5713
TRPHC		mg/L	<0.500	8.5	9.34	110	8.5	10.9	128	15	10/7/98	5342	5700
Arsenic		mg/L	<0.10	2.0	1.8	90	2.0	1.9	95	5.4	10/15/98	5380	5782
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	4.9	10/15/98	5380	5782
Cadmium		mg/L	<0.01	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5380	5782
hromium		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5380	5782

Project Number: 19349
Order ID Number: 9810000083
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/L	<0.05	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5380	5782
Selenium		mg/L	<0.05	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5380	5782
Silver		mg/L	<0.05	0.32	0.31	97	0.32	0.33	103	6.0	10/17/98	5380	5800
Uranium		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5380	5782
Copper		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5380	5782
Zinc		mg/L	<0.10	2.0	1.9	95	2.0	1.8	90	5.4	10/15/98	5380	5782
Boron		mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/12/98	5380	5800
Cobalt		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5380	5782
Nickel		mg/L	<0.10	2.0	2.0	100	2.0	1.9	95	5.1	10/15/98	5380	5782
Total Mercury		mg/L	<0.0002	0.0010	0.0012	120	0.0010	0.0012	120	0	10/11/98	5365	5725
Arsenic		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Barium		mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/15/98	5389	5783
Cadmium		mg/L	<0.01	2.0	1.8	90	2.0	1.8	90	0	10/15/98	5389	5783
Chromium		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Lead		mg/L	<0.05	2.0	1.8	90	2.0	1.9	95	5.4	10/15/98	5389	5783
Selenium		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Silver		mg/L	<0.05	0.32	0.30	94	0.32	0.31	97	3.1	10/17/98	5389	5800
Uranium		mg/L	<0.10	2.0	1.9	95	2.0	1.7	85	11	10/15/98	5389	5783
Copper		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Iron		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	10/18/98	5380	5812
Manganese		mg/L	<0.10	2.0	2.0	100	2.0	1.9	95	5.1	10/15/98	5389	5783
Zinc		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Aluminum	LCS	mg/L	<0.10	2.0	1.8	90	2.0	2.0	100	11	10/18/98	5380	5812
Boron		mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/17/98	5389	5800
Cobalt		mg/L	<0.05	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Molybdenum		mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	10/18/98	5380	5812
Nickel		mg/L	<0.10	2.0	1.9	95	2.0	1.9	95	0	10/15/98	5389	5783
Total Mercury	LCS	mg/L	<0.0002	0.0010	0.0012	120	0.0010	0.0012	120	0	10/13/98	5375	5763
Total Phenol		mg/L	<0.01	0.80	0.82	103	0.80	0.84	105	1.9	10/15/98		5873

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9810000083

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.0	7.0	0	10/3/98		5670
TDS		mg/L	430	425	1.2	10/5/98		5682
TDS		mg/L	300,000	305,000	1.7	10/6/98		5693

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Avenue, Ste. 9
Lubbock, TX 79424
Phone:806-794-1296
Fax:806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: **American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.**

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page # 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106091	TSB-4 2-3'	8/24/98	10:22	8/26/98
106092	TSB-4 3-5'	8/24/98	10:27	8/26/98
106093	TSB-4 18-20'	8/24/98	10:58	8/26/98
106094	TSB-5 2-3'	8/24/98	8:53	8/26/98
106095	TSB-5 3-5'	8/24/98	8:57	8/26/98
106096	TSB-5 18-20'	8/24/98	9:25	8/26/98
106097	TSB-9 2-3'	8/24/98	15:30	8/26/98
106098	TSB-9 3-5'	8/24/98	15:34	8/26/98
106099	TSB-9 18-20'	8/24/98	16:05	8/26/98
106100	TSB-1112-3'	8/24/98	13:06	8/26/98
106101	TSB-11 3-5'	8/24/98	13:11	8/26/98
106102	TSB-11 18-20'	8/24/98	13:40	8/26/98
106103	TSB-11 29-31'	8/24/98	14:30	8/26/98
106104	Trip Blank			8/26/98
106105	Field Blank	8/24/98		8/26/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
Chloroform		<1	ug/L	1	9/7/98		5220
Dichlorobenzene		<2	ug/L	2	9/7/98		5220
[illegible]1-dichloroethylene		<1	ug/L	1	9/7/98		5220
[illegible]ichloropropenes		<1	ug/L	1	9/7/98		5220
Ethylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		96	%	86-118	9/7/98		5220
Surr. Toluene-d8		89	%	88-110	9/7/98		5220
Surr. 4-Bromofluorobenzene		86	%	86-115	9/7/98		5220
Acrolein		<125	ug/Kg	125	9/3/98		5206
Acrylonitrile		<125	ug/Kg	125	9/3/98		5206
Benzene		<25	ug/Kg	25	9/3/98		5206
[illegible]arbon tetrachloride		<25	ug/Kg	25	9/3/98		5206
[illegible]hlorobenzene		<25	ug/Kg	25	9/3/98		5206

Date: 10-6-98

Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5206
Chloroform		<25	ug/Kg	25	9/3/98		5206
Dichlorobenzene		<50	ug/Kg	50	9/3/98		5206
1,1-dichloroethylene		<25	ug/Kg	25	9/3/98		5206
Dichloropropenes		<25	ug/Kg	25	9/3/98		5206
Ethylbenzene		<25	ug/Kg	25	9/3/98		5206
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5206
Bromomethane		<125	ug/Kg	125	9/3/98		5206
Chloromethane		<25	ug/Kg	25	9/3/98		5206
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5206
Dichloromethane		<25	ug/Kg	25	9/3/98		5206
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5206
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5206
Toluene		<25	ug/Kg	25	9/3/98		5206
[redacted]hloroethylene		<25	ug/Kg	25	9/3/98		5206
[redacted]l chloride		<25	ug/Kg	25	9/3/98		5206
m,p-xylene		<25	ug/Kg	25	9/3/98		5206
o-xylene		<25	ug/Kg	25	9/3/98		5206
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5206
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5206
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5206
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5206
Methylene chloride		<125	ug/Kg	125	9/3/98		5206
Surr. Dibromofluoromethane		99	%	86-118	9/3/98		5206
Surr. Toluene-d8		93	%	88-110	9/3/98		5206
Surr. 4-Bromofluorobenzene		94	%	86-115	9/3/98		5206
Acrolein		<125	ug/Kg	125	9/6/98		5207
Acrylonitrile		<125	ug/Kg	125	9/6/98		5207
Benzene		<25	ug/Kg	25	9/6/98		5207
Carbon tetrachloride		<25	ug/Kg	25	9/6/98		5207
Chlorobenzene		<25	ug/Kg	25	9/6/98		5207
1,2-dichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,1-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethylene		<25	ug/Kg	25	9/6/98		5207
Chloroform		<25	ug/Kg	25	9/6/98		5207
Dichlorobenzene		<50	ug/Kg	50	9/6/98		5207
1,1-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Dichloropropenes		<25	ug/Kg	25	9/6/98		5207
[redacted]hylbenzene		<25	ug/Kg	25	9/6/98		5207
[redacted]modichloromethane		<25	ug/Kg	25	9/6/98		5207

Date: 10-6-98
Page # 45
Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Bromomethane		<125	ug/Kg	125	9/6/98		5207
Chloromethane		<25	ug/Kg	25	9/6/98		5207
Dichlorodifluoromethane		<25	ug/Kg	25	9/6/98		5207
Dichloromethane		<25	ug/Kg	25	9/6/98		5207
Trichlorofluoromethane		<25	ug/Kg	25	9/6/98		5207
Tetrachloroethylene		<25	ug/Kg	25	9/6/98		5207
Toluene		<25	ug/Kg	25	9/6/98		5207
Trichloroethylene		<25	ug/Kg	25	9/6/98		5207
Vinyl chloride		<25	ug/Kg	25	9/6/98		5207
m,p-xylene		<25	ug/Kg	25	9/6/98		5207
o-xylene		<25	ug/Kg	25	9/6/98		5207
1,1-dichloroethane		<25	ug/Kg	25	9/6/98		5207
Ethylene dibromide		<25	ug/Kg	25	9/6/98		5207
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/6/98		5207
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Methylene chloride		<125	ug/Kg	125	9/6/98		5207
Surr. Dibromofluoromethane		101	%	86-118	9/6/98		5207
Surr. Toluene-d8		89	%	88-110	9/6/98		5207
[redacted]urr. 4-Bromofluorobenzene		92	%	86-115	9/6/98		5207
[redacted]CB		<0.1	mg/Kg	0.1	9/9/98	4910	5262
PCB		<0.1	mg/Kg	0.1	9/9/98	4911	5263
Total Phenols		<0.25	mg/Kg	0.25	9/16/98		5356
Total Phenols		<0.25	mg/Kg	0.25	9/16/98		5357
Arsenic		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Barium		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5040	5354
Chromium		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Lead		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Selenium		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Silver		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Uranium		<2.0	mg/Kg	2.0	9/16/98	5040	5354
Copper		<1.0	mg/Kg	1.0	9/16/98	5040	5354
Iron		<10	mg/Kg	10	9/17/98	5040	5373
Manganese		<1.0	mg/Kg	1.0	9/16/98	5040	5354
Zinc		<2.0	mg/Kg	2.0	9/16/98	5040	5354
Aluminum		<0.50	mg/Kg	10	9/17/98	5040	5373
Boron		<10	mg/Kg	10	9/16/98	5040	5354
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5040	5354
Nickel		<0.50	mg/Kg	0.50	9/16/98	5040	5354
Arsenic		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Barium		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5041	5355
Chromium		<0.50	mg/Kg	0.50	9/16/98	5041	5355
[redacted]ead		<0.50	mg/Kg	0.50	9/16/98	5041	5355
[redacted]elenium		<0.50	mg/Kg	0.50	9/16/98	5041	5355

[redacted]ject Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Silver		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Uranium		<2.0	mg/Kg	2.0	9/16/98	5041	5355
Copper		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Iron		<10	mg/Kg	10	9/17/98	5041	5374
Manganese		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Zinc		<2.0	mg/Kg	2.0	9/16/98	5041	5355
Aluminum		<0.50	mg/Kg	10	9/16/98	5041	5374
Boron		<10	mg/Kg	10	9/16/98	5041	5355
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Nickel		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Fluoride		<0.2	mg/Kg	0.2	9/19/98		5421
Chloride		<1.0	mg/Kg	1	9/19/98		5421
Nitrate		<0.2	mg/Kg	0.2	9/19/98		5421
Sulfate		<1.0	mg/Kg	1	9/19/98		5421
Fluoride		<0.2	mg/Kg	0.2	9/19/98		5422
Chloride		<1.0	mg/Kg	1	9/19/98		5422
Nitrate		<0.2	mg/Kg	0.2	9/19/98		5422
[redacted]fate		<1.0	mg/Kg	1	9/19/98		5422
[redacted]ride		<0.2	mg/Kg	0.2	9/19/98		5423
Chloride		<1.0	mg/Kg	1.0	9/19/98		5423
Nitrate		<0.2	mg/Kg	0.2	9/19/98		5423
Sulfate		<1.0	mg/Kg	1.0	9/19/98		5423
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5480
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5481
Chloride		<1.0	mg/Kg	1.0	9/21/98		5481
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5481
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5481
Benzidine		<2.5	mg/kg	2.5	9/9/98	4920	5455
Hexachlorobenzene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Pentachlorobenzene		<0.25	mg/kg	0.25	9/9/98	4920	5455
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Hexachloroethane		<0.25	mg/kg	0.25	9/9/98	4920	5455
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/9/98	4920	5455
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/9/98	4920	5455
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/9/98	4920	5455
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/9/98	4920	5455
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/9/98	4920	5455
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/9/98	4920	5455
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/9/98	4920	5455
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Diphenylhydrazine		<1.25	mg/kg	1.25	9/9/98	4920	5455
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/9/98	4920	5455
[redacted]phorone		<1.25	mg/kg	1.25	9/9/98	4920	5455
[redacted]benzene		<0.25	mg/kg	0.25	9/9/98	4920	5455

Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/9/98	4920	5455
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/9/98	4920	5455
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/9/98	4920	5455
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/9/98	4920	5455
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/9/98	4920	5455
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/9/98	4920	5455
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/9/98	4920	5455
Pentachlorophenol		<1.25	mg/kg	1.25	9/9/98	4920	5455
Dibutyl phthalate		<0.25	mg/kg	0.25	9/9/98	4920	5455
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/9/98	4920	5455
Diethyl phthalate		<0.25	mg/kg	0.25	9/9/98	4920	5455
Dimethyl phthalate		<0.25	mg/kg	0.25	9/9/98	4920	5455
Anthracene		<0.25	mg/kg	0.25	9/9/98	4920	5455
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Fluoranthene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Fluorene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Phenanthrene		<0.25	mg/kg	0.25	9/9/98	4920	5455
[redacted]yrene		<0.25	mg/kg	0.25	9/9/98	4920	5455
[redacted]aphthalene		<0.25	mg/kg	0.25	9/9/98	4920	5455
1-methylnaphthalene		<0.25	mg/kg	0.25	9/9/98	4920	5455
2-methylnaphthalene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/9/98	4920	5455
Surr. 2-Fluorophenol		61	%	25-121	9/9/98	4920	5455
Surr. Phenol-d6		64	%	24-113	9/9/98	4920	5455
Surr. Nitroobenzene-d5		48	%	23-120	9/9/98	4920	5455
Surr. 2-Fluorobiphenyl		73	%	30-115	9/9/98	4920	5455
Surr. 2,4,6-Tribromophenol		56	%	19-122	9/9/98	4920	5455
Surr. Terphenyl-d14		56	%	28-137	9/9/98	4920	5455
Benzidine		<2.5	mg/kg	2.5	9/20/98	4921	5470
Hexachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Pentachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Hexachloroethane		<0.25	mg/kg	0.25	9/20/98	4921	5470
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Diphenylhydrazine		<1.25	mg/kg	1.25	9/20/98	4921	5470
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/20/98	4921	5470
[redacted]ophorone		<1.25	mg/kg	1.25	9/20/98	4921	5470

Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Nitrobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/20/98	4921	5470
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/20/98	4921	5470
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/20/98	4921	5470
Pentachlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
Dibutyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Diethyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Dimethyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Anthracene		<0.25	mg/kg	0.25	9/20/98	4921	5470
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Fluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Fluorene		<0.25	mg/kg	0.25	9/20/98	4921	5470
[illegible]nanthrene		<0.25	mg/kg	0.25	9/20/98	4921	5470
[illegible]ene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Naphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470
1-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470
2-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Surr. 2-Fluorophenol		61	%	25-121	9/20/98	4921	5470
Surr. Phenol-d6		64	%	24-113	9/20/98	4921	5470
Surr. Nitroobenzene-d5		48	%	23-120	9/20/98	4921	5470
Surr. 2-Fluorobiphenyl		73	%	30-115	9/20/98	4921	5470
Surr. 2,4,6-Tribromophenol		56	%	19-122	9/20/98	4921	5470
Surr. Terphenyl-d14		56	%	28-137	9/20/98	4921	5470
Cyanide		<0.01	mg/kg	0.01	9/1/98		5185
Cyanide		<0.01	mg/kg	0.01	9/1/98		5186
TRPHC		<10	mg/kg	10	8/29/98	4809	5160

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
Chloroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
Vinyl chloride		100	ug/L	90	90	9/3/98	5206
1,1-Dichloroethene		100	ug/L	91	91	9/3/98	5206
Chloroform		100	ug/L	89	89	9/3/98	5206
1,2-Dichloropropane		100	ug/L	99	99	9/3/98	5206
Toluene		100	ug/L	84	84	9/3/98	5206
Chlorobenzene		100	ug/L	81	81	9/3/98	5206
Ethylbenzene		100	ug/L	80	80	9/3/98	5206
Vinyl chloride		100	ug/L	92	92	9/6/98	5207
1,1-Dichloroethene		100	ug/L	98	98	9/6/98	5207
Chloroform		100	ug/L	91	91	9/6/98	5207
1,2-Dichloropropane		100	ug/L	82	82	9/6/98	5207
Toluene		100	ug/L	86	86	9/6/98	5207
Chlorobenzene		100	ug/L	87	87	9/6/98	5207
Ethylbenzene		100	ug/L	86	86	9/6/98	5207
PCB		0.40	mg/L	0.39	98	9/9/98	5262
PCB		0.40	mg/L	0.38	95	9/9/98	5263
Total Phenols		0.80	mg/L	0.81	101	9/16/98	5356
Total Phenols		0.80	mg/L	0.80	100	9/16/98	5357
TDS		1,000	mg/L	960	96	9/19/98	5417
TDS		1,000	mg/L	996	100	9/18/98	5400
Arsenic		1.0	mg/L	1.0	100	9/16/98	5354
Barium		1.0	mg/L	0.99	99	9/16/98	5354
Cadmium		1.0	mg/L	0.99	99	9/16/98	5354
Chromium		1.0	mg/L	1.0	100	9/16/98	5354
Lead		1.0	mg/L	1.0	100	9/16/98	5354
Selenium		1.0	mg/L	1.0	100	9/16/98	5354
Silver		1.0	mg/L	0.90	90	9/16/98	5354
Uranium		1.0	mg/L	1.0	100	9/16/98	5354
Copper		1.0	mg/L	0.99	99	9/16/98	5354
Iron		100.0	mg/L	101.0	101	9/17/98	5373

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Date: 10-6-98
Page # 50
Order ID Number: 9808000510

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Manganese		1.0	mg/L	0.99	99	9/16/98	5354
Zinc		1.0	mg/L	0.93	93	9/16/98	5354
Aluminum		250.0	mg/L	259.0	104	9/17/98	5373
Boron		1.0	mg/L	0.99	99	9/16/98	5354
Cobalt		1.0	mg/L	0.99	99	9/16/98	5354
Molybdenum		1.0	mg/L	0.95	95	9/16/98	5354
Nickel		1.0	mg/L	0.97	97	9/16/98	5354
Arsenic		1.0	mg/L	1.0	100	9/16/98	5355
Barium		1.0	mg/L	1.0	100	9/16/98	5355
Cadmium		1.0	mg/L	1.0	100	9/16/98	5355
Chromium		1.0	mg/L	1.0	100	9/16/98	5355
Lead		1.0	mg/L	1.0	100	9/16/98	5355
Selenium		1.0	mg/L	1.0	100	9/16/98	5355
Silver		1.0	mg/L	0.98	98	9/16/98	5355
Uranium		1.0	mg/L	1.0	100	9/16/98	5355
Copper		1.0	mg/L	1.0	100	9/16/98	5355
Iron		100.0	mg/L	101.0	101	9/17/98	5374
[redacted]ganese		1.0	mg/L	1.0	100	9/16/98	5355
Zinc		1.0	mg/L	1.0	100	9/16/98	5355
Aluminum		250.0	mg/L	259.0	104	9/17/98	5374
Boron		1.0	mg/L	1.0	100	9/16/98	5355
Cobalt		1.0	mg/L	1.0	100	9/16/98	5355
Molybdenum		1.0	mg/L	1.0	100	9/16/98	5355
Nickel		1.0	mg/L	1.0	100	9/16/98	5355
Fluoride		2.5	mg/L	2.505	100	9/19/98	5421
Chloride		1.5	mg/L	12.255	98	9/19/98	5421
Nitrate		5	mg/L	5.215	104	9/19/98	5421
Sulfate		12.5	mg/L	13.22	106	9/19/98	5421
Fluoride		2.5	mg/L	2.5	100	9/19/98	5422
Chloride		12.5	mg/L	12.24	98	9/19/98	5422
Nitrate		5	mg/L	5.18	104	9/19/98	5422
Sulfate		12.5	mg/L	13.35	107	9/19/98	5422
Sulfate		12.5	mg/L	11.815	95	9/21/98	5480
Fluoride		2.5	mg/L	2.365	95	9/21/98	5481
Chloride		1.5	mg/L	11.685	93	9/21/98	5481
Nitrate		5	mg/L	4.79	96	9/21/98	5481
Sulfate		12.5	mg/L	11.815	95	9/21/98	5481
Phenol		80	mg/L	77	96	9/19/98	5455
1,4-Dichlorobenzene		80	mg/L	67	84	9/19/98	5455
2-nitrophenol		80	mg/L	77	96	9/19/98	5455
2,4-Dichlorophenol		80	mg/L	79	99	9/19/98	5455
[redacted]xachlorobutadiene		80	mg/L	67	84	9/19/98	5455
[redacted]hloro-3-methylphenol		80	mg/L	68	85	9/19/98	5455

Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2,4,6-Trichlorophenol		80	mg/L	69	86	9/19/98	5455
Acenaphthene		80	mg/L	69	86	9/19/98	5455
n-Nitrosodiphenylamine		80	mg/L	80	100	9/19/98	5455
Pentachlorophenol		80	mg/L	86	108	9/19/98	5455
Fluoranthene		80	mg/L	71	88	9/19/98	5455
Di-n-octylphthalate		80	mg/L	84	105	9/19/98	5455
Benzo(a)pyrene		80	mg/L	69	86	9/19/98	5455
Phenol		80	mg/L	79	99	9/20/98	5470
1,4-Dichlorobenzene		80	mg/L	76	95	9/20/98	5470
2-nitrophenol		80	mg/L	76	95	9/20/98	5470
2,4-Dichlorophenol		80	mg/L	83	104	9/20/98	5470
Hexachlorobutadiene		80	mg/L	73	91	9/20/98	5470
4-Chloro-3-methylphenol		80	mg/L	76	95	9/20/98	5470
2,4,6-Trichlorophenol		80	mg/L	82	103	9/20/98	5470
Acenaphthene		80	mg/L	77	96	9/20/98	5470
n-Nitrosodiphenylamine		80	mg/L	76	95	9/20/98	5470
Pentachlorophenol		80	mg/L	64	82	9/20/98	5470
Fluoranthene		80	mg/L	64	82	9/20/98	5470
Di-n-octylphthalate		80	mg/L	79	99	9/20/98	5470
Benzo(a)pyrene		80	mg/L	66	83	9/20/98	5470
Cyanide		0.12	mg/L	0.11	92	9/1/98	5185
Cyanide		0.12	mg/L	0.12	100	9/1/98	5186
TRPHC		100	mg/L	101	101	8/29/98	5160

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	6.1	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0.0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	1.0	9/7/98		5220
Chlorobenzene		ug/L	<1	100	88	88	100	87	87	1.8	9/7/98		5220
1,1-Dichloroethene		mg/Kg	<25	100	99	99	100	120	120	19	9/3/98		5206
Benzene		mg/Kg	<25	100	104	104	100	119	119	13	9/3/98		5206
Trichloroethene		mg/Kg	<25	100	113	113	100	120	120	6.0	9/3/98		5206
Toluene		mg/Kg	<25	100	101	101	100	118	118	16.0	9/3/98		5206
[illegible]robenzene		mg/Kg	<25	100	88	88	100	106	106	19	9/3/98		5206
[illegible]Dichloroethene		mg/Kg	<69	100	97	97	100	97	97	0	9/6/98		5207
Benzene		mg/Kg	<69	100	104	104	100	105	105	0.96	9/6/98		5207
Trichloroethene		mg/Kg	<69	100	117	117	100	116	116	0.9	9/6/98		5207
Toluene		mg/Kg	<69	100	104	104	100	104	104	0.0	9/6/98		5207
Chlorobenzene		mg/Kg	<69	100	90	90	100	89	89	1.1	9/6/98		5207
PCB		mg/Kg	<0.1	0.40	0.40	100	0.40	0.38	95	5.1	9/9/98	4910	5262
PCB		mg/Kg	<0.1	0.40	0.40	100	0.40	0.38	95	5.1	9/9/98	4911	5263
Total Phenols		mg/Kg	<0.01	20.00	20.50	103	20.00	20.75	104	0.97	9/16/98		5356
Total Phenols		mg/Kg	<0.25	20.00	24.55	123	20.00	25.03	125	1.6	9/16/98		5357
Arsenic		mg/Kg	<0.50	200	160	80	200	163	82	2.5	9/16/98	5041	5355
Barium		mg/Kg	<0.50	200	171	86	200	175	88	2.3	9/16/98	5041	5355
Cadmium		mg/Kg	<0.10	200	163	82	200	165	83	1.2	9/16/98	5041	5355
Chromium		mg/Kg	<0.50	200	173	87	200	169	85	2.3	9/16/98	5041	5355
Lead		mg/Kg	<0.50	200	163	83	200	163	82	1.2	9/16/98	5041	5355
Selenium		mg/Kg	<0.50	200	150	75	200	150	75	0	9/16/98	5041	5355
Silver		mg/Kg	<0.50	100	88	88	100	90	90	2.2	9/16/98	5041	5355
Uranium		mg/Kg	<2.0	200	176	88	200	163	90	2.2	9/16/98	5041	5355
Copper		mg/Kg	<1.0	200	167	84	200	173	87	3.5	9/16/98	5041	5355
Manganese		mg/Kg	<1.0	200	168	84	200	167	84	0	9/16/98	5041	5355
Zinc		mg/Kg	<2.0	200	160	80	200	159	80	0	9/16/98	5041	5355
Boron		mg/Kg	<10	200	156	78	200	156	78	0	9/16/98	5041	5355
Cobalt		mg/Kg	<0.50	200	156	78	200	163	82	5.0	9/16/98	5041	5355
Molybdenum		mg/Kg	<1.0	200	160	80	200	166	83	3.7	9/16/98	5041	5355
Nickel		mg/Kg	<0.50	200	160	80	200	160	80	0	9/16/98	5041	5355
Fluoride		mg/Kg	2.8	5	7.49	94	5	7.51	94	0	9/19/98		5421

Date: 10-6-98

Order ID Number: 9808000510

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Chloride		mg/Kg	14	25	39.6	102	25	39.66	103	0.98	9/19/98		5421
Nitrate		mg/Kg	1.7	10	11.67	100	10	11.79	101	1.0	9/19/98		5421
Sulfate		mg/Kg	8.62	25	34.82	105	25	34.92	105	0	9/19/98		5421
Fluoride		mg/Kg	11	5	15.9	98	5	16.11	102	4.0	9/19/98		5422
Chloride		mg/Kg	18	25	41.67	95	25	41.41	94	1.1	9/19/98		5422
Nitrate		mg/Kg	1.8	10	11.98	102	10	11.48	97	5.0	9/19/98		5422
Sulfate		mg/Kg	8.62	25	34.77	105	25	34.35	103	1.9	9/19/98		5422
Sulfate		mg/Kg	97.71	25	118.1	82	25	117.34	78	5.0	9/21/98		5480
Fluoride		mg/Kg	2.79	5	7.48	94	5	7.53	95	1.1	9/21/98		5481
Chloride		mg/Kg	20.62	25	45.27	99	25	45.13	98	1.0	9/21/98		5481
Nitrate		mg/Kg	6.9	10	16.43	95	10	16.42	95	0	9/21/98		5481
Sulfate		mg/Kg	97.71	25	118.1	82	25	117.34	78	5.0	9/21/98		5481
Phenol		mg/Kg	<0.25	10.00	5.23	52	10.00	5.66	57	9.2	9/19/98	4920	5455
2-Chlorophenol		mg/Kg	<1.25	10.00	4.89	49	10.00	5.17	52	5.9	9/19/98	4920	5455
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.21	62	10.00	6.51	65	4.7	9/19/98	4920	5455
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.12	51	10.00	5.44	54	5.7	9/19/98	4920	5455
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	5.99	60	10.00	6.11	61	1.7	9/19/98	4920	5455
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.11	51	10.00	5.45	55	7.5	9/19/98	4920	5455
Acenaphthene		mg/Kg	<0.25	10.00	6.46	65	10.00	7.06	71	8.8	9/19/98	4920	5455
4-Nitrophenol		mg/Kg	<1.25	10.00	3.54	35	10.00	4.3	43	20	9/19/98	4920	5455
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5.89	59	10.00	6.52	65	9.7	9/19/98	4920	5455
Pentachlorophenol		mg/Kg	<1.25	10.00	5.61	56	10.00	6.1	61	8.5	9/19/98	4920	5455
Pyrene		mg/Kg	<0.25	10.00	6.73	67	10.00	7.13	71	5.8	9/19/98	4920	5455
Phenol		mg/Kg	<0.25	10.00	5.77	58	10.00	6.19	62	6.7	9/20/98	4921	5470
2-Chlorophenol		mg/Kg	<1.25	10.00	5.78	58	10.00	6.08	61	5.0	9/20/98	4921	5470
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.21	72	10.00	7.41	74	2.7	9/20/98	4921	5470
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	6.52	65	10.00	7.03	70	7.4	9/20/98	4921	5470
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.59	66	10.00	6.86	69	4.4	9/20/98	4921	5470
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.7	57	10.00	5.99	60	5.1	9/20/98	4921	5470
Acenaphthene		mg/Kg	<0.25	10.00	7.7	77	10.00	8	80	3.8	9/20/98	4921	5470
4-Nitrophenol		mg/Kg	<1.25	10.00	4.19	42	3.00	3.57	36	15	9/20/98	4921	5470
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.67	67	10.00	7.2	72	1.4	9/20/98	4921	5470
Pentachlorophenol		mg/Kg	<1.25	10.00	3.7	37	10.00	4.32	43	17	9/20/98	4921	5470
Pyrene		mg/Kg	<0.25	10.00	6.94	69	10.00	7.36	74	7.0	9/20/98	4921	5470
Cyanide	LCS	mg/Kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	9/1/98		5185
Cyanide	LCS	mg/Kg	<0.01	0.12	0.11	92	0.12	0.12	100	8.3	9/1/98		5186
TRPHC		mg/Kg	<10	250	269	108	250	249	100	7.7	8/29/98	4809	5160

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000510

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
TDS		mg/Kg	716	761	6.1	9/19/98		5417
TDS		mg/Kg	400	384	3.8	9/18/98		5400
Ph		s.u.	8.0	8.1	12	8/27/98		5134

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
107157	Trip Blank			9/10/98
107158	Field Blank	9/8/98	16:30	9/10/98
107159	GSB-11 2-3'	9/8/98	9:11	9/10/98
107160	GSB-11 33-35'	9/8/98	13:09	9/10/98
107161	GSB-11 48-50'	9/8/98	15:09	9/10/98
107162	GSB-11D 48-50'	9/8/98	15:09	9/10/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/17/98		5377
Acrylonitrile		<5	ug/L	5	9/17/98		5377
Benzene		<1	ug/L	1	9/17/98		5377
Carbon tetrachloride		<1	ug/L	1	9/17/98		5377
Chlorobenzene		<1	ug/L	1	9/17/98		5377
1,2-dichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/17/98		5377
1,1,1-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethylene		<1	ug/L	1	9/17/98		5377
Chloroform		<1	ug/L	1	9/17/98		5377
Dichlorobenzene		<2	ug/L	2	9/17/98		5377
1,1-dichloroethylene		<1	ug/L	1	9/17/98		5377
[illegible]loropropenes		<1	ug/L	1	9/17/98		5377
[illegible]lbenzene		<1	ug/L	1	9/17/98		5377
Bromodichloromethane		<1	ug/L	1	9/17/98		5377
Bromomethane		<5	ug/L	5	9/17/98		5377
Chloromethane		<1	ug/L	1	9/17/98		5377
Dichlorodifluoromethane		<1	ug/L	1	9/17/98		5377
Dichloromethane		<1	ug/L	1	9/17/98		5377
Trichlorofluoromethane		<1	ug/L	1	9/17/98		5377
Tetrachloroethylene		<1	ug/L	1	9/17/98		5377
Toluene		<1	ug/L	1	9/17/98		5377
Trichloroethylene		<1	ug/L	1	9/17/98		5377
Vinyl chloride		<1	ug/L	1	9/17/98		5377
m,p-xylene		<1	ug/L	1	9/17/98		5377
o-xylene		<1	ug/L	1	9/17/98		5377
1,1-dichloroethane		<1	ug/L	1	9/17/98		5377
Ethylene dibromide		<1	ug/L	1	9/17/98		5377
cis-1,2-dichlorethylene		<1	ug/L	1	9/17/98		5377
trans-1,2-dichloroethylene		<1	ug/L	1	9/17/98		5377
Methylene chloride		<5	ug/L	5	9/17/98		5377
Surr. Dibromofluoromethane		107	%	72-132	9/17/98		5377
Surr. Toluene-d8		112	%	82-124	9/17/98		5377
Surr. 4-Bromofluorobenzene		110	%	76-126	9/17/98		5377
Acrolein		<125	ug/Kg	125	9/20/98		5461
Acrylonitrile		<125	ug/Kg	125	9/20/98		5461
Benzene		<25	ug/Kg	25	9/20/98		5461
Carbon tetrachloride		<25	ug/Kg	25	9/20/98		5461
[illegible]lorobenzene		<25	ug/Kg	25	9/20/98		5461
[illegible]dichloroethane		<25	ug/Kg	25	9/20/98		5461

Order ID Number: 9808000159

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,1-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Chloroform		<25	ug/Kg	25	9/20/98		5461
Dichlorobenzene		<50	ug/Kg	2	9/20/98		5461
1,1-dichloroethylene		<25	ug/Kg	50	9/20/98		5461
Dichloropropenes		<25	ug/Kg	25	9/20/98		5461
Ethylbenzene		<25	ug/Kg	25	9/20/98		5461
Bromodichloromethane		<25	ug/Kg	25	9/20/98		5461
Bromomethane		<125	ug/Kg	125	9/20/98		5461
Chloromethane		<25	ug/Kg	25	9/20/98		5461
Dichlorodifluoromethane		<25	ug/Kg	25	9/20/98		5461
Dichloromethane		<25	ug/Kg	25	9/20/98		5461
Trichlorofluoromethane		<25	ug/Kg	25	9/20/98		5461
Tetrachloroethylene		<25	ug/Kg	25	9/20/98		5461
Toluene		<25	ug/Kg	25	9/20/98		5461
Trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Vinyl chloride		<25	ug/Kg	25	9/20/98		5461
[redacted]p-xylene		<25	ug/Kg	25	9/20/98		5461
[redacted]xylene		<25	ug/Kg	25	9/20/98		5461
1,1-dichloroethane		<25	ug/Kg	25	9/20/98		5461
Ethylene dibromide		<25	ug/Kg	25	9/20/98		5461
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/20/98		5461
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/20/98		5461
Methylene chloride		<125	ug/Kg	125	9/20/98		5461
Surr. Dibromofluoromethane		101	%	72-132	9/20/98		5461
Surr. Toluene-d8		99	%	82-124	9/20/98		5461
Surr. 4-Bromofluorobenzene		102	%	76-126	9/20/98		5461
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Cyanide		<0.01	mg/Kg	0.01	9/15/98		5332
Total Mercury		<0.10	mg/Kg	<0.10	9/18/98	5086	5399
Arsenic		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Barium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Cadmium		<0.10	mg/Kg	0.10	9/18/98	5090	5402
Chromium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Lead		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Selenium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Silver		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Uranium		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Copper		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Iron		<10	mg/Kg	10	9/20/98	5090	5461
Manganese		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Zinc		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Aluminum		<10	mg/Kg	10	9/20/98	5090	5461
[redacted]oron		<10	mg/Kg	10	9/18/98	5090	5402
[redacted]balt		<0.50	mg/Kg	0.50	9/18/98	5090	5402

Date: 10-9-98

Order ID Number: 9808000159

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Molybdenum		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Nickel		<0.50	mg/Kg	0.50	9/18/98	5090	5402
TRPHC		<10.0	mg/Kg	10	9/15/98	4988	5324
Benzidine		<2.5	mg/kg	2.5	9/18/98	5030	5410
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	5030	5410
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Diphenylhydrazine		<1.25	mg/kg	1.25	9/18/98	5030	5410
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	5030	5410
[redacted]horone		<1.25	mg/kg	1.25	9/18/98	5030	5410
[redacted]obenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	5030	5410
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	5030	5410
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Anthracene		<0.25	mg/kg	0.25	9/18/98	5030	5410
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Fluoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Fluorene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pyrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Naphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
2-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/18/98	5030	5410
[redacted]r. 2-Fluorophenol		61	%	25-121	9/18/98	5030	5410
[redacted]. Phenol-d6		64	%	24-113	9/18/98	5030	5410

Project Number: 19349
Order ID Number: 9808000159
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Surr. Nitroobenzene-d5		48	%	23-120	9/18/98	5030	5410
Surr. 2-Fluorobiphenyl		73	%	30-115	9/18/98	5030	5410
Surr. 2,4,6-Tribromophenol		56	%	19-122	9/18/98	5030	5410
Surr. Terphenyl-d14		56	%	28-137	9/18/98	5030	5410
MTBE		<0.050	mg/kg	0.05	9/14/98		5321
Benzene		<0.050	mg/kg	0.05	9/14/98		5321
Toluene		<0.050	mg/kg	0.05	9/14/98		5321
Ethylbenzene		<0.050	mg/kg	0.05	9/14/98		5321
m,p,o-xylene		<0.050	mg/kg	0.05	9/14/98		5321
Chloride		<2.0	mg/kg	2.0	9/20/98		5422
Total Phenols		<0.25	mg/kg	0.25	9/20/98		5451
Fluoride		<0.2	mg/kg	0.2	9/21/98		5491
Chloride		<1.0	mg/Kg	1.0	9/21/98		5491
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5491
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5491

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	120	120	9/14/98	5377
1,1-Dichloroethene		100	ug/L	118	118	9/14/98	5377
Chloroform		100	ug/L	116	116	9/14/98	5377
1,2-Dichloropropane		100	ug/L	114	114	9/14/98	5377
Toluene		100	ug/L	115	115	9/14/98	5377
Chlorobenzene		100	ug/L	113	113	9/14/98	5377
Ethylbenzene		100	ug/L	114	114	9/14/98	5377
Vinyl chloride		100	ug/L	117	117	9/20/98	5461
1,1-Dichloroethene		100	ug/L	119	119	9/20/98	5461
Chloroform		100	ug/L	109	109	9/20/98	5461
1,2-Dichloropropane		100	ug/L	107	107	9/20/98	5461
[illegible]ene		100	ug/L	116	116	9/20/98	5461
Chlorobenzene		100	ug/L	112	112	9/20/98	5461
Ethylbenzene		100	ug/L	120	120	9/20/98	5461
PCB		0.400	mg/L	0.410	103	9/18/98	5401
Cyanide		0.12	mg/L	0.11	92	9/15/98	5332
Total Mercury		5.0	mg/L	4.8	96	9/18/98	5399
Arsenic		1.0	mg/L	1.0	100	9/18/98	5402
Barium		1.0	mg/L	0.99	99	9/18/98	5402
Cadmium		1.0	mg/L	1.0	100	9/18/98	5402
Chromium		1.0	mg/L	1.0	100	9/18/98	5402
Lead		1.0	mg/L	1.0	100	9/18/98	5402
Selenium		1.0	mg/L	0.99	0.99	9/18/98	5402
Silver		1.0	mg/L	1.0	100	9/18/98	5402
Uranium		1.0	mg/L	0.98	98	9/18/98	5402
Copper		1.0	mg/L	0.99	99	9/18/98	5402
Iron		100.0	mg/L	106.0	106	9/20/98	5461
Manganese		1.0	mg/L	0.99	99	9/18/98	5402
Zinc		1.0	mg/L	1.0	100	9/18/98	5402
Aluminum		250.0	mg/L	251.0	100	9/20/98	5461
Boron		1.0	mg/L	0.99	99	9/18/98	5402
Cobalt		1.0	mg/L	1.0	100	9/18/98	5402
Molybdenum		1.0	mg/L	0.96	96	9/18/98	5402
Nickel		1.0	mg/L	0.99	99	9/18/98	5402

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM
Order ID Number: 9808000159

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
TRPHC		100	mg/L	103	103	9/15/98	5324
Phenol		80	mg/L	81	101	9/18/98	5410
1,4-Dichlorobenzene		80	mg/L	78	98	9/18/98	5410
2-nitrophenol		80	mg/L	81	101	9/18/98	5410
2,4-Dichlorophenol		80	mg/L	87	109	9/18/98	5410
Hexachlorobutadiene		80	mg/L	80	100	9/18/98	5410
4-Chloro-3-methylphenol		80	mg/L	70	88	9/18/98	5410
2,4,6-Trichlorophenol		80	mg/L	84	105	9/18/98	5410
Acenaphthene		80	mg/L	84	105	9/18/98	5410
n-Nitrosodiphenylamine		80	mg/L	74	93	9/18/98	5410
Pentachlorophenol		80	mg/L	76	95	9/18/98	5410
Fluoranthene		80	mg/L	71	89	9/18/98	5410
Di-n-octylphthalate		80	mg/L	74	93	9/18/98	5410
Benzo(a)pyrene		80	mg/L	75	94	9/18/98	5410
pH		7	s.u.	7	100	9/11/98	5284
MTBE		0.100	mg/L	0.089	89	9/14/98	5321
Benzene		0.100	mg/L	0.091	91	9/14/98	5321
[illegible]oluene		0.100	mg/L	0.089	89	9/14/98	5321
[illegible]hylbenzene		0.100	mg/L	0.092	92	9/14/98	5321
m,p,o-xylene		0.100	mg/L	0.269	90	9/14/98	5321
Chloride		500	mg/L	500	100	9/20/98	5422
TDS		1,000	mg/L	976	98	9/21/98	5449
Total Phenols		0.80	mg/L	0.80	100	9/20/98	5451
Fluoride		2.5	mg/L	2.48	99	9/21/98	5491
Chloride		12.5	mg/L	12.63	101	9/21/98	5491
Nitrate		5	mg/L	5.09	102	9/21/98	5491
Sulfate		12.5	mg/L	12.88	103	9/21/98	5491

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	136	136	100	119	119	13	9/17/98		5377
Benzene		ug/L	<1	100	121	121	100	110	110	9.5	9/17/98		5377
Trichloroethene		ug/L	<1	100	122	122	100	111	111	9.4	9/17/98		5377
Toluene		ug/L	<1	100	116	116	100	106	106	9.0	9/17/98		5377
Chlorobenzene		ug/L	<1	100	104	104	100	94	94	10.0	9/17/98		5377
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Cyanide	lcs	mg/Kg	<0.01	0.12	0.10	83	0.12	0.09	75	10	9/15/98		5332
1,1-Dichloroethene		mg/Kg	<25	100	127	127	100	127	127	0	9/20/98		5461
Benzene		mg/Kg	<25	100	121	121	100	124	124	2.4	9/20/98		5461
Trichloroethene		mg/Kg	<25	100	124	124	100	124	124	0	9/20/98		5461
Toluene		mg/Kg	<25	100	116	116	100	119	119	2.6	9/20/98		5461
Chlorobenzene		mg/Kg	<25	100	106	106	100	106	106	0	9/20/98		5461
Total Mercury		mg/Kg	<0.10	2.5	2.5	100	2.5	2.5	100	0	9/18/98	5086	5399
Total Phenols		mg/Kg	2.8	20	22.9	101	20	23.3	103	2	9/20/98		5451
Arsenic		mg/Kg	<0.50	200	167	84	200	168	84	0	9/18/98	5090	5402
Barium		mg/Kg	<0.50	200	182	91	200	184	92	1.1	9/18/98	5090	5402
Cadmium		mg/Kg	<0.10	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Chromium		mg/Kg	<0.50	200	182	91	200	182	91	0	9/18/98	5090	5402
Lead		mg/Kg	<0.50	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Selenium		mg/Kg	<0.50	200	165	83	200	161	81	2.4	9/18/98	5090	5402
Silver		mg/Kg	<0.50	350	350	100	350	413	118	17	9/18/98	5090	5402
Uranium		mg/Kg	<2.0	200	192	96	200	190	95	1.0	9/18/98	5090	5402
Copper		mg/Kg	<1.0	200	175	88	200	176	88	0	9/18/98	5090	5402
Manganese		mg/Kg	<1.0	200	179	90	200	178	89	1.1	9/18/98	5090	5402
Zinc		mg/Kg	<2.0	200	178	89	200	176	88	1.1	9/18/98	5090	5402
TRPHC		mg/Kg	<10.0	250	205	82	250	235	94	14	9/15/98	4988	5324
Phenol		mg/Kg	<0.25	10.00	5.56	56	10.00	5.94	59	5.2	9/18/98	5030	5410
2-Chlorophenol		mg/Kg	<1.25	10.00	5.52	55	10.00	5.74	57	3.6	9/18/98	5030	5410
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.58	66	10.00	6.85	69	4.4	9/18/98	5030	5410
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.21	72	10.00	8.33	83	14	9/18/98	5030	5410
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.36	64	10.00	6.75	68	6.1	9/18/98	5030	5410
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.25	53	10.00	5.86	59	11	9/18/98	5030	5410
Acenaphthene		mg/Kg	<0.25	10.00	6.77	68	10.00	7.24	72	5.7	9/18/98	5030	5410
4-Nitrophenol		mg/Kg	<1.25	10.00	3.9	39	10.00	4.49	45	14	9/18/98	5030	5410
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5.74	57	10.00	6.42	64	12	9/18/98	5030	5410
Pentachlorophenol		mg/Kg	<1.25	10.00	3.76	38	10.00	4.55	46	19	9/18/98	5030	5410
Pyrene		mg/Kg	<0.25	10.00	5.76	58	10.00	6.34	63	8.3	9/18/98	5030	5410
MTBE		mg/Kg	<0.050	5.00	5.12	102	5.00	5.26	105	2.9	9/14/98		5321
Benzene		mg/Kg	<0.050	5.00	5.42	108	5.00	5.51	110	1.8	9/14/98		5321
Toluene		mg/Kg	<0.050	5.00	5.39	108	5.00	5.5	110	1.8	9/14/98		5321
Ethylbenzene		mg/Kg	<0.050	5.00	5.57	111	5.00	5.66	113	1.8	9/14/98		5321

Order ID Number: 9808000159

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
m,p,o-xylene		mg/Kg	0.159	15	16.5	109	15	16.9	112	2.7	9/14/98		5321
Chloride		mg/Kg	140	4,000	4622	112	4,000	4622	112	0	9/20/98		5422
Boron		mg/Kg	<10	200	170	85	200	166	83	2.4	9/18/98	5090	5402
Cobalt		mg/Kg	<0.50	200	175	88	200	179	90	2.2	9/18/98	5090	5402
Molybdenum		mg/Kg	<1.0	200	176	88	200	173	87	1.1	9/18/98	5090	5402
Nickel		mg/Kg	<0.50	200	172	86	200	173	87	1.2	9/18/98	5090	5402
Aluminum		mg/Kg	<10	200	165	83	200	169	85	2.4	9/20/98	5090	5461
Iron		mg/Kg	<10	200	160	80	200	157	79	1.3	9/20/98	5090	5461
Fluoride		mg/Kg	7.21	5	12.33	102	5	12.25	101	0.99	9/21/98		5491
Chloride		mg/Kg	168.9	25	193.53	99	25	187.55	75	3.1	9/21/98		5491
Nitrate		mg/Kg	1.64	10	11.17	95	10	11.65	100	5.1	9/21/98		5491
Sulfate		mg/Kg	55.5	25	82.33	107	25	81.31	103	3.8	9/21/98		5491

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.9	7.9	0.00	9/11/98		5284
TDS		mg/Kg	1,100.0	1,080.00	1.8	9/21/98		5449

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 1

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
108238	TMW-3 2-3'	9/22/98	8:50	9/26/98
108239	TMW-3 3-5'	9/22/98	8:55	9/26/98
108240	TMW-3 23-25'	9/22/98	9:40	9/26/98
108241	TMW-3 63-65'	9/22/98	14:50	9/26/98
108242	Field Blank	9/22/98	16:30	9/26/98
108243	Trip Blank			9/26/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	10/3/98		5671
Acrylonitrile		<5	ug/L	5	10/3/98		5671
Benzene		<1	ug/L	1	10/3/98		5671
Carbon tetrachloride		<1	ug/L	1	10/3/98		5671
Chlorobenzene		<1	ug/L	1	10/3/98		5671
1,2-dichloroethane		<1	ug/L	1	10/3/98		5671
1,1,2,2-tetrachloroethane		<1	ug/L	1	10/3/98		5671
1,1,1-trichloroethane		<1	ug/L	1	10/3/98		5671
1,1,2-trichloroethane		<1	ug/L	1	10/3/98		5671
1,1,2-trichloroethylene		<1	ug/L	1	10/3/98		5671
Chloroform		<1	ug/L	1	10/3/98		5671
Dichlorobenzene		<2	ug/L	2	10/3/98		5671
1,1-dichloroethylene		<1	ug/L	1	10/3/98		5671
[illegible]ichloropropenes		<1	ug/L	1	10/3/98		5671
[illegible]thylbenzene		<1	ug/L	1	10/3/98		5671
Bromodichloromethane		<1	ug/L	1	10/3/98		5671
Bromomethane		<5	ug/L	5	10/3/98		5671
Chloromethane		<1	ug/L	1	10/3/98		5671
Dichlorodifluoromethane		<1	ug/L	1	10/3/98		5671
Dichloromethane		<1	ug/L	1	10/3/98		5671
Trichlorofluoromethane		<1	ug/L	1	10/3/98		5671
Tetrachloroethylene		<1	ug/L	1	10/3/98		5671
Toluene		<1	ug/L	1	10/3/98		5671
Trichloroethylene		<1	ug/L	1	10/3/98		5671
Vinyl chloride		<1	ug/L	1	10/3/98		5671
m,p-xylene		<1	ug/L	1	10/3/98		5671
o-xylene		<1	ug/L	1	10/3/98		5671
1,1-dichloroethane		<1	ug/L	1	10/3/98		5671
Ethylene dibromide		<1	ug/L	1	10/3/98		5671
cis-1,2-dichlorethylene		<1	ug/L	1	10/3/98		5671
trans-1,2-dichloroethylene		<1	ug/L	1	10/3/98		5671
Methylene chloride		<5	ug/L	5	10/3/98		5671
Surr. Dibromofluoromethane		105	%	72-130	10/3/98		5671
Surr. Toluene-d8		98	%	77-127	10/3/98		5671
Surr. 4-Bromofluorobenzene		101	%	72-131	10/3/98		5671
Acrolein		<125	ug/Kg	125	10/9/98		5709
Acrylonitrile		<125	ug/Kg	125	10/9/98		5709
Benzene		<25	ug/Kg	25	10/9/98		5709
Carbon tetrachloride		<25	ug/Kg	25	10/9/98		5709
[illegible]hlorobenzene		<25	ug/Kg	25	10/9/98		5709
[illegible]2-dichloroethane		<25	ug/Kg	25	10/9/98		5709

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	10/9/98		5709
1,1,1-trichloroethane		<25	ug/Kg	25	10/9/98		5709
1,1,2-trichloroethane		<25	ug/Kg	25	10/9/98		5709
1,1,2-trichloroethylene		<25	ug/Kg	25	10/9/98		5709
Chloroform		<25	ug/Kg	25	10/9/98		5709
Dichlorobenzene		<50	ug/Kg	2	10/9/98		5709
1,1-dichloroethylene		<25	ug/Kg	50	10/9/98		5709
Dichloropropenes		<25	ug/Kg	25	10/9/98		5709
Ethylbenzene		<25	ug/Kg	25	10/9/98		5709
Bromodichloromethane		<25	ug/Kg	25	10/9/98		5709
Bromomethane		<125	ug/Kg	125	10/9/98		5709
Chloromethane		<25	ug/Kg	25	10/9/98		5709
Dichlorodifluoromethane		<25	ug/Kg	25	10/9/98		5709
Dichloromethane		<25	ug/Kg	25	10/9/98		5709
Trichlorofluoromethane		<25	ug/Kg	25	10/9/98		5709
Tetrachloroethylene		<25	ug/Kg	25	10/9/98		5709
Toluene		<25	ug/Kg	25	10/9/98		5709
Trichloroethylene		<25	ug/Kg	25	10/9/98		5709
Vinyl chloride		<25	ug/Kg	25	10/9/98		5709
[redacted]p-xylene		<25	ug/Kg	25	10/9/98		5709
[redacted]xylene		<25	ug/Kg	25	10/9/98		5709
1,1-dichloroethane		<25	ug/Kg	25	10/9/98		5709
Ethylene dibromide		<25	ug/Kg	25	10/9/98		5709
cis-1,2-dichlorethylene		<25	ug/Kg	25	10/9/98		5709
trans-1,2-dichloroethylene		<25	ug/Kg	25	10/9/98		5709
Methylene chloride		<125	ug/Kg	125	10/9/98		5709
Surr. Dibromofluoromethane		97	%	72-130	10/9/98		5709
Surr. Toluene-d8		98	%	77-127	10/9/98		5709
Surr. 4-Bromofluorobenzene		97	%	72-131	10/9/98		5709
Benzidine		<2.5	mg/kg	2.5	10/1/98	5302	5662
Hexachlorobenzene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Pentachlorobenzene		<0.25	mg/kg	0.25	10/1/98	5302	5662
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Hexachloroethane		<0.25	mg/kg	0.25	10/1/98	5302	5662
2,4-dichlorophenol		<1.25	mg/kg	1.25	10/1/98	5302	5662
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	10/1/98	5302	5662
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	10/1/98	5302	5662
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	10/1/98	5302	5662
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	10/1/98	5302	5662
bis (chloromethyl) ether		<1.25	mg/kg	1.25	10/1/98	5302	5662
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	10/1/98	5302	5662
2,4-dinitrotoluene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Diphenylhydrazine		<1.25	mg/kg	1.25	10/1/98	5302	5662
Hexachlorobutadiene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	10/1/98	5302	5662
[redacted]sophorone		<1.25	mg/kg	1.25	10/1/98	5302	5662
[redacted]trobenzene		<0.25	mg/kg	0.25	10/1/98	5302	5662

Order ID Number: 9809000488

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	10/1/98	5302	5662
2,4-dinitrophenols		<1.25	mg/kg	1.25	10/1/98	5302	5662
n-nitrosodiethylamine		<0.25	mg/kg	0.25	10/1/98	5302	5662
N-nitrosodimethylamine		<0.25	mg/kg	0.25	10/1/98	5302	5662
N-nitrosodibutylamine		<1.25	mg/kg	1.25	10/1/98	5302	5662
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	10/1/98	5302	5662
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	10/1/98	5302	5662
Pentachlorophenol		<1.25	mg/kg	1.25	10/1/98	5302	5662
Dibutyl phthalate		<0.25	mg/kg	0.25	10/1/98	5302	5662
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	10/1/98	5302	5662
Diethyl phthalate		<0.25	mg/kg	0.25	10/1/98	5302	5662
Dimethyl phthalate		<0.25	mg/kg	0.25	10/1/98	5302	5662
Anthracene		<0.25	mg/kg	0.25	10/1/98	5302	5662
3,4-benzofluoranthene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Fluoranthene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Fluorene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Phenanthrene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Pyrene		<0.25	mg/kg	0.25	10/1/98	5302	5662
[redacted]aphthalene		<0.25	mg/kg	0.25	10/1/98	5302	5662
[redacted]methylnaphthalene		<0.25	mg/kg	0.25	10/1/98	5302	5662
2-methylnaphthalene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Benzo-a-pyrene		<0.25	mg/kg	0.25	10/1/98	5302	5662
Surr. 2-Fluorophenol		105	%	25-121	10/1/98	5302	5662
Surr. Phenol-d6		94	%	24-113	10/1/98	5302	5662
Surr. Nitroobenzene-d5		79	%	23-120	10/1/98	5302	5662
Surr. 2-Fluorobiphenyl		118	%	30-115	10/1/98	5302	5662
Surr. 2,4,6-Tribromophenol		101	%	19-122	10/1/98	5302	5662
Surr. Terphenyl-d14		108	%	28-137	10/1/98	5302	5662
Benzidine		<2.5	mg/kg	2.5	10/4/98	5302	5681
Hexachlorobenzene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Pentachlorobenzene		<0.25	mg/kg	0.25	10/4/98	5302	5681
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Hexachloroethane		<0.25	mg/kg	0.25	10/4/98	5302	5681
2,4-dichlorophenol		<1.25	mg/kg	1.25	10/4/98	5302	5681
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	10/4/98	5302	5681
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	10/4/98	5302	5681
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	10/4/98	5302	5681
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	10/4/98	5302	5681
bis (chloromethyl) ether		<1.25	mg/kg	1.25	10/4/98	5302	5681
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	10/4/98	5302	5681
2,4-dinitrotoluene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Diphenylhydrazine		<1.25	mg/kg	1.25	10/4/98	5302	5681
Hexachlorobutadiene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	10/4/98	5302	5681
[redacted]sophorone		<1.25	mg/kg	1.25	10/4/98	5302	5681

Order ID Number: 9809000488

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Nitrobenzene		<0.25	mg/kg	0.25	10/4/98	5302	5681
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	10/4/98	5302	5681
2,4-dinitrophenols		<1.25	mg/kg	1.25	10/4/98	5302	5681
n-nitrosodiethylamine		<0.25	mg/kg	0.25	10/4/98	5302	5681
N-nitrosodimethylamine		<0.25	mg/kg	0.25	10/4/98	5302	5681
N-nitrosodibutylamine		<1.25	mg/kg	1.25	10/4/98	5302	5681
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	10/4/98	5302	5681
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	10/4/98	5302	5681
Pentachlorophenol		<1.25	mg/kg	1.25	10/4/98	5302	5681
Dibutyl phthalate		<0.25	mg/kg	0.25	10/4/98	5302	5681
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	10/4/98	5302	5681
Diethyl phthalate		<0.25	mg/kg	0.25	10/4/98	5302	5681
Dimethyl phthalate		<0.25	mg/kg	0.25	10/4/98	5302	5681
Anthracene		<0.25	mg/kg	0.25	10/4/98	5302	5681
3,4-benzofluoranthene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Fluoranthene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Fluorene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Phenanthrene		<0.25	mg/kg	0.25	10/4/98	5302	5681
[redacted]yrene		<0.25	mg/kg	0.25	10/4/98	5302	5681
[redacted]aphthalene		<0.25	mg/kg	0.25	10/4/98	5302	5681
1-methylnaphthalene		<0.25	mg/kg	0.25	10/4/98	5302	5681
2-methylnaphthalene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Benzo-a-pyrene		<0.25	mg/kg	0.25	10/4/98	5302	5681
Surr. 2-Fluorophenol		89	%	25-121	10/4/98	5302	5681
Surr. Phenol-d6		108	%	24-113	10/4/98	5302	5681
Surr. Nitroobenzene-d5		81	%	23-120	10/4/98	5302	5681
Surr. 2-Fluorobiphenyl		99	%	30-115	10/4/98	5302	5681
Surr. 2,4,6-Tribromophenol		92	%	19-122	10/4/98	5302	5681
Surr. Terphenyl-d14		100	%	28-137	10/4/98	5302	5681
Cyanide		<0.01	mg/Kg	0.01	9/30/98		5651
TRPHC		<10.0	mg/Kg	10.0	8/22/98	4743	5045
Arsenic		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Barium		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Cadmium		<0.10	mg/Kg	0.10	9/28/98	5301	5511
Chromium		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Lead		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Total Mercury		<0.10	mg/Kg	0.10	10/4/98	5339	5680
Selenium		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Silver		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Uranium		<2.0	mg/Kg	2.0	9/28/98	5301	5511
Copper		<1.0	mg/Kg	1.0	9/28/98	5301	5511
Iron		<2.0	mg/Kg	2.0	9/28/98	5301	5511
Manganese		<1.0	mg/Kg	1.0	9/28/98	5301	5511
Zinc		<2.0	mg/Kg	2.0	9/28/98	5301	5511
[redacted]luminum		<10	mg/Kg	10	9/28/98	5301	5511

Order ID Number: 9809000488

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Boron		<10	mg/Kg	10	9/28/98	5301	5511
Cobalt		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Molybdenum		<1.0	mg/Kg	1.0	9/28/98	5301	5511
Nickel		<0.50	mg/Kg	0.50	9/28/98	5301	5511
Total Phenol		<0.25	mg/Kg	0.25	10/6/98		5698
PCB		<0.1	mg/Kg	0.1	8/26/98	4796	5112
Fluoride		<0.2	mg/Kg	0.2	9/29/98		5645
Nitrate		<0.2	mg/Kg	0.2	9/29/98		5645
Chloride		<1.0	mg/Kg	1.0	9/29/98		5645
Sulfate		<1.0	mg/Kg	1.0	9/29/98		5645
Fluoride		<0.2	mg/Kg	0.2	9/30/98		5650
Nitrate		<0.2	mg/Kg	0.2	9/30/98		5650
Chloride		<1.0	mg/Kg	1.0	10/1/98		5661
Sulfate		<1.0	mg/Kg	1.0	10/1/98		5661
PCB		<0.1	mg/Kg	<0.1	10/1/98	5320	5662

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	113	113	10/3/98	5671
1,1-Dichloroethene		100	ug/L	119	119	10/3/98	5671
Chloroform		100	ug/L	107	107	10/3/98	5671
1,2-Dichloropropane		100	ug/L	106	106	10/3/98	5671
Toluene		100	ug/L	107	107	10/3/98	5671
Chlorobenzene		100	ug/L	103	103	10/3/98	5671
Ethylbenzene		100	ug/L	107	107	10/3/98	5671
Vinyl chloride		100	ug/Kg	118	118	10/9/98	5709
1,1-Dichloroethene		100	ug/Kg	113	113	10/9/98	5709
Chloroform		100	ug/Kg	106	106	10/9/98	5709
1,2-Dichloropropane		100	ug/Kg	105	105	10/9/98	5709
Toluene		100	ug/Kg	107	107	10/9/98	5709
[redacted]hlorobenzene		100	ug/Kg	105	105	10/9/98	5709
[redacted]thylbenzene		100	ug/Kg	109	109	10/9/98	5709
Phenol		80	mg/L	73	91	10/1/98	5662
1,4-Dichlorobenzene		80	mg/L	79	99	10/1/98	5662
2-nitrophenol		80	mg/L	79	99	10/1/98	5662
2,4-Dichlorophenol		80	mg/L	76	95	10/1/98	5662
Hexachlorobutadiene		80	mg/L	73	91	10/1/98	5662
4-Chloro-3-methylphenol		80	mg/L	74	93	10/1/98	5662
2,4,6-Trichlorophenol		80	mg/L	71	89	10/1/98	5662
Acenaphthene		80	mg/L	74	93	10/1/98	5662
n-Nitrosodiphenylamine		80	mg/L	80	100	10/1/98	5662
Pentachlorophenol		80	mg/L	76	95	10/1/98	5662
Fluoranthene		80	mg/L	78	98	10/1/98	5662
Di-n-octylphthalate		80	mg/L	75	94	10/1/98	5662
Benzo(a)pyrene		80	mg/L	74	93	10/1/98	5662
Phenol		80	mg/L	78	98	10/4/98	5681
1,4-Dichlorobenzene		80	mg/L	76	95	10/4/98	5681
2-nitrophenol		80	mg/L	80	100	10/4/98	5681
2,4-Dichlorophenol		80	mg/L	80	100	10/4/98	5681
Hexachlorobutadiene		80	mg/L	75	94	10/4/98	5681
4-Chloro-3-methylphenol		80	mg/L	74	93	10/4/98	5681
2,4,6-Trichlorophenol		80	mg/L	75	94	10/4/98	5681
Acenaphthene		80	mg/L	78	98	10/4/98	5681
n-Nitrosodiphenylamine		80	mg/L	70	88	10/4/98	5681
Pentachlorophenol		80	mg/L	67	84	10/4/98	5681
Fluoranthene		80	mg/L	76	95	10/4/98	5681
[redacted]i-n-octylphthalate		80	mg/L	72	90	10/4/98	5681
[redacted]enzo(a)pyrene		80	mg/L	73	91	10/4/98	5681

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
pH		7.0	s.u.	7.0	100	9/28/98	5640
Cyanide		0.12	mg/L	0.12	100	9/30/98	5651
TRPHC		100	mg/L	104	104	8/22/98	5045
TDS		1,000	mg/L	975	98	10/8/98	5699
Arsenic		1.0	mg/L	1.0	100	9/28/98	5511
Barium		1.0	mg/L	0.97	97	9/28/98	5511
Cadmium		1.0	mg/L	1.0	100	9/28/98	5511
Chromium		1.0	mg/L	1.0	100	9/28/98	5511
Lead		1.0	mg/L	1.0	100	9/28/98	5511
Total Mercury		5.0	mg/L	6.0	120	10/4/98	5680
Selenium		1.0	mg/L	1.0	100	9/28/98	5511
Silver		0.2	mg/L	1.0	100	9/28/98	5511
Uranium		1.0	mg/L	0.99	99	9/28/98	5511
Copper		1.0	mg/L	1.0	100	9/28/98	5511
Iron		50	mg/L	1.0	100	9/28/98	5511
Manganese		1.0	mg/L	1.0	100	9/28/98	5511
Zinc		1.0	mg/L	1.0	100	9/28/98	5511
Aluminum		100	mg/L	1.0	100	9/28/98	5511
Boron		1.0	mg/L	1.0	100	9/28/98	5511
Cobalt		1.0	mg/L	1.0	100	9/28/98	5511
Molybdenum		1.0	mg/L	1.0	100	9/28/98	5511
Nickel		1.0	mg/L	0.97	97	8/27/98	5120
Total Phenol		0.80	mg/L	0.77	96	10/6/98	5698
PCB		0.4	mg/L	0.47	117	10/1/98	5662
Fluoride		2.5	mg/L	2.425	96	9/29/98	5645
Nitrate		5	mg/L	4.86	92	9/29/98	5645
Chloride		12.5	mg/L	12.12	85	9/29/98	5645
Sulfate		12.5	mg/L	12.615	80	9/29/98	5645
Fluoride		2.5	mg/L	2.425	97	9/30/98	5650
Nitrate		5	mg/L	4.73	97	9/30/98	5650
Chloride		12.5	mg/L	12.115	96	10/1/98	5661
Sulfate		12.5	mg/L	12.565	99	10/1/98	5661

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 23

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	116	116	100	123	123	5.9	10/3/98		5671
Benzene		ug/L	<1	100	112	112	100	123	123	9.4	10/3/98		5671
Trichloroethene		ug/L	<1	100	114	114	100	117	117	2.6	10/3/98		5671
Toluene		ug/L	<1	100	114	114	100	122	122	6.8	10/3/98		5671
Chlorobenzene		ug/L	<1	100	108	108	100	114	114	5.4	10/3/98		5671
Cyanide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.11	92	8.3	8/24/98		5087
1,1-Dichloroethene		mg/Kg	<1	100	119	119	100	120	120	0	10/9/98		5709
Benzene		mg/Kg	<1	100	117	117	100	116	116	2	10/9/98		5709
Trichloroethene		mg/Kg	<1	100	118	118	100	118	118	1	10/9/98		5709
Toluene		mg/Kg	<1	100	116	116	100	115	115	1	10/9/98		5709
[illegible]lorobenzene		mg/Kg	<1	100	116	116	100	116	116	1	10/9/98		5709
[illegible]RPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
Phenol		mg/Kg	<0.25	10.00	9.33	93	10.00	7.86	79	17	10/1/98	5302	5662
2-Chlorophenol		mg/Kg	<1.25	10.00	9.13	91	10.00	7.45	75	20	10/1/98	5302	5662
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	8.95	90	10.00	7.96	80	12	10/1/98	5302	5662
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	8.54	85	10.00	7.87	79	12	10/1/98	5302	5662
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	8.89	89	10.00	8.13	81	9.0	10/1/98	5302	5662
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	7.54	75	10.00	8.69	87	14	10/1/98	5302	5662
Acenaphthene		mg/Kg	<0.25	10.00	9.00	90	10.00	8.15	82	10	10/1/98	5302	5662
4-Nitrophenol		mg/Kg	<1.25	10.00	9.24	92	10.00	8.77	88	5.0	10/1/98	5302	5662
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	10.4	104	10.00	8.52	85	20	10/1/98	5302	5662
Pentachlorophenol		mg/Kg	<1.25	10.00	8.03	80	10.00	7.43	74	7.0	10/1/98	5302	5662
Pyrene		mg/Kg	<0.25	10.00	9.91	99	10.00	10.1	101	2.0	10/1/98	5302	5662
Phenol		mg/Kg	<0.25	10.00	5.43	54	10.00	5.33	53	1.9	9/16/98	4885	5363
2-Chlorophenol		mg/Kg	<1.25	10.00	5.11	51	10.00	5.11	51	0	9/16/98	4885	5363
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	5.91	59	10.00	5.9	59	0.0	9/16/98	4885	5363
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.98	80	10.00	7.71	77	3.8	9/16/98	4885	5363
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.11	61	10.00	6.06	61	0.0	9/16/98	4885	5363
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	4.29	43	10.00	4.92	49	13	9/16/98	4885	5363
Acenaphthene		mg/Kg	<0.25	10.00	6.64	66	10.00	6.49	65	1.5	9/16/98	4885	5363
4-Nitrophenol		mg/Kg	<1.25	10.00	4.8	48	10.00	4.26	43	11	9/16/98	4885	5363
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.05	61	10.00	5.97	60	1.7	9/16/98	4885	5363
Pentachlorophenol		mg/Kg	<1.25	10.00	3.41	34	10.00	3.11	31	9.2	9/16/98	4885	5363
Pyrene		mg/Kg	<0.25	10.00	6.09	61	10.00	6.08	61	0	9/16/98	4885	5363
Arsenic		mg/Kg	3.6	200	178	87	200	178	87	0	9/28/98	5301	5511
Barium	LCS	mg/Kg	<0.50	200	183	92	200	177	89	3.3	9/28/98	5301	5511
Cadmium		mg/Kg	<0.10	200	157	79	200	157	79	0	9/28/98	5301	5511
Chromium		mg/Kg	3.2	200	166	81	200	169	83	2.4	9/28/98	5301	5511

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/Kg	1.4	200	152	75	200	147	74	1.3	9/28/98	5301	5511
Total Mercury		mg/Kg	0.28	2.5	2.6	93	2.5	2.7	97	4.2	9/28/98	5301	5511
Selenium		mg/Kg	<0.50	200	164	82	200	166	83	1.2	9/28/98	5301	5511
Silver		mg/Kg	<0.50	100	112	112	100	113	113	0.89	9/28/98	5301	5511
Uranium		mg/Kg	<2.0	200	154	77	200	146	73	5.3	9/28/98	5301	5511
Copper		mg/Kg	3.5	200	169	83	200	173	85	2.4	9/28/98	5301	5511
Iron		mg/Kg	<2.0	200	194	97	200	193	97	0	9/28/98	5301	5511
Manganese		mg/Kg	25	200	186	81	200	177	76	6.4	9/28/98	5301	5511
Zinc		mg/Kg	7.5	200	162	77	200	166	79	2.6	9/28/98	5301	5511
Aluminum		mg/Kg	<10.0	200	185	93	200	185	93	0	9/28/98	5301	5511
Boron		mg/Kg	<10.0	200	168	84	200	168	84	0	9/28/98	5301	5511
Cobalt		mg/Kg	5.0	200	157	76	200	150	73	4.0	9/28/98	5301	5511
Molybdenum		mg/Kg	1.2	200	153	76	200	158	78	2.6	9/28/98	5301	5511
Nickel	LCS	mg/Kg	<0.50	200	177	89	200	172	86	3.4	9/28/98	5301	5511
Total Phenol		mg/Kg	<0.25	0.80	0.80	100	0.80	0.80	100	0	10/6/98		5698
PCB		mg/Kg	<0.1	0.25	0.29	116	0.25	0.30	120	3.4	10/1/98	5320	5662
[redacted]uoride		mg/Kg	3.4	5	8.15	95	5	8.18	96	1.0	9/29/98		5645
[redacted]itrate		mg/Kg	1.72	10	10.94	92	10	11	93	1.1	9/29/98		5645
Chloride		mg/Kg	81	25	102.33	85	25	103.02	88	3.5	9/29/98		5645
Sulfate		mg/Kg	191.5	25	211.56	80	25	209.37	72	11	9/29/98		5645
Fluoride		mg/Kg	3.37	5	8.2	97	5	8.13	95	2.1	9/30/98		5650
Nitrate		mg/Kg	3.34	10	13.08	97	10	13.15	98	1.0	9/30/98		5650
Chloride		mg/Kg	31	25	54.95	96	25	54.35	93	3.2	10/1/98		5661
Sulfate		mg/Kg	9	25	33.64	99	25	33.91	100	1.0	10/1/98		5661
Cyanide		mg/Kg	<0.01	0.12	0.101	84	0.12	0.094	78	7.4	9/30/98		5651

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9809000488

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
Ph		s.u.	9.2	9.2	0	9/28/98		5640
TDS		mg/kg	460	436	0.89	10/8/98		5699

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106786	GSB-9 2-3'	9/2/98	9:30	9/4/98
106787	GSB-9 13-15'	9/2/98	10:00	9/4/98
106788	GSB-9 50-52'	9/2/98	11:59	9/4/98
106789	GSB-10 2-3'	9/2/98	13:54	9/4/98
106790	GSB-10 3-5'	9/2/98	14:00	9/4/98
106791	GSB-10 50-52'	9/2/98	16:41	9/4/98
106792	Field Blank	9/2/98	16:50	9/4/98
106793	Trip Blank			9/4/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
Chloroform		<1	ug/L	1	9/7/98		5220
Dichlorobenzene		<2	ug/L	2	9/7/98		5220
1,1-dichloroethylene		<1	ug/L	1	9/7/98		5220
[redacted]ichloropropenes		<1	ug/L	1	9/7/98		5220
[redacted]thylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		107	%	71-132	9/7/98		5220
Surr. Toluene-d8		112	%	82-124	9/7/98		5220
Surr. 4-Bromofluorobenzene		110	%	76-126	9/7/98		5220
Acrolein		<5	ug/L	5	9/17/98		5377
Acrylonitrile		<5	ug/L	5	9/17/98		5377
Benzene		<1	ug/L	1	9/17/98		5377
Carbon tetrachloride		<1	ug/L	1	9/17/98		5377
[redacted]Chlorobenzene		<1	ug/L	1	9/17/98		5377
[redacted]2-dichloroethane		<1	ug/L	1	9/17/98		5377

Order ID Number: 9809000108

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/17/98		5377
1,1,1-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethylene		<1	ug/L	1	9/17/98		5377
Chloroform		<1	ug/L	1	9/17/98		5377
Dichlorobenzene		<2	ug/L	2	9/17/98		5377
1,1-dichloroethylene		<1	ug/L	1	9/17/98		5377
Dichloropropenes		<1	ug/L	1	9/17/98		5377
Ethylbenzene		<1	ug/L	1	9/17/98		5377
Bromodichloromethane		<1	ug/L	1	9/17/98		5377
Bromomethane		<5	ug/L	5	9/17/98		5377
Chloromethane		<1	ug/L	1	9/17/98		5377
Dichlorodifluoromethane		<1	ug/L	1	9/17/98		5377
Dichloromethane		<1	ug/L	1	9/17/98		5377
Trichlorofluoromethane		<1	ug/L	1	9/17/98		5377
Tetrachloroethylene		<1	ug/L	1	9/17/98		5377
Toluene		<1	ug/L	1	9/17/98		5377
Trichloroethylene		<1	ug/L	1	9/17/98		5377
Vinyl chloride		<1	ug/L	1	9/17/98		5377
[redacted]m,p-xylene		<1	ug/L	1	9/17/98		5377
[redacted]-xylene		<1	ug/L	1	9/17/98		5377
1,1-dichloroethane		<1	ug/L	1	9/17/98		5377
Ethylene dibromide		<1	ug/L	1	9/17/98		5377
cis-1,2-dichlorethylene		<1	ug/L	1	9/17/98		5377
trans-1,2-dichloroethylene		<1	ug/L	1	9/17/98		5377
Methylene chloride		<5	ug/L	5	9/17/98		5377
Surr. Dibromofluoromethane		111	%	71-132	9/17/98		5377
Surr. Toluene-d8		96	%	82-124	9/17/98		5377
Surr. 4-Bromofluorobenzene		103	%	76-126	9/17/98		5377
Acrolein		<125	ug/Kg	125	9/9/98		5264
Acrylonitrile		<125	ug/Kg	125	9/9/98		5264
Benzene		<25	ug/Kg	25	9/9/98		5264
Carbon tetrachloride		<25	ug/Kg	25	9/9/98		5264
Chlorobenzene		<25	ug/Kg	25	9/9/98		5264
1,2-dichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,1-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethylene		<25	ug/Kg	25	9/9/98		5264
Chloroform		<25	ug/Kg	25	9/9/98		5264
Dichlorobenzene		<50	ug/Kg	2	9/9/98		5264
1,1-dichloroethylene		<25	ug/Kg	50	9/9/98		5264
Dichloropropenes		<25	ug/Kg	25	9/9/98		5264
Ethylbenzene		<25	ug/Kg	25	9/9/98		5264
Bromodichloromethane		<25	ug/Kg	25	9/9/98		5264
[redacted]Bromomethane		<125	ug/Kg	125	9/9/98		5264
[redacted]hloromethane		<25	ug/Kg	25	9/9/98		5264

Order ID Number: 9809000108

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Dichlorodifluoromethane		<25	ug/Kg	25	9/9/98		5264
Dichloromethane		<25	ug/Kg	25	9/9/98		5264
Trichlorofluoromethane		<25	ug/Kg	25	9/9/98		5264
Tetrachloroethylene		<25	ug/Kg	25	9/9/98		5264
Toluene		<25	ug/Kg	25	9/9/98		5264
Trichloroethylene		<25	ug/Kg	25	9/9/98		5264
Vinyl chloride		<25	ug/Kg	25	9/9/98		5264
m,p-xylene		<25	ug/Kg	25	9/9/98		5264
o-xylene		<25	ug/Kg	25	9/9/98		5264
1,1-dichloroethane		<25	ug/Kg	25	9/9/98		5264
Ethylene dibromide		<25	ug/Kg	25	9/9/98		5264
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/9/98		5264
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/9/98		5264
Methylene chloride		<125	ug/Kg	125	9/9/98		5264
Surr. Dibromofluoromethane		83	%	71-132	9/9/98		5264
Surr. Toluene-d8		84	%	82-124	9/9/98		5264
Surr. 4-Bromofluorobenzene		85	%	76-126	9/9/98		5264
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Cyanide		<0.01	mg/Kg	0.01	9/15/98		5330
[illegible]rsenic		<0.50	mg/Kg	0.50	9/16/98	5065	5361
[illegible]arium		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5065	5361
Chromium		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Lead		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Selenium		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Silver		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Uranium		<2.0	mg/Kg	2.0	9/16/98	5065	5361
Copper		<1.0	mg/Kg	1.0	9/16/98	5065	5361
Iron		<10	mg/Kg	10	9/20/98	5065	5460
Manganese		<1.0	mg/Kg	1.0	9/16/98	5065	5361
Zinc		<2.0	mg/Kg	2.0	9/16/98	5065	5361
Aluminum		<10	mg/Kg	10	9/20/98	5065	5460
Boron		<10	mg/Kg	10	9/16/98	5065	5361
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5065	5361
Nickel		<0.50	mg/Kg	0.50	9/16/98	5065	5361
Benzidine		<2.5	mg/Kg	2.5	9/19/98	5100	5430
Hexachlorobenzene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Pentachlorobenzene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Hexachloroethane		<0.25	mg/Kg	0.25	9/19/98	5100	5430
2,4-dichlorophenol		<1.25	mg/Kg	1.25	9/19/98	5100	5430
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	9/19/98	5100	5430
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	9/19/98	5100	5430
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	9/19/98	5100	5430
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	9/19/98	5100	5430
[illegible]s (chloromethyl) ether		<1.25	mg/Kg	1.25	9/19/98	5100	5430

Order ID Number: 9809000108

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	9/19/98	5100	5430
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Diphenylhydrazine		<1.25	mg/Kg	1.25	9/19/98	5100	5430
Hexachlorobutadiene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Isophorone		<1.25	mg/Kg	1.25	9/19/98	5100	5430
Nitrobenzene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
2,4-dinitro-o-cresol		<0.25	mg/Kg	0.25	9/19/98	5100	5430
2,4-dinitrophenols		<1.25	mg/Kg	1.25	9/19/98	5100	5430
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	9/19/98	5100	5430
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	9/19/98	5100	5430
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	9/19/98	5100	5430
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	9/19/98	5100	5430
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Pentachlorophenol		<1.25	mg/Kg	1.25	9/19/98	5100	5430
Phenol		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Dibutyl phthalate		<0.25	mg/Kg	0.25	9/19/98	5100	5430
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Diethyl phthalate		<0.25	mg/Kg	0.25	9/19/98	5100	5430
[redacted]imethyl phthalate		<0.25	mg/Kg	0.25	9/19/98	5100	5430
[redacted]nthracene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Fluoranthene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Fluorene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Phenanthrene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Pyrene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Naphthalene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
1-methylnaphthalene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
2-methylnaphthalene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Benzo-a-pyrene		<0.25	mg/Kg	0.25	9/19/98	5100	5430
Surr. 2-Fluorophenol		52	%	25-121	9/19/98	5100	5430
Surr. Phenol-d6		61	%	24-113	9/19/98	5100	5430
Surr. Nitroobenzene-d5		55	%	23-120	9/19/98	5100	5430
Surr. 2-Fluorobiphenyl		62	%	30-115	9/19/98	5100	5430
Surr. 2,4,6-Tribromophenol		86	%	19-122	9/19/98	5100	5430
Surr. Terphenyl-d14		67	%	28-137	9/19/98	5100	5430
MTBE		<0.050	mg/Kg	0.050	9/9/98		5263
Benzene		<0.050	mg/Kg	0.050	9/9/98		5263
Toluene		<0.050	mg/Kg	0.050	9/9/98		5263
Ethylbenzene		<0.050	mg/Kg	0.050	9/9/98		5263
m,p,o-xylene		<0.050	mg/Kg	0.050	9/9/98		5263
TRPHC		<10.0	mg/Kg	10	9/10/98	4915	5270
Chloride		<2.0	mg/kg	2	9/16/98		5360
Chloride		<2.0	mg/Kg	2	9/20/98		5421
Total Phenol		<0.25	mg/Kg	0.25	9/20/98		5450
[redacted]uoride		<0.2	mg/Kg	0.2	9/21/98		5485

Project Number: 19349
Order ID Number: 9809000108
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Chloride		<1.0	mg/Kg	1	9/21/98		5485
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5485
Sulfate		<1.0	mg/Kg	1	9/21/98		5485
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5486
Chloride		<1.0	mg/Kg	1	9/21/98		5486
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5486
Sulfate		<1.0	mg/Kg	1	9/21/98		5486

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 19

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	94	94	9/7/98	5220
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
Chloroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
Vinyl chloride		100	ug/L	85	85	9/9/98	5264
1,1-Dichloroethene		100	ug/L	94	94	9/9/98	5264
Chloroform		100	ug/L	83	83	9/9/98	5264
1,2-Dichloropropane		100	ug/L	86	86	9/9/98	5264
Toluene		100	ug/L	96	96	9/9/98	5264
Chlorobenzene		100	ug/L	99	99	9/9/98	5264
Ethylbenzene		100	ug/L	99	99	9/9/98	5264
Vinyl chloride		100	ug/L	120	120	9/14/98	5377
1,1-Dichloroethene		100	ug/L	118	118	9/14/98	5377
Chloroform		100	ug/L	116	116	9/14/98	5377
1,2-Dichloropropane		100	ug/L	114	114	9/14/98	5377
Toluene		100	ug/L	115	115	9/14/98	5377
Chlorobenzene		100	ug/L	113	113	9/14/98	5377
Ethylbenzene		100	ug/L	114	114	9/14/98	5377
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Cyanide		0.12	mg/L	0.11	92	9/15/98	5330
Arsenic		1.0	mg/L	1.0	100	9/16/98	5361
Barium		1.0	mg/L	1.0	100	9/16/98	5361
Cadmium		1.0	mg/L	1.0	100	9/16/98	5361
Chromium		1.0	mg/L	1.0	100	9/16/98	5361
Lead		1.0	mg/L	1.0	100	9/16/98	5361
Selenium		1.0	mg/L	1.0	100	9/16/98	5361
Silver		1.0	mg/L	0.9	92	9/16/98	5361
Uranium		1.0	mg/L	1.0	100	9/16/98	5361
Copper		1.0	mg/L	1.0	100	9/16/98	5361
Iron		100	mg/L	108	108	9/20/98	5460
Manganese		1.0	mg/L	1.0	100	9/16/98	5361
Zinc		1.0	mg/L	1.0	100	9/16/98	5361
Aluminum		250	mg/L	248	99	9/20/98	5460
Boron		1.0	mg/L	1.0	100	9/16/98	5361

Date: 10-20-98
Page # 20
Order ID Number: 9809000108

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cobalt		1.0	mg/L	1.0	100	9/16/98	5361
Molybdenum		1.0	mg/L	1.0	100	9/16/98	5361
Nickel		1.0	mg/L	1.0	100	9/16/98	5361
Phenol		80	mg/L	81	101	9/19/98	5430
1,4-Dichlorobenzene		80	mg/L	78	98	9/19/98	5430
2-nitrophenol		80	mg/L	81	101	9/19/98	5430
2,4-Dichlorophenol		80	mg/L	87	109	9/19/98	5430
Hexachlorobutadiene		80	mg/L	80	100	9/19/98	5430
4-Chloro-3-methylphenol		80	mg/L	70	88	9/19/98	5430
2,4,6-Trichlorophenol		80	mg/L	84	105	9/19/98	5430
Acenaphthene		80	mg/L	84	105	9/19/98	5430
n-Nitrosodiphenylamine		80	mg/L	74	93	9/19/98	5430
Pentachlorophenol		80	mg/L	76	95	9/19/98	5430
Fluoranthene		80	mg/L	71	89	9/19/98	5430
Di-n-octylphthalate		80	mg/L	74	93	9/19/98	5430
Benzo(a)pyrene		80	mg/L	75	94	9/19/98	5430
pH		7.0	s.u.	7.0	100	9/8/98	5241
MTBE		0.1	mg/L	0.103	103	9/9/98	5263
Benzene		0.1	mg/L	0.106	106	9/9/98	5263
Toluene		0.1	mg/L	0.104	104	9/9/98	5263
Ethylbenzene		0.1	mg/L	0.107	107	9/9/98	5263
m,p,o-xylene		0.3	mg/L	0.313	104	9/9/98	5263
TRPHC		100	mg/L	102.0	102	9/10/98	5270
Chloride		500	mg/L	499	100	9/16/98	5360
Chloride		500	mg/L	499	100	9/20/98	5421
TDS		1,000	mg/L	999	100	9/20/98	5435
Total Phenol		0.80	mg/L	0.79	99	9/20/98	5450
Fluoride		2.5	mg/L	2.48	99	9/21/98	5485
Chloride		12.5	mg/L	12.68	101	9/21/98	5485
Nitrate		5	mg/L	5.07	101	9/21/98	5485
Sulfate		12.5	mg/L	12.91	103	9/21/98	5485
Fluoride		2.5	mg/L	2.435	97	9/21/98	5486
Chloride		12.5	mg/L	12.255	98	9/21/98	5486
Nitrate		5	mg/L	5.065	101	9/21/98	5486
Sulfate		12.5	mg/L	12.61	101	9/21/98	5486

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98
Page # 21

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	6.1	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0.0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	1.0	9/7/98		5220
Chlorobenzene		ug/L	<1	100	88	88	100	87	87	1.1	9/7/98		5220
1,1-Dichloroethene		ug/L	<1	100	136	136	100	119	119	13	9/17/98		5377
Benzene		ug/L	<1	100	121	121	100	110	110	9.5	9/17/98		5377
Trichloroethene		ug/L	<1	100	122	122	100	111	111	9.4	9/17/98		5377
Toluene		ug/L	<1	100	116	116	100	106	106	9.0	9/17/98		5377
Chlorobenzene		ug/L	<1	100	104	104	100	94	94	10.0	9/17/98		5377
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Cyanide	lcs	mg/Kg	<0.01	0.12	0.11	92	0.12	0.10	83	10	9/15/98		5330
[illegible]-Dichloroethene		mg/Kg	<25	100	80	80	100	81	81	1.2	9/9/98		5264
[illegible]enzene		mg/Kg	<25	100	86	86	100	83	83	3.6	9/9/98		5264
Trichloroethene		mg/Kg	<25	100	92	92	100	90	90	2.2	9/9/98		5264
Toluene		mg/Kg	<25	100	83	83	100	80	80	3.7	9/9/98		5264
Chlorobenzene		mg/Kg	<25	100	82	82	100	80	80	2.5	9/9/98		5264
Total Mercury		mg/Kg	<0.10	2.5	2.6	104	2.5	2.7	108	3.8	9/10/98	4916	5274
Phenol		mg/Kg	<0.25	10.00	5.77	58	10.00	5.69	57	1	9/19/98	5100	5430
2-Chlorophenol		mg/Kg	<1.25	10.00	5.01	50	10.00	5.39	54	7	9/19/98	5100	5430
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.21	62	10.00	6.77	68	9	9/19/98	5100	5430
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.95	60	10.00	6.61	66	11	9/19/98	5100	5430
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	5.99	60	10.00	6.33	63	7	9/19/98	5100	5430
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.44	54	10.00	5.62	56	3	9/19/98	5100	5430
Acenaphthene		mg/Kg	<0.25	10.00	7.18	72	10.00	7.71	77	7	9/19/98	5100	5430
4-Nitrophenol		mg/Kg	<1.25	10.00	3.16	32	10.00	3.3	33	4	9/19/98	5100	5430
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.95	70	10.00	7.19	72	4	9/19/98	5100	5430
Pentachlorophenol		mg/Kg	<1.25	10.00	3.64	36	10.00	3.83	38	5	9/19/98	5100	5430
Pyrene		mg/Kg	<0.25	10.00	7.85	79	10.00	7.97	80	2	9/19/98	5100	5430
MTBE		mg/Kg	<0.050	5.00	5.19	104	5.00	5.2	104	0	9/9/98		5263
Benzene		mg/Kg	<0.050	5.00	5.48	110	5.00	5.48	110	0	9/9/98		5263
Toluene		mg/Kg	<0.050	5.00	5.41	108	5.00	5.41	108	0	9/9/98		5263
Ethylbenzene		mg/Kg	<0.050	5.00	5.59	112	5.00	5.6	112	0	9/9/98		5263
m,p,o-xylene		mg/Kg	0.64	15.00	16.6	106	15.00	16.6	106	0	9/9/98		5263
TRPHC		mg/Kg	<10.0	250	224	90	250	206	82	9.3	9/10/98	4915	5270
Chloride		mg/Kg	2,400	50000	57211	110	50000	57017	109	0.9	9/16/98		5360
Chloride		mg/Kg	54	4,000	4,251	105	4,000	4,262	105	0	9/20/98		5421
Total Phenol		mg/Kg	6.2	20	26.1	100	20	26.7	103	3.0	9/20/98		5450
Arsenic		mg/Kg	<0.50	200	171	86	200	168	84	2.4	9/16/98	5065	5361
Barium		mg/Kg	<0.50	200	180	90	200	174	87	3.4	9/16/98	5065	5361
[illegible]admium		mg/Kg	<0.10	200	171	86	200	171	85	1.2	9/16/98	5065	5361
[illegible]hromium		mg/Kg	<0.50	200	175	88	200	176	88	0	9/16/98	5065	5361

Order ID Number: 9809000108

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/Kg	<0.50	200	167	84	200	170	85	1.2	9/16/98	5065	5361
Selenium		mg/Kg	<0.50	200	151	76	200	150	75	1.3	9/16/98	5065	5361
Silver		mg/Kg	<0.50	100	108	108	100	101	101	6.7	9/16/98	5065	5361
Uranium		mg/Kg	<2.0	200	170	75	200	189	95	24	9/16/98	5065	5361
Copper		mg/Kg	<1.0	200	167	84	200	174	87	3.5	9/16/98	5065	5361
Manganese		mg/Kg	<1.0	200	176	88	200	174	87	1.1	9/16/98	5065	5361
Zinc		mg/Kg	<2.0	200	167	84	200	167	84	0	9/16/98	5065	5361
Boron		mg/Kg	<10	200	166	83	200	162	81	2.4	9/16/98	5065	5361
Cobalt		mg/Kg	<0.50	200	170	85	200	173	87	2.3	9/16/98	5065	5361
Molybdenum		mg/Kg	<1.0	200	178	89	200	181	90	1.1	9/16/98	5065	5361
Nickel		mg/Kg	<0.50	200	168	84	200	169	85	1.2	9/16/98	5065	5361
Aluminum		mg/Kg	<10	200	214	107	200	218	109	1.9	9/20/98	5065	5460
Iron		mg/Kg	<10	200	157	79	200	160	80	1.3	9/20/98	5065	5460
Fluoride		mg/Kg	1.77	5	6.42	93	5	6.61	97	4.2	9/21/98		5483
Chloride		mg/Kg	8.37	25	31.56	93	25	32.03	95	2.1	9/21/98		5483
Nitrate		mg/Kg	2.24	10	11.47	92	10	11.73	95	3.2	9/21/98		5483
Sulfate		mg/Kg	59.58	25	81.97	90	25	81.04	86	4.5	9/21/98		5483
Fluoride		mg/Kg	9	5	13.93	99	5	13.74	95	4.1	9/21/98		5485
Chloride		mg/Kg	14.02	25	39.2	101	25	39.73	103	2.0	9/21/98		5485
Nitrate		mg/Kg	1.72	10	11.61	99	10	11.81	101	2.0	9/21/98		5485
Sulfate		mg/Kg	55.57	25	81.48	104	25	80.66	100	3.9	9/21/98		5485
Fluoride		mg/Kg	1.3	5	6.27	99	5	6.36	101	2.0	9/21/98		5486
Chloride		mg/Kg	22.01	25	47.65	103	25	47.77	103	0	9/21/98		5486
Nitrate		mg/Kg	<0.2	10	11.39	114	10	11.42	114	0	9/21/98		5486
Sulfate		mg/Kg	5.3	25	30.58	101	25	30.26	100	1.0	9/21/98		5486

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-20-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9809000108

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.70	8.7	0	9/8/98		5241
TDS		mg/Kg	252	270	6.9	9/20/98		5435

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0984	**P.O. Number:**	
Client I.D.:	106786	**ARS Sample I.D.:**	ARS-98-3563
Date Sampled:	9/2/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1250
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.09	1.77	0.88	pCi/gm	EPA 901.1M	10/1/98 1555	dc
Ra-228	0.58	0.22	0.11	pCi/gm	EPA 901.1M	10/1/98 1555	dc
Pb-210	2.51	2.45	1.11	pCi/gm	EPA 901.1M	10/1/98 1555	dc
Total Activity	11.01	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1555	dc

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0984	**P.O. Number:**	
Client I.D.:	106789	**ARS Sample I.D.:**	ARS-98-3564
Date Sampled:	9/2/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1250
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.69	1.56	0.79	pCi/gm	EPA 901.1M	10/1/98 1623	dc
Ra-228	BDL	N/A	0.10	pCi/gm	EPA 901.1M	10/1/98 1623	dc
Pb-210	BDL	N/A	1.14	pCi/gm	EPA 901.1M	10/1/98 1623	dc
Total Activity	2.98	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1623	dc

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.
1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98
Page # 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106196	TSB-3 2-3'	8/25/98	13:35	8/27/98
106197	TSB-3 3-5'	8/25/98	13:42	8/27/98
106198	TSB-3 18-20'	8/25/98	14:06	8/27/98
106199	TSB-12 2-3'	8/25/98	8:44	8/27/98
106200	TSB-12 3-5'	8/25/98	8:47	8/27/98
106201	TSB-12 18-20'	8/25/98	9:26	8/27/98
106202	TSB-9 48-50'	8/25/98	11:24	8/27/98
106203	Trip Blank			8/27/98
106204	Field Blank	8/25/98	16:30	8/27/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
Chloroform		<1	ug/L	1	9/7/98		5220
Dichlorobenzene		<2	ug/L	2	9/7/98		5220
1,1-dichloroethylene		<1	ug/L	1	9/7/98		5220
chloropropenes		<1	ug/L	1	9/7/98		5220
Ethylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		96	%	72-130	9/7/98		5220
Surr. Toluene-d8		89	%	77-127	9/7/98		5220
Surr. 4-Bromofluorobenzene		86	%	72-131	9/7/98		5220
Acrolein		<125	ug/Kg	125	9/6/98		5207
Acrylonitrile		<125	ug/Kg	125	9/6/98		5207
Benzene		<25	ug/Kg	25	9/6/98		5207
Carbon tetrachloride		<25	ug/Kg	25	9/6/98		5207
hlorobenzene		<25	ug/Kg	25	9/6/98		5207

Order ID Number: 9808000544

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,1-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethylene		<25	ug/Kg	25	9/6/98		5207
Chloroform		<25	ug/Kg	25	9/6/98		5207
Dichlorobenzene		<50	ug/Kg	50	9/6/98		5207
1,1-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Dichloropropenes		<25	ug/Kg	25	9/6/98		5207
Ethylbenzene		<25	ug/Kg	25	9/6/98		5207
Bromodichloromethane		<25	ug/Kg	25	9/6/98		5207
Bromomethane		<125	ug/Kg	125	9/6/98		5207
Chloromethane		<25	ug/Kg	25	9/6/98		5207
Dichlorodifluoromethane		<25	ug/Kg	25	9/6/98		5207
Dichloromethane		<25	ug/Kg	25	9/6/98		5207
Trichlorofluoromethane		<25	ug/Kg	25	9/6/98		5207
Tetrachloroethylene		<25	ug/Kg	25	9/6/98		5207
Toluene		<25	ug/Kg	25	9/6/98		5207
Trichloroethylene		<25	ug/Kg	25	9/6/98		5207
[redacted]hyl chloride		<25	ug/Kg	25	9/6/98		5207
m,p-xylene		<25	ug/Kg	25	9/6/98		5207
o-xylene		<25	ug/Kg	25	9/6/98		5207
1,1-dichloroethane		<25	ug/Kg	25	9/6/98		5207
Ethylene dibromide		<25	ug/Kg	25	9/6/98		5207
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/6/98		5207
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Methylene chloride		<125	ug/Kg	125	9/6/98		5207
Surr. Dibromofluoromethane		101	%	72-130	9/6/98		5207
Surr. Toluene-d8		89	%	77-127	9/6/98		5207
Surr. 4-Bromofluorobenzene		92	%	72-131	9/6/98		5207
Acrolein		<125	ug/Kg	125	9/8/98		5230
Acrylonitrile		<125	ug/Kg	125	9/8/98		5230
Benzene		<25	ug/Kg	25	9/8/98		5230
Carbon tetrachloride		<25	ug/Kg	25	9/8/98		5230
Chlorobenzene		<25	ug/Kg	25	9/8/98		5230
1,2-dichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,1-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Chloroform		<25	ug/Kg	25	9/8/98		5230
Dichlorobenzene		<50	ug/Kg	50	9/8/98		5230
1,1-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Dichloropropenes		<25	ug/Kg	25	9/8/98		5230
Ethylbenzene		<25	ug/Kg	25	9/8/98		5230
[redacted]omodichloromethane		<25	ug/Kg	25	9/8/98		5230

Order ID Number: 9808000544

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Bromomethane		<125	ug/Kg	125	9/8/98		5230
Chloromethane		<25	ug/Kg	25	9/8/98		5230
Dichlorodifluoromethane		<25	ug/Kg	25	9/8/98		5230
Dichloromethane		<25	ug/Kg	25	9/8/98		5230
Trichlorofluoromethane		<25	ug/Kg	25	9/8/98		5230
Tetrachloroethylene		<25	ug/Kg	25	9/8/98		5230
Toluene		<25	ug/Kg	25	9/8/98		5230
Trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Vinyl chloride		<25	ug/Kg	25	9/8/98		5230
m,p-xylene		<25	ug/Kg	25	9/8/98		5230
o-xylene		<25	ug/Kg	25	9/8/98		5230
1,1-dichloroethane		<25	ug/Kg	25	9/8/98		5230
Ethylene dibromide		<25	ug/Kg	25	9/8/98		5230
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/8/98		5230
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Methylene chloride		<125	ug/Kg	125	9/8/98		5230
Surr. Dibromofluoromethane		103	%	72-130	9/8/98		5230
Surr. Toluene-d8		90	%	77-127	9/8/98		5230
Surr. 4-Bromofluorobenzene		91	%	72-131	9/8/98		5230
Total Mercury		<0.10	mg/Kg	0.25	8/28/98	4804	5149
Cyanide		<0.01	mg/Kg	0.01	9/1/98		5185
TRPHC		<10.0	mg/Kg	10	8/29/98	4810	5168
PCB		<0.1	mg/Kg	0.1	9/9/98	4911	5263
Total Phenols		<0.25	mg/Kg	0.25	9/16/98		5357
PCB		0.40	mg/Kg	0.41	9/18/98		5401
Arsenic		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Barium		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5041	5355
Chromium		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Lead		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Selenium		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Silver		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Uranium		<2.0	mg/Kg	2.0	9/16/98	5041	5355
Copper		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Iron		<10	mg/Kg	10	9/17/98	5041	5374
Manganese		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Zinc		<2.0	mg/Kg	2.0	9/16/98	5041	5355
Aluminum		<10	mg/Kg	10	9/17/98	5041	5374
Boron		<10	mg/Kg	10	9/16/98	5041	5355
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5041	5355
Nickel		<0.50	mg/Kg	0.50	9/16/98	5041	5355
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5481
Chloride		<1.0	mg/Kg	1.0	9/21/98		5481
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5481
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5481

Date: 10-9-98
Page # 28
Order ID Number: 9808000544

[redacted]oject Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5482
Chloride		<1.0	mg/Kg	1.0	9/21/98		5482
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5482
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5482
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5483
Chloride		<1.0	mg/Kg	1.0	9/21/98		5483
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5483
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5483
Benzidine		<2.5	mg/kg	2.5	9/20/98	4921	5470
Hexachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Pentachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Hexachloroethane		<0.25	mg/kg	0.25	9/20/98	4921	5470
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/20/98	4921	5470
[redacted]3-dichlorobenzidine		<1.25	mg/kg	1.25	9/20/98	4921	5470
[redacted]2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Diphenylhydrazine		<1.25	mg/kg	1.25	9/20/98	4921	5470
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Isophorone		<1.25	mg/kg	1.25	9/20/98	4921	5470
Nitrobenzene		<0.25	mg/kg	0.25	9/20/98	4921	5470
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/20/98	4921	5470
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/20/98	4921	5470
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/20/98	4921	5470
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/20/98	4921	5470
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/20/98	4921	5470
Pentachlorophenol		<1.25	mg/kg	1.25	9/20/98	4921	5470
Dibutyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Diethyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Dimethyl phthalate		<0.25	mg/kg	0.25	9/20/98	4921	5470
Anthracene		<0.25	mg/kg	0.25	9/20/98	4921	5470
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Fluoranthene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Fluorene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Phenanthrene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Pyrene		<0.25	mg/kg	0.25	9/20/98	4921	5470
[redacted]aphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470

Order ID Number: 9808000544

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470
2-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/20/98	4921	5470
Surr. 2-Fluorophenol		61	%	25-121	9/20/98	4921	5470
Surr. Phenol-d6		64	%	24-113	9/20/98	4921	5470
Surr. Nitroobenzene-d5		48	%	23-120	9/20/98	4921	5470
Surr. 2-Fluorobiphenyl		73	%	30-115	9/20/98	4921	5470
Surr. 2,4,6-Tribromophenol		56	%	19-122	9/20/98	4921	5470
Surr. Terphenyl-d14		56	%	28-137	9/20/98	4921	5470

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Total Mercury		5.0	mg/l	4.8	96	8/28/98	5149
Cyanide		0.12	mg/l	0.12	100	9/1/98	5185
pH		7.1	mg/l	7.1	100	8/28/98	5154
Vinyl chloride		100	ug/L	92	92	9/6/98	5207
1,1-Dichloroethene		100	ug/L	98	98	9/6/98	5207
Chloroform		100	ug/L	91	91	9/6/98	5207
1,2-Dichloropropane		100	ug/L	82	82	9/6/98	5207
Toluene		100	ug/L	86	86	9/6/98	5207
Chlorobenzene		100	ug/L	87	87	9/6/98	5207
Ethylbenzene		100	ug/L	86	86	9/6/98	5207
Vinyl chloride		100	ug/L	94	94	9/7/98	5220
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
[illegible]loroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
Vinyl chloride		100	ug/L	85	85	9/8/98	5230
1,1-Dichloroethene		100	ug/L	97	97	9/8/98	5230
Chloroform		100	ug/L	98	98	9/8/98	5230
1,2-Dichloropropane		100	ug/L	96	96	9/8/98	5230
Toluene		100	ug/L	106	106	9/8/98	5230
Chlorobenzene		100	ug/L	110	110	9/8/98	5230
Ethylbenzene		100	ug/L	114	114	9/8/98	5230
TRPHC		100	mg/L	101	101	8/29/98	5168
PCB		0.40	mg/L	0.38	95	9/9/98	5263
Total Phenols		0.80	mg/L	0.80	100	9/16/98	5357
TDS		1,000	mg/L	985	99	9/19/98	5418
TDS		1,000	mg/L	960	96	9/19/98	5417
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Arsenic		1.0	mg/L	1.0	100	9/16/98	5355
Barium		1.0	mg/L	1.0	100	9/16/98	5355
Cadmium		1.0	mg/L	1.0	100	9/16/98	5355
Chromium		1.0	mg/L	1.0	100	9/16/98	5355
Lead		1.0	mg/L	1.0	100	9/16/98	5355
Selenium		1.0	mg/L	1.0	100	9/16/98	5355
Silver		1.0	mg/L	0.98	98	9/16/98	5355
Uranium		1.0	mg/L	1.0	100	9/16/98	5355
[illegible]opper		1.0	mg/L	1.0	100	9/16/98	5355

Project Number: 19350
Order ID Number: 9808000544
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Iron		100.0	mg/L	101.0	101	9/17/98	5374
Manganese		1.0	mg/L	1.0	100	9/16/98	5355
Zinc		1.0	mg/L	1.0	100	9/16/98	5355
Aluminum		250.0	mg/L	259.0	104	9/17/98	5374
Boron		1.0	mg/L	1.0	100	9/16/98	5355
Cobalt		1.0	mg/L	1.0	100	9/16/98	5355
Molybdenum		1.0	mg/L	1.0	100	9/16/98	5355
Nickel		1.0	mg/L	1.0	100	9/16/98	5355
Fluoride		2.5	mg/L	2.365	95	9/21/98	5481
Chloride		1.5	mg/L	11.685	93	9/21/98	5481
Nitrate		5	mg/L	4.79	96	9/21/98	5481
Sulfate		12.5	mg/L	11.815	95	9/21/98	5481
Fluoride		2.5	mg/L	2.38	95	9/21/98	5482
Chloride		1.5	mg/L	11.535	92	9/21/98	5482
Nitrate		5	mg/L	4.8	96	9/21/98	5482
Sulfate		12.5	mg/L	11.835	95	9/21/98	5482
Fluoride		2.5	mg/L	2.345	94	9/21/98	5483
Chloride		1.5	mg/L	11.535	92	9/21/98	5483
Nitrate		5	mg/L	4.79	96	9/21/98	5483
Sulfate		12.5	mg/L	11.83	95	9/21/98	5483
Phenol		80	mg/L	79	99	9/20/98	5470
1,4-Dichlorobenzene		80	mg/L	76	95	9/20/98	5470
2-nitrophenol		80	mg/L	76	95	9/20/98	5470
2,4-Dichlorophenol		80	mg/L	83	104	9/20/98	5470
Hexachlorobutadiene		80	mg/L	73	91	9/20/98	5470
4-Chloro-3-methylphenol		80	mg/L	76	95	9/20/98	5470
2,4,6-Trichlorophenol		80	mg/L	82	103	9/20/98	5470
Acenaphthene		80	mg/L	77	96	9/20/98	5470
n-Nitrosodiphenylamine		80	mg/L	76	95	9/20/98	5470
Pentachlorophenol		80	mg/L	64	82	9/20/98	5470
Fluoranthene		80	mg/L	64	82	9/20/98	5470
Di-n-octylphthalate		80	mg/L	79	99	9/20/98	5470
Benzo(a)pyrene		80	mg/L	66	83	9/20/98	5470

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date:

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Total Mercury		mg/kg	<0.10	2.5	2.5	100	2.5	2.5	100	0	8/28/98	4804	5149
Cyanide		mg/kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	9/1/98		5185
1,1-Dichloroethene		mg/Kg	<69	100	97	97	100	97	97	0	9/6/98		5207
Benzene		mg/Kg	<69	100	104	104	100	105	105	0.96	9/6/98		5207
Trichloroethene		mg/Kg	<69	100	117	117	100	116	116	0.9	9/6/98		5207
Toluene		mg/Kg	<69	100	104	104	100	104	104	0.0	9/6/98		5207
Chlorobenzene		mg/Kg	<69	100	90	90	100	89	89	1.1	9/6/98		5207
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	6.1	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0.0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	1.0	9/7/98		5220
[illegible]lorobenzene		ug/L	<1	100	88	88	100	87	87	1.1	9/8/98		5230
[illegible]1-Dichloroethene		ug/L	<1	100	94	94	100	95	95	1.1	9/8/98		5230
Benzene		ug/L	<1	100	105	105	100	107	107	1.9	9/8/98		5230
Trichloroethene		ug/L	<1	100	115	115	100	116	116	0.9	9/8/98		5230
Toluene		ug/L	<1	100	106	106	100	107	107	0.9	9/8/98		5230
Chlorobenzene		ug/L	<1	100	91	91	100	91	91	0	9/8/98		5230
TRPHC		mg/Kg	<10.0	250	230	92	250	220	88	4.4	8/29/98	4810	5168
PCB		mg/Kg	<0.1	0.40	0.40	100	0.40	0.38	95	5.1	9/9/98	4911	5263
Total Phenols		mg/Kg	<0.25	25.00	24.55	98	25.00	25.03	100	2	9/16/98		5357
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Arsenic		mg/Kg	<0.50	200	160	80	200	163	82	2.5	9/16/98	5041	5355
Barium		mg/Kg	<0.50	200	171	86	200	175	88	2.3	9/16/98	5041	5355
Cadmium		mg/Kg	<0.10	200	163	82	200	165	83	1.2	9/16/98	5041	5355
Chromium		mg/Kg	<0.50	200	173	87	200	169	85	2.3	9/16/98	5041	5355
Lead		mg/Kg	<0.50	200	163	83	200	163	82	1.2	9/16/98	5041	5355
Selenium		mg/Kg	<0.50	200	150	75	200	150	75	0	9/16/98	5041	5355
Silver		mg/Kg	<0.50	100	88	88	100	90	90	2.2	9/16/98	5041	5355
Uranium		mg/Kg	<2.0	200	176	88	200	163	90	2.2	9/16/98	5041	5355
Copper		mg/Kg	<1.0	200	167	84	200	173	87	3.5	9/16/98	5041	5355
Manganese		mg/Kg	<1.0	200	168	84	200	167	84	0	9/16/98	5041	5355
Zinc		mg/Kg	<2.0	200	160	80	200	159	80	0	9/16/98	5041	5355
Boron		mg/Kg	<10	200	156	78	200	156	78	0	9/16/98	5041	5355
Cobalt		mg/Kg	<0.50	200	156	78	200	163	82	5.0	9/16/98	5041	5355
Molybdenum		mg/Kg	<1.0	200	160	80	200	166	83	3.7	9/16/98	5041	5355
Nickel		mg/Kg	<0.50	200	160	80	200	160	80	0	9/16/98	5041	5355
Fluoride		mg/Kg	2.79	5	7.48	94	5	7.53	101	7.2	9/21/98		5481
Chloride		mg/Kg	20.62	25	45.27	99	25	45.13	98	1.0	9/21/98		5481
[illegible]trate		mg/Kg	6.9	10	16.43	95	10	16.42	95	0	9/21/98		5481

oject Number: 19350
Order ID Number: 9808000544
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Sulfate		mg/Kg	97.71	25	118.1	82	25	117.34	78	5.0	9/21/98		5481
Fluoride		mg/Kg	9	5	13.64	93	5	13.56	91	2.2	9/21/98		5482
Chloride		mg/Kg	27	25	49.46	90	25	50.1	92	2.2	9/21/98		5482
Nitrate		mg/Kg	1.7	10	10.94	92	10	11.3	96	4.3	9/21/98		5482
Sulfate		mg/Kg	7.97	25	34.9	108	25	34.47	106	1.9	9/21/98		5482
Fluoride		mg/Kg	1.77	5	6.42	93	5	6.61	97	4.2	9/21/98		5483
Chloride		mg/Kg	8.37	25	31.56	93	25	32.03	95	2.1	9/21/98		5483
Nitrate		mg/Kg	2.24	10	11.47	92	10	11.73	95	3.2	9/21/98		5483
Sulfate		mg/Kg	59.58	25	81.97	90	25	81.04	86	4.5	9/21/98		5483
Phenol		mg/Kg	<0.25	10.00	5.77	58	10.00	6.19	62	6.7	9/20/98	4921	5470
2-Chlorophenol		mg/Kg	<1.25	10.00	5.78	58	10.00	6.08	61	5.0	9/20/98	4921	5470
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.21	72	10.00	7.41	74	2.7	9/20/98	4921	5470
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	6.52	65	10.00	7.03	70	7.4	9/20/98	4921	5470
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.59	66	10.00	6.86	69	4.4	9/20/98	4921	5470
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.7	57	10.00	5.99	60	5.1	9/20/98	4921	5470
Acenaphthene		mg/Kg	<0.25	10.00	7.7	77	10.00	8	80	3.8	9/20/98	4921	5470
4-Nitrophenol		mg/Kg	<1.25	10.00	4.19	42	3.00	3.57	36	15	9/20/98	4921	5470
-Dinitrotoluene		mg/Kg	<0.25	10.00	6.67	67	10.00	7.2	72	7.2	9/20/98	4921	5470
Pentachlorophenol		mg/Kg	<1.25	10.00	3.7	37	10.00	4.32	43	15	9/20/98	4921	5470
Pyrene		mg/Kg	<0.25	10.00	6.94	69	10.00	7.36	74	6.9	9/20/98	4921	5470

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-9-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000544

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.8	8.7	1.1	8/28/98		5154
TDS		mg/Kg	270	292	7.8	9/19/98		5418
TDS		mg/Kg	716	761	6.1	9/17/98		5417

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: **American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.**

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106196	**ARS Sample I.D.:**	ARS-98-3565
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.06	pCi/gm	EPA 901.1M	10/1/98 1617	dc
Ra-228	0.37	0.18	0.11	pCi/gm	EPA 901.1M	10/1/98 1617	dc
Pb-210	BDL	N/A	1.34	pCi/gm	EPA 901.1M	10/1/98 1617	dc
Total Activity	1.31	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1617	dc

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106197	**ARS Sample I.D.:**	ARS-98-3566
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.12	1.73	0.95	pCi/gm	EPA 901.1M	10/1/98 1700	mk
Ra-228	BDL	N/A	0.22	pCi/gm	EPA 901.1M	10/1/98 1700	mk
Pb-210	BDL	N/A	1.50	pCi/gm	EPA 901.1M	10/1/98 1700	mk
Total Activity	2.81	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1700	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106198	**ARS Sample I.D.:**	ARS-98-3567
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	3.13	2.30	1.05	pCi/gm	EPA 901.1M	10/1/98 1726	mk
Ra-228	BDL	N/A	0.16	pCi/gm	EPA 901.1M	10/1/98 1726	mk
Pb-210	3.89	3.26	1.28	pCi/gm	EPA 901.1M	10/1/98 1726	mk
Total Activity	9.63	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1726	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106199	**ARS Sample I.D.:**	ARS-98-3568
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.12	pCi/gm	EPA 901.1M	10/1/98 1756	mk
Ra-228	BDL	N/A	0.15	pCi/gm	EPA 901.1M	10/1/98 1756	mk
Pb-210	BDL	N/A	1.66	pCi/gm	EPA 901.1M	10/1/98 1756	mk
Total Activity	0.35	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1756	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106200	**ARS Sample I.D.:**	ARS-98-3569
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.31	pCi/gm	EPA 901.1M	10/1/98 1750	mk
Ra-228	BDL	N/A	0.19	pCi/gm	EPA 901.1M	10/1/98 1750	mk
Pb-210	BDL	N/A	1.49	pCi/gm	EPA 901.1M	10/1/98 1750	mk
Total Activity	0.50	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1750	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106201	**ARS Sample I.D.:**	ARS-98-3570
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.22	pCi/gm	EPA 901.1M	10/1/98 1821	mk
Ra-228	BDL	N/A	0.21	pCi/gm	EPA 901.1M	10/1/98 1821	mk
Pb-210	BDL	N/A	1.61	pCi/gm	EPA 901.1M	10/1/98 1821	mk
Total Activity	2.51	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1821	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0985	**P.O. Number:**	
Client I.D.:	106202	**ARS Sample I.D.:**	ARS-98-3571
Date Sampled:	8/25/98	**Date Received:**	10/1/98
Time Sampled:	N/A	**Time Received:**	1255
Type of Sample:	Solid	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	0.99	pCi/gm	EPA 901.1M	10/1/98 1815	mk
Ra-228	0.33	0.22	0.10	pCi/gm	EPA 901.1M	10/1/98 1815	mk
Pb-210	BDL	N/A	1.24	pCi/gm	EPA 901.1M	10/1/98 1815	mk
Total Activity	3.16	N/A	N/A	pCi/gm	EPA 901.1M	10/1/98 1815	mk

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page: 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106028	TSB-7 28-30'	8/21/98	15:45	8/25/98
106029	TSB-10 2-3'	8/21/98	9:00	8/25/98
106030	TSB-10 3-5'	8/21/98	9:09	8/25/98
106031	TSB-10 8-10'	8/21/98	9:24	8/25/98
106032	TSB-10 28-31'	8/21/98	10:16	8/25/98
106033	TSB-6 18-20'	8/21/98	11:58	8/25/98
106034	TSB-6 2-3'	8/21/98	11:23	8/25/98
106035	TSB-6 3-5'	8/21/98	11:27	8/25/98
106036	TSB-7 2-3'	8/21/98	14:06	8/25/98
106037	TSB-7 3-5'	8/21/98	14:12	8/25/98
106038	TSB-7 8-10'	8/21/98	14:21	8/25/98
106039	Field Blank	8/21/98		8/25/98
106040	Trip Blank			8/25/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
1,1-dichloroethylene		<1	ug/L	1	9/1/98		5183
chloropropenes		<1	ug/L	1	9/1/98		5183
Ethylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	9/3/98		5205
Acrylonitrile		<125	ug/Kg	125	9/3/98		5205
Benzene		<25	ug/Kg	25	9/3/98		5205
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5205
hlorobenzene		<25	ug/Kg	25	9/3/98		5205

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Chloroform		<25	ug/Kg	25	9/3/98		5205
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5205
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5205
Dichloropropenes		<25	ug/Kg	25	9/3/98		5205
Ethylbenzene		<25	ug/Kg	25	9/3/98		5205
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5205
Bromomethane		<125	ug/Kg	125	9/3/98		5205
Chloromethane		<25	ug/Kg	25	9/3/98		5205
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5205
Dichloromethane		<25	ug/Kg	25	9/3/98		5205
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5205
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5205
[redacted]oluene		<25	ug/Kg	25	9/3/98		5205
[redacted]ichloroethylene		<25	ug/Kg	25	9/3/98		5205
Vinyl chloride		<25	ug/Kg	25	9/3/98		5205
m,p-xylene		<25	ug/Kg	25	9/3/98		5205
o-xylene		<25	ug/Kg	25	9/3/98		5205
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5205
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5205
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5205
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5205
Methylene chloride		<125	ug/Kg	125	9/3/98		5205
Surr. Dibromofluoromethane		101	%	72-130	9/3/98		5205
Surr. Toluene-d8		99	%	77-127	9/3/98		5205
Surr. 4-Bromofluorobenzene		102	%	72-131	9/3/98		5205
Acrolein		<125	ug/Kg	125	9/3/98		5206
Acrylonitrile		<125	ug/Kg	125	9/3/98		5206
Benzene		<25	ug/Kg	25	9/3/98		5206
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5206
Chlorobenzene		<25	ug/Kg	25	9/3/98		5206
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5206
Chloroform		<25	ug/Kg	25	9/3/98		5206
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5206
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5206
Dichloropropenes		<25	ug/Kg	25	9/3/98		5206
[redacted]thylbenzene		<25	ug/Kg	25	9/3/98		5206

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5206
Bromomethane		<125	ug/Kg	125	9/3/98		5206
Chloromethane		<25	ug/Kg	25	9/3/98		5206
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5206
Dichloromethane		<25	ug/Kg	25	9/3/98		5206
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5206
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5206
Toluene		<25	ug/Kg	25	9/3/98		5206
Trichloroethylene		<25	ug/Kg	25	9/3/98		5206
Vinyl chloride		<25	ug/Kg	25	9/3/98		5206
m,p-xylene		<25	ug/Kg	25	9/3/98		5206
o-xylene		<25	ug/Kg	25	9/3/98		5206
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5206
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5206
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5206
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5206
Methylene chloride		<125	ug/Kg	125	9/3/98		5206
Surr. Dibromofluoromethane		99	%	72-130	9/3/98		5206
Surr. Toluene-d8		93	%	77-127	9/3/98		5206
Surr. 4-Bromofluorobenzene		94	%	72-131	9/3/98		5206
Total Mercury		<0.10	mg/Kg	0.1	8/28/98	4804	5149
Cyanide		<0.01	mg/Kg	0.01	8/27/98		5128
Fluoride		<0.2	mg/kg	0.2	9/3/98		5199
Nitrate		<0.2	mg/kg	0.2	9/3/98		5199
Chloride		<1.0	mg/kg	1.0	9/3/98		5199
Fluoride		<0.2	mg/kg	0.2	9/2/98		5192
Nitrate		<0.2	mg/kg	0.2	9/2/98		5192
Chloride		<1.0	mg/kg	1.0	9/2/98		5192
Sulfate		<1.0	mg/kg	1.0	9/3/98		5199
Sulfate		<1.0	mg/kg	1.0	9/19/98		5420
Fluoride		<0.2	mg/kg	0.2	9/19/98		5419
Nitrate		<0.2	mg/kg	0.2	9/19/98		5419
Chloride		<1.0	mg/kg	1.0	9/19/98		5419
Sulfate		<1.0	mg/kg	1.0	9/19/98		5419
Fluoride		<0.2	mg/kg	0.2	9/19/98		5420
Nitrate		<0.2	mg/kg	0.2	9/19/98		5420
Chloride		<1.0	mg/kg	1.0	9/19/98		5420
Sulfate		<1.0	mg/kg	1.0	9/19/98		5420
PCBs		<0.1	mg/kg	0.1	9/3/98	4795	5204
TRPHC		<10.0	mg/kg	10	8/30/98	4810	5168
MTBE		<0.050	mg/kg	0.050	8/20/98		5031
Benzene		<0.050	mg/kg	0.050	8/20/98		5031
Toluene		<0.050	mg/kg	0.050	8/20/98		5031
Ethylbenzene		<0.050	mg/kg	0.050	8/20/98		5031
m,p,o-xylene		<0.050	mg/kg	0.050	8/20/98		5031

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		<0.50	mg/kg	0.50	9/15/98	4922	5340
Barium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Cadmium		<0.10	mg/kg	0.10	9/15/98	4922	5340
Chromium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Lead		<0.50	mg/kg	0.50	9/15/98	4922	5340
Selenium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Silver		<0.50	mg/kg	0.50	9/15/98	4922	5340
Uranium		<2.0	mg/kg	2.0	9/15/98	4922	5340
Copper		<1.0	mg/kg	1.0	9/15/98	4922	5340
Iron		<10	mg/kg	10	9/17/98	4922	5373
Manganese		<1.0	mg/kg	1.0	9/15/98	4922	5340
Zinc		<2.0	mg/kg	2.0	9/15/98	4922	5340
Aluminum		<10	mg/kg	10	9/17/98	4922	5373
Boron		<10	mg/kg	10	9/15/98	4922	5340
Cobalt		<0.50	mg/kg	0.50	9/15/98	4922	5340
Molybdenum		<1.0	mg/kg	1.0	9/15/98	4922	5340
Nickel		<0.50	mg/kg	0.50	9/15/98	4922	5340
[illegible]enzidine		<2.5	mg/kg	2.5	9/16/98	4915	5362
[illegible]exachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pentachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Hexachloroethane		<0.25	mg/kg	0.25	9/16/98	4915	5362
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Diphenylhydrazine		<1.25	mg/kg	1.25	9/16/98	4915	5362
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Isophorone		<1.25	mg/kg	1.25	9/16/98	4915	5362
Nitrobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/16/98	4915	5362
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/16/98	4915	5362
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pentachlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
Dibutyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
[illegible]-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Diethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
Dimethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
Anthracene		<0.25	mg/kg	0.25	9/16/98	4915	5362
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Fluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Fluorene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Phenanthrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pyrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Naphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
1-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
2-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Surr. 2-Fluorophenol		51	%	25-121	9/16/98	4915	5362
Surr. Phenol-d6		54	%	24-113	9/16/98	4915	5362
Surr. Nitroobenzene-d5		52	%	23-120	9/16/98	4915	5362
Surr. 2-Fluorobiphenyl		54	%	30-115	9/16/98	4915	5362
Surr. 2,4,6-Tribromophenol		72	%	19-122	9/16/98	4915	5362
Surr. Terphenyl-d14		55	%	28-137	9/16/98	4915	5362
Benzidine		<2.5	mg/kg	2.5	9/18/98	4916	5412
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diphenylhydrazine		<1.25	mg/kg	1.25	9/18/98	4916	5412
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Isophorone		<1.25	mg/kg	1.25	9/18/98	4916	5412
Nitrobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	4916	5412
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	4916	5412
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Anthracene		<0.25	mg/kg	0.25	9/18/98	4916	5412
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluorene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Naphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Surr. 2-Fluorophenol		48	%	25-121	9/18/98	4916	5412
Surr. Phenol-d6		51	%	24-113	9/18/98	4916	5412
Surr. Nitroobenzene-d5		52	%	23-120	9/18/98	4916	5412
[redacted]urr. 2-Fluorobiphenyl		53	%	30-115	9/18/98	4916	5412
[redacted]urr. 2,4,6-Tribromophenol		37	%	19-122	9/18/98	4916	5412
Surr. Terphenyl-d14		59	%	28-137	9/18/98	4916	5412
Benzidine		<2.5	mg/kg	2.5	9/21/98	4916	5480
Hexachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pentachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Hexachloroethane		<0.25	mg/kg	0.25	9/21/98	4916	5480
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Diphenylhydrazine		<1.25	mg/kg	1.25	9/21/98	4916	5480
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Isophorone		<1.25	mg/kg	1.25	9/21/98	4916	5480
Nitrobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/21/98	4916	5480
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/21/98	4916	5480
[redacted]-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pentachlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
Dibutyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Diethyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Dimethyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Anthracene		<0.25	mg/kg	0.25	9/21/98	4916	5480
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Fluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Fluorene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Phenanthrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pyrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Naphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
1-methylnaphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
2-methylnaphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Surr. 2-Fluorophenol		49	%	25-121	9/21/98	4916	5480
[redacted]rr. Phenol-d6		52	%	24-113	9/21/98	4916	5480
[redacted]urr. Nitroobenzene-d5		53	%	23-120	9/21/98	4916	5480
Surr. 2-Fluorobiphenyl		55	%	30-115	9/21/98	4916	5480
Surr. 2,4,6-Tribromophenol		42	%	19-122	9/21/98	4916	5480
Surr. Terphenyl-d14		53	%	28-137	9/21/98	4916	5480
Benzidine		<2.5	mg/kg	2.5	9/22/98	4911	5502
Hexachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pentachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachloroethane		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Diphenylhydrazine		<1.25	mg/kg	1.25	9/22/98	4911	5502
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Isophorone		<1.25	mg/kg	1.25	9/22/98	4911	5502
Nitrobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/22/98	4911	5502
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]-nitrosodimethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/22/98	4911	5502
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pentachlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
Dibutyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Diethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Dimethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Anthracene		<0.25	mg/kg	0.25	9/22/98	4911	5502
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluorene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Phenanthrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Naphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1-methylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
2-methylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
enzo-a-pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
urr. 2-Fluorophenol		48	%	25-121	9/22/98	4911	5502
Surr. Phenol-d6		56	%	24-113	9/22/98	4911	5502
Surr. Nitroobenzene-d5		48	%	23-120	9/22/98	4911	5502
Surr. 2-Fluorobiphenyl		59	%	30-115	9/22/98	4911	5502
Surr. 2,4,6-Tribromophenol		41	%	19-122	9/22/98	4911	5502
Surr. Terphenyl-d14		59	%	28-137	9/22/98	4911	5502

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	ug/L	104	104	9/3/98	5205
1,1-Dichloroethene		100	ug/L	119	119	9/3/98	5205
Chloroform		100	ug/L	112	112	9/3/98	5205
1,2-Dichloropropane		100	ug/L	106	106	9/3/98	5205
Toluene		100	ug/L	115	115	9/3/98	5205
Ethylbenzene		100	ug/L	112	112	9/3/98	5205
Vinyl chloride		100	ug/L	90	90	9/3/98	5206
1,1-Dichloroethene		100	ug/L	91	91	9/3/98	5206
Chloroform		100	ug/L	89	89	9/3/98	5206
1,2-Dichloropropane		100	ug/L	99	99	9/3/98	5206
Toluene		100	ug/L	84	84	9/3/98	5206
Chlorobenzene		100	ug/L	81	81	9/3/98	5206
Ethylbenzene		100	ug/L	80	80	9/3/98	5206
Fluoride		2.5	mg/L	2.445	98	9/3/98	5199
Nitrate		5.0	mg/L	4.9	98	9/3/98	5199
Chloride		12.5	mg/L	11.535	92	9/3/98	5199
Fluoride		2.5	mg/L	2.51	100	9/2/98	5192
Nitrate		5.0	mg/L	5.055	101	9/2/98	5192
Chloride		12.5	mg/L	12.02	96	9/2/98	5192
Sulfate		12.5	mg/L	12.3	98	9/3/98	5199
Sulfate		12.5	mg/L	13.48	108	9/19/98	5420
Fluoride		2.5	mg/L	2.53	101	9/19/98	5419
Nitrate		5.0	mg/L	5.155	103	9/19/98	5419
Chloride		12.5	mg/L	12.62	101	9/19/98	5419
Sulfate		12.5	mg/L	13.195	103	9/19/98	5419
Fluoride		2.5	mg/L	2.51	100	9/19/98	5420
Nitrate		5.0	mg/L	5.195	104	9/19/98	5420
Chloride		12.5	mg/L	12.345	99	9/19/98	5420
Sulfate		12.5	mg/L	13.48	108	9/19/98	5420

Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCBs		0.40	mg/L	0.45	112	9/3/98	5204
TRPHC		100	mg/L	99	99	8/30/98	5168
MTBE		0.100	mg/L	0.101	101	8/20/98	5031
Benzene		0.100	mg/L	0.092	92	8/20/98	5031
Toluene		0.100	mg/L	0.092	92	8/20/98	5031
Ethylbenzene		0.100	mg/L	0.092	92	8/20/98	5031
m,p,o-xylene		0.300	mg/L	0.269	90	8/20/98	5031
Arsenic		1.0	mg/L	1.0	100	9/15/98	5340
Barium		1.0	mg/L	0.98	98	9/15/98	5340
Cadmium		1.0	mg/L	0.99	99	9/15/98	5340
Chromium		1.0	mg/L	0.99	99	9/15/98	5340
Lead		1.0	mg/L	1.0	100	9/15/98	5340
Selenium		1.0	mg/L	0.99	99	9/15/98	5340
Silver		1.0	mg/L	0.98	98	9/15/98	5340
Uranium		1.0	mg/L	1.0	100	9/15/98	5340
Copper		1.0	mg/L	1.0	100	9/15/98	5340
[redacted]on		250	mg/L	259	104	9/17/98	5373
[redacted]anganese		1.0	mg/L	1.0	100	9/15/98	5340
Zinc		1.0	mg/L	1.0	100	9/15/98	5340
Aluminum		100	mg/L	102	102	9/17/98	5373
Boron		1.0	mg/L	1.0	100	9/15/98	5340
Cobalt		1.0	mg/L	1.0	100	9/15/98	5340
Molybdenum		1.0	mg/L	0.98	98	9/15/98	5340
Nickel		1.0	mg/L	1.0	100	9/15/98	5340
TDS		1,000	mg/L	997	100	9/16/98	5364
TDS		1,000	mg/L	1,009	101	9/17/98	5371
Phenol		80	mg/L	77	96	9/16/98	5362
1,4-Dichlorobenzene		80	mg/L	75	94	9/16/98	5362
2-nitrophenol		80	mg/L	80	100	9/16/98	5362
2,4-Dichlorophenol		80	mg/L	86	108	9/16/98	5362
Hexachlorobutadiene		80	mg/L	74	93	9/16/98	5362
4-Chloro-3-methylphenol		80	mg/L	75	94	9/16/98	5362
2,4,6-Trichlorophenol		80	mg/L	71	89	9/16/98	5362
Acenaphthene		80	mg/L	78	98	9/16/98	5362
n-Nitrosodiphenylamine		80	mg/L	89	111	9/16/98	5362
Pentachlorophenol		80	mg/L	96	120	9/16/98	5362
Fluoranthene		80	mg/L	83	104	9/16/98	5362
Di-n-octylphthalate		80	mg/L	94	118	9/16/98	5362
Benzo(a)pyrene		80	mg/L	80	100	9/16/98	5362
Phenol		80	mg/L	76	95	9/18/98	5412
1,4-Dichlorobenzene		80	mg/L	67	84	9/18/98	5412
[redacted]nitrophenol		80	mg/L	75	94	9/18/98	5412

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2,4-Dichlorophenol		80	mg/L	80	100	9/18/98	5412
Hexachlorobutadiene		80	mg/L	64	80	9/18/98	5412
4-Chloro-3-methylphenol		80	mg/L	67	84	9/18/98	5412
2,4,6-Trichlorophenol		80	mg/L	66	83	9/18/98	5412
Acenaphthene		80	mg/L	68	85	9/18/98	5412
n-Nitrosodiphenylamine		80	mg/L	86	104	9/18/98	5412
Pentachlorophenol		80	mg/L	89	111	9/18/98	5412
Fluoranthene		80	mg/L	74	93	9/18/98	5412
Di-n-octylphthalate		80	mg/L	91	114	9/18/98	5412
Benzo(a)pyrene		80	mg/L	69	86	9/18/98	5412
Phenol		80	mg/L	73	91	9/21/98	5480
1,4-Dichlorobenzene		80	mg/L	75	94	9/21/98	5480
2-nitrophenol		80	mg/L	79	99	9/21/98	5480
2,4-Dichlorophenol		80	mg/L	81	101	9/21/98	5480
Hexachlorobutadiene		80	mg/L	69	86	9/21/98	5480
4-Chloro-3-methylphenol		80	mg/L	70	88	9/21/98	5480
2,4,6-Trichlorophenol		80	mg/L	69	86	9/21/98	5480
Acenaphthene		80	mg/L	79	99	9/21/98	5480
n-Nitrosodiphenylamine		80	mg/L	82	102	9/21/98	5480
Pentachlorophenol		80	mg/L	84	105	9/21/98	5480
Fluoranthene		80	mg/L	76	95	9/21/98	5480
Di-n-octylphthalate		80	mg/L	79	99	9/21/98	5480
Benzo(a)pyrene		80	mg/L	78	98	9/21/98	5480
Phenol		80	mg/L	69	86	9/22/98	5502
1,4-Dichlorobenzene		80	mg/L	76	95	9/22/98	5502
2-nitrophenol		80	mg/L	78	98	9/22/98	5502
2,4-Dichlorophenol		80	mg/L	81	101	9/22/98	5502
Hexachlorobutadiene		80	mg/L	68	85	9/22/98	5502
4-Chloro-3-methylphenol		80	mg/L	69	86	9/22/98	5502
2,4,6-Trichlorophenol		80	mg/L	72	90	9/22/98	5502
Acenaphthene		80	mg/L	79	99	9/22/98	5502
n-Nitrosodiphenylamine		80	mg/L	84	105	9/22/98	5502
Pentachlorophenol		80	mg/L	87	109	9/22/98	5502
Fluoranthene		80	mg/L	77	96	9/22/98	5502
Di-n-octylphthalate		80	mg/L	79	99	9/22/98	5502
Benzo(a)pyrene		80	mg/L	78	78	9/22/98	5502

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 44

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	9.4	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
1,1-Dichloroethene		mg/Kg	<25	100	98	98	100	95	95	3.1	9/3/98		5205
Benzene		mg/Kg	<25	100	102	102	100	104	104	1.9	9/3/98		5205
Trichloroethene		mg/Kg	<25	100	108	108	100	108	108	0	9/3/98		5205
Toluene		mg/Kg	<25	100	100	100	100	101	101	1.0	9/3/98		5205
Chlorobenzene		mg/Kg	<25	100	88	88	100	87	87	1.1	9/3/98		5205
1,1-Dichloroethene		mg/Kg	<25	100	99	99	100	120	120	19	9/3/98		5206
Benzene		mg/Kg	<25	100	104	104	100	119	119	13	9/3/98		5206
[illegible]ichloroethene		mg/Kg	<25	100	113	113	100	120	120	6.0	9/3/98		5206
[illegible]oluene		mg/Kg	<25	100	101	101	100	118	118	16.0	9/3/98		5206
Chlorobenzene		mg/Kg	<25	100	88	88	100	106	106	19	9/3/98		5206
Fluoride		mg/kg	0.42	2.5	2.8	95	2.5	2.84	97	2.1	9/2/98		5192
Nitrate		mg/kg	0.98	5.0	5.91	99	5.0	5.89	98	1.0	9/2/98		5192
Chloride		mg/kg	41	12.5	51.42	83	12.5	52.56	92	10.0	9/2/98		5192
Fluoride		mg/kg	2.2	2.5	4.71	100	2.5	4.75	102	2.0	9/3/98		5199
Nitrate		mg/kg	1.6	5.0	7.25	113	5.0	7.25	113	0.0	9/3/98		5199
Chloride		mg/kg	13.5	12.5	24.83	91	12.5	24.94	92	1.1	9/3/98		5199
Sulfate		mg/kg	28.5	12.5	35.91	59	12.5	36.2	62	5.0	9/3/98		5199
Sulfate		mg/kg	18.08	25	43.77	103	25	44.28	105	1.9	9/19/98		5420
Fluoride		mg/kg	1.1	5	6.03	99	5	5.99	96	3.1	9/19/98		5419
Nitrate		mg/kg	2.3	10.0	13.01	107	10.0	12.02	97	9.8	9/19/98		5419
Chloride		mg/kg	20.53	25.0	45.44	100	25.0	46.72	105	4.9	9/19/98		5419
Sulfate		mg/kg	9.36	25	35.63	105	12.5	36.25	108	2.8	9/19/98		5419
Fluoride		mg/kg	4.51	5	9.03	90	5	8.97	89	1.1	9/19/98		5420
Nitrate		mg/kg	<0.2	10.0	11.76	118	10.0	11.68	117	0.9	9/19/98		5420
Chloride		mg/kg	20.53	25.0	45.44	100	25.0	47.88	109	8.6	9/19/98		5420
Sulfate		mg/kg	18	25	43.77	103	12.5	44.28	105	1.9	9/19/98		5420
PCBs		mg/kg	<1.0	0.5	0.45	90	0.5	0.48	96	6.5	9/4/98	4795	5204
TRPHC		mg/kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168
MTBE		mg/kg	<0.050	5.00	4.97	99	5.00	4.73	95	4.1	8/20/98		5031
Benzene		mg/kg	<0.050	5.00	4.55	91	5.00	4.41	88	3.4	8/20/98		5031
Toluene		mg/kg	<0.050	5.00	4.61	92	5.00	4.46	89	3.3	8/20/98		5031
Ethylbenzene		mg/kg	<0.050	5.00	4.61	92	5.00	4.51	90	2.2	8/20/98		5031
m,p,o-xylene		mg/kg	<0.050	15.00	13.4	89	15.00	13.1	87	2.3	8/20/98		5031
Arsenic		mg/kg	<0.50	200	166	83	200	156	78	6.2	9/15/98	4922	5340
Barium		mg/kg	<0.50	200	178	89	200	168	84	5.8	9/15/98	4922	5340
[illegible]admium		mg/kg	<0.10	200	169	85	200	158	79	7.3	9/15/98	4922	5340

Date: 10-1-98
Page # 45
Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Chromium		mg/kg	<0.50	200	178	89	200	167	84	5.8	9/15/98	4922	5340
Lead		mg/kg	<0.50	200	165	83	200	157	79	4.9	9/15/98	4922	5340
Selenium		mg/kg	<0.50	200	156	78	200	150	75	3.9	9/15/98	4922	5340
Silver		mg/kg	<0.50	100	95	95	100	84	84	12	9/15/98	4922	5340
Uranium		mg/kg	<2.0	200	183	92	200	173	87	5.6	9/15/98	4922	5340
Copper		mg/kg	<1.0	200	170	85	200	164	82	3.6	9/15/98	4922	5340
Iron		mg/kg	<10	200	179	90	200	184	92	2.2	9/17/98	4922	5373
Manganese		mg/kg	<1.0	200	173	87	200	163	82	2.9	9/15/98	4922	5340
Zinc		mg/kg	<2.0	200	170	85	200	158	79	7.3	9/15/98	4922	5340
Aluminum		mg/kg	<10	200	209	105	200	215	108	2.8	9/17/98	4922	5373
Boron		mg/kg	<10	200	163	82	200	167	84	2.4	9/15/98	4922	5340
Cobalt		mg/kg	<0.50	200	168	84	200	162	81	3.6	9/15/98	4922	5340
Molybdenum		mg/kg	<1.0	200	174	87	200	160	82	5.9	9/15/98	4922	5340
Nickel		mg/kg	<0.50	200	172	86	200	161	81	6	9/15/98	4922	5340
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/16/98	4915	5362
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/16/98	4915	5362
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/16/98	4915	5362
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/16/98	4915	5362
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/16/98	4915	5362
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/16/98	4915	5362
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/16/98	4915	5362
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/16/98	4915	5362
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/16/98	4915	5362
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/16/98	4915	5362
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/16/98	4915	5362
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/18/98	4916	5412
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5412
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/18/98	4916	5412
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/18/98	4916	5412
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5412
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5412
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5412
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5412
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5412
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5412
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5412
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/21/98	4916	5480
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5480
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/18/98	4916	5480
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/18/98	4916	5480
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5480
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5480
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5480
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5480
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5480
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5480
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5480
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/22/98	4911	5502

Date: 10-6-98
Page # 46
Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/22/98	4911	5502
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/22/98	4911	5502
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/22/98	4911	5502
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/22/98	4911	5502
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/22/98	4911	5502
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/22/98	4911	5502
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/22/98	4911	5502
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/22/98	4911	5502
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/22/98	4911	5502
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/22/98	4911	5502

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
TDS		mg/Kg	2,100	2,200	4.7	9/16/98		5364
TDS		mg/Kg	1,800	1,760	2.2	9/17/98		5371
pH		s.u.	8	8	0	8/26/98		5113

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106029	**ARS Sample I.D.:**	ARS-98-3169
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<1.02	N/A	pCi/gm	<0.038	N/A	Bq/gm	EPA 901.1M	9/3/98 1503	KH
Ra-228	<0.17	N/A	pCi/gm	<0.006	N/A	Bq/gm	EPA 901.1M	9/3/98 1503	KH
Pb-210	<1.16	N/A	pCi/gm	<0.043	N/A	Bq/gm	EPA 901.1M	9/3/98 1503	KH
Total Activity	3.28	N/A	pCi/gm	0.121	N/A	Bq/gm	EPA 901.1M	9/3/98 1503	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106030	**ARS Sample I.D.:**	ARS-98-3170
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.72	1.47	pCi/gm	0.064	0.054	Bq/gm	EPA 901.1M	9/3/98 1607	KH
Ra-228	<0.09	N/A	pCi/gm	<0.003	N/A	Bq/gm	EPA 901.1M	9/3/98 1607	KH
Pb-210	2.21	1.97	pCi/gm	0.082	0.073	Bq/gm	EPA 901.1M	9/3/98 1607	KH
Total Activity	4.75	N/A	pCi/gm	0.176	N/A	Bq/gm	EPA 901.1M	9/3/98 1607	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106031	**ARS Sample I.D.:**	ARS-98-3171
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.11	1.48	pCi/gm	0.078	0.055	Bq/gm	EPA 901.1M	9/3/98 1646	KH
Ra-228	0.65	0.25	pCi/gm	0.024	0.009	Bq/gm	EPA 901.1M	9/3/98 1646	KH
Pb-210	<0.96	N/A	pCi/gm	<0.036	N/A	Bq/gm	EPA 901.1M	9/3/98 1646	KH
Total Activity	9.37	N/A	pCi/gm	0.347	N/A	Bq/gm	EPA 901.1M	9/3/98 1646	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106033	**ARS Sample I.D.:**	ARS-98-3172
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<0.84	N/A	pCi/gm	<0.031	N/A	Bq/gm	EPA 901.1M	9/3/98 1718	KH
Ra-228	<0.13	N/A	pCi/gm	<0.005	N/A	Bq/gm	EPA 901.1M	9/3/98 1718	KH
Pb-210	<0.90	N/A	pCi/gm	<0.033	N/A	Bq/gm	EPA 901.1M	9/3/98 1718	KH
Total Activity	1.00	N/A	pCi/gm	0.037	N/A	Bq/gm	EPA 901.1M	9/3/98 1718	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106034	**ARS Sample I.D.:**	ARS-98-3173
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.61	1.39	pCi/gm	0.060	0.051	Bq/gm	EPA 901.1M	9/4/98 0827	KH
Ra-228	<0.15	N/A	pCi/gm	<0.006	N/A	Bq/gm	EPA 901.1M	9/4/98 0827	KH
Pb-210	<0.81	N/A	pCi/gm	<0.030	N/A	Bq/gm	EPA 901.1M	9/4/98 0827	KH
Total Activity	3.01	N/A	pCi/gm	0.111	N/A	Bq/gm	EPA 901.1M	9/4/98 0827	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106035	**ARS Sample I.D.:**	ARS-98-3174
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<0.96	N/A	pCi/gm	<0.036	N/A	Bq/gm	EPA 901.1M	9/3/98 1021	KH
Ra-228	0.81	0.38	pCi/gm	0.030	0.014	Bq/gm	EPA 901.1M	9/3/98 1021	KH
Pb-210	<1.07	N/A	pCi/gm	<0.040	N/A	Bq/gm	EPA 901.1M	9/3/98 1021	KH
Total Activity	3.09	N/A	pCi/gm	0.114	N/A	Bq/gm	EPA 901.1M	9/3/98 1021	KH

Notes:

Quality Assurance Review

otes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106036	**ARS Sample I.D.:**	ARS-98-3175
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<1.07	N/A	pCi/gm	<0.040	N/A	Bq/gm	EPA 901.1M	9/4/98 1001	KH
Ra-228	<0.17	N/A	pCi/gm	<0.006	N/A	Bq/gm	EPA 901.1M	9/4/98 1001	KH
Pb-210	2.52	2.01	pCi/gm	0.093	0.074	Bq/gm	EPA 901.1M	9/4/98 1001	KH
Total Activity	11.06	N/A	pCi/gm	0.409	N/A	Bq/gm	EPA 901.1M	9/4/98 1001	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106037	**ARS Sample I.D.:**	ARS-98-3176
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<0.85	N/A	pCi/gm	<0.031	N/A	Bq/gm	EPA 901.1M	9/3/98 1052	KH
Ra-228	<0.12	N/A	pCi/gm	<0.004	N/A	Bq/gm	EPA 901.1M	9/3/98 1052	KH
Pb-210	<0.91	N/A	pCi/gm	<0.034	N/A	Bq/gm	EPA 901.1M	9/3/98 1052	KH
Total Activity	1.01	N/A	pCi/gm	0.037	N/A	Bq/gm	EPA 901.1M	9/3/98 1052	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0872	**P.O. Number:**	
Client I.D.:	Sample No. 106038	**ARS Sample I.D.:**	ARS-98-3177
Date Sampled:	8/21/98	**Date Received:**	8/27/98
Time Sampled:	N/A	**Time Received:**	1051
Type of Sample:	Soil	**Date of Report:**	10/9/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.67	1.14	pCi/gm	0.062	0.042	Bq/gm	EPA 901.1M	9/3/98 1125	KH
Ra-228	<0.14	N/A	pCi/gm	<0.005	N/A	Bq/gm	EPA 901.1M	9/3/98 1125	KH
Pb-210	<0.86	N/A	pCi/gm	<0.032	N/A	Bq/gm	EPA 901.1M	9/3/98 1125	KH
Total Activity	3.76	N/A	pCi/gm	0.139	N/A	Bq/gm	EPA 901.1M	9/3/98 1125	KH

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106823	GMW-2 3'	9/1/98	16:00	9/4/98
106824	TSB-13 2-3'	9/1/98	8:45	9/4/98
106825	TSB-13 3-5'	9/1/98	8:50	9/4/98
106826	TSB-13 8-10'	9/1/98	9:05	9/4/98
106827	TSB-13 23-25'	9/1/98	9:49	9/4/98
106828	GSB-6 2-3'	9/1/98	12:29	9/4/98
106829	GSB-6 18-20'	9/1/98	13:09	9/4/98
106830	GSB-6 38-40'	9/1/98	15:35	9/4/98
106831	Field Blank	9/1/98	16:30	9/4/98
106832	Trip Blank			9/4/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000114

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/17/98		5377
Acrylonitrile		<5	ug/L	5	9/17/98		5377
Benzene		<1	ug/L	1	9/17/98		5377
Carbon tetrachloride		<1	ug/L	1	9/17/98		5377
Chlorobenzene		<1	ug/L	1	9/17/98		5377
1,2-dichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/17/98		5377
1,1,1-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethylene		<1	ug/L	1	9/17/98		5377
Chloroform		<1	ug/L	1	9/17/98		5377
Dichlorobenzene		<2	ug/L	2	9/17/98		5377
1,1-dichloroethylene		<1	ug/L	1	9/17/98		5377
chloropropenes		<1	ug/L	1	9/17/98		5377
Ethylbenzene		<1	ug/L	1	9/17/98		5377
Bromodichloromethane		<1	ug/L	1	9/17/98		5377
Bromomethane		<5	ug/L	5	9/17/98		5377
Chloromethane		<1	ug/L	1	9/17/98		5377
Dichlorodifluoromethane		<1	ug/L	1	9/17/98		5377
Dichloromethane		<1	ug/L	1	9/17/98		5377
Trichlorofluoromethane		<1	ug/L	1	9/17/98		5377
Tetrachloroethylene		<1	ug/L	1	9/17/98		5377
Toluene		<1	ug/L	1	9/17/98		5377
Trichloroethylene		<1	ug/L	1	9/17/98		5377
Vinyl chloride		<1	ug/L	1	9/17/98		5377
m,p-xylene		<1	ug/L	1	9/17/98		5377
o-xylene		<1	ug/L	1	9/17/98		5377
1,1-dichloroethane		<1	ug/L	1	9/17/98		5377
Ethylene dibromide		<1	ug/L	1	9/17/98		5377
cis-1,2-dichlorethylene		<1	ug/L	1	9/17/98		5377
trans-1,2-dichloroethylene		<1	ug/L	1	9/17/98		5377
Methylene chloride		<5	ug/L	5	9/17/98		5377
Surr. Dibromofluoromethane		111	%	71-132	9/17/98		5377
Surr. Toluene-d8		96	%	82-124	9/17/98		5377
Surr. 4-Bromofluorobenzene		103	%	76-126	9/17/98		5377
Acrolein		<125	ug/Kg	125	9/9/98		5264
Acrylonitrile		<125	ug/Kg	125	9/9/98		5264
Benzene		<25	ug/Kg	25	9/9/98		5264
Carbon tetrachloride		<25	ug/Kg	25	9/9/98		5264
hlorobenzene		<25	ug/Kg	25	9/9/98		5264

Date: 10-1-98
Page # 23
Order ID Number: 9808000114

[redacted]oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,1-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethylene		<25	ug/Kg	25	9/9/98		5264
Chloroform		<25	ug/Kg	25	9/9/98		5264
Dichlorobenzene		<50	ug/Kg	50	9/9/98		5264
1,1-dichloroethylene		<25	ug/Kg	25	9/9/98		5264
Dichloropropenes		<25	ug/Kg	25	9/9/98		5264
Ethylbenzene		<25	ug/Kg	25	9/9/98		5264
Bromodichloromethane		<25	ug/Kg	25	9/9/98		5264
Bromomethane		<125	ug/Kg	125	9/9/98		5264
Chloromethane		<25	ug/Kg	25	9/9/98		5264
Dichlorodifluoromethane		<25	ug/Kg	25	9/9/98		5264
Dichloromethane		<25	ug/Kg	25	9/9/98		5264
Trichlorofluoromethane		<25	ug/Kg	25	9/9/98		5264
Tetrachloroethylene		<25	ug/Kg	25	9/9/98		5264
Toluene		<25	ug/Kg	25	9/9/98		5264
Trichloroethylene		<25	ug/Kg	25	9/9/98		5264
[redacted]inyl chloride		<25	ug/Kg	25	9/9/98		5264
[redacted]p-xylene		<25	ug/Kg	25	9/9/98		5264
o-xylene		<25	ug/Kg	25	9/9/98		5264
1,1-dichloroethane		<25	ug/Kg	25	9/9/98		5264
Ethylene dibromide		<25	ug/Kg	25	9/9/98		5264
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/9/98		5264
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/9/98		5264
Methylene chloride		<125	ug/Kg	125	9/9/98		5264
Surr. Dibromofluoromethane		83	%	71-132	9/9/98		5264
Surr. Toluene-d8		84	%	82-124	9/9/98		5264
Surr. 4-Bromofluorobenzene		85	%	76-126	9/9/98		5264
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Cyanide		<0.01	mg/Kg	0.01	9/15/98		5330
Arsenic		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Barium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Cadmium		<0.10	mg/Kg	0.10	9/18/98	5090	5402
Chromium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Lead		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Selenium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Silver		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Uranium		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Copper		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Iron		<10	mg/Kg	10	9/20/98	5090	5461
Manganese		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Zinc		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Aluminum		<10	mg/Kg	10	9/20/98	5090	5461
[redacted]Boron		<10	mg/Kg	10	9/18/98	5090	5402
[redacted]bbalt		<0.50	mg/Kg	0.50	9/18/98	5090	5402

Order ID Number: 9808000114

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Molybdenum		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Nickel		<0.50	mg/Kg	0.50	9/18/98	5090	5402
TRPHC		<10.0	mg/Kg	10	9/10/98	4915	5270
Benzidine		<2.5	mg/kg	2.5	9/19/98	5100	5430
Hexachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pentachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Hexachloroethane		<0.25	mg/kg	0.25	9/19/98	5100	5430
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Diphenylhydrazine		<1.25	mg/kg	1.25	9/19/98	5100	5430
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/19/98	5100	5430
[redacted]ophorone		<1.25	mg/kg	1.25	9/19/98	5100	5430
[redacted]trobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/19/98	5100	5430
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/19/98	5100	5430
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pentachlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
Dibutyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
Diethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
Dimethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
Anthracene		<0.25	mg/kg	0.25	9/19/98	5100	5430
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Fluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Fluorene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Phenanthrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pyrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Naphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
1-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
2-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/19/98	5100	5430
[redacted]Surr. 2-Fluorophenol		32	%	25-121	9/19/98	5100	5430
[redacted]urr. Phenol-d6		90	%	24-113	9/19/98	5100	5430

Order ID Number: 9808000114

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Surr. Nitroobenzene-d5		74	%	23-120	9/19/98	5100	5430
Surr. 2-Fluorobiphenyl		99	%	30-115	9/19/98	5100	5430
Surr. 2,4,6-Tribromophenol		91	%	19-122	9/19/98	5100	5430
Surr. Terphenyl-d14		93	%	28-137	9/19/98	5100	5430
MTBE		<0.050	mg/Kg	0.050	9/9/98		5263
Benzene		<0.050	mg/Kg	0.050	9/9/98		5263
Toluene		<0.050	mg/Kg	0.050	9/9/98		5263
Ethylbenzene		<0.050	mg/Kg	0.050	9/9/98		5263
m,p,o-xylene		<0.050	mg/Kg	0.050	9/9/98		5263
Chloride		<2.0	mg/Kg	2.0	9/20/98		5421
Total Phenols		<0.25	mg/Kg	0.25	9/20/98		5450
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5487
Chloride		<1.0	mg/Kg	1.0	9/21/98		5487
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5487
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5487
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5488
Chloride		<1.0	mg/Kg	1.0	9/21/98		5488
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5488
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5488
[redacted]enzidine		<2.5	mg/kg	2.5	9/19/98	5100	5430
[redacted]exachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pentachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Hexachloroethane		<0.25	mg/kg	0.25	9/19/98	5100	5430
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/19/98	5100	5430
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Diphenylhydrazine		<1.25	mg/kg	1.25	9/19/98	5100	5430
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Isophorone		<1.25	mg/kg	1.25	9/19/98	5100	5430
Nitrobenzene		<0.25	mg/kg	0.25	9/19/98	5100	5430
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/19/98	5100	5430
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/19/98	5100	5430
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/19/98	5100	5430
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/19/98	5100	5430
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pentachlorophenol		<1.25	mg/kg	1.25	9/19/98	5100	5430
[redacted]ibutyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
[redacted]2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430

Order ID Number: 9808000114

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Diethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
Dimethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5100	5430
Anthracene		<0.25	mg/kg	0.25	9/19/98	5100	5430
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Fluoranthene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Fluorene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Phenanthrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Pyrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Naphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
1-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
2-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5100	5430
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/19/98	5100	5430
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/19/98	5100	5430
Surr. 2-Fluorophenol		32	%	25-121	9/19/98	5100	5430
Surr. Phenol-d6		90	%	24-113	9/19/98	5100	5430
Surr. Nitroobenzene-d5		74	%	23-120	9/19/98	5100	5430
Surr. 2-Fluorobiphenyl		99	%	30-115	9/19/98	5100	5430
Surr. 2,4,6-Tribromophenol		91	%	19-122	9/19/98	5100	5430
urr. Terphenyl-d14		93	%	28-137	9/19/98	5100	5430
enzidine		<2.5	mg/kg	2.5	9/20/98	5100	5471
Hexachlorobenzene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Pentachlorobenzene		<0.25	mg/kg	0.25	9/20/98	5100	5471
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Hexachloroethane		<0.25	mg/kg	0.25	9/20/98	5100	5471
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/20/98	5100	5471
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	5100	5471
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/20/98	5100	5471
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/20/98	5100	5471
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/20/98	5100	5471
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/20/98	5100	5471
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/20/98	5100	5471
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Diphenylhydrazine		<1.25	mg/kg	1.25	9/20/98	5100	5471
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Isophorone		<1.25	mg/kg	1.25	9/20/98	5100	5471
Nitrobenzene		<0.25	mg/kg	0.25	9/20/98	5100	5471
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/20/98	5100	5471
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/20/98	5100	5471
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/20/98	5100	5471
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/20/98	5100	5471
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/20/98	5100	5471
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/20/98	5100	5471
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/20/98	5100	5471
Pentachlorophenol		<1.25	mg/kg	1.25	9/20/98	5100	5471
butyl phthalate		<0.25	mg/kg	0.25	9/20/98	5100	5471

Order ID Number: 9808000114

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/20/98	5100	5471
Diethyl phthalate		<0.25	mg/kg	0.25	9/20/98	5100	5471
Dimethyl phthalate		<0.25	mg/kg	0.25	9/20/98	5100	5471
Anthracene		<0.25	mg/kg	0.25	9/20/98	5100	5471
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Fluoranthene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Fluorene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Phenanthrene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Pyrene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Naphthalene		<0.25	mg/kg	0.25	9/20/98	5100	5471
1-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	5100	5471
2-methylnaphthalene		<0.25	mg/kg	0.25	9/20/98	5100	5471
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/20/98	5100	5471
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/20/98	5100	5471
Surr. 2-Fluorophenol		76	%	25-121	9/20/98	5100	5471
Surr. Phenol-d6		86	%	24-113	9/20/98	5100	5471
Surr. Nitroobenzene-d5		72	%	23-120	9/20/98	5100	5471
Surr. 2-Fluorobiphenyl		98	%	30-115	9/20/98	5100	5471
Surr. 2,4,6-Tribromophenol		90	%	19-122	9/20/98	5100	5471
rr. Terphenyl-d14		99	%	28-137	9/20/98	5100	5471

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000114

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	120	120	9/14/98	5377
1,1-Dichloroethene		100	ug/L	118	118	9/14/98	5377
Chloroform		100	ug/L	116	116	9/14/98	5377
1,2-Dichloropropane		100	ug/L	114	114	9/14/98	5377
Toluene		100	ug/L	115	115	9/14/98	5377
Chlorobenzene		100	ug/L	113	113	9/14/98	5377
Ethylbenzene		100	ug/L	114	114	9/14/98	5377
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Cyanide		0.12	mg/L	0.11	92	9/15/98	5330
Total Mercury		5.0	mg/L	5.0	100	9/10/98	5274
Vinyl chloride		100	ug/L	85	85	9/9/98	5264
[illegible]-Dichloroethene		100	ug/L	94	94	9/9/98	5264
[illegible]hloroform		100	ug/L	83	83	9/9/98	5264
1,2-Dichloropropane		100	ug/L	86	86	9/9/98	5264
Toluene		100	ug/L	96	96	9/9/98	5264
Chlorobenzene		100	ug/L	99	99	9/9/98	5264
Ethylbenzene		100	ug/L	99	99	9/9/98	5264
Arsenic		1.0	mg/L	1.0	100	9/18/98	5402
Barium		1.0	mg/L	0.99	99	9/18/98	5402
Cadmium		1.0	mg/L	1.0	100	9/18/98	5402
Chromium		1.0	mg/L	1.0	100	9/18/98	5402
Lead		1.0	mg/L	1.0	100	9/18/98	5402
Selenium		1.0	mg/L	0.99	0.99	9/18/98	5402
Silver		1.0	mg/L	1.0	100	9/18/98	5402
Uranium		1.0	mg/L	0.98	98	9/18/98	5402
Copper		1.0	mg/L	0.99	99	9/18/98	5402
Iron		100.0	mg/L	106.0	106	9/20/98	5461
Manganese		1.0	mg/L	0.99	99	9/18/98	5402
Zinc		1.0	mg/L	1.0	100	9/18/98	5402
Aluminum		250.0	mg/L	251.0	100	9/20/98	5461
Boron		1.0	mg/L	0.99	99	9/18/98	5402
Cobalt		1.0	mg/L	1.0	100	9/18/98	5402
Molybdenum		1.0	mg/L	0.96	96	9/18/98	5402
Nickel		1.0	mg/L	0.99	99	9/18/98	5402
Phenol		80	mg/L	81	101	9/19/98	5430
1,4-Dichlorobenzene		80	mg/L	78	98	9/19/98	5430
[illegible]nitrophenol		80	mg/L	81	101	9/19/98	5430

Order ID Number: 9808000114

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2,4-Dichlorophenol		80	mg/L	87	109	9/19/98	5430
Hexachlorobutadiene		80	mg/L	80	100	9/19/98	5430
4-Chloro-3-methylphenol		80	mg/L	70	88	9/19/98	5430
2,4,6-Trichlorophenol		80	mg/L	84	105	9/19/98	5430
Acenaphthene		80	mg/L	84	105	9/19/98	5430
n-Nitrosodiphenylamine		80	mg/L	74	93	9/19/98	5430
Pentachlorophenol		80	mg/L	76	95	9/19/98	5430
Fluoranthene		80	mg/L	71	89	9/19/98	5430
Di-n-octylphthalate		80	mg/L	74	93	9/19/98	5430
Benzo(a)pyrene		80	mg/L	75	94	9/19/98	5430
Phenol		80	mg/L	79	99	9/20/98	5471
1,4-Dichlorobenzene		80	mg/L	76	95	9/20/98	5471
2-nitrophenol		80	mg/L	76	95	9/20/98	5471
2,4-Dichlorophenol		80	mg/L	83	104	9/20/98	5471
Hexachlorobutadiene		80	mg/L	73	91	9/20/98	5471
4-Chloro-3-methylphenol		80	mg/L	76	95	9/20/98	5471
2,4,6-Trichlorophenol		80	mg/L	82	103	9/20/98	5471
Acenaphthene		80	mg/L	77	96	9/20/98	5471
n-Nitrosodiphenylamine		80	mg/L	76	95	9/20/98	5471
Pentachlorophenol		80	mg/L	64	80	9/20/98	5471
Fluoranthene		80	mg/L	64	80	9/20/98	5471
Di-n-octylphthalate		80	mg/L	79	99	9/20/98	5471
Benzo(a)pyrene		80	mg/L	66	83	9/20/98	5471
pH		7.0	mg/L	7.0	100	9/8/98	5241
TRPHC		100	mg/L	102	102	9/10/98	5270
MTBE		0.100	mg/L	0.103	103	9/9/98	5263
Benzene		0.100	mg/L	0.106	106	9/9/98	5263
Toluene		0.100	mg/L	0.104	104	9/9/98	5263
Ethylbenzene		0.100	mg/L	0.107	107	9/9/98	5263
m,p,o-xylene		0.300	mg/L	0.313	104	9/9/98	5263
Chloride		500	mg/L	499	100	9/20/98	5421
TDS		1,000	mg/L	976	98	9/21/98	5449
TDS		1,000	mg/L	999	100	9/20/98	5435
Total Phenols		0.8	mg/L	0.79	99	9/20/98	5450
Fluoride		2.5	mg/L	2.48	99	9/21/98	5487
Chloride		12.5	mg/L	12.68	101	9/21/98	5487
Nitrate		5	mg/L	5.07	101	9/21/98	5487
Sulfate		12.5	mg/L	12.91	103	9/21/98	5487
Fluoride		2.5	mg/L	2.49	100	9/21/98	5488
Chloride		12.5	mg/L	12.755	102	9/21/98	5488
Nitrate		5	mg/L	5.08	101	9/21/98	5488
Sulfate		12.5	mg/L	13.15	105	9/21/98	5488

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000114

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	136	136	100	119	119	13	9/17/98		5377
Benzene		ug/L	<1	100	121	121	100	110	110	9.5	9/17/98		5377
Trichloroethene		ug/L	<1	100	122	122	100	111	111	9.4	9/17/98		5377
Toluene		ug/L	<1	100	116	116	100	106	106	9.0	9/17/98		5377
Chlorobenzene		ug/L	<1	100	104	104	100	94	94	10.0	9/17/98		5377
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.9	9/18/98	5044	5401
Cyanide		mg/Kg	<0.01	0.12	0.11	92	0.12	0.10	83	10	9/15/98		5330
1,1-Dichloroethene		ug/Kg	<25	100	80	80	100	81	81	1.2	9/9/98		5264
Benzene		ug/Kg	<25	100	86	86	100	83	83	3.6	9/9/98		5264
[illegible]ichloroethene		ug/Kg	<25	100	92	92	100	90	90	2.2	9/9/98		5264
Toluene		ug/Kg	<25	100	83	83	100	80	80	3.7	9/9/98		5264
Chlorobenzene		ug/Kg	<25	100	82	82	100	80	80	2.5	9/9/98		5264
Total Mercury		mg/Kg	<0.10	2.5	2.6	104	2.5	2.7	108	3.8	9/10/98	4916	5274
Phenol		mg/Kg	<0.25	10.00	5.77	58	10.00	5.69	57	1.7	9/19/98	5100	5430
2-Chlorophenol		mg/Kg	<1.25	10.00	5.01	50	10.00	5.39	54	9.6	9/19/98	5100	5430
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.21	62	10.00	6.77	68	9.2	9/19/98	5100	5430
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.95	60	10.00	6.61	66	9.5	9/19/98	5100	5430
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	5.99	60	10.00	6.33	63	4.9	9/19/98	5100	5430
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.44	54	10.00	5.62	56	3.6	9/19/98	5100	5430
Acenaphthene		mg/Kg	<0.25	10.00	7.18	72	10.00	7.71	77	6.7	9/19/98	5100	5430
4-Nitrophenol		mg/Kg	<1.25	10.00	3.16	32	10.00	3.3	33	3.1	9/19/98	5100	5430
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.95	70	10.00	7.19	72	2.8	9/19/98	5100	5430
Pentachlorophenol		mg/Kg	<1.25	10.00	3.64	36	10.00	3.83	38	5.4	9/19/98	5100	5430
Pyrene		mg/Kg	<0.25	10.00	7.85	79	10.00	7.97	80	1.3	9/19/98	5100	5430
Phenol		mg/Kg	<0.25	10.00	5.77	58	10.00	5.69	57	1.7	9/20/98	5100	5471
2-Chlorophenol		mg/Kg	<1.25	10.00	5.01	50	10.00	5.39	54	7.7	9/20/98	5100	5471
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.21	62	10.00	6.77	68	9.2	9/20/98	5100	5471
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.95	60	10.00	6.61	66	9.5	9/20/98	5100	5471
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	5.99	60	10.00	6.33	63	4.9	9/20/98	5100	5471
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.44	54	10.00	5.62	56	3.6	9/20/98	5100	5471
Acenaphthene		mg/Kg	<0.25	10.00	7.18	72	10.00	7.71	77	6.7	9/20/98	5100	5471
4-Nitrophenol		mg/Kg	<1.25	10.00	3.16	32	10.00	3.3	33	3.1	9/20/98	5100	5471
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.95	70	10.00	7.19	72	2.8	9/20/98	5100	5471
Pentachlorophenol		mg/Kg	<1.25	10.00	3.64	36	10.00	3.83	38	5.4	9/20/98	5100	5471
Pyrene		mg/Kg	<0.25	10.00	7.85	79	10.00	7.97	80	1.3	9/20/98	5100	5471
[illegible]RPHC		mg/Kg	<10.0	250	224	90	250	206	82	8.3	9/10/98	4915	5270

Date: 10-1-98

Order ID Number: 9808000114

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
MTBE		mg/Kg	<0.050	5.00	5.19	104	5.00	5.2	104	0	9/9/98		5263
Benzene		mg/Kg	<0.050	5.00	5.48	110	5.00	5.48	110	0	9/9/98		5263
Toluene		mg/Kg	<0.050	5.00	5.41	108	5.00	5.41	108	0	9/9/98		5263
Ethylbenzene		mg/Kg	<0.050	5.00	5.59	112	5.00	5.6	112	0	9/9/98		5263
m,p,o-xylene		mg/Kg	0.64	15.00	16.6	106	15.00	16.6	111	4.6	9/9/98		5263
Chloride		mg/Kg	54	4,000	4,251	105	4,000	4,262	105	0	9/20/98		5421
Total Phenols		mg/Kg	6.2	20	26.1	100	20	26.7	102	2.0	9/20/98		5450
Arsenic		mg/Kg	<0.50	200	167	84	200	168	84	0	9/18/98	5090	5402
Barium		mg/Kg	<0.50	200	182	91	200	184	92	1.1	9/18/98	5090	5402
Cadmium		mg/Kg	<0.10	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Chromium		mg/Kg	<0.50	200	182	91	200	182	91	0	9/18/98	5090	5402
Lead		mg/Kg	<0.50	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Selenium		mg/Kg	<0.50	200	165	83	200	161	81	2.4	9/18/98	5090	5402
Silver		mg/Kg	<0.50	350	350	100	350	413	118	17	9/18/98	5090	5402
Uranium		mg/Kg	<2.0	200	192	96	200	190	95	1.0	9/18/98	5090	5402
Copper		mg/Kg	<1.0	200	175	88	200	176	88	0	9/18/98	5090	5402
Manganese		mg/Kg	<1.0	200	179	90	200	178	89	1.1	9/18/98	5090	5402
Zinc		mg/Kg	<2.0	200	178	89	200	176	88	1.1	9/18/98	5090	5402
oron		mg/Kg	<10	200	170	85	200	166	83	2.4	9/18/98	5090	5402
balt		mg/Kg	<0.50	200	175	88	200	179	90	2.2	9/18/98	5090	5402
Molybdenum		mg/Kg	<1.0	200	176	89	200	173	87	2.3	9/18/98	5090	5402
Nickel		mg/Kg	<0.50	200	172	86	200	173	87	1.2	9/18/98	5090	5402
Aluminum		mg/Kg	<10	200	165	83	200	169	85	2.4	9/20/98	5090	5461
Iron		mg/Kg	<10	200	157	79	200	160	80	1.3	9/20/98	5090	5461
Fluoride		mg/Kg	9	5	13.93	99	5	13.74	95	4.1	9/21/98		5487
Chloride		mg/Kg	14	25	39.2	101	25	39.73	103	2.0	9/21/98		5487
Nitrate		mg/Kg	1.7	10	11.61	99	10	11.81	101	2.0	9/21/98		5487
Sulfate		mg/Kg	56	25	81.48	102	25	80.66	99	2.2	9/21/98		5487
Fluoride		mg/Kg	6.5	5	10.93	89	5	10.93	89	0	9/21/98		5488
Chloride		mg/Kg	8.9	25	32.51	94	25	32.51	94	0	9/21/98		5488
Nitrate		mg/Kg	1.7	10	11.48	98	10	11.85	102	4.0	9/21/98		5488
Sulfate		mg/Kg	18	25	44.27	105	25	44.48	106	0.95	9/21/98		5488

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000114

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.7	8.7	0	9/8/98		5241
TDS		mg/Kg	1100	1080	1.8	9/21/98		5449
TDS		mg/Kg	252	270	6.9	9/21/98		5435

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106457	GMW-9 8-10'	8/31/98	8:51	9/2/98
106458	GMW-9 63-65'	8/31/98	13:48	9/2/98
106459	GMS-9D 63-65'	8/31/98		9/2/98
106460	Field Blank	8/31/98	16:30	9/2/98
106461	Trip Blank			9/2/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
Chloroform		<1	ug/L	1	9/7/98		5220
Dichlorobenzene		<2	ug/L	2	9/7/98		5220
1,1-dichloroethylene		<1	ug/L	1	9/7/98		5220
Dichloropropenes		<1	ug/L	1	9/7/98		5220
Ethylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		96	%	71-132	9/7/98		5220
Surr. Toluene-d8		89	%	82-124	9/7/98		5220
Surr. 4-Bromofluorobenzene		86	%	76-126	9/7/98		5220
Acrolein		<125	ug/Kg	125	9/8/98		5230
Acrylonitrile		<125	ug/Kg	125	9/8/98		5230
Benzene		<25	ug/Kg	25	9/8/98		5230
Carbon tetrachloride		<25	ug/Kg	25	9/8/98		5230
Chlorobenzene		<25	ug/Kg	25	9/8/98		5230

Date: 10-1-98
Page # 14
Order ID Number: 9809000027

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,1-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Chloroform		<25	ug/Kg	25	9/8/98		5230
Dichlorobenzene		<50	ug/Kg	50	9/8/98		5230
1,1-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Dichloropropenes		<25	ug/Kg	25	9/8/98		5230
Ethylbenzene		<25	ug/Kg	25	9/8/98		5230
Bromodichloromethane		<25	ug/Kg	25	9/8/98		5230
Bromomethane		<125	ug/Kg	125	9/8/98		5230
Chloromethane		<25	ug/Kg	25	9/8/98		5230
Dichlorodifluoromethane		<25	ug/Kg	25	9/8/98		5230
Dichloromethane		<25	ug/Kg	25	9/8/98		5230
Trichlorofluoromethane		<25	ug/Kg	25	9/8/98		5230
Tetrachloroethylene		<25	ug/Kg	25	9/8/98		5230
Toluene		<25	ug/Kg	25	9/8/98		5230
Trichloroethylene		<25	ug/Kg	25	9/8/98		5230
[redacted]yl chloride		<25	ug/Kg	25	9/8/98		5230
m,p-xylene		<25	ug/Kg	25	9/8/98		5230
o-xylene		<25	ug/Kg	25	9/8/98		5230
1,1-dichloroethane		<25	ug/Kg	25	9/8/98		5230
Ethylene dibromide		<25	ug/Kg	25	9/8/98		5230
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/8/98		5230
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Methylene chloride		<125	ug/Kg	125	9/8/98		5230
Surr. Dibromofluoromethane		103	%	71-132	9/8/98		5230
Surr. Toluene-d8		90	%	82-124	9/8/98		5230
Surr. 4-Bromofluorobenzene		91	%	76-126	9/8/98		5230
Cyanide		<0.010	mg/Kg	0.01	9/8/98		5240
TRPHC		<10.0	mg/Kg	10	9/10/98	4915	5270
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5491
Nitrate		<0.2	mg/Kg	2	9/21/98		5491
Chloride		<1.0	mg/Kg	1	9/21/98		5491
Sulfate		<1.0	mg/Kg	1	9/21/98		5491
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5492
Nitrate		<0.2	mg/Kg	2	9/21/98		5492
Chloride		<1.0	mg/Kg	1	9/21/98		5492
Sulfate		<1.0	mg/Kg	1	9/21/98		5492
Benzidine		<2.5	mg/kg	2.5	9/19/98	5101	5431
Hexachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Pentachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5101	5431
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Hexachloroethane		<0.25	mg/kg	0.25	9/19/98	5101	5431

Date: 10-1-98
Page # 15
Order ID Number: 9809000027

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/19/98	5101	5431
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5101	5431
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/19/98	5101	5431
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/19/98	5101	5431
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/19/98	5101	5431
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/19/98	5101	5431
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/19/98	5101	5431
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Diphenylhydrazine		<1.25	mg/kg	1.25	9/19/98	5101	5431
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Isophorone		<1.25	mg/kg	1.25	9/19/98	5101	5431
Nitrobenzene		<0.25	mg/kg	0.25	9/19/98	5101	5431
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/19/98	5101	5431
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/19/98	5101	5431
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/19/98	5101	5431
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/19/98	5101	5431
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/19/98	5101	5431
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/19/98	5101	5431
nitrosopyrrolidine		<0.25	mg/kg	0.25	9/19/98	5101	5431
Pentachlorophenol		<1.25	mg/kg	1.25	9/19/98	5101	5431
Dibutyl phthalate		<0.25	mg/kg	0.25	9/19/98	5101	5431
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/19/98	5101	5431
Diethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5101	5431
Dimethyl phthalate		<0.25	mg/kg	0.25	9/19/98	5101	5431
Anthracene		<0.25	mg/kg	0.25	9/19/98	5101	5431
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Fluoranthene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Fluorene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Phenanthrene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Pyrene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Naphthalene		<0.25	mg/kg	0.25	9/19/98	5101	5431
1-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5101	5431
2-methylnaphthalene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/19/98	5101	5431
Surr. 2-Fluorophenol		32	%	25-121	9/19/98	5101	5431
Surr. Phenol-d6		90	%	24-113	9/19/98	5101	5431
Surr. Nitroobenzene-d5		74	%	23-120	9/19/98	5101	5431
Surr. 2-Fluorobiphenyl		99	%	30-115	9/19/98	5101	5431
Surr. 2,4,6-Tribromophenol		91	%	19-122	9/19/98	5101	5431
Surr. Terphenyl-d14		93	%	28-137	9/19/98	5101	5431
Arsenic		<0.50	mg/kg	0.50	9/16/98	5001	5240
Barium		<0.50	mg/kg	0.50	9/16/98	5001	5240
Cadmium		<0.10	mg/kg	0.10	9/16/98	5001	5240
Chromium		<0.50	mg/kg	0.50	9/16/98	5001	5240

Date: 10-1-98
Page # 16
Order ID Number: 9809000027

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Lead		<0.50	mg/kg	0.50	9/16/98	5001	5240
Total Mercury		<0.10	mg/kg	0.10	9/4/98	4872	5201
Selenium		<0.50	mg/kg	0.50	9/16/98	5001	5240
Silver		<0.50	mg/kg	0.50	9/16/98	5001	5240
Uranium		<2.0	mg/kg	2.0	9/16/98	5001	5240
Copper		<1.0	mg/kg	1.0	9/16/98	5001	5240
Iron		<0.50	mg/kg	0.50	9/16/98	5001	5240
Manganese		<1.0	mg/kg	1.0	9/16/98	5001	5240
Zinc		<2.0	mg/kg	2.0	9/16/98	5001	5240
Aluminum		<0.50	mg/kg	0.50	9/16/98	5001	5240
Boron		<10	mg/kg	10	9/16/98	5001	5240
Cobalt		<0.50	mg/kg	0.50	9/16/98	5001	5240
Molybdenum		<1.0	mg/kg	1.0	9/16/98	5001	5240
Nickel		<0.50	mg/kg	0.50	9/16/98	5001	5240

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
pH		7.0	s.u.	7.0	100	9/2/98	5196
Vinyl chloride		100	ug/L	94	94	9/7/98	5220
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
Chloroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
1,1-Dichloroethene		100	ug/L	97	97	9/8/98	5230
Chloroform		100	ug/L	98	98	9/8/98	5230
[illegible]-Dichloropropane		100	ug/L	96	96	9/8/98	5230
[illegible]oluene		100	ug/L	106	106	9/8/98	5230
Chlorobenzene		100	ug/L	110	110	9/8/98	5230
Ethylbenzene		100	ug/L	114	114	9/8/98	5230
Cyanide		0	mg/L	0.12	100	9/8/98	5240
TRPHC		100.0	mg/L	102.0	102	9/10/98	5270
Fluoride		2.50	mg/L	2.34	94	9/21/98	5491
Nitrate		5	mg/L	4.775	96	9/21/98	5491
Chloride		12.5	mg/L	11.52	92	9/21/98	5491
Sulfate		12.5	mg/L	11.77	94	9/21/98	5491
Fluoride		2.50	mg/L	2.435	97	9/21/98	5492
Nitrate		5	mg/L	5.065	101	9/21/98	5492
Chloride		12.5	mg/L	12.255	98	9/21/98	5492
Sulfate		12.5	mg/L	12.61	101	9/21/98	5492
Phenol		80	mg/L	81	101	9/19/98	5431
1,4-Dichlorobenzene		80	mg/L	78	98	9/19/98	5431
2-nitrophenol		80	mg/L	81	101	9/19/98	5431
2,4-Dichlorophenol		80	mg/L	87	109	9/19/98	5431
Hexachlorobutadiene		80	mg/L	80	100	9/19/98	5431
4-Chloro-3-methylphenol		80	mg/L	70	88	9/19/98	5431
2,4,6-Trichlorophenol		80	mg/L	84	105	9/19/98	5431
Acenaphthene		80	mg/L	84	105	9/19/98	5431
n-Nitrosodiphenylamine		80	mg/L	74	93	9/19/98	5431
Pentachlorophenol		80	mg/L	76	95	9/19/98	5431
Fluoranthene		80	mg/L	71	89	9/19/98	5431
[illegible]-n-octylphthalate		80	mg/L	74	93	9/19/98	5431

Order ID Number: 9809000027

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Benzo(a)pyrene		80	mg/L	75	94	9/19/98	5431
TDS		1,000	mg/L	985	99	9/19/98	5418
TDS		1,000	mg/L	999	100	9/20/98	5435
Arsenic		1.0	mg/L	1.0	100	9/16/98	5240
Barium		1.0	mg/L	1.0	100	9/16/98	5240
Cadmium		1.0	mg/L	1.0	100	9/16/98	5240
Chromium		1.0	mg/L	1.0	100	9/16/98	5240
Lead		1.0	mg/L	1.0	100	9/16/98	5240
Total Mercury		5.0	mg/L	4.9	98	9/4/98	5201
Selenium		1.0	mg/L	1.0	100	9/16/98	5240
Silver		1.0	mg/L	0.92	92	9/16/98	5240
Uranium		1.0	mg/L	1.0	100	9/16/98	5240
Copper		1.0	mg/L	1.0	100	9/16/98	5240
Iron		1.0	mg/L	1.0	100	9/16/98	5240
Manganese		1.0	mg/L	1.0	100	9/16/98	5240
Zinc		1.0	mg/L	1.0	100	9/16/98	5240
Aluminum		1.0	mg/L	1.0	100	9/16/98	5240
Boron		1.0	mg/L	1.0	100	9/16/98	5240
Cobalt		1.0	mg/L	1.0	100	9/16/98	5240
Molybdenum		1.0	mg/L	1.0	100	9/16/98	5240
Nickel		1.0	mg/L	1.0	100	9/16/98	5240

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20.West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	6.1	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0.0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	0.99	9/7/98		5220
Chlorobenzene		ug/L	<1	100	88	88	100	87	87	1.1	9/7/98		5220
1,1-Dichloroethene		ug/Kg	<25	100	94	94	100	95	95	1.1	9/8/98		5230
Benzene		ug/Kg	<25	100	105	105	100	107	107	1.9	9/8/98		5230
Trichloroethene		ug/Kg	<25	100	115	115	100	116	116	0.87	9/8/98		5230
Toluene		ug/Kg	<25	100	106	106	100	107	107	0.94	9/8/98		5230
[illegible]lorobenzene		ug/Kg	<25	100	91	91	100	91	91	0	9/8/98		5230
[illegible]yanide		mg/Kg	<0.010	0.12	0.10	83	0.12	0.10	83	0	9/8/98		5240
TRPHC		mg/Kg	<10.0	250	224	90	250	206	82	8.3	9/10/98	4915	5270
Fluoride		mg/Kg	1.27	5.0	5.940	93	5.0	5.960	94	1.1	9/21/98		5491
Nitrate		mg/Kg	1.64	10	10.82	92	10	11.13	95	3.2	9/21/98		5491
Chloride		mg/Kg	10.69	25	33.89	93	25	34.49	95	2.1	9/21/98		5491
Sulfate		mg/Kg	9.63	25	33.68	96	25	32.94	93	3.2	9/21/98		5491
Fluoride		mg/Kg	1.32	5.0	6.270	99	5.0	6.360	101	2.0	9/22/98		5492
Nitrate		mg/Kg	<0.2	10	11.39	114	10	11.42	114	0	9/22/98		5492
Chloride		mg/Kg	22.01	25	47.65	103	25	47.77	103	0	9/21/98		5492
Sulfate		mg/Kg	5.33	25	30.58	101	25	30.26	100	1.0	9/21/98		5492
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/18/98	4916	5412
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5412
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	44	11	9/18/98	4916	5412
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/18/98	4916	5412
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5412
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5412
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5412
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5412
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5412
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5412
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5412
Arsenic		mg/Kg	<0.50	200	158	79	200	160	80	1.3	9/16/98	5001	5240
Barium		mg/Kg	<0.50	200	180	90	200	174	87	3.4	9/16/98	5001	5240
Cadmium		mg/Kg	<0.50	200	150	75	200	150	75	0	9/16/98	5001	5240
[illegible]hromium		mg/Kg	<0.50	200	159	80	200	159	80	0	9/16/98	5001	5240

Order ID Number: 9809000027

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/Kg	<0.50	200	150	75	200	150	75	0	9/16/98	5001	5240
Total Mercury		mg/Kg	<0.10	2.5	2.8	112	2.5	2.7	108	3.6	9/16/98	5001	5240
Selenium		mg/Kg	<0.50	200	150	75	200	150	75	0	9/16/98	5001	5240
Silver		mg/Kg	<0.50	100	108	108	100	106	106	1.9	9/16/98	5001	5240
Uranium		mg/Kg	<0.50	200	170	85	200	189	95	11	9/16/98	5001	5240
Copper		mg/Kg	<0.50	200	177	89	200	167	84	5.8	9/16/98	5001	5240
Iron		mg/Kg	<5.0	200	220	110	200	215	108	1.2	9/16/98	5001	5240
Manganese		mg/Kg	<0.50	200	193	97	200	189	95	2.1	9/16/98	5001	5240
Zinc		mg/Kg	<0.50	200	167	84	200	167	84	0	9/16/98	5001	5240
Aluminum		mg/Kg	<0.50	200	216	108	200	203	102	5.7	9/28/98	5001	5499
Boron		mg/Kg	<0.50	200	169	85	200	174	87	2.3	9/16/98	5001	5240
Cobalt		mg/Kg	<0.50	200	152	76	200	150	75	1.3	9/16/98	5001	5240
Molybdenum		mg/Kg	<0.50	200	159	80	200	153	77	3.8	9/16/98	5001	5240
Nickel		mg/Kg	<0.50	200	150	75	200	154	77	2.6	9/16/98	5001	5240

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9809000027

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.3	8.4	1.2	9/2/98		5196
TDS		mg/Kg	270	292	7.8	9/19/98		5418
TDS		mg/Kg	252	270	6.9	9/20/98		5435

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106342	GMW-10 3-5'	8/27/98	8:58	8/29/98
106343	GMW-10 63-65'	8/27/98	15:08	8/29/98
106344	GMW-10D 63-65'	8/27/98		8/29/98
106345	Trip Blank			8/29/98
106346	Field Blank	8/27/98	16:30	8/29/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Total Mercury		<0.10	mg/Kg	0.25	9/1/98	4826	51880
Cyanide		<0.01	mg/Kg	0.01	9/3/98		5200
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
[illegible]loroform		<1	ug/L	1	9/7/98		5220
[illegible]ichlorobenzene		<2	ug/L	2	9/7/98		5220
1,1-dichloroethylene		<1	ug/L	1	9/7/98		5220
Dichloropropenes		<1	ug/L	1	9/7/98		5220
Ethylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		96	%	71-132	9/7/98		5220
Surr. Toluene-d8		89	%	82-124	9/7/98		5220
Surr. 4-Bromofluorobenzene		86	%	76-126	9/7/98		5220
Acrolein		<125	ug/Kg	125	9/8/98		5230
[illegible]crylonitrile		<125	ug/Kg	125	9/8/98		5230

Date: 10-1-98
Page # 14
Order ID Number: 9808000598

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzene		<25	ug/Kg	25	9/8/98		5230
Carbon tetrachloride		<25	ug/Kg	25	9/8/98		5230
Chlorobenzene		<25	ug/Kg	25	9/8/98		5230
1,2-dichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,1-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Chloroform		<25	ug/Kg	25	9/8/98		5230
Dichlorobenzene		<50	ug/Kg	50	9/8/98		5230
1,1-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Dichloropropenes		<25	ug/Kg	25	9/8/98		5230
Ethylbenzene		<25	ug/Kg	25	9/8/98		5230
Bromodichloromethane		<25	ug/Kg	25	9/8/98		5230
Bromomethane		<125	ug/Kg	125	9/8/98		5230
Chloromethane		<25	ug/Kg	25	9/8/98		5230
Dichlorodifluoromethane		<25	ug/Kg	25	9/8/98		5230
Dichloromethane		<25	ug/Kg	25	9/8/98		5230
richlorofluoromethane		<25	ug/Kg	25	9/8/98		5230
etrachloroethylene		<25	ug/Kg	25	9/8/98		5230
Toluene		<25	ug/Kg	25	9/8/98		5230
Trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Vinyl chloride		<25	ug/Kg	25	9/8/98		5230
m,p-xylene		<25	ug/Kg	25	9/8/98		5230
o-xylene		<25	ug/Kg	25	9/8/98		5230
1,1-dichloroethane		<25	ug/Kg	25	9/8/98		5230
Ethylene dibromide		<25	ug/Kg	25	9/8/98		5230
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/8/98		5230
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Methylene chloride		<125	ug/Kg	125	9/8/98		5230
Surr. Dibromofluoromethane		103	%	71-132	9/8/98		5230
Surr. Toluene-d8		90	%	82-124	9/8/98		5230
Surr. 4-Bromofluorobenzene		91	%	76-126	9/8/98		5230
TRPHC		<10.0	mg/Kg	10	8/30/98	4810	5168
Total Phenols		<0.25	mg/Kg	0.25	9/16/98		5355
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Arsenic		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Barium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5050	5358
Chromium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Lead		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Selenium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Silver		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Uranium		<2.0	mg/Kg	2.0	9/16/98	5050	5358
Copper		<1.0	mg/Kg	1.0	9/16/98	5050	5358
on		<10	mg/Kg	10	9/17/98	5050	5376

Order ID Number: 9808000598

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Manganese		<1.0	mg/Kg	1.0	9/16/98	5050	5358
Zinc		<2.0	mg/Kg	2.0	9/16/98	5050	5358
Aluminum		<10	mg/Kg	10	9/17/98	5050	5376
Boron		<10	mg/Kg	10	9/16/98	5050	5358
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5050	5358
Nickel		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5484
Chloride		<1.0	mg/Kg	1	9/21/98		5484
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5484
Sulfate		<1.0	mg/Kg	1	9/21/98		5484
Benzidine		<2.5	mg/kg	2.5	9/18/98	5030	5410
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	5030	5410
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
[illegible]4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
[illegible]s (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	5030	5410
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Diphenylhydrazine		<1.25	mg/kg	1.25	9/18/98	5030	5410
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Isophorone		<1.25	mg/kg	1.25	9/18/98	5030	5410
Nitrobenzene		<0.25	mg/kg	0.25	9/18/98	5030	5410
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	5030	5410
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	5030	5410
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	5030	5410
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	5030	5410
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	5030	5410
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	5030	5410
Anthracene		<0.25	mg/kg	0.25	9/18/98	5030	5410
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
[illegible]luoranthene		<0.25	mg/kg	0.25	9/18/98	5030	5410
[illegible]uorene		<0.25	mg/kg	0.25	9/18/98	5030	5410

Order ID Number: 9808000598

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Pyrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Naphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
2-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	5030	5410
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	5030	5410
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/18/98	5030	5410
Surr. 2-Fluorophenol		61	%	25-121	9/18/98	5030	5410
Surr. Phenol-d6		64	%	24-113	9/18/98	5030	5410
Surr. Nitroobenzene-d5		48	%	23-120	9/18/98	5030	5410
Surr. 2-Fluorobiphenyl		73	%	30-115	9/18/98	5030	5410
Surr. 2,4,6-Tribromophenol		56	%	19-122	9/18/98	5030	5410
Surr. Terphenyl-d14		56	%	28-137	9/18/98	5030	5410

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cyanide		0.12	mg/L	0.12	100	9/3/98	5200
Total Mercury		5.0	mg/kg	4.9	98	9/1/98	5180
pH		7.0	s.u.	7.0	100	8/31/98	5170
Vinyl chloride		100	ug/L	94	94	9/7/98	5220
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
Chloroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
[illegible]1-Dichloroethene		100	ug/L	97	97	9/8/98	5230
[illegible]hloroform		100	ug/L	98	98	9/8/98	5230
1,2-Dichloropropane		100	ug/L	96	96	9/8/98	5230
Toluene		100	ug/L	106	106	9/8/98	5230
Chlorobenzene		100	ug/L	110	110	9/8/98	5230
Ethylbenzene		100	ug/L	114	114	9/8/98	5230
TRPHC		100	mg/L	99	99	8/30/98	5168
Total Phenols		0.80	mg/L	0.81	101	9/16/98	5355
TDS		1000	mg/L	985	99	9/19/98	5418
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Arsenic		1.0	mg/L	1.0	100	9/16/98	5355
Barium		1.0	mg/L	1.0	100	9/16/98	5355
Cadmium		1.0	mg/L	1.0	100	9/16/98	5355
Chromium		1.0	mg/L	1.0	100	9/16/98	5355
Lead		1.0	mg/L	1.0	100	9/16/98	5355
Selenium		1.0	mg/L	1.0	100	9/16/98	5355
Silver		1.0	mg/L	1.0	98	9/16/98	5355
Uranium		1.0	mg/L	1.0	100	9/16/98	5355
Copper		1.0	mg/L	0.97	97	9/16/98	5355
Iron		100.0	mg/L	100.0	100	9/17/98	5376
Manganese		1.0	mg/L	1.0	100	9/16/98	5355
Zinc		1.0	mg/L	0.99	99	9/16/98	5355
Aluminum		250.0	mg/L	257.0	103	9/17/98	5376
Boron		1.0	mg/L	1.0	100	9/16/98	5355
Cobalt		1.0	mg/L	1.0	100	9/16/98	5355
[illegible]olybdenum		1.0	mg/L	1.0	100	9/16/98	5355

Order ID Number: 9808000598

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Nickel		1.0	mg/L	1.0	100	9/16/98	5355
Fluoride		2.5	mg/L	2.34	94	9/21/98	5484
Chloride		12.5	mg/L	11.52	92	9/21/98	5484
Nitrate		5	mg/L	4.775	96	9/21/98	5484
Sulfate		12.5	mg/L	11.77	94	9/21/98	5484
Phenol		80	mg/L	81	101	9/18/98	5410
1,4-Dichlorobenzene		80	mg/L	78	98	9/18/98	5410
2-nitrophenol		80	mg/L	81	101	9/18/98	5410
2,4-Dichlorophenol		80	mg/L	87	109	9/18/98	5410
Hexachlorobutadiene		80	mg/L	80	100	9/18/98	5410
4-Chloro-3-methylphenol		80	mg/L	70	88	9/18/98	5410
2,4,6-Trichlorophenol		80	mg/L	84	105	9/18/98	5410
Acenaphthene		80	mg/L	84	105	9/18/98	5410
n-Nitrosodiphenylamine		80	mg/L	74	93	9/18/98	5410
Pentachlorophenol		80	mg/L	76	95	9/18/98	5410
Fluoranthene		80	mg/L	71	89	9/18/98	5410
[redacted]i-n-octylphthalate		80	mg/L	74	93	9/18/98	5410
[redacted]enzo(a)pyrene		80	mg/L	75	94	9/18/98	5410

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 19

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Cyanide		mg/kg	<0.01	0.12	0.096	80	0.12	0.091	76	5.1	9/3/98		5200
Total Mercury		mg/kg	<0.10	2.5	2.7	108	2.5	2.7	108	0	9/1/98	4826	5180
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	6.1	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0.0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	1.0	9/7/98		5220
Chlorobenzene		ug/L	<1	100	88	88	100	87	87	1.1	9/7/98		5220
1,1-Dichloroethene		ug/L	<1	100	94	94	100	95	95	1.1	9/8/98		5230
Benzene		ug/L	<1	100	105	105	100	107	107	1.9	9/8/98		5230
Trichloroethene		ug/L	<1	100	115	115	100	116	116	0.9	9/8/98		5230
[illegible]luene		ug/L	<1	100	106	106	100	107	107	0.9	9/8/98		5230
[illegible]lorobenzene		ug/L	<1	100	91	91	100	91	91	0	9/8/98		5230
TRPHC		mg/Kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168
Total Phenols		mg/Kg	6.9	25	27.1	81	25	27.4	82	1.2	9/16/98		5355
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Arsenic		mg/Kg	<0.50	200	170	85	200	174	87	2.3	9/16/98	5050	5358
Barium		mg/Kg	<0.50	200	176	88	200	180	90	2.2	9/16/98	5050	5358
Cadmium		mg/Kg	<0.10	200	174	87	200	177	89	2.3	9/16/98	5050	5358
Chromium		mg/Kg	<0.50	200	177	89	200	177	89	0	9/16/98	5050	5358
Lead		mg/Kg	<0.50	200	170	85	200	174	87	2.3	9/16/98	5050	5358
Selenium		mg/Kg	<0.50	200	154	77	200	155	78	1.3	9/16/98	5050	5358
Silver		mg/Kg	<0.50	100	109	109	100	112	112	2.7	9/16/98	5050	5358
Uranium		mg/Kg	<2.0	200	194	97	200	199	100	3.0	9/16/98	5050	5358
Copper		mg/Kg	<1.0	200	172	86	200	177	89	3.4	9/16/98	5050	5358
Manganese		mg/Kg	<1.0	200	176	88	200	180	90	2.2	9/16/98	5050	5358
Zinc		mg/Kg	<2.0	200	173	87	200	174	87	0	9/16/98	5050	5358
Boron		mg/Kg	<10	200	165	83	200	167	84	1.2	9/16/98	5050	5358
Cobalt		mg/Kg	<0.50	200	171	86	200	174	87	1.2	9/16/98	5050	5358
Molybdenum		mg/Kg	<1.0	200	177	89	200	181	91	2.2	9/16/98	5050	5358
Nickel		mg/Kg	<0.50	200	166	83	200	173	87	4.7	9/16/98	5050	5358
Aluminum		mg/Kg	<10	200	178	89	200	173	87	2.3	9/17/98	5050	5376
Iron		mg/Kg	<10	200	202	101	200	198	99	2.0	9/17/98	5050	5376
Fluoride		mg/Kg	1.3	5	5.94	92	5	5.96	93	1.1	9/21/98		5484
Chloride		mg/Kg	11	25	33.89	92	25	34.49	94	2.2	9/21/98		5484
Nitrate		mg/Kg	1.6	10	10.82	92	10	11.13	95	3.2	9/21/98		5484
Sulfate		mg/Kg	6.18	25	33.68	110	25	32.94	107	2.8	9/21/98		5484
Phenol		mg/Kg	<0.25	10.00	5.56	56	10.00	5.94	59	5.2	9/18/98	5030	5410
2-Chlorophenol		mg/Kg	<1.25	10.00	5.52	55	10.00	5.74	57	3.6	9/18/98	5030	5410
[illegible]-Dichlorobenzene		mg/Kg	<0.25	10.00	6.58	66	10.00	6.85	69	4.4	9/18/98	5030	5410

Order ID Number: 9808000598

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.21	72	10.00	8.33	83	14	9/18/98	5030	5410
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.36	64	10.00	6.75	68	6.1	9/18/98	5030	5410
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.25	53	10.00	5.86	59	11	9/18/98	5030	5410
Acenaphthene		mg/Kg	<0.25	10.00	6.77	68	10.00	7.24	72	5.7	9/18/98	5030	5410
4-Nitrophenol		mg/Kg	<1.25	10.00	3.9	39	10.00	4.49	45	14	9/18/98	5030	5410
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5.74	57	10.00	6.42	64	12	9/18/98	5030	5410
Pentachlorophenol		mg/Kg	<1.25	10.00	3.76	38	10.00	4.55	46	19	9/18/98	5030	5410
Pyrene		mg/Kg	<0.25	10.00	5.76	58	10.00	6.34	63	8.3	9/18/98	5030	5410

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000598

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		mg/kg	9.0	9.1	1.1	8/31/98		5170
TDS		mg/Kg	270	292	7.8	9/19/98		5418

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
104530	Field Blank	8/6/98	16:00	8/8/98
104531	Trip Blank			8/8/98
104532	MW-6 3-5'	8/6/98	9:02	8/8/98
104533	MW-6 63-65'	8/6/98	15:00	8/8/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		<0.2	mg/Kg	0.2	8/13/98		4863
Nitrate		<0.2	mg/Kg	0.2	8/13/98		4863
Chloride		<1.0	mg/Kg	1.0	8/13/98		4863
Sulfate		<1.0	mg/Kg	1.0	8/13/98		4863
Acrolein		<5	ug/L	5	8/13/98		4865
Acrylonitrile		<5	ug/L	5	8/13/98		4865
Benzene		<1	ug/L	1	8/13/98		4865
Carbon tetrachloride		<1	ug/L	1	8/13/98		4865
Chlorobenzene		<1	ug/L	1	8/13/98		4865
1,2-dichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/13/98		4865
1,1,1-trichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2-trichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2-trichloroethylene		<1	ug/L	1	8/13/98		4865
[illegible]loroform		<1	ug/L	1	8/13/98		4865
[illegible]chlorobenzene		<2	ug/L	2	8/13/98		4865
1,1-dichloroethylene		<1	ug/L	1	8/13/98		4865
Dichloropropenes		<1	ug/L	1	8/13/98		4865
Ethylbenzene		<1	ug/L	1	8/13/98		4865
Bromodichloromethane		<1	ug/L	1	8/13/98		4865
Bromomethane		<5	ug/L	5	8/13/98		4865
Chloromethane		<1	ug/L	1	8/13/98		4865
Dichlorodifluoromethane		<1	ug/L	1	8/13/98		4865
Dichloromethane		<1	ug/L	1	8/13/98		4865
Trichlorofluoromethane		<1	ug/L	1	8/13/98		4865
Tetrachloroethylene		<1	ug/L	1	8/13/98		4865
Toluene		<1	ug/L	1	8/13/98		4865
Trichloroethylene		<1	ug/L	1	8/13/98		4865
Vinyl chloride		<1	ug/L	1	8/13/98		4865
m,p-xylene		<1	ug/L	1	8/13/98		4865
o-xylene		<1	ug/L	1	8/13/98		4865
1,1-dichloroethane		<1	ug/L	1	8/13/98		4865
Ethylene dibromide		<1	ug/L	1	8/13/98		4865
cis-1,2-dichlorethylene		<1	ug/L	1	8/13/98		4865
trans-1,2-dichloroethylene		<1	ug/L	1	8/13/98		4865
Methylene chloride		<5	ug/L	5	8/13/98		4865
Surr. Dibromofluoromethane		107	%	72-130	8/13/98		4865
Surr. Toluene-d8		112	%	77-127	8/13/98		4865
Surr. 4-Bromofluorobenzene		110	%	72-131	8/13/98		4865
Acrolein		<125	ug/Kg	125	9/3/98		5205

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrylonitrile		<125	ug/Kg	125	9/3/98		5205
Benzene		<25	ug/Kg	25	9/3/98		5205
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5205
Chlorobenzene		<25	ug/Kg	25	9/3/98		5205
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Chloroform		<25	ug/Kg	25	9/3/98		5205
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5205
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5205
Dichloropropenes		<25	ug/Kg	25	9/3/98		5205
Ethylbenzene		<25	ug/Kg	25	9/3/98		5205
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5205
Bromomethane		<125	ug/Kg	125	9/3/98		5205
Chloromethane		<25	ug/Kg	25	9/3/98		5205
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5205
Dichloromethane		<25	ug/Kg	25	9/3/98		5205
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5205
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5205
Toluene		<25	ug/Kg	25	9/3/98		5205
Trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Vinyl chloride		<25	ug/Kg	25	9/3/98		5205
m,p-xylene		<25	ug/Kg	25	9/3/98		5205
o-xylene		<25	ug/Kg	25	9/3/98		5205
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5205
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5205
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5205
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5205
Methylene chloride		<125	ug/Kg	125	9/3/98		5205
Surr. Dibromofluoromethane		101	%	72-130	9/3/98		5205
Surr. Toluene-d8		99	%	77-127	9/3/98		5205
Surr. 4-Bromofluorobenzene		102	%	72-131	9/3/98		5205
PCB		0.1	mg/Kg	0.1	8/20/98	4741	5026
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5028
Arsenic		<0.50	mg/Kg	0.50	08/24/98	4718	5090
Barium		<0.50	mg/Kg	0.50	08/24/98	4718	5090
Cadmium		<0.10	mg/Kg	0.10	08/24/98	4718	5090
Chromium		<0.50	mg/Kg	0.50	08/24/98	4718	5090
Lead		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Total Mercury		<0.10	mg/Kg	<0.10	8/25/98	4761	5101
Selenium		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Silver		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Uranium		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Copper		<1.0	mg/Kg	1.0	8/24/98	4718	5090

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Iron		<10	mg/Kg	10	8/24/98	4718	5090
Manganese		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Zinc		<2.0	mg/Kg	2.0	8/24/98	4718	5090
Aluminum		<10	mg/Kg	10	8/24/98	4718	5090
Boron		<1.0	mg/Kg	10	8/24/98	4718	5090
Cobalt		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Molybdenum		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Nickel		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Hg		<0.10	mg/Kg	0.10	8/25/98	4765	5101
Phenolics		<0.01	mg/Kg	0.01	8/19/98		5015
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
Benzidine		<2.5	mg/Kg	2.5	8/25/98	4721	5105
Hexachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pentachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Hexachloroethane		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2,4-dichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
[illegible] (2-chloroethl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105
[illegible]is (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Diphenylhydrazine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Hexachlorobutadiene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Isophorone		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Nitrobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2,4-dinitro-o-cresol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4-dinitrophenols		<1.25	mg/Kg	1.25	8/25/98	4721	5105
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pentachlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Phenol		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Dibutyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Diethyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Dimethyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Anthracene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
[illegible]uoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluorene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Phenanthrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pyrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Naphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
1-methylnaphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2-methylnaphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo-a-pyrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
monomethylnaphthalenes		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Surr. 2-Fluorophenol		52	%	25-121	8/25/98	4721	5105
Surr. Phenol-d6		61	%	24-113	8/25/98	4721	5105
Surr. Nitroobenzene-d5		55	%	23-120	8/25/98	4721	5105
Surr. 2-Fluorobiphenyl		62	%	30-115	8/25/98	4721	5105
Surr. 2,4,6-Tribromophenol		86	%	19-122	8/25/98	4721	5105
Surr. Terphenyl-d14		67	%	28-137	8/25/98	4721	5105

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Fluoride		2.5	mg/L	2.40	96	8/13/98	4863
Nitrate		5.0	mg/L	4.835	97	8/13/98	4863
Nitrate		5.0	mg/L	4.57	91	8/20/98	5025
Chloride		12.5	mg/L	11.925	95	8/13/98	4863
Sulfate		12.5	mg/L	12.545	100	8/13/98	4863
Vinyl chloride		100	ug/L	110	110	8/13/98	4865
1,1-Dichloroethene		100	ug/L	105	105	8/13/98	4865
Chloroform		100	ug/L	118	118	8/13/98	4865
1,2-Dichloropropane		100	ug/L	118	118	8/13/98	4865
Toluene		100	ug/L	120	120	8/13/98	4865
Chlorobenzene		100	ug/L	118	118	8/13/98	4865
[redacted]ylbenzene		100	ug/L	116	116	8/13/98	4865
[redacted]CB		0.400	mg/L	0.440	110	8/20/98	5026
Cyanide		0.12	mg/L	0.10	83	8/20/98	5028
Arsenic		1.0	mg/L	1.0	100	8/24/98	5090
Barium		1.0	mg/L	0.97	97	8/24/98	5090
Cadmium		1.0	mg/L	1.0	100	8/24/98	5090
Chromium		1.0	mg/L	1.0	100	8/24/98	5090
Lead		1.0	mg/L	1.0	100	8/24/98	5090
Total Mercury		1.0	mg/L	1.1	110	8/24/98	5090
Selenium		1.0	mg/L	1.0	100	8/24/98	5090
Vinyl chloride		100	ug/L	104	104	9/3/98	5205
1,1-Dichloroethene		100	ug/L	119	119	9/3/98	5205
Chloroform		100	ug/L	112	112	9/3/98	5205
1,2-Dichloropropane		100	ug/L	106	106	9/3/98	5205
Toluene		100	ug/L	115	115	9/3/98	5205
Ethylbenzene		100	ug/L	112	112	9/3/98	5205
Silver		0.20	mg/L	0.20	100	8/24/98	5090
Uranium		1.0	mg/L	0.99	99	8/24/98	5090
Copper		1.0	mg/L	0.99	99	8/24/98	5090
Iron		50	mg/L	50	100	8/24/98	5090
Manganese		1.0	mg/L	1.0	100	8/24/98	5090
Zinc		1.0	mg/L	1.0	100	8/24/98	5090
Aluminum		125	mg/L	126	101	8/24/98	5090
Boron		1.0	mg/L	1.0	100	8/24/98	5090
Cobalt		1.0	mg/L	1.0	100	8/24/98	5090
Molybdenum		1.0	mg/L	1.0	100	8/24/98	5090
[redacted]ckel		1.0	mg/L	1.0	100	8/24/98	5090

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Hg		1.0	mg/L	1.0	100	8/25/98	5101
Nitrate		5.0	mg/L	4.57	91	8/20/98	5025
Phenolics		0.8	mg/L	0.8	100	8/19/98	5015
TRPHC		100	mg/L	104	104	8/22/98	5045
Phenol		80	mg/L	89	111	8/25/98	5105
1,4-Dichlorobenzene		80	mg/L	85	106	8/25/98	5105
2-nitrophenol		80	mg/L	84	105	8/25/98	5105
2,4-Dichlorophenol		80	mg/L	87	109	8/25/98	5105
Hexachlorobutadiene		80	mg/L	87	109	8/25/98	5105
4-Chloro-3-methylphenol		80	mg/L	84	105	8/25/98	5105
2,4,6-Trichlorophenol		80	mg/L	85	107	8/25/98	5105
Acenaphthene		80	mg/L	83	104	8/25/98	5105
n-Nitrosodiphenylamine		80	mg/L	85	107	8/25/98	5105
Pentachlorophenol		80	mg/L	89	111	8/25/98	5105
Fluoranthene		80	mg/L	84	105	8/25/98	5105
Di-n-octylphthalate		80	mg/L	81	101	8/25/98	5105
Benzo(a)pyrene		80	mg/L	84	105	8/25/98	5105
[illegible]		7.0	s.u.	7.0	100	9/30/98	5565

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		mg/Kg	1	12.5	12.50	92	12.5	13.21	98	6.3	8/13/98		4863
Nitrate		mg/Kg	<0.2	25.0	25.60	102	25.0	25.89	104	1.9	8/13/98		4863
Nitrate		mg/Kg	<0.2	5.0	4.92	98	5.0	4.94	99	1.0	8/20/98		5025
Chloride		mg/Kg	14.7	62.5	72.48	92	62.5	72.94	93	1.1	8/13/98		4863
Sulfate		mg/Kg	10.1	62.5	70.51	97	62.5	69.90	96	1.0	8/13/98		4863
1,1-Dichloroethene		ug/L	<1	100	109	109	100	109	109	0	8/13/98		4865
Benzene		ug/L	<1	100	111	111	100	105	105	5.6	8/13/98		4865
Trichloroethene		ug/L	<1	100	110	110	100	105	105	4.7	8/13/98		4865
Toluene		ug/L	<1	100	111	111	100	106	106	4.6	8/13/98		4865
Chlorobenzene		ug/L	<1	100	103	103	100	101	101	2.0	8/13/98		4865
[illegible]CB		mg/Kg	<0.1	0.500	0.520	104	0.500	0.520	104	0	8/20/98	4741	5026
[illegible]yanide		mg/Kg	<0.01	0.12	0.11	92	0.12	0.12	100	8.3	8/20/98		5028
1,1-Dichloroethene		mg/Kg	<1	100	81	81	100	87	87	7.1	8/24/98		5082
Benzene		mg/Kg	<1	100	86	86	100	82	82	4.8	8/24/98		5082
Trichloroethene		mg/Kg	<1	100	93	93	100	84	84	10	8/24/98		5082
Toluene		mg/Kg	<1	100	88	88	100	81	81	8.3	8/24/98		5082
Chlorobenzene		mg/Kg	<1	100	93	93	100	83	83	11	8/24/98		5082
Arsenic		mg/Kg	0.68	200	190	95	200	183	92	3.2	8/24/98	4718	5090
Barium		mg/Kg	6.5	200	194	94	200	194	94	0	8/24/98	4718	5090
Cadmium		mg/Kg	0.14	200	182	91	200	180	90	1.1	8/24/98	4718	5090
Chromium		mg/Kg	4.5	200	197	96	200	191	93	3.2	8/24/98	4718	5090
Lead		mg/Kg	2.2	200	181	89	200	180	89	0	8/24/98	4718	5090
Total Mercury		mg/Kg	<0.10	1.0	1.2	120	1.0	1.2	120	0	8/25/98	4765	5101
Selenium		mg/Kg	<0.50	200	171	86	200	166	83	3.6	8/24/98	4718	5090
Silver		mg/Kg	<0.50	25	22	88	25	22	88	0	8/24/98	4718	5090
1,1-Dichloroethene		mg/Kg	<25	100	98	98	100	95	95	3.1	9/3/98		5205
Benzene		mg/Kg	<25	100	102	102	100	104	104	1.9	9/3/98		5205
Trichloroethene		mg/Kg	<25	100	108	108	100	108	108	0	9/3/98		5205
Toluene		mg/Kg	<25	100	100	100	100	101	101	1.0	9/3/98		5205
Chlorobenzene		mg/Kg	<25	100	88	88	100	87	87	1.1	9/3/98		5205
Uranium		mg/Kg	<1.0	200	166	83	200	170	85	2.4	8/24/98	4718	5090
Copper		mg/Kg	1.3	200	197	98	200	197	98	0	8/24/98	4718	5090
Iron		mg/Kg	<10	250	245	98	250	245	98	0	8/24/98	4718	5090
Manganese		mg/Kg	21	200	202	91	200	202	91	0	8/24/98	4718	5090
Zinc		mg/Kg	3.7	200	178	87	200	178	87	0	8/24/98	4718	5090
Aluminum		mg/Kg	<10	250	269	108	250	275	110	1.8	8/24/98	4718	5090
Boron		mg/Kg	<0.10	200	193	97	200	179	90	7.5	8/24/98	4718	5090
Cobalt		mg/Kg	2.8	200	187	92	200	187	92	0	8/24/98	4718	5090
[illegible]olybdenum		mg/Kg	<1.0	200	191	96	200	191	96	0	8/24/98	4718	5090

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Nickel		mg/Kg	2.4	200	185	91	200	185	91	0	8/24/98	4718	5090
Phenolics		mg/Kg	<0.01	0.8	0.76	95	0.8	0.77	96	1	8/19/98		5015
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
Phenol		mg/Kg	<0.25	10.00	8.2	82	10.00	8.49	85	2.4	8/25/98	4721	5105
2-Chlorophenol		mg/Kg	<1.25	10.00	7.93	79	10.00	7.98	80	1.3	8/25/98	4721	5105
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.61	76	10.00	7.87	79	3.9	8/25/98	4721	5105
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	8.23	82	10.00	9.53	95	8.2	8/25/98	4721	5105
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.7	77	10.00	7.89	79	2.6	8/25/98	4721	5105
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	8.3	83	10.00	8.51	85	2.4	8/25/98	4721	5105
Acenaphthene		mg/Kg	<0.25	10.00	9.01	90	10.00	8.73	87	3.4	8/25/98	4721	5105
4-Nitrophenol		mg/Kg	<1.25	10.00	6.62	66	10.00	5.73	57	15	8/25/98	4721	5105
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	9.38	94	10.00	8.8	88	6.6	8/25/98	4721	5105
Pentachlorophenol		mg/Kg	<1.25	10.00	6.87	69	10.00	7.55	76	9.7	8/25/98	4721	5105
Pyrene		mg/Kg	<0.25	10.00	9.19	92	10.00	9.7	97	5.2	8/25/98	4721	5105

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000159

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
TDS		mg/kg	530	544	2.6	9/2/98		5195
pH		s.u.	8.5	8.5	0	9/30/98		5565

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000168

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
107012	GSB-3 2-3'	9/3/98	8:25	9/9/98
107013	GSB-3 38-40'	9/3/98	11:21	9/9/98
107014	GSB-3 48-50'	9/3/98	12:18	9/9/98
107015	GSB-3D 48-50'	9/3/98	12:18	9/9/98
107016	GSB-8 2-3'	9/3/98	14:21	9/9/98
107017	GSB-8 43-45'	9/3/98	16:59	9/9/98
107018	GSB-8 57-59'	9/4/98	9:20	9/9/98
107019	GSB-8D 57-59'	9/4/98	9:20	9/9/98
107020	Trip Blank			9/9/98
107021	Field Blank	9/4/98	16:30	9/9/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/17/98		5377
Acrylonitrile		<5	ug/L	5	9/17/98		5377
Benzene		<1	ug/L	1	9/17/98		5377
Carbon tetrachloride		<1	ug/L	1	9/17/98		5377
Chlorobenzene		<1	ug/L	1	9/17/98		5377
1,2-dichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/17/98		5377
1,1,1-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethylene		<1	ug/L	1	9/17/98		5377
Chloroform		<1	ug/L	1	9/17/98		5377
Dichlorobenzene		<2	ug/L	2	9/17/98		5377
1,1-dichloroethylene		<1	ug/L	1	9/17/98		5377
[redacted]loropropenes		<1	ug/L	1	9/17/98		5377
[redacted]lbenzene		<1	ug/L	1	9/17/98		5377
Bromodichloromethane		<1	ug/L	1	9/17/98		5377
Bromomethane		<5	ug/L	5	9/17/98		5377
Chloromethane		<1	ug/L	1	9/17/98		5377
Dichlorodifluoromethane		<1	ug/L	1	9/17/98		5377
Dichloromethane		<1	ug/L	1	9/17/98		5377
Trichlorofluoromethane		<1	ug/L	1	9/17/98		5377
Tetrachloroethylene		<1	ug/L	1	9/17/98		5377
Toluene		<1	ug/L	1	9/17/98		5377
Trichloroethylene		<1	ug/L	1	9/17/98		5377
Vinyl chloride		<1	ug/L	1	9/17/98		5377
m,p-xylene		<1	ug/L	1	9/17/98		5377
o-xylene		<1	ug/L	1	9/17/98		5377
1,1-dichloroethane		<1	ug/L	1	9/17/98		5377
Ethylene dibromide		<1	ug/L	1	9/17/98		5377
cis-1,2-dichlorethylene		<1	ug/L	1	9/17/98		5377
trans-1,2-dichloroethylene		<1	ug/L	1	9/17/98		5377
Methylene chloride		<5	ug/L	5	9/17/98		5377
Surr. Dibromofluoromethane		111	%	71-132	9/17/98		5377
Surr. Toluene-d8		96	%	82-124	9/17/98		5377
Surr. 4-Bromofluorobenzene		103	%	76-126	9/17/98		5377
Acrolein		<125	ug/Kg	125	9/20/98		5461
Acrylonitrile		<125	ug/Kg	125	9/20/98		5461
Benzene		<25	ug/Kg	25	9/20/98		5461
Carbon tetrachloride		<25	ug/Kg	25	9/20/98		5461
Chlorobenzene		<25	ug/Kg	25	9/20/98		5461
[redacted]dichloroethane		<25	ug/Kg	25	9/20/98		5461

Order ID Number: 9808000168

oject Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,1-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Chloroform		<25	ug/Kg	25	9/20/98		5461
Dichlorobenzene		<50	ug/Kg	2	9/20/98		5461
1,1-dichloroethylene		<25	ug/Kg	50	9/20/98		5461
Dichloropropenes		<25	ug/Kg	25	9/20/98		5461
Ethylbenzene		<25	ug/Kg	25	9/20/98		5461
Bromodichloromethane		<25	ug/Kg	25	9/20/98		5461
Bromomethane		<125	ug/Kg	125	9/20/98		5461
Chloromethane		<25	ug/Kg	25	9/20/98		5461
Dichlorodifluoromethane		<25	ug/Kg	25	9/20/98		5461
Dichloromethane		<25	ug/Kg	25	9/20/98		5461
Trichlorofluoromethane		<25	ug/Kg	25	9/20/98		5461
Tetrachloroethylene		<25	ug/Kg	25	9/20/98		5461
Toluene		<25	ug/Kg	25	9/20/98		5461
Trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Vinyl chloride		<25	ug/Kg	25	9/20/98		5461
p-xylene		<25	ug/Kg	25	9/20/98		5461
xylene		<25	ug/Kg	25	9/20/98		5461
1,1-dichloroethane		<25	ug/Kg	25	9/20/98		5461
Ethylene dibromide		<25	ug/Kg	25	9/20/98		5461
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/20/98		5461
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/20/98		5461
Methylene chloride		<125	ug/Kg	125	9/20/98		5461
Surr. Dibromofluoromethane		101	%	71-132	9/20/98		5461
Surr. Toluene-d8		99	%	82-124	9/20/98		5461
Surr. 4-Bromofluorobenzene		102	%	76-126	9/20/98		5461
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Cyanide		<0.01	mg/Kg	0.01	9/15/98		5332
Total Mercury		<0.10	mg/Kg	<0.10	9/10/98	4917	5275
Arsenic		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Barium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Cadmium		<0.10	mg/Kg	0.10	9/18/98	5090	5402
Chromium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Lead		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Selenium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Silver		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Uranium		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Copper		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Iron		<10	mg/Kg	10	9/20/98	5090	5461
Manganese		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Zinc		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Aluminum		<10	mg/Kg	10	9/20/98	5090	5461
Boron		<10	mg/Kg	10	9/18/98	5090	5402
bbalt		<0.50	mg/Kg	0.50	9/18/98	5090	5402

Order ID Number: 9808000168

[redacted]ct Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Molybdenum		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Nickel		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Benzidine		<2.5	mg/Kg	2.5	9/18/98	5030	5410
Hexachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pentachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Hexachloroethane		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2,4-dichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Diphenylhydrazine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
Hexachlorobutadiene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Isophorone		<1.25	mg/Kg	1.25	9/18/98	5030	5410
[redacted]robenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
[redacted]dinitro-o-cresol		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2,4-dinitrophenols		<1.25	mg/Kg	1.25	9/18/98	5030	5410
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pentachlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
Phenol		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Dibutyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Diethyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Dimethyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Anthracene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Fluorene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Phenanthrene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pyrene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Naphthalene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
1-methylnaphthalene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2-methylnaphthalene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Benzo-a-pyrene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Surr. 2-Fluorophenol		60	%	25-121	9/18/98	5030	5410
Surr. Phenol-d6		66	%	24-113	9/18/98	5030	5410
[redacted]. Nitroobenzene-d5		65	%	23-120	9/18/98	5030	5410

Order ID Number: 9808000168

oject Number: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Surr. 2-Fluorobiphenyl		69	%	30-115	9/18/98	5030	5410
Surr. 2,4,6-Tribromophenol		54	%	19-122	9/18/98	5030	5410
Surr. Terphenyl-d14		76	%	28-137	9/18/98	5030	5410
TRPHC		<10.0	mg/Kg	10	9/15/98	4988	5324
MTBE		<0.050	mg/Kg	0.05	9/14/98		5321
Benzene		<0.050	mg/Kg	0.05	9/14/98		5321
Toluene		<0.050	mg/Kg	0.05	9/14/98		5321
Ethylbenzene		<0.050	mg/Kg	0.05	9/14/98		5321
m,p,o-xylene		<0.050	mg/Kg	0.05	9/14/98		5321
Chloride		<2.0	mg/Kg	2	9/20/98		5421
Chloride		<2.0	mg/Kg	2	9/20/98		5422
Total Phenols		<0.25	mg/Kg	0.25	9/20/98		5451
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5490
Chloride		<1.0	mg/Kg	1	9/21/98		5490
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5490
Sulfate		<1.0	mg/Kg	1	9/21/98		5490
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5491
Chloride		<1.0	mg/Kg	1	9/21/98		5491
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5491
Sulfate		<1.0	mg/Kg	1	9/21/98		5491

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	120	120	9/14/98	5377
1,1-Dichloroethene		100	ug/L	118	118	9/14/98	5377
Chloroform		100	ug/L	116	116	9/14/98	5377
1,2-Dichloropropane		100	ug/L	114	114	9/14/98	5377
Toluene		100	ug/L	115	115	9/14/98	5377
Chlorobenzene		100	ug/L	113	113	9/14/98	5377
Ethylbenzene		100	ug/L	114	114	9/14/98	5377
Vinyl chloride		100	ug/L	117	117	9/20/98	5461
1,1-Dichloroethene		100	ug/L	119	119	9/20/98	5461
Chloroform		100	ug/L	109	109	9/20/98	5461
1,2-Dichloropropane		100	ug/L	107	107	9/20/98	5461
[illegible]ene		100	ug/L	116	116	9/20/98	5461
Chlorobenzene		100	ug/L	112	112	9/20/98	5461
Ethylbenzene		100	ug/L	120	120	9/20/98	5461
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Cyanide		0.12	mg/L	0.11	92	9/15/98	5332
Total Mercury		5.0	mg/L	4.8	96	9/10/98	5275
Arsenic		1.0	mg/L	1.0	100	9/18/98	5402
Barium		1.0	mg/L	0.99	99	9/18/98	5402
Cadmium		1.0	mg/L	1.0	100	9/18/98	5402
Chromium		1.0	mg/L	1.0	100	9/18/98	5402
Lead		1.0	mg/L	1.0	100	9/18/98	5402
Selenium		1.0	mg/L	0.99	0.99	9/18/98	5402
Silver		1.0	mg/L	1.0	100	9/18/98	5402
Uranium		1.0	mg/L	0.98	98	9/18/98	5402
Copper		1.0	mg/L	0.99	99	9/18/98	5402
Iron		100.0	mg/L	106.0	106	9/20/98	5461
Manganese		1.0	mg/L	0.99	99	9/18/98	5402
Zinc		1.0	mg/L	1.0	100	9/18/98	5402
Aluminum		250.0	mg/L	251.0	100	9/20/98	5461
Boron		1.0	mg/L	0.99	99	9/18/98	5402
Cobalt		1.0	mg/L	1.0	100	9/18/98	5402
Molybdenum		1.0	mg/L	0.96	96	9/18/98	5402
Nickel		1.0	mg/L	0.99	99	9/18/98	5402
TRPHC		100	mg/L	103	103	9/15/98	5324
[illegible]enol		80	mg/L	77	96	9/19/98	5410
[illegible]Dichlorobenzene		80	mg/L	67	84	9/19/98	5410

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2-nitrophenol		80	mg/L	77	96	9/19/98	5410
2,4-Dichlorophenol		80	mg/L	79	99	9/19/98	5410
Hexachlorobutadiene		80	mg/L	67	84	9/19/98	5410
4-Chloro-3-methylphenol		80	mg/L	68	85	9/19/98	5410
2,4,6-Trichlorophenol		80	mg/L	69	86	9/19/98	5410
Acenaphthene		80	mg/L	69	86	9/19/98	5410
n-Nitrosodiphenylamine		80	mg/L	80	100	9/19/98	5410
Pentachlorophenol		80	mg/L	86	108	9/19/98	5410
Fluoranthene		80	mg/L	71	88	9/19/98	5410
Di-n-octylphthalate		80	mg/L	84	105	9/19/98	5410
Benzo(a)pyrene		80	mg/L	69	86	9/19/98	5410
pH		7.0	s.u.	7.0	100	9/10/98	5271
MTBE		0.100	mg/L	0.089	89	9/14/98	5321
Benzene		0.100	mg/L	0.091	91	9/14/98	5321
Toluene		0.100	mg/L	0.089	89	9/14/98	5321
Ethylbenzene		0.100	mg/L	0.092	92	9/14/98	5321
m,p,o-xylene		0.300	mg/L	0.269	90	9/14/98	5321
Chloride		500	mg/L	499	100	9/20/98	5421
Chloride		500	mg/L	500	100	9/20/98	5422
TDS		1,000	mg/L	976	98	9/21/98	5449
Total Phenols		0.80	mg/L	0.80	100	9/20/98	5451
Fluoride		2.5	mg/L	2.47	99	9/21/98	5490
Chloride		12.5	mg/L	12.31	98	9/21/98	5490
Nitrate		5	mg/L	5.08	101	9/21/98	5490
Sulfate		12.5	mg/L	12.895	103	9/21/98	5490
Fluoride		2.5	mg/L	2.48	99	9/21/98	5491
Chloride		12.5	mg/L	12.63	101	9/21/98	5491
Nitrate		5	mg/L	5.09	102	9/21/98	5491
Sulfate		12.5	mg/L	12.88	103	9/21/98	5491

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	136	136	100	119	119	13	9/17/98		5377
Benzene		ug/L	<1	100	121	121	100	110	110	9.5	9/17/98		5377
Trichloroethene		ug/L	<1	100	122	122	100	111	111	9.4	9/17/98		5377
Toluene		ug/L	<1	100	116	116	100	106	106	9.0	9/17/98		5377
Chlorobenzene		ug/L	<1	100	104	104	100	94	94	10	9/17/98		5377
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Cyanide		mg/Kg	<0.01	0.12	0.10	83	0.12	0.09	75	10	9/15/98		5332
1,1-Dichloroethene		mg/Kg	<25	100	127	127	100	127	127	0	9/20/98		5461
Benzene		mg/Kg	<25	100	121	121	100	124	124	2.4	9/20/98		5461
Trichloroethene		mg/Kg	<25	100	124	124	100	124	124	0	9/20/98		5461
Toluene		mg/Kg	<25	100	116	116	100	119	119	2.6	9/20/98		5461
[illegible]robenzene		mg/Kg	<25	100	106	106	100	106	106	0	9/20/98		5461
[illegible]HC		mg/Kg	<10.0	250	205	82	250	235	94	14	9/15/98	4988	5324
Phenol		mg/Kg	<0.25	10.00	5.23	52	10.00	5.66	57	9.2	9/19/98	5030	5410
2-Chlorophenol		mg/Kg	<1.25	10.00	4.89	49	10.00	5.17	52	5.9	9/19/98	5030	5410
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.21	62	10.00	6.51	65	4.7	9/19/98	5030	5410
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.12	51	10.00	5.44	54	5.7	9/19/98	5030	5410
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	5.99	60	10.00	6.11	61	1.7	9/19/98	5030	5410
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.11	51	10.00	5.45	55	7.5	9/19/98	5030	5410
Acenaphthene		mg/Kg	<0.25	10.00	6.46	65	10.00	7.06	71	8.8	9/19/98	5030	5410
4-Nitrophenol		mg/Kg	<1.25	10.00	3.54	35	10.00	4.3	43	20	9/19/98	5030	5410
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5.89	59	10.00	6.52	65	9.7	9/19/98	5030	5410
Pentachlorophenol		mg/Kg	<1.25	10.00	5.61	56	10.00	6.1	61	8.5	9/19/98	5030	5410
Pyrene		mg/Kg	<0.25	10.00	6.73	67	10.00	7.13	71	5.8	9/19/98	5030	5410
MTBE		mg/Kg	<0.050	5	5.12	102	5	5.26	105	2.9	9/14/98		5321
Benzene		mg/Kg	<0.050	5	5.42	108	5	5.51	110	1.8	9/14/98		5321
Toluene		mg/Kg	<0.050	5	5.39	108	5	5.5	110	1.8	9/14/98		5321
Ethylbenzene		mg/Kg	<0.050	5	5.57	111	5	5.66	113	1.8	9/14/98		5321
m,p,o-xylene		mg/Kg	0.159	15	16.5	109	15	16.9	112	2.7	9/14/98		5321
Chloride		mg/Kg	54	4,000	4,251	105	4,000	4,262	105	0	9/20/98		5421
Chloride		mg/Kg	140	4,000	4,622	112	4,000	4,622	112	0	9/20/98		5422
Total Phenols		mg/Kg	2.8	20	22.9	101	20	23.3	103	2.0	9/20/98		5451
Arsenic		mg/Kg	<0.50	200	167	84	200	168	84	0	9/18/98	5090	5402
Barium		mg/Kg	<0.50	200	182	91	200	184	92	1.1	9/18/98	5090	5402
Cadmium		mg/Kg	<0.10	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Chromium		mg/Kg	<0.50	200	182	91	200	182	91	0	9/18/98	5090	5402
Lead		mg/Kg	<0.50	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Selenium		mg/Kg	<0.50	200	165	83	200	161	81	2.4	9/18/98	5090	5402
Silver		mg/Kg	<0.50	350	350	100	350	413	118	17	9/18/98	5090	5402
[illegible]nium		mg/Kg	<2.0	200	192	96	200	190	95	1.0	9/18/98	5090	5402
[illegible]per		mg/Kg	<1.0	200	175	88	200	176	88	0	9/18/98	5090	5402

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Manganese		mg/Kg	<1.0	200	179	90	200	178	89	1.1	9/18/98	5090	5402
Zinc		mg/Kg	<2.0	200	178	89	200	176	88	1.1	9/18/98	5090	5402
Boron		mg/Kg	<10	200	170	85	200	166	83	2.4	9/18/98	5090	5402
Cobalt		mg/Kg	<0.50	200	175	88	200	179	90	2.2	9/18/98	5090	5402
Molybdenum		mg/Kg	<1.0	200	176	88	200	173	87	1.1	9/18/98	5090	5402
Nickel		mg/Kg	<0.50	200	172	86	200	173	87	1.2	9/18/98	5090	5402
Aluminum		mg/Kg	<10	200	165	83	200	169	85	2.4	9/20/98	5090	5461
Iron		mg/Kg	<10	200	160	80	200	157	79	1.3	9/20/98	5090	5461
Fluoride		mg/Kg	5.92	5	10.84	98	5	10.91	100	2	9/21/98		5490
Chloride		mg/Kg	86.77	25	107.83	84	25	106.85	81	3.6	9/21/98		5490
Nitrate		mg/Kg	<0.2	10	11.29	113	10	11.54	115	1.8	9/21/98		5490
Sulfate		mg/Kg	27.22	25	54.06	107	25	53.18	104	2.8	9/21/98		5490
Fluoride		mg/Kg	7.21	5	12.33	102	5	12.25	101	0.99	9/21/98		5491
Chloride		mg/Kg	168.9	25	193.53	99	25	187.55	75	3.1	9/21/98		5491
Nitrate		mg/Kg	1.64	10	11.17	95	10	11.65	100	5.1	9/21/98		5491
Sulfate		mg/Kg	55.5	25	82.33	107	25	81.31	103	3.8	9/21/98		5491

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000168

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.8	7.7	1.30	9/10/98		5271
TDS		mg/Kg	1100	1080	1.8	9/21/98		5449

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9808000167

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
107002	GSB-4 2-3'	9/4/98	10:25	9/9/98
107003	GSB-4 48-50'	9/4/98	14:20	9/9/98
107004	GSB-4 57-59'	9/4/98	14:51	9/9/98
107005	GSB-4D 57-59'	9/4/98		9/9/98
107006	TSB-8 3-5'	9/4/98	15:37	9/9/98
107007	TSB-8D 3-5'	9/4/98		9/9/98
107008	TSB-8 8-10'	9/4/98	15:46	9/9/98
107009	TSB-8 40-42'	9/4/98	16:10	9/9/98
107010	Field Blank	9/4/98	16:30	9/9/98
107011	Trip Blank			9/9/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9808000167

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/17/98		5377
Acrylonitrile		<5	ug/L	5	9/17/98		5377
Benzene		<1	ug/L	1	9/17/98		5377
Carbon tetrachloride		<1	ug/L	1	9/17/98		5377
Chlorobenzene		<1	ug/L	1	9/17/98		5377
1,2-dichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/17/98		5377
1,1,1-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethane		<1	ug/L	1	9/17/98		5377
1,1,2-trichloroethylene		<1	ug/L	1	9/17/98		5377
Chloroform		<1	ug/L	1	9/17/98		5377
Dichlorobenzene		<2	ug/L	2	9/17/98		5377
1,1-dichloroethylene		<1	ug/L	1	9/17/98		5377
[illegible]loropropenes		<1	ug/L	1	9/17/98		5377
[illegible]lbenzene		<1	ug/L	1	9/17/98		5377
Bromodichloromethane		<1	ug/L	1	9/17/98		5377
Bromomethane		<5	ug/L	5	9/17/98		5377
Chloromethane		<1	ug/L	1	9/17/98		5377
Dichlorodifluoromethane		<1	ug/L	1	9/17/98		5377
Dichloromethane		<1	ug/L	1	9/17/98		5377
Trichlorofluoromethane		<1	ug/L	1	9/17/98		5377
Tetrachloroethylene		<1	ug/L	1	9/17/98		5377
Toluene		<1	ug/L	1	9/17/98		5377
Trichloroethylene		<1	ug/L	1	9/17/98		5377
Vinyl chloride		<1	ug/L	1	9/17/98		5377
m,p-xylene		<1	ug/L	1	9/17/98		5377
o-xylene		<1	ug/L	1	9/17/98		5377
1,1-dichloroethane		<1	ug/L	1	9/17/98		5377
Ethylene dibromide		<1	ug/L	1	9/17/98		5377
cis-1,2-dichlorethylene		<1	ug/L	1	9/17/98		5377
trans-1,2-dichloroethylene		<1	ug/L	1	9/17/98		5377
Methylene chloride		<5	ug/L	5	9/17/98		5377
Surr. Dibromofluoromethane		107	%	71-132	9/17/98		5377
Surr. Toluene-d8		112	%	82-124	9/17/98		5377
Surr. 4-Bromofluorobenzene		110	%	76-126	9/17/98		5377
Acrolein		<125	ug/Kg	125	9/9/98		5264
Acrylonitrile		<125	ug/Kg	125	9/9/98		5264
Benzene		<25	ug/Kg	25	9/9/98		5264
Carbon tetrachloride		<25	ug/Kg	25	9/9/98		5264
[illegible]lorobenzene		<25	ug/Kg	25	9/9/98		5264
[illegible]dichloroethane		<25	ug/Kg	25	9/9/98		5264

Order ID Number: 9808000167

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,1-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethane		<25	ug/Kg	25	9/9/98		5264
1,1,2-trichloroethylene		<25	ug/Kg	25	9/9/98		5264
Chloroform		<25	ug/Kg	25	9/9/98		5264
Dichlorobenzene		<50	ug/Kg	50	9/9/98		5264
1,1-dichloroethylene		<25	ug/Kg	25	9/9/98		5264
Dichloropropenes		<25	ug/Kg	25	9/9/98		5264
Ethylbenzene		<25	ug/Kg	25	9/9/98		5264
Bromodichloromethane		<25	ug/Kg	25	9/9/98		5264
Bromomethane		<125	ug/Kg	125	9/9/98		5264
Chloromethane		<25	ug/Kg	25	9/9/98		5264
Dichlorodifluoromethane		<25	ug/Kg	25	9/9/98		5264
Dichloromethane		<25	ug/Kg	25	9/9/98		5264
Trichlorofluoromethane		<25	ug/Kg	25	9/9/98		5264
Tetrachloroethylene		<25	ug/Kg	25	9/9/98		5264
Toluene		<25	ug/Kg	25	9/9/98		5264
Trichloroethylene		<25	ug/Kg	25	9/9/98		5264
Vinyl chloride		<25	ug/Kg	25	9/9/98		5264
[redacted]p-xylene		<25	ug/Kg	25	9/9/98		5264
[redacted]xylene		<25	ug/Kg	25	9/9/98		5264
1,1-dichloroethane		<25	ug/Kg	25	9/9/98		5264
Ethylene dibromide		<25	ug/Kg	25	9/9/98		5264
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/9/98		5264
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/9/98		5264
Methylene chloride		<125	ug/Kg	125	9/9/98		5264
Surr. Dibromofluoromethane		83	%	71-132	9/9/98		5264
Surr. Toluene-d8		84	%	82-124	9/9/98		5264
Surr. 4-Bromofluorobenzene		85	%	76-126	9/9/98		5264
Acrolein		<125	ug/Kg	125	9/20/98		5461
Acrylonitrile		<125	ug/Kg	125	9/20/98		5461
Benzene		<25	ug/Kg	25	9/20/98		5461
Carbon tetrachloride		<25	ug/Kg	25	9/20/98		5461
Chlorobenzene		<25	ug/Kg	25	9/20/98		5461
1,2-dichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,1-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethane		<25	ug/Kg	25	9/20/98		5461
1,1,2-trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Chloroform		<25	ug/Kg	25	9/20/98		5461
Dichlorobenzene		<50	ug/Kg	50	9/20/98		5461
1,1-dichloroethylene		<25	ug/Kg	25	9/20/98		5461
Dichloropropenes		<25	ug/Kg	25	9/20/98		5461
Ethylbenzene		<25	ug/Kg	25	9/20/98		5461
Bromodichloromethane		<25	ug/Kg	25	9/20/98		5461
[redacted]romomethane		<125	ug/Kg	125	9/20/98		5461

Date: 10-1-98
Page # 24
Order ID Number: 9808000167

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Chloromethane		<25	ug/Kg	25	9/20/98		5461
Dichlorodifluoromethane		<25	ug/Kg	25	9/20/98		5461
Dichloromethane		<25	ug/Kg	25	9/20/98		5461
Trichlorofluoromethane		<25	ug/Kg	25	9/20/98		5461
Tetrachloroethylene		<25	ug/Kg	25	9/20/98		5461
Toluene		<25	ug/Kg	25	9/20/98		5461
Trichloroethylene		<25	ug/Kg	25	9/20/98		5461
Vinyl chloride		<25	ug/Kg	25	9/20/98		5461
m,p-xylene		<25	ug/Kg	25	9/20/98		5461
o-xylene		<25	ug/Kg	25	9/20/98		5461
1,1-dichloroethane		<25	ug/Kg	25	9/20/98		5461
Ethylene dibromide		<25	ug/Kg	25	9/20/98		5461
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/20/98		5461
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/20/98		5461
Methylene chloride		<125	ug/Kg	125	9/20/98		5461
Surr. Dibromofluoromethane		101	%	71-132	9/20/98		5461
Surr. Toluene-d8		99	%	82-124	9/20/98		5461
Surr. 4-Bromofluorobenzene		102	%	76-126	9/20/98		5461
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
[illegible]nide		<0.01	mg/Kg	0.01	9/15/98		5330
[illegible]nide		<0.01	mg/Kg	0.01	9/15/98		5332
Total Mercury		<0.10	mg/Kg	<0.10	9/10/98	4917	5275
Arsenic		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Barium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Cadmium		<0.10	mg/Kg	0.10	9/18/98	5090	5402
Chromium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Lead		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Selenium		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Silver		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Uranium		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Copper		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Iron		<10	mg/Kg	10	9/20/98	5090	5461
Manganese		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Zinc		<2.0	mg/Kg	2.0	9/18/98	5090	5402
Aluminum		<10	mg/Kg	10	9/20/98	5090	5461
Boron		<10	mg/Kg	10	9/18/98	5090	5402
Cobalt		<0.50	mg/Kg	0.50	9/18/98	5090	5402
Molybdenum		<1.0	mg/Kg	1.0	9/18/98	5090	5402
Nickel		<0.50	mg/Kg	0.50	9/18/98	5090	5402
TRPHC		<10.0	mg/Kg	10	9/15/98	4988	5324
Benzidine		<2.5	mg/Kg	2.5	9/18/98	5030	5410
Hexachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pentachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410

Order ID Number: 9808000167

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Hexachloroethane		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2,4-dichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	9/18/98	5030	5410
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Diphenylhydrazine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
Hexachlorobutadiene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Isophorone		<1.25	mg/Kg	1.25	9/18/98	5030	5410
Nitrobenzene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2,4-dinitro-o-cresol		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2,4-dinitrophenols		<1.25	mg/Kg	1.25	9/18/98	5030	5410
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
nitrosodibutylamine		<1.25	mg/Kg	1.25	9/18/98	5030	5410
nitrosodiphenylamine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pentachlorophenol		<1.25	mg/Kg	1.25	9/18/98	5030	5410
Phenol		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Dibutyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Diethyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Dimethyl phthalate		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Anthracene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Fluoranthene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Fluorene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Phenanthrene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Pyrene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
Naphthalene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
1-methylnaphthalene		<0.25	mg/Kg	0.25	9/18/98	5030	5410
2-methylnaphthalene		<50	mg/Kg	0.25	9/18/98	5030	5410
Benzo-a-pyrene		<50	mg/Kg	0.25	9/18/98	5030	5410
Surr. 2-Fluorophenol		52	%	25-121	9/18/98	5030	5410
Surr. Phenol-d6		61	%	24-113	9/18/98	5030	5410
Surr. Nitroobenzene-d5		55	%	23-120	9/18/98	5030	5410
Surr. 2-Fluorobiphenyl		62	%	30-115	9/18/98	5030	5410
Surr. 2,4,6-Tribromophenol		86	%	19-122	9/18/98	5030	5410
Surr. Terphenyl-d14		67	%	28-137	9/18/98	5030	5410
MTBE		<0.050	mg/Kg	0.05	9/14/98		5321

Order ID Number: 9808000167

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzene		<0.050	mg/Kg	0.05	9/14/98		5321
Toluene		<0.050	mg/Kg	0.05	9/14/98		5321
Ethylbenzene		<0.050	mg/Kg	0.05	9/14/98		5321
m,p,o-xylene		<0.050	mg/Kg	0.05	9/14/98		5321
Chloride		<2.0	mg/Kg	2	9/20/98		5421
Total Phenols		<0.25	mg/Kg	0.25	9/20/98		5450
Total Phenols		<0.25	mg/Kg	0.25	9/20/98		5451
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5488
Chloride		<1.0	mg/Kg	1.0	9/21/98		5488
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5488
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5488
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5489
Chloride		<1.0	mg/Kg	1.0	9/21/98		5489
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5489
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5489
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5490
Chloride		<1.0	mg/Kg	1.0	9/21/98		5490
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5490
Sulfate		<1.0	mg/Kg	1.0	9/21/98		5490
[illegible]oride		<1.0	mg/Kg	1.0	9/21/98		5491

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9808000167

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	120	120	9/14/98	5377
1,1-Dichloroethene		100	ug/L	118	118	9/14/98	5377
Chloroform		100	ug/L	116	116	9/14/98	5377
1,2-Dichloropropane		100	ug/L	114	114	9/14/98	5377
Toluene		100	ug/L	115	115	9/14/98	5377
Chlorobenzene		100	ug/L	113	113	9/14/98	5377
Ethylbenzene		100	ug/L	114	114	9/14/98	5377
Vinyl chloride		100	ug/L	117	117	9/20/98	5461
1,1-Dichloroethene		100	ug/L	119	119	9/20/98	5461
Chloroform		100	ug/L	109	109	9/20/98	5461
1,2-Dichloropropane		100	ug/L	107	107	9/20/98	5461
Toluene		100	ug/L	116	116	9/20/98	5461
Chlorobenzene		100	ug/L	112	112	9/20/98	5461
Ethylbenzene		100	ug/L	120	120	9/20/98	5461
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Cyanide		0.12	mg/L	0.11	92	9/15/98	5330
Cyanide		0.12	mg/L	0.11	92	9/15/98	5332
Total Mercury		5.0	mg/L	4.8	96	9/10/98	5275
Arsenic		1.0	mg/L	1.0	100	9/18/98	5402
Barium		1.0	mg/L	0.99	99	9/18/98	5402
Cadmium		1.0	mg/L	1.0	100	9/18/98	5402
Chromium		1.0	mg/L	1.0	100	9/18/98	5402
Lead		1.0	mg/L	1.0	100	9/18/98	5402
Selenium		1.0	mg/L	0.99	99	9/18/98	5402
Silver		1.0	mg/L	1.0	100	9/18/98	5402
Uranium		1.0	mg/L	0.98	98	9/18/98	5402
Copper		1.0	mg/L	0.99	99	9/18/98	5402
Iron		100.0	mg/L	106.0	106	9/20/98	5461
Manganese		1.0	mg/L	0.99	99	9/18/98	5402
Zinc		1.0	mg/L	1.0	100	9/18/98	5402
Aluminum		250.0	mg/L	251.0	100	9/20/98	5461
Boron		1.0	mg/L	0.99	99	9/18/98	5402
Cobalt		1.0	mg/L	1.0	100	9/18/98	5402
Molybdenum		1.0	mg/L	0.96	96	9/18/98	5402
Nickel		1.0	mg/L	0.99	99	9/18/98	5402
Vinyl chloride		100	ug/L	85	85	9/9/98	5264
1,1-Dichloroethene		100	ug/L	94	94	9/9/98	5264
Chloroform		100	ug/L	83	83	9/9/98	5264
1,2-Dichloropropane		100	ug/L	86	86	9/9/98	5264
Toluene		100	ug/L	96	96	9/9/98	5264

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000167

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Chlorobenzene		100	ug/L	99	99	9/9/98	5264
Ethylbenzene		100	ug/L	99	99	9/9/98	5264
Fluoride		2.5	mg/L	2.49	100	9/21/98	5488
Chloride		12.5	mg/L	12.755	102	9/21/98	5488
Nitrate		5	mg/L	5.08	102	9/21/98	5488
Sulfate		12.5	mg/L	13.15	105	9/21/98	5488
Fluoride		2.5	mg/L	2.49	100	9/21/98	5489
Chloride		12.5	mg/L	12.67	101	9/21/98	5489
Nitrate		5	mg/L	5.09	101	9/21/98	5489
Sulfate		12.5	mg/L	13.15	105	9/21/98	5489
Fluoride		2.5	mg/L	2.47	100	9/21/98	5490
Chloride		12.5	mg/L	12.31	98	9/21/98	5490
Nitrate		5	mg/L	5.08	101	9/21/98	5490
Sulfate		12.5	mg/L	12.895	103	9/21/98	5490
Chloride		12.5	mg/L	12.63	101	9/21/98	5491
TRPHC		100	mg/L	103	103	9/15/98	5324
Phenol		80	mg/L	81	101	9/18/98	5410
[redacted]Dichlorobenzene		80	mg/L	78	98	9/18/98	5410
[redacted]trophenol		80	mg/L	81	101	9/18/98	5410
2,4-Dichlorophenol		80	mg/L	87	109	9/18/98	5410
Hexachlorobutadiene		80	mg/L	80	100	9/18/98	5410
4-Chloro-3-methylphenol		80	mg/L	70	88	9/18/98	5410
2,4,6-Trichlorophenol		80	mg/L	84	105	9/18/98	5410
Acenaphthene		80	mg/L	84	105	9/18/98	5410
n-Nitrosodiphenylamine		80	mg/L	74	93	9/18/98	5410
Pentachlorophenol		80	mg/L	76	95	9/18/98	5410
Fluoranthene		80	mg/L	70	88	9/18/98	5410
Di-n-octylphthalate		80	mg/L	74	93	9/18/98	5410
Benzo(a)pyrene		80	mg/L	75	94	9/18/98	5410
pH		7.0	s.u.	7.0	100	9/10/98	5271
MTBE		0.100	mg/L	0.089	89	9/14/98	5321
Benzene		0.100	mg/L	0.091	91	9/14/98	5321
Toluene		0.100	mg/L	0.089	89	9/14/98	5321
Ethylbenzene		0.100	mg/L	0.092	92	9/14/98	5321
m,p,o-xylene		0.300	mg/L	0.269	90	9/14/98	5321
Chloride		500	mg/L	499	100	9/20/98	5421
TDS		1,000	mg/L	976	98	9/21/98	5449
Total Phenols		0.80	mg/L	0.79	99	9/20/98	5450
Total Phenols		0.80	mg/L	0.80	100	9/20/98	5451

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9808000167

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	136	136	100	119	119	13	9/17/98		5377
Benzene		ug/L	<1	100	121	121	100	110	110	95	9/17/98		5377
Trichloroethene		ug/L	<1	100	122	122	100	111	111	9.4	9/17/98		5377
Toluene		ug/L	<1	100	116	116	100	106	106	9.9	9/17/98		5377
Chlorobenzene		ug/L	<1	100	104	104	100	94	94	10.0	9/17/98		5377
PCB		mg/Kg	<0.1	0.40	0.43	108	0.40	0.45	113	4.5	9/18/98	5044	5401
Cyanide		mg/Kg	<0.01	0.12	0.11	92	0.12	0.10	83	10	9/15/98		5330
Cyanide		mg/Kg	<0.01	0.12	0.10	83	0.12	0.09	75	10	9/15/98		5332
1,1-Dichloroethene		ug/Kg	<25	100	80	80	100	81	81	1.2	9/9/98		5264
Benzene		ug/Kg	<25	100	86	86	100	83	83	3.6	9/9/98		5264
Trichloroethene		ug/Kg	<25	100	92	92	100	90	90	2.2	9/9/98		5264
Toluene		ug/Kg	<25	100	83	83	100	80	80	3.7	9/9/98		5264
[illegible]lorobenzene		ug/Kg	<25	100	82	82	100	80	80	2.5	9/9/98		5264
[illegible]-Dichloroethene		mg/Kg	<25	100	127	127	100	127	127	0	9/20/98		5461
Benzene		mg/Kg	<25	100	121	121	100	124	124	2.4	9/20/98		5461
Trichloroethene		mg/Kg	<25	100	124	124	100	124	124	0	9/20/98		5461
Toluene		mg/Kg	<25	100	116	116	100	119	119	2.6	9/20/98		5461
Chlorobenzene		mg/Kg	<25	100	106	106	100	106	106	0	9/20/98		5461
Total Mercury		mg/Kg	<0.10	2.5	2.7	108	2.5	2.7	108	0	9/10/98	4917	5275
TRPHC		mg/Kg	<10.0	250	205	82	250	235	94	14	9/15/98	4988	5324
Phenol		mg/Kg	<0.25	10.00	5.56	56	10.00	5.94	59	5.2	9/18/98	5030	5410
2-Chlorophenol		mg/Kg	<1.25	10.00	5.52	55	10.00	5.74	57	3.6	9/18/98	5030	5410
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.58	66	10.00	6.85	69	4.4	9/18/98	5030	5410
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.21	72	10.00	8.33	83	14	9/18/98	5030	5410
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.36	64	10.00	6.75	68	6.1	9/18/98	5030	5410
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	5.25	53	10.00	5.86	59	11	9/18/98	5030	5410
Acenaphthene		mg/Kg	<0.25	10.00	6.77	68	10.00	7.24	72	5.7	9/18/98	5030	5410
4-Nitrophenol		mg/Kg	<1.25	10.00	3.9	39	10.00	4.49	45	14	9/18/98	5030	5410
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5.74	57	10.00	6.42	64	12	9/18/98	5030	5410
Pentachlorophenol		mg/Kg	<1.25	10.00	3.76	38	10.00	4.55	46	19	9/18/98	5030	5410
Pyrene		mg/Kg	<0.25	10.00	5.76	58	10.00	6.34	63	8.3	9/18/98	5030	5410
MTBE		mg/Kg	<0.050	5	5.12	102	5	5.26	105	2.9	9/14/98		5321
Benzene		mg/Kg	<0.050	5	5.42	108	5	5.51	110	1.8	9/14/98		5321
Toluene		mg/Kg	<0.050	5	5.39	108	5	5.5	110	1.8	9/14/98		5321
Ethylbenzene		mg/Kg	<0.050	5	5.57	111	5	5.66	113	1.8	9/14/98		5321
m,p,o-xylene		mg/Kg	0.159	15	16.5	109	15	16.9	112	2.7	9/14/98		5321
Chloride		mg/Kg	54	4,000	4,251	105	4,000	4,262	105	0	9/20/98		5421
Total Phenols		mg/Kg	6.2	20	26.1	100	20	26.7	102	2.0	9/20/98		5450
Total Phenols		mg/Kg	2.8	20	22.9	101	20	23.3	103	2.0	9/20/98		5451
Arsenic		mg/Kg	<0.50	200	167	84	200	168	84	0	9/18/98	5090	5402
[illegible]rium		mg/Kg	<0.50	200	182	91	200	184	92	1.1	9/18/98	5090	5402
[illegible]admium		mg/Kg	<0.10	200	175	88	200	173	87	1.1	9/18/98	5090	5402

Order ID Number: 9808000167

[redacted]ct Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Chromium		mg/Kg	<0.50	200	182	91	200	182	91	0	9/18/98	5090	5402
Lead		mg/Kg	<0.50	200	175	88	200	173	87	1.1	9/18/98	5090	5402
Selenium		mg/Kg	<0.50	200	165	83	200	161	81	2.4	9/18/98	5090	5402
Silver		mg/Kg	<0.50	350	350	100	350	413	118	17	9/18/98	5090	5402
Uranium		mg/Kg	<2.0	200	192	96	200	190	95	1.0	9/18/98	5090	5402
Copper		mg/Kg	<1.0	200	175	88	200	176	88	0	9/18/98	5090	5402
Manganese		mg/Kg	<1.0	200	179	90	200	178	89	1.1	9/18/98	5090	5402
Zinc		mg/Kg	<2.0	200	178	89	200	176	88	1.1	9/18/98	5090	5402
Boron		mg/Kg	<10	200	170	85	200	166	83	2.4	9/18/98	5090	5402
Cobalt		mg/Kg	<0.50	200	175	88	200	179	90	2.2	9/18/98	5090	5402
Molybdenum		mg/Kg	<1.0	200	176	88	200	173	87	1.1	9/18/98	5090	5402
Nickel		mg/Kg	<0.50	200	172	86	200	173	87	1.2	9/18/98	5090	5402
Aluminum		mg/Kg	<10	200	165	83	200	169	85	2.4	9/20/98	5090	5461
Iron		mg/Kg	<10	200	160	80	200	157	79	1.3	9/20/98	5090	5461
Fluoride		mg/Kg	6.5	5	10.93	89	5	10.93	89	0	9/21/98		5488
Chloride		mg/Kg	8.9	25	32.51	94	25	32.51	94	0	9/21/98		5488
Nitrate		mg/Kg	1.7	10	11.48	98	10	11.85	102	4.0	9/21/98		5488
Sulfate		mg/Kg	18	25	44.27	105	25	44.48	106	0.95	9/21/98		5488
Fluoride		mg/Kg	2.45	5	7.27	96	5	7.39	99	3.1	9/21/98		5489
[redacted]ride		mg/Kg	39.9	25	64.49	98	25	64.26	97	1.0	9/21/98		5489
[redacted]te		mg/Kg	<0.2	10	10.72	107	10	10.81	108	0.93	9/21/98		5489
Sulfate		mg/Kg	93.1	25	116.26	93	25	113.95	84	10	9/21/98		5489
Fluoride		mg/Kg	5.92	5	10.84	98	5	10.91	100	2.0	9/21/98		5490
Chloride		mg/Kg	86.77	25	107.83	84	25	106.85	101	18	9/21/98		5490
Nitrate		mg/Kg	<0.2	10	11.29	113	10	11.54	115	1.8	9/21/98		5490
Sulfate		mg/Kg	27.22	25	54.06	107	25	53.18	104	2.8	9/21/98		5490
Chloride		mg/Kg	168.9	25	193.53	99	25	187.55	75	3.1	9/21/98		5491

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Hobbs, NM

Order ID Number: 9808000167

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.8	7.7	1.30	9/10/98		5271
TDS		mg/Kg	1100	1080	1.8	9/21/98		5449

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page: 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106028	TSB-7 28-30'	8/21/98	15:45	8/25/98
106029	TSB-10 2-3'	8/21/98	9:00	8/25/98
106030	TSB-10 3-5'	8/21/98	9:09	8/25/98
106031	TSB-10 8-10'	8/21/98	9:24	8/25/98
106032	TSB-10 28-31'	8/21/98	10:16	8/25/98
106033	TSB-6 18-20'	8/21/98	11:58	8/25/98
106034	TSB-6 2-3'	8/21/98	11:23	8/25/98
106035	TSB-6 3-5'	8/21/98	11:27	8/25/98
106036	TSB-7 2-3'	8/21/98	14:06	8/25/98
106037	TSB-7 3-5'	8/21/98	14:12	8/25/98
106038	TSB-7 8-10'	8/21/98	14:21	8/25/98
106039	Field Blank	8/21/98		8/25/98
106040	Trip Blank			8/25/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
[illegible]1-dichloroethylene		<1	ug/L	1	9/1/98		5183
[illegible]chloropropenes		<1	ug/L	1	9/1/98		5183
Ethylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	9/3/98		5205
Acrylonitrile		<125	ug/Kg	125	9/3/98		5205
Benzene		<25	ug/Kg	25	9/3/98		5205
[illegible]arbon tetrachloride		<25	ug/Kg	25	9/3/98		5205
[illegible]hlorobenzene		<25	ug/Kg	25	9/3/98		5205

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Chloroform		<25	ug/Kg	25	9/3/98		5205
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5205
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5205
Dichloropropenes		<25	ug/Kg	25	9/3/98		5205
Ethylbenzene		<25	ug/Kg	25	9/3/98		5205
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5205
Bromomethane		<125	ug/Kg	125	9/3/98		5205
Chloromethane		<25	ug/Kg	25	9/3/98		5205
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5205
Dichloromethane		<25	ug/Kg	25	9/3/98		5205
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5205
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5205
[redacted]ene		<25	ug/Kg	25	9/3/98		5205
[redacted]hloroethylene		<25	ug/Kg	25	9/3/98		5205
Vinyl chloride		<25	ug/Kg	25	9/3/98		5205
m,p-xylene		<25	ug/Kg	25	9/3/98		5205
o-xylene		<25	ug/Kg	25	9/3/98		5205
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5205
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5205
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5205
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5205
Methylene chloride		<125	ug/Kg	125	9/3/98		5205
Surr. Dibromofluoromethane		101	%	72-130	9/3/98		5205
Surr. Toluene-d8		99	%	77-127	9/3/98		5205
Surr. 4-Bromofluorobenzene		102	%	72-131	9/3/98		5205
Acrolein		<125	ug/Kg	125	9/3/98		5206
Acrylonitrile		<125	ug/Kg	125	9/3/98		5206
Benzene		<25	ug/Kg	25	9/3/98		5206
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5206
Chlorobenzene		<25	ug/Kg	25	9/3/98		5206
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5206
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5206
Chloroform		<25	ug/Kg	25	9/3/98		5206
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5206
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5206
[redacted]hloropropenes		<25	ug/Kg	25	9/3/98		5206
[redacted]lbenzene		<25	ug/Kg	25	9/3/98		5206

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5206
Bromomethane		<125	ug/Kg	125	9/3/98		5206
Chloromethane		<25	ug/Kg	25	9/3/98		5206
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5206
Dichloromethane		<25	ug/Kg	25	9/3/98		5206
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5206
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5206
Toluene		<25	ug/Kg	25	9/3/98		5206
Trichloroethylene		<25	ug/Kg	25	9/3/98		5206
Vinyl chloride		<25	ug/Kg	25	9/3/98		5206
m,p-xylene		<25	ug/Kg	25	9/3/98		5206
o-xylene		<25	ug/Kg	25	9/3/98		5206
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5206
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5206
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5206
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5206
Methylene chloride		<125	ug/Kg	125	9/3/98		5206
[redacted]urr. Dibromofluoromethane		99	%	72-130	9/3/98		5206
[redacted]urr. Toluene-d8		93	%	77-127	9/3/98		5206
Surr. 4-Bromofluorobenzene		94	%	72-131	9/3/98		5206
Total Mercury		<0.10	mg/Kg	0.1	8/28/98	4804	5149
Cyanide		<0.01	mg/Kg	0.01	8/27/98		5128
Fluoride		<0.2	mg/kg	0.2	9/3/98		5199
Nitrate		<0.2	mg/kg	0.2	9/3/98		5199
Chloride		<1.0	mg/kg	1.0	9/3/98		5199
Fluoride		<0.2	mg/kg	0.2	9/2/98		5192
Nitrate		<0.2	mg/kg	0.2	9/2/98		5192
Chloride		<1.0	mg/kg	1.0	9/2/98		5192
Sulfate		<1.0	mg/kg	1.0	9/3/98		5199
Sulfate		<1.0	mg/kg	1.0	9/19/98		5420
Fluoride		<0.2	mg/kg	0.2	9/19/98		5419
Nitrate		<0.2	mg/kg	0.2	9/19/98		5419
Chloride		<1.0	mg/kg	1.0	9/19/98		5419
Sulfate		<1.0	mg/kg	1.0	9/19/98		5419
Fluoride		<0.2	mg/kg	0.2	9/19/98		5420
Nitrate		<0.2	mg/kg	0.2	9/19/98		5420
Chloride		<1.0	mg/kg	1.0	9/19/98		5420
Sulfate		<1.0	mg/kg	1.0	9/19/98		5420
PCBs		<0.1	mg/kg	0.1	9/3/98	4795	5204
TRPHC		<10.0	mg/kg	10	8/30/98	4810	5168
MTBE		<0.050	mg/kg	0.050	8/20/98		5031
Benzene		<0.050	mg/kg	0.050	8/20/98		5031
Toluene		<0.050	mg/kg	0.050	8/20/98		5031
[redacted]thylbenzene		<0.050	mg/kg	0.050	8/20/98		5031
[redacted],p,o-xylene		<0.050	mg/kg	0.050	8/20/98		5031

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		<0.50	mg/kg	0.50	9/15/98	4922	5340
Barium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Cadmium		<0.10	mg/kg	0.10	9/15/98	4922	5340
Chromium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Lead		<0.50	mg/kg	0.50	9/15/98	4922	5340
Selenium		<0.50	mg/kg	0.50	9/15/98	4922	5340
Silver		<0.50	mg/kg	0.50	9/15/98	4922	5340
Uranium		<2.0	mg/kg	2.0	9/15/98	4922	5340
Copper		<1.0	mg/kg	1.0	9/15/98	4922	5340
Iron		<10	mg/kg	10	9/17/98	4922	5373
Manganese		<1.0	mg/kg	1.0	9/15/98	4922	5340
Zinc		<2.0	mg/kg	2.0	9/15/98	4922	5340
Aluminum		<10	mg/kg	10	9/17/98	4922	5373
Boron		<10	mg/kg	10	9/15/98	4922	5340
Cobalt		<0.50	mg/kg	0.50	9/15/98	4922	5340
Molybdenum		<1.0	mg/kg	1.0	9/15/98	4922	5340
Nickel		<0.50	mg/kg	0.50	9/15/98	4922	5340
[redacted]zidine		<2.5	mg/kg	2.5	9/16/98	4915	5362
[redacted]achlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pentachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Hexachloroethane		<0.25	mg/kg	0.25	9/16/98	4915	5362
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/16/98	4915	5362
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Diphenylhydrazine		<1.25	mg/kg	1.25	9/16/98	4915	5362
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Isophorone		<1.25	mg/kg	1.25	9/16/98	4915	5362
Nitrobenzene		<0.25	mg/kg	0.25	9/16/98	4915	5362
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/16/98	4915	5362
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/16/98	4915	5362
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/16/98	4915	5362
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/16/98	4915	5362
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pentachlorophenol		<1.25	mg/kg	1.25	9/16/98	4915	5362
[redacted]butyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
[redacted]-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Diethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
Dimethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4915	5362
Anthracene		<0.25	mg/kg	0.25	9/16/98	4915	5362
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Fluoranthene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Fluorene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Phenanthrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Pyrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Naphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
1-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
2-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/16/98	4915	5362
Surr. 2-Fluorophenol		51	%	25-121	9/16/98	4915	5362
Surr. Phenol-d6		54	%	24-113	9/16/98	4915	5362
Surr. Nitroobenzene-d5		52	%	23-120	9/16/98	4915	5362
Surr. 2-Fluorobiphenyl		54	%	30-115	9/16/98	4915	5362
Surr. 2,4,6-Tribromophenol		72	%	19-122	9/16/98	4915	5362
Surr. Terphenyl-d14		55	%	28-137	9/16/98	4915	5362
Benzidine		<2.5	mg/kg	2.5	9/18/98	4916	5412
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diphenylhydrazine		<1.25	mg/kg	1.25	9/18/98	4916	5412
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Isophorone		<1.25	mg/kg	1.25	9/18/98	4916	5412
Nitrobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	4916	5412
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	4916	5412
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Anthracene		<0.25	mg/kg	0.25	9/18/98	4916	5412
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluorene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Naphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Surr. 2-Fluorophenol		48	%	25-121	9/18/98	4916	5412
Surr. Phenol-d6		51	%	24-113	9/18/98	4916	5412
[redacted] Nitroobenzene-d5		52	%	23-120	9/18/98	4916	5412
[redacted]. 2-Fluorobiphenyl		53	%	30-115	9/18/98	4916	5412
Surr. 2,4,6-Tribromophenol		37	%	19-122	9/18/98	4916	5412
Surr. Terphenyl-d14		59	%	28-137	9/18/98	4916	5412
Benzidine		<2.5	mg/kg	2.5	9/21/98	4916	5480
Hexachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pentachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Hexachloroethane		<0.25	mg/kg	0.25	9/21/98	4916	5480
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/21/98	4916	5480
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Diphenylhydrazine		<1.25	mg/kg	1.25	9/21/98	4916	5480
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Isophorone		<1.25	mg/kg	1.25	9/21/98	4916	5480
Nitrobenzene		<0.25	mg/kg	0.25	9/21/98	4916	5480
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/21/98	4916	5480
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/21/98	4916	5480
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480
[redacted]itrosodibutylamine		<1.25	mg/kg	1.25	9/21/98	4916	5480
[redacted]trosodiphenylamine		<0.25	mg/kg	0.25	9/21/98	4916	5480

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pentachlorophenol		<1.25	mg/kg	1.25	9/21/98	4916	5480
Dibutyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Diethyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Dimethyl phthalate		<0.25	mg/kg	0.25	9/21/98	4916	5480
Anthracene		<0.25	mg/kg	0.25	9/21/98	4916	5480
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Fluoranthene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Fluorene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Phenanthrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Pyrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Naphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
1-methylnaphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
2-methylnaphthalene		<0.25	mg/kg	0.25	9/21/98	4916	5480
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/21/98	4916	5480
[redacted]rr. 2-Fluorophenol		49	%	25-121	9/21/98	4916	5480
[redacted]rr. Phenol-d6		52	%	24-113	9/21/98	4916	5480
Surr. Nitroobenzene-d5		53	%	23-120	9/21/98	4916	5480
Surr. 2-Fluorobiphenyl		55	%	30-115	9/21/98	4916	5480
Surr. 2,4,6-Tribromophenol		42	%	19-122	9/21/98	4916	5480
Surr. Terphenyl-d14		53	%	28-137	9/21/98	4916	5480
Benzidine		<2.5	mg/kg	2.5	9/22/98	4911	5502
Hexachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pentachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachloroethane		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Diphenylhydrazine		<1.25	mg/kg	1.25	9/22/98	4911	5502
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Isophorone		<1.25	mg/kg	1.25	9/22/98	4911	5502
Nitrobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/22/98	4911	5502
[redacted]nitrosodiethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]nitrosodimethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/22/98	4911	5502
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pentachlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
Dibutyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Diethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Dimethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Anthracene		<0.25	mg/kg	0.25	9/22/98	4911	5502
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluorene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Phenanthrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Naphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1-methylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]ethylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]zo-a-pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Surr. 2-Fluorophenol		48	%	25-121	9/22/98	4911	5502
Surr. Phenol-d6		56	%	24-113	9/22/98	4911	5502
Surr. Nitroobenzene-d5		48	%	23-120	9/22/98	4911	5502
Surr. 2-Fluorobiphenyl		59	%	30-115	9/22/98	4911	5502
Surr. 2,4,6-Tribromophenol		41	%	19-122	9/22/98	4911	5502
Surr. Terphenyl-d14		59	%	28-137	9/22/98	4911	5502

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	ug/L	104	104	9/3/98	5205
1,1-Dichloroethene		100	ug/L	119	119	9/3/98	5205
Chloroform		100	ug/L	112	112	9/3/98	5205
1,2-Dichloropropane		100	ug/L	106	106	9/3/98	5205
Toluene		100	ug/L	115	115	9/3/98	5205
Ethylbenzene		100	ug/L	112	112	9/3/98	5205
Vinyl chloride		100	ug/L	90	90	9/3/98	5206
1,1-Dichloroethene		100	ug/L	91	91	9/3/98	5206
Chloroform		100	ug/L	89	89	9/3/98	5206
1,2-Dichloropropane		100	ug/L	99	99	9/3/98	5206
Toluene		100	ug/L	84	84	9/3/98	5206
Chlorobenzene		100	ug/L	81	81	9/3/98	5206
Ethylbenzene		100	ug/L	80	80	9/3/98	5206
Fluoride		2.5	mg/L	2.445		9/3/98	5199
Nitrate		5.0	mg/L	4.9		9/3/98	5199
Chloride		12.5	mg/L	11.535		9/3/98	5199
Fluoride		2.5	mg/L	2.51		9/2/98	5192
Nitrate		5.0	mg/L	5.055		9/2/98	5192
Chloride		12.5	mg/L	12.02		9/2/98	5192
Sulfate		12.5	mg/L	12.3		9/3/98	5199
Sulfate		12.5	mg/L	13.48		9/19/98	5420
Fluoride		2.5	mg/L	2.53		9/19/98	5419
Nitrate		5.0	mg/L	5.155		9/19/98	5419
Chloride		12.5	mg/L	12.62		9/19/98	5419
Sulfate		12.5	mg/L	13.195		9/19/98	5419
Fluoride		2.5	mg/L	2.51		9/19/98	5420
Nitrate		5.0	mg/L	5.195		9/19/98	5420
Chloride		12.5	mg/L	12.345		9/19/98	5420
Sulfate		12.5	mg/L	13.48		9/19/98	5420

Date: 9-30-98

Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCBs		0.40	mg/L	0.45	112	9/3/98	5204
TRPHC		100	mg/L	99	99	8/30/98	5168
MTBE		0.100	mg/L	0.101	101	8/20/98	5031
Benzene		0.100	mg/L	0.092	92	8/20/98	5031
Toluene		0.100	mg/L	0.092	92	8/20/98	5031
Ethylbenzene		0.100	mg/L	0.092	92	8/20/98	5031
m,p,o-xylene		0.300	mg/L	0.269	90	8/20/98	5031
Arsenic		1.0	mg/L	1.0		9/15/98	5340
Barium		1.0	mg/L	0.98		9/15/98	5340
Cadmium		1.0	mg/L	0.99		9/15/98	5340
Chromium		1.0	mg/L	0.99		9/15/98	5340
Lead		1.0	mg/L	1.0		9/15/98	5340
Selenium		1.0	mg/L	0.99		9/15/98	5340
Silver		1.0	mg/L	0.98		9/15/98	5340
Uranium		1.0	mg/L	1.0		9/15/98	5340
Copper		1.0	mg/L	1.0		9/15/98	5340
[redacted]		250.0	mg/L	259.0		9/17/98	5373
Manganese		1.0	mg/L	1.0		9/15/98	5340
Zinc		1.0	mg/L	1.0		9/15/98	5340
Aluminum		100.0	mg/L	102.0	102	9/17/98	5373
Boron		1.0	mg/L	1.0		9/15/98	5340
Cobalt		1.0	mg/L	1.0		9/15/98	5340
Molybdenum		1.0	mg/L	0.98		9/15/98	5340
Nickel		1.0	mg/L	1.0		9/15/98	5340
TDS		1,000		997	100	9/16/98	5364
TDS		1,000		1,009	101	9/17/98	5371
Phenol		80	mg/L	77	96	9/16/98	5362
1,4-Dichlorobenzene		80	mg/L	75	94	9/16/98	5362
2-nitrophenol		80	mg/L	80	100	9/16/98	5362
2,4-Dichlorophenol		80	mg/L	86	108	9/16/98	5362
Hexachlorobutadiene		80	mg/L	74	93	9/16/98	5362
4-Chloro-3-methylphenol		80	mg/L	75	94	9/16/98	5362
2,4,6-Trichlorophenol		80	mg/L	71	89	9/16/98	5362
Acenaphthene		80	mg/L	78	98	9/16/98	5362
n-Nitrosodiphenylamine		80	mg/L	89	111	9/16/98	5362
Pentachlorophenol		80	mg/L	96	120	9/16/98	5362
Fluoranthene		80	mg/L	83	104	9/16/98	5362
Di-n-octylphthalate		80	mg/L	94	118	9/16/98	5362
Benzo(a)pyrene		80	mg/L	80	100	9/16/98	5362
Phenol		80	mg/L	76	95	9/18/98	5412
[redacted]-Dichlorobenzene		80	mg/L	67	84	9/18/98	5412
[redacted]trophenol		80	mg/L	75	94	9/18/98	5412

Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2,4-Dichlorophenol		80	mg/L	80	100	9/18/98	5412
Hexachlorobutadiene		80	mg/L	64	80	9/18/98	5412
4-Chloro-3-methylphenol		80	mg/L	67	84	9/18/98	5412
2,4,6-Trichlorophenol		80	mg/L	66	83	9/18/98	5412
Acenaphthene		80	mg/L	68	85	9/18/98	5412
n-Nitrosodiphenylamine		80	mg/L	86	104	9/18/98	5412
Pentachlorophenol		80	mg/L	89	111	9/18/98	5412
Fluoranthene		80	mg/L	74	93	9/18/98	5412
Di-n-octylphthalate		80	mg/L	91	114	9/18/98	5412
Benzo(a)pyrene		80	mg/L	69	86	9/18/98	5412
Phenol		80	mg/L	73	91	9/21/98	5480
1,4-Dichlorobenzene		80	mg/L	75	94	9/21/98	5480
2-nitrophenol		80	mg/L	79	99	9/21/98	5480
2,4-Dichlorophenol		80	mg/L	81	101	9/21/98	5480
Hexachlorobutadiene		80	mg/L	69	86	9/21/98	5480
4-Chloro-3-methylphenol		80	mg/L	70	88	9/21/98	5480
2,4,6-Trichlorophenol		80	mg/L	69	86	9/21/98	5480
Acenaphthene		80	mg/L	79	99	9/21/98	5480
n-Nitrosodiphenylamine		80	mg/L	82	102	9/21/98	5480
Pentachlorophenol		80	mg/L	84	105	9/21/98	5480
Fluoranthene		80	mg/L	76	95	9/21/98	5480
Di-n-octylphthalate		80	mg/L	79	99	9/21/98	5480
Benzo(a)pyrene		80	mg/L	78	98	9/21/98	5480
Phenol		80	mg/L	69	86	9/22/98	5502
1,4-Dichlorobenzene		80	mg/L	76	95	9/22/98	5502
2-nitrophenol		80	mg/L	78	98	9/22/98	5502
2,4-Dichlorophenol		80	mg/L	81	101	9/22/98	5502
Hexachlorobutadiene		80	mg/L	68	85	9/22/98	5502
4-Chloro-3-methylphenol		80	mg/L	69	86	9/22/98	5502
2,4,6-Trichlorophenol		80	mg/L	72	90	9/22/98	5502
Acenaphthene		80	mg/L	79	99	9/22/98	5502
n-Nitrosodiphenylamine		80	mg/L	84	105	9/22/98	5502
Pentachlorophenol		80	mg/L	87	109	9/22/98	5502
Fluoranthene		80	mg/L	77	96	9/22/98	5502
Di-n-octylphthalate		80	mg/L	79	99	9/22/98	5502
Benzo(a)pyrene		80	mg/L	78	78	9/22/98	5502

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	9.4	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
1,1-Dichloroethene		mg/Kg	<25	100	98	98	100	95	95	3.1	9/3/98		5205
Benzene		mg/Kg	<25	100	102	102	100	104	104	1.9	9/3/98		5205
Trichloroethene		mg/Kg	<25	100	108	108	100	108	108	0	9/3/98		5205
Toluene		mg/Kg	<25	100	100	100	100	101	101	1.0	9/3/98		5205
Chlorobenzene		mg/Kg	<25	100	88	88	100	87	87	1.1	9/3/98		5205
1,1-Dichloroethene		mg/Kg	<25	100	99	99	100	120	120	19	9/3/98		5206
Benzene		mg/Kg	<25	100	104	104	100	119	119	13	9/3/98		5206
[redacted]loroethene		mg/Kg	<25	100	113	113	100	120	120	6.0	9/3/98		5206
[redacted]ene		mg/Kg	<25	100	101	101	100	118	118	16.0	9/3/98		5206
Chlorobenzene		mg/Kg	<25	100	88	88	100	106	106	19	9/3/98		5206
Fluoride		mg/kg	0.42	2.5	2.8	95	2.5	2.84	97	2.1	9/2/98		5192
Nitrate		mg/kg	0.98	5.0	5.91	99	5.0	5.89	98	1.0	9/2/98		5192
Chloride		mg/kg	41	12.5	51.42	83	12.5	52.56	92	10.0	9/2/98		5192
Fluoride		mg/kg	2.2	2.5	4.71	100	2.5	4.75	102	2.0	9/3/98		5199
Nitrate		mg/kg	1.6	5.0	7.25	113	5.0	7.25	113	0.0	9/3/98		5199
Chloride		mg/kg	13.5	12.5	24.83	91	12.5	24.94	92	1.1	9/3/98		5199
Sulfate		mg/kg	28.5	12.5	35.91	59	12.5	36.2	62	5.0	9/3/98		5199
Sulfate		mg/kg	18.08	25	43.77	103	25	44.28	105	1.9	9/19/98		5420
Fluoride		mg/kg	1.1	5	6.03	99	5	5.99	96	3.1	9/19/98		5419
Nitrate		mg/kg	2.3	10.0	13.01	107	10.0	12.02	97	9.8	9/19/98		5419
Chloride		mg/kg	20.53	25.0	45.44	100	25.0	46.72	105	4.9	9/19/98		5419
Sulfate		mg/kg	9.36	25	35.63	105	12.5	36.25	108	2.8	9/19/98		5419
Fluoride		mg/kg	4.51	5	9.03	90	5	8.97	89	1.1	9/19/98		5420
Nitrate		mg/kg	<0.2	10.0	11.76	118	10.0	11.68	117	0.9	9/19/98		5420
Chloride		mg/kg	20.53	25.0	45.44	100	25.0	47.88	109	8.6	9/19/98		5420
Sulfate		mg/kg	18	25	43.77	103	12.5	44.28	105	1.9	9/19/98		5420
PCBs		mg/kg	<1.0	0.5	0.45	90	0.5	0.48	96	6.5	9/4/98	4795	5204
TRPHC		mg/kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168
MTBE		mg/kg	<0.050	5.00	4.97	99	5.00	4.73	95	4.1	8/20/98		5031
Benzene		mg/kg	<0.050	5.00	4.55	91	5.00	4.41	88	3.4	8/20/98		5031
Toluene		mg/kg	<0.050	5.00	4.61	92	5.00	4.46	89	3.3	8/20/98		5031
Ethylbenzene		mg/kg	<0.050	5.00	4.61	92	5.00	4.51	90	2.2	8/20/98		5031
m,p,o-xylene		mg/kg	<0.050	15.00	13.4	89	15.00	13.1	87	2.3	8/20/98		5031
Arsenic		mg/kg	<0.50	200	166	83	200	156	78	6.2	9/15/98	4922	5340
Barium		mg/kg	<0.50	200	178	89	200	168	84	5.8	9/15/98	4922	5340
[redacted]mium		mg/kg	<0.10	200	169	85	200	158	79	7.3	9/15/98	4922	5340
[redacted]omium		mg/kg	<0.50	200	178	89	200	167	84	5.8	9/15/98	4922	5340

Order ID Number: 9808000488

[redacted]oject Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/kg	<0.50	200	165	83	200	157	79	4.9	9/15/98	4922	5340
Selenium		mg/kg	<0.50	200	156	78	200	150	75	3.9	9/15/98	4922	5340
Silver		mg/kg	<0.50	100	95	95	100	84	84	12	9/15/98	4922	5340
Uranium		mg/kg	<2.0	200	183	92	200	173	87	5.6	9/15/98	4922	5340
Copper		mg/kg	<1.0	200	170	85	200	164	82	3.6	9/15/98	4922	5340
Iron		mg/kg	<10	200	179	90	200	184	92	2.2	9/17/98	4922	5373
Manganese		mg/kg	<1.0	200	173	87	200	163	82	2.9	9/15/98	4922	5340
Zinc		mg/kg	<2.0	200	170	85	200	158	79	7.3	9/15/98	4922	5340
Aluminum		mg/kg	<10	200	209	105	200	215	108	2.8	9/17/98	4922	5373
Boron		mg/kg	<10	200	163	82	200	167	84	2.4	9/15/98	4922	5340
Cobalt		mg/kg	<0.50	200	168	84	200	162	81	3.6	9/15/98	4922	5340
Molybdenum		mg/kg	<1.0	200	174	87	200	160	82	5.9	9/15/98	4922	5340
Nickel		mg/kg	<0.50	200	172	86	200	161	81	6	9/15/98	4922	5340
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/16/98	4915	5362
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/16/98	4915	5362
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/16/98	4915	5362
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/16/98	4915	5362
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/16/98	4915	5362
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/16/98	4915	5362
[redacted]enaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/16/98	4915	5362
[redacted]Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/16/98	4915	5362
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/16/98	4915	5362
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/16/98	4915	5362
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/16/98	4915	5362
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/18/98	4916	5412
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5412
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/18/98	4916	5412
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/18/98	4916	5412
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5412
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5412
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5412
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5412
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5412
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5412
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5412
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/21/98	4916	5480
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5480
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/18/98	4916	5480
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/18/98	4916	5480
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5480
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5480
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5480
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5480
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5480
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5480
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5480
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/22/98	4911	5502
[redacted]Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/22/98	4911	5502
[redacted],4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/22/98	4911	5502

Order ID Number: 9808000488

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	41	10.00	3.74	37	10	9/22/98	4911	5502
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/22/98	4911	5502
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/22/98	4911	5502
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/22/98	4911	5502
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/22/98	4911	5502
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/22/98	4911	5502
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/22/98	4911	5502
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/22/98	4911	5502

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000488

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
TDS		mg/Kg	2,100	2,200	4.7	9/16/98		5364
TDS		mg/Kg	1,800	1,760	2.2	9/17/98		5371
pH		s.u.	8	8	0	8/26/98		5113

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
104339	MW-5 58-60'	8/5/98	11:30	8/7/98
104340	MW-5 63-65'	8/5/98	11:58	8/7/98
[illegible]341	Field Blank	8/5/98	17:00	8/7/98
[illegible]342	Trip Blank			8/7/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/13/98		4864
Acrylonitrile		<5	ug/L	5	8/13/98		4864
Benzene		<1	ug/L	1	8/13/98		4864
Carbon tetrachloride		<1	ug/L	1	8/13/98		4864
Chlorobenzene		<1	ug/L	1	8/13/98		4864
1,2-dichloroethane		<1	ug/L	1	8/13/98		4864
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/13/98		4864
1,1,1-trichloroethane		<1	ug/L	1	8/13/98		4864
1,1,2-trichloroethane		<1	ug/L	1	8/13/98		4864
1,1,2-trichloroethylene		<1	ug/L	1	8/13/98		4864
Chloroform		<1	ug/L	1	8/13/98		4864
Dichlorobenzene		<2	ug/L	2	8/13/98		4864
1-dichloroethylene		<1	ug/L	1	8/13/98		4864
Dichloropropenes		<1	ug/L	1	8/13/98		4864
Ethylbenzene		<1	ug/L	1	8/13/98		4864
Bromodichloromethane		<1	ug/L	1	8/13/98		4864
Bromomethane		<5	ug/L	5	8/13/98		4864
Chloromethane		<1	ug/L	1	8/13/98		4864
Dichlorodifluoromethane		<1	ug/L	1	8/13/98		4864
Dichloromethane		<1	ug/L	1	8/13/98		4864
Trichlorofluorometane		<1	ug/L	1	8/13/98		4864
Tetrachloroethylene		<1	ug/L	1	8/13/98		4864
Toluene		<1	ug/L	1	8/13/98		4864
Trichloroethylene		<1	ug/L	1	8/13/98		4864
Vinyl chloride		<1	ug/L	1	8/13/98		4864
m,p-xylene		<1	ug/L	1	8/13/98		4864
o-xylene		<1	ug/L	1	8/13/98		4864
1,1-dichloroethane		<1	ug/L	1	8/13/98		4864
Ethylene dibromide		<1	ug/L	1	8/13/98		4864
cis-1,2-dichlorethylene		<1	ug/L	1	8/13/98		4864
trans-1,2-dichloroethylene		<1	ug/L	1	8/13/98		4864
Methylene chloride		<5	ug/L	5	8/13/98		4864
Surr. Dibromofluoromethane		108	ug/L	72-130	8/13/98		4864
Surr. Toluene-d8		112	ug/L	77-127	8/13/98		4864
Surr. 4-Bromofluorobenzene		113	ug/L	72-131	8/13/98		4864
Acrolein		<125	ug/Kg	125	8/13/98		4869
Acrylonitrile		<125	ug/Kg	125	8/13/98		4869
Benzene		<25	ug/Kg	25	8/13/98		4869

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Carbon tetrachloride		<25	ug/Kg	25	8/13/98		4869
Chlorobenzene		<25	ug/Kg	25	8/13/98		4869
1,2-dichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,1-trichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2-trichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2-trichloroethylene		<25	ug/Kg	25	8/13/98		4869
Chloroform		<25	ug/Kg	25	8/13/98		4869
Dichlorobenzene		<50	ug/Kg	2	8/13/98		4869
1,1-dichloroethylene		<25	ug/Kg	50	8/13/98		4869
Dichloropropenes		<25	ug/Kg	25	8/13/98		4869
Ethylbenzene		<25	ug/Kg	25	8/13/98		4869
Bromodichloromethane		<25	ug/Kg	25	8/13/98		4869
Bromomethane		<125	ug/Kg	125	8/13/98		4869
Chloromethane		<25	ug/Kg	25	8/13/98		4869
Dichlorodifluoromethane		<25	ug/Kg	25	8/13/98		4869
Dichloromethane		<25	ug/Kg	25	8/13/98		4869
[illegible]hlorofluoromethane		<25	ug/Kg	25	8/13/98		4869
[illegible]trachloroethylene		<25	ug/Kg	25	8/13/98		4869
Toluene		<25	ug/Kg	25	8/13/98		4869
Trichloroethylene		<25	ug/Kg	25	8/13/98		4869
Vinyl chloride		<25	ug/Kg	25	8/13/98		4869
m,p-xylene		<25	ug/Kg	25	8/13/98		4869
o-xylene		<25	ug/Kg	25	8/13/98		4869
1,1-dichloroethane		<25	ug/Kg	25	8/13/98		4869
Ethylene dibromide		<25	ug/Kg	25	8/13/98		4869
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/13/98		4869
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/13/98		4869
Methylene chloride		<125	ug/Kg	125	8/13/98		4869
Surr. Dibromofluoromethane		120	%	72-130	8/13/98		4869
Surr. Toluene-d8		116	%	77-127	8/13/98		4869
Surr. 4-Bromofluorobenzene		118	%	72-131	8/13/98		4869
Benzidine		<2.5	mg/Kg	2.5	8/18/98	4702	4965
Hexachlorobenzene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Pentachlorobenzene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Hexachloroethane		<0.25	mg/Kg	0.25	8/18/98	4702	4965
2,4-dichlorophenol		<1.25	mg/Kg	1.25	8/18/98	4702	4965
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	8/18/98	4702	4965
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	8/18/98	4702	4965
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	8/18/98	4702	4965
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	8/18/98	4702	4965
[illegible](chloromethyl) ether		<1.25	mg/Kg	1.25	8/18/98	4702	4965

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	8/18/98	4702	4965
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Diphenylhydrazine		<1.25	mg/Kg	1.25	8/18/98	4702	4965
Hexachlorobutadiene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Isophorone		<1.25	mg/Kg	1.25	8/18/98	4702	4965
Nitrobenzene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
2,4-dinitro-o-cresol		<1.25	mg/Kg	1.25	8/18/98	4702	4965
2,4-dinitrophenols		<1.25	mg/Kg	1.25	8/18/98	4702	4965
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	8/18/98	4702	4965
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	8/18/98	4702	4965
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	8/18/98	4702	4965
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	8/18/98	4702	4965
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Pentachlorophenol		<1.25	mg/Kg	1.25	8/18/98	4702	4965
Phenol		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Dibutyl phthalate		<0.25	mg/Kg	0.25	8/18/98	4702	4965
[redacted](2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	8/18/98	4702	4965
[redacted]ethyl phthalate		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Dimethyl phthalate		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Anthracene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Fluoranthene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Fluorene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Phenanthrene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Pyrene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Naphthalene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
1-methylnaphthalene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
2-methylnaphthalene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Benzo-a-pyrene		<0.25	mg/Kg	0.25	8/18/98	4702	4965
monomethylnaphthalenes		<0.25	mg/Kg	0.25	8/18/98	4702	4965
Surr. 2-Fluorophenol		98	%	25-121	8/18/98	4702	4965
Surr. Phenol-d6		97	%	24-113	8/18/98	4702	4965
Surr. Nitroobenzene-d5		74	%	23-120	8/18/98	4702	4965
Surr. 2-Fluorobiphenyl		103	%	30-115	8/18/98	4702	4965
Surr. 2,4,6-Tribromophenol		75	%	19-122	8/18/98	4702	4965
Surr. Terphenyl-d14		107	%	28-137	8/18/98	4702	4965
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5028
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
Total Phenols		<0.25	mg/Kg	0.25	8/19/98		5015
Total Mercury		<0.25	mg/Kg	0.25	8/12/98	4699	4832
[redacted]uoride		<0.2	mg/Kg	0.2	8/13/98		4863

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Nitrate		<0.2	mg/Kg	0.2	8/17/98		4930
Chloride		<1.0	mg/Kg	1.0	8/13/98		4863
Sulfate		<1.0	mg/Kg	1.0	8/13/98		4863
Arsenic		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Barium		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Cadmium		<0.10	mg/Kg	0.10	8/24/98	4718	5090
Chromium		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Lead		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Total Mercury		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Selenium		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Silver		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Uranium		<10	mg/Kg	10	8/24/98	4718	5090
Copper		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Iron		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Manganese		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Zinc		<2.0	mg/Kg	2.0	8/24/98	4718	5090
Aluminum		<0.50	mg/Kg	0.50	8/24/98	4718	5090
[illegible]on		<10	mg/Kg	10	8/24/98	4718	5090
[illegible]balt		<0.50	mg/Kg	0.50	8/24/98	4718	5090
Molybdenum		<1.0	mg/Kg	1.0	8/24/98	4718	5090
Nickel		<0.50	mg/Kg	0.50	8/24/98	4718	5090

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Total Mercury		5.0	mg/L	4.9	97	8/12/98	4832
pH		7.0	s.u.	7.0	100	8/9/98	4775
Fluoride		2.5	mg/L	2.40	96	8/13/98	4863
Nitrate		5.0	mg/L	5.45	109	8/17/98	4930
Chloride		12.5	mg/L	11.925	95	8/13/98	4863
Sulfate		12.5	mg/L	12.545	100	8/13/98	4863
Vinyl chloride		100	ug/L	110	110	8/13/98	4864
1,1-Dichloroethene		100	ug/L	105	105	8/13/98	4864
Chloroform		100	ug/L	118	118	8/13/98	4864
1,2-Dichloropropane		100	ug/L	118	118	8/13/98	4864
Toluene		100	ug/L	120	120	8/13/98	4864
Chlorobenzene		100	ug/L	118	118	8/13/98	4864
Ethylbenzene		100	ug/L	116	116	8/13/98	4864
Vinyl chloride		100	ug/L	118	118	8/13/98	4869
1,1-Dichloroethene		100	ug/L	116	116	8/13/98	4869
Chloroform		100	ug/L	114	114	8/13/98	4869
1,2-Dichloropropane		100	ug/L	114	114	8/13/98	4869
Toluene		100	ug/L	117	117	8/13/98	4869
Chlorobenzene		100	ug/L	114	114	8/13/98	4869
Ethylbenzene		100	ug/L	117	117	8/13/98	4869
Phenol		80	mg/L	81	101	8/18/98	4965
1,4-Dichlorobenzene		80	mg/L	81	101	8/18/98	4965
2-nitrophenol		80	mg/L	82	103	8/18/98	4965
2,4-Dichlorophenol		80	mg/L	75	94	8/18/98	4965
Hexachlorobutadiene		80	mg/L	81	101	8/18/98	4965
4-Chloro-3-methylphenol		80	mg/L	74	93	8/18/98	4965
2,4,6-Trichlorophenol		80	mg/L	86	108	8/18/98	4965
Acenaphthene		80	mg/L	80	100	8/18/98	4965
n-Nitrosodiphenylamine		80	mg/L	73	91	8/18/98	4965
Pentachlorophenol		80	mg/L	82	103	8/18/98	4965
Fluoranthene		80	mg/L	83	104	8/18/98	4965
Di-n-octylphthalate		80	mg/L	82	103	8/18/98	4965
Benzo(a)pyrene		80	mg/L	82	103	8/18/98	4965
Cyanide		0.12	mg/L	0.1	83	8/20/98	5028
TRPHC		100	mg/L	104	104	8/22/98	5045

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 15

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Total Mercury		mg/Kg	<0.25	2.50	2.40	96	2.50	2.30	92	4.3	8/12/98	4699	4832
Fluoride		mg/Kg	1	12.5	12.50	92	12.5	13.21	98	6.3	8/13/98		4863
Nitrate		mg/Kg	5.72	5.0	11.17	109	5.0	11.34	112	2.7	8/17/98		4930
Chloride		mg/Kg	14.7	62.5	72.48	92	62.5	72.94	93	1.1	8/13/98		4863
Sulfate		mg/Kg	10.1	62.5	70.51	97	62.5	69.90	96	1.0	8/13/98		4863
1,1-Dichloroethene		ug/L	<1	100	109	109	100	109	109	0	8/13/98		4864
Benzene		ug/L	<1	100	111	111	100	105	105	5.6	8/13/98		4864
Trichloroethene		ug/L	<1	100	110	110	100	102	102	7.5	8/13/98		4864
Toluene		ug/L	<1	100	111	111	100	106	106	4.6	8/13/98		4864
Chlorobenzene		ug/L	<1	100	103	103	100	101	101	2.0	8/13/98		4864
1,1-Dichloroethene		ug/Kg	<25	100	85	85	100	92	92	7.3	8/13/98		4869
Benzene		ug/Kg	<25	100	90	90	100	95	95	5.4	8/13/98		4869
Trichloroethene		ug/Kg	<25	100	89	89	100	95	95	6.5	8/13/98		4869
Toluene		ug/Kg	<25	100	91	91	100	96	96	5.3	8/13/98		4869
Chlorobenzene		ug/Kg	<25	100	87	87	100	91	91	4.5	8/13/98		4869
Phenol	*	mg/Kg	<0.25	10.00	10	100	10.00	8.01	80	22	8/18/98	4702	4965
2-Chlorophenol	*	mg/Kg	<1.25	10.00	9.59	96	10.00	7.7	77	22	8/18/98	4702	4965
1,4-Dichlorobenzene	*	mg/Kg	<0.25	10.00	9.46	95	10.00	7.53	75	24	8/18/98	4702	4965
n-Nitrosodi-n-propylamin	*	mg/Kg	<0.25	10.00	10.4	104	10.00	8.24	82	24	8/18/98	4702	4965
1,2,4-trichlorobenzene	*	mg/Kg	<0.25	10.00	9.34	93	10.00	7.47	75	21	8/18/98	4702	4965
4-Chloro-3-methylphenol	*	mg/Kg	<1.25	10.00	9.77	98	10.00	7.5	75	26	8/18/98	4702	4965
Acenaphthene		mg/Kg	<0.25	10.00	10.6	106	10.00	8.7	87	20	8/18/98	4702	4965
4-Nitrophenol	*	mg/Kg	<1.25	10.00	6.62	66	10.00	4.97	50	28	8/18/98	4702	4965
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	10.1	101	10.00	8.6	86	16	8/18/98	4702	4965
Pentachlorophenol		mg/Kg	<1.25	10.00	7.67	77	10.00	6.41	64	18	8/18/98	4702	4965
Pyrene		mg/Kg	<0.25	10.00	10.8	108	10.00	9.57	96	8.0	8/18/98	4702	4965
Cyanide		mg/Kg	<0.01	0.120	0.110	92	0.120	0.120	100	8.3	8/20/98		5028
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045

*RPD out of limits of 20%

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000123

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.2	8.2	0	8/9/98		4775
TDS		mg/Kg	530	544	2.6	9/2/98		5195

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page # 1

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
104946	Field Blank	8/12/98	15:30	8/14/98
104947	Trip Blank			8/14/98
[illegible]948	MW-8 28-30'	8/12/98	10:04	8/14/98
[illegible]949	MW-8 63-65'	8/12/98	15:00	8/14/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Total Mercury		<0.25	mg/Kg	0.25	8/18/98	4745	4952
Acrolein		<5	ug/L	5	8/16/98		4915
Acrylonitrile		<5	ug/L	5	8/16/98		4915
Benzene		<1	ug/L	1	8/16/98		4915
Carbon tetrachloride		<1	ug/L	1	8/16/98		4915
Chlorobenzene		<1	ug/L	1	8/16/98		4915
1,2-dichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/16/98		4915
1,1,1-trichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2-trichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2-trichloroethylene		<1	ug/L	1	8/16/98		4915
Chloroform		<1	ug/L	1	8/16/98		4915
Dichlorobenzene		<2	ug/L	2	8/16/98		4915
[illegible]1-dichloroethylene		<1	ug/L	1	8/16/98		4915
[illegible]ichloropropenes		<1	ug/L	1	8/16/98		4915
Ethylbenzene		<1	ug/L	1	8/16/98		4915
Bromodichloromethane		<1	ug/L	1	8/16/98		4915
Bromomethane		<5	ug/L	5	8/16/98		4915
Chloromethane		<1	ug/L	1	8/16/98		4915
Dichlorodifluoromethane		<1	ug/L	1	8/16/98		4915
Dichloromethane		<1	ug/L	1	8/16/98		4915
Trichlorofluoromethane		<1	ug/L	1	8/16/98		4915
Tetrachloroethylene		<1	ug/L	1	8/16/98		4915
Toluene		<1	ug/L	1	8/16/98		4915
Trichloroethylene		<1	ug/L	1	8/16/98		4915
Vinyl chloride		<1	ug/L	1	8/16/98		4915
m,p-xylene		<1	ug/L	1	8/16/98		4915
o-xylene		<1	ug/L	1	8/16/98		4915
1,1-dichloroethane		<1	ug/L	1	8/16/98		4915
Ethylene dibromide		<1	ug/L	1	8/16/98		4915
cis-1,2-dichlorethylene		<1	ug/L	1	8/16/98		4915
trans-1,2-dichloroethylene		<1	ug/L	1	8/16/98		4915
Methylene chloride		<5	ug/L	5	8/16/98		4915
Surr. Dibromofluoromethane		115	%	72-130	8/16/98		4915
Surr. Toluene-d8		111	%	77-127	8/16/98		4915
Surr. 4-Bromofluorobenzene		110	%	72-131	8/16/98		4915
Acrolein		<125	ug/Kg	125	8/24/98		5082
Acrylonitrile		<125	ug/Kg	125	8/24/98		5082
Benzene		<25	ug/Kg	25	8/24/98		5082
Carbon tetrachloride		<25	ug/Kg	25	8/24/98		5082

Date: 9-30-98
Page # 11
Order ID Number: 9808000272

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Chlorobenzene		<25	ug/Kg	25	8/24/98		5082
1,2-dichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,1-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Chloroform		<25	ug/Kg	25	8/24/98		5082
Dichlorobenzene		<50	ug/Kg	2	8/24/98		5082
1,1-dichloroethylene		<25	ug/Kg	50	8/24/98		5082
Dichloropropenes		<25	ug/Kg	25	8/24/98		5082
Ethylbenzene		<25	ug/Kg	25	8/24/98		5082
Bromodichloromethane		<25	ug/Kg	25	8/24/98		5082
Bromomethane		<125	ug/Kg	125	8/24/98		5082
Chloromethane		<25	ug/Kg	25	8/24/98		5082
Dichlorodifluoromethane		<25	ug/Kg	25	8/24/98		5082
Dichloromethane		<25	ug/Kg	25	8/24/98		5082
Trichlorofluoromethane		<25	ug/Kg	25	8/24/98		5082
Tetrachloroethylene		<25	ug/Kg	25	8/24/98		5082
Toluene		<25	ug/Kg	25	8/24/98		5082
[redacted]hloroethylene		<25	ug/Kg	25	8/24/98		5082
[redacted]yl chloride		<25	ug/Kg	25	8/24/98		5082
m,p-xylene		<25	ug/Kg	25	8/24/98		5082
o-xylene		<25	ug/Kg	25	8/24/98		5082
1,1-dichloroethane		<25	ug/Kg	25	8/24/98		5082
Ethylene dibromide		<25	ug/Kg	25	8/24/98		5082
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/24/98		5082
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/24/98		5082
Methylene chloride		<125	ug/Kg	125	8/24/98		5082
Surr. Dibromofluoromethane		112	%	72-130	8/24/98		5082
Surr. Toluene-d8		105	%	77-127	8/24/98		5082
Surr. 4-Bromofluorobenzene		112	%	72-131	8/24/98		5082
Benzidine		<2.5	mg/Kg	2.5	9/1/98	4730	5188
Hexachlorobenzene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Pentachlorobenzene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Hexachloroethane		<0.25	mg/Kg	0.25	9/1/98	4730	5188
2,4-dichlorphenol		<1.25	mg/Kg	1.25	9/1/98	4730	5188
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	9/1/98	4730	5188
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	9/1/98	4730	5188
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	9/1/98	4730	5188
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	9/1/98	4730	5188
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	9/1/98	4730	5188
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	9/1/98	4730	5188
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Diphenylhydrazine		<1.25	mg/Kg	1.25	9/1/98	4730	5188
[redacted]xachlorobutadiene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
[redacted]achlorocyclopentadiene		<0.25	mg/Kg	0.25	9/1/98	4730	5188

Order ID Number: 9808000272

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Isophorone		<1.25	mg/Kg	1.25	9/1/98	4730	5188
Nitrobenzene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
2,4-dinitro-o-cresol		<1.25	mg/Kg	1.25	9/1/98	4730	5188
2,4-dinitrophenols		<1.25	mg/Kg	1.25	9/1/98	4730	5188
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	9/1/98	4730	5188
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	9/1/98	4730	5188
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	9/1/98	4730	5188
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	9/1/98	4730	5188
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Pentachlorophenol		<1.25	mg/Kg	1.25	9/1/98	4730	5188
Phenol		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Dibutyl phthalate		<0.25	mg/Kg	0.25	9/1/98	4730	5188
di-2-ethylhexyl phthalate		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Diethyl phthalate		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Dimethyl phthalate		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Anthracene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
3,4-benzofluoranthene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Fluoranthene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
[redacted]uorene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
[redacted]henanthrene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Pyrene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Naphthalene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
1-methylnaphthalene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
2-methylnaphthalene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Benzo-a-pyrene		<0.25	mg/Kg	0.25	9/1/98	4730	5188
monomethylnaphthalnenes		<0.25	mg/Kg	0.25	9/1/98	4730	5188
Surr. 2-Fluorophenol		72	%	25-121	9/1/98	4730	5188
Surr. Phenol-d6		85	%	24-113	9/1/98	4730	5188
Surr. Nitroobenzene-d5		55	%	23-120	9/1/98	4730	5188
Surr. 2-Fluorobiphenyl		80	%	30-115	9/1/98	4730	5188
Surr. 2,4,6-Tribromophenol		76	%	19-122	9/1/98	4730	5188
Surr. Terphenyl-d14		65	%	28-137	9/1/98	4730	5188
PCB		<0.1	mg/Kg	0.1	8/20/98	4741	5026
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5028
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
Arsenic		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Barium		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Cadmium		<0.10	mg/Kg	0.10	9/1/98	4799	5182
Chromium		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Lead		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Total Mercury		<0.50	mg/Kg	0.50	8/18/98	4745	4952
Selenium		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Silver		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Uranium		<10	mg/Kg	10	9/1/98	4799	5182
[redacted]opper		<1.0	mg/Kg	1.0	9/1/98	4799	5182

Order ID Number: 9808000272

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Iron		<2.0	mg/Kg	2.0	8/27/98	4799	5122
Manganese		<1.0	mg/Kg	1.0	9/1/98	4799	5182
Zinc		<2.0	mg/Kg	2.0	9/1/98	4799	5182
Aluminum		<10	mg/Kg	10	8/27/98	4799	5122
Boron		<10	mg/Kg	10	9/1/98	4799	5182
Cobalt		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Molybdenum		<1.0	mg/Kg	1.0	9/1/98	4799	5182
Nickel		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Total Phenols		<0.25	mg/Kg	0.25	8/19/98		5015
Fluoride		<0.2	mg/Kg	0.2	8/25/98		5096
Nitrate		<0.2	mg/Kg	0.2	8/25/98		5096
Chloride		<1.0	mg/Kg	1.0	8/25/98		5096
Sulfate		<1.0	mg/Kg	1.0	8/25/98		5096

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Total Mercury		5.0	mg/L	5.1	102	8/18/98	4952
Vinyl chloride		100	mg/L	110	110	8/24/98	5082
1,1-Dichloroethene		100	mg/L	90	90	8/24/98	5082
Chloroform		100	mg/L	109	109	8/24/98	5082
1,2-Dichloropropane		100	mg/L	92	92	8/24/98	5082
Toluene		100	mg/L	96	96	8/24/98	5082
Chlorobenzene		100	mg/L	98	98	8/24/98	5082
Ethylbenzene		100	mg/L	100	100	8/24/98	5082
Vinyl chloride		100	ug/L	117	117	8/16/98	4915
1,1-Dichloroethene		100	ug/L	119	119	8/16/98	4915
Chloroform		100	ug/L	120	120	8/16/98	4915
1,2-Dichloropropane		100	ug/L	118	118	8/16/98	4915
Toluene		100	ug/L	117	117	8/16/98	4915
Chlorobenzene		100	ug/L	115	115	8/16/98	4915
Ethylbenzene		100	ug/L	116	116	8/16/98	4915
pH		7.0	s.u.	7.0	100	8/14/98	4890
PCB		0.400	mg/L	0.440	110	8/20/98	5026
Cyanide		0.120	mg/L	0.100	83	8/20/98	5028
Phenol		80	mg/L	89	111	9/1/98	5188
1,4-Dichlorobenzene		80	mg/L	85	106	9/1/98	5188
2-nitrophenol		80	mg/L	83	104	9/1/98	5188
2,4-Dichlorophenol		80	mg/L	86	108	9/1/98	5188
Hexachlorobutadiene		80	mg/L	84	105	9/1/98	5188
4-Chloro-3-methylphenol		80	mg/L	76	95	9/1/98	5188
2,4,6-Trichlorophenol		80	mg/L	86	108	9/1/98	5188
Acenaphthene		80	mg/L	85	106	9/1/98	5188
n-Nitrosodiphenylamine		80	mg/L	80	100	9/1/98	5188
Pentachlorophenol		80	mg/L	80	100	9/1/98	5188
Fluoranthene		80	mg/L	81	101	9/1/98	5188
Di-n-octylphthalate		80	mg/L	83	104	9/1/98	5188
Benzo(a)pyrene		80	mg/L	85	106	9/1/98	5188
TRPHC		100	mg/L	104	104	8/22/98	5045
Arsenic		1.0	mg/L	1.0	100	9/1/98	5182
Barium		1.0	mg/L	0.98	98	9/1/98	5182
Cadmium		1.0	mg/L	1.0	100	9/1/98	5182
Chromium		1.0	mg/L	1.0	100	9/1/98	5182
Lead		1.0	mg/L	1.0	100	9/1/98	5182
Selenium		1.0	mg/L	1.0	100	9/1/98	5182

Order ID Number: 9808000272

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Silver		0.2	mg/L	0.20	100	9/1/98	5182
Uranium		1.0	mg/L	1.0	100	9/1/98	5182
Copper		1.0	mg/L	1.0	100	9/1/98	5182
Iron		50.0	mg/L	52.0	104	9/1/98	5182
Manganese		1.0	mg/L	1.0	100	9/1/98	5182
Zinc		1.0	mg/L	1.0	100	9/1/98	5182
Aluminum		125.0	mg/L	129.0	103	9/1/98	5182
Boron		1.0	mg/L	1.0	100	9/1/98	5182
Cobalt		1.0	mg/L	1.0	100	9/1/98	5182
Molybdenum		1.0	mg/L	1.0	100	9/1/98	5182
Nickel		1.0	mg/L	1.0	100	9/1/98	5182
Total Phenols		0.80	mg/L	0.81	101	8/19/98	5015
Fluoride		2.5	mg/L	2.3	92	8/25/98	5096
Nitrate		5	mg/L	4.625	93	8/25/98	5096
Chloride		12.5	mg/L	11.83	95	8/25/98	5096
Sulfate		12.5	mg/L	11.465	92	8/25/98	5096

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Total Mercury		mg/Kg	<0.25	2.5	2.7	93	2.5	2.7	93	0	8/18/98	4745	4952
1,1-Dichloroethene		ug/L	<1	100	81	81	100	87	87	7.1	8/24/98		5082
Benzene		ug/L	<1	100	86	86	100	82	82	4.8	8/24/98		5082
Trichloroethene		ug/L	<1	100	93	93	100	84	84	10	8/24/98		5082
Toluene		ug/L	<1	100	88	88	100	81	81	8.3	8/24/98		5082
Chlorobenzene		ug/L	<1	100	93	93	100	83	83	11	8/24/98		5082
1,1-Dichloroethene		ug/L	<1	100	85	85	100	87	87	2.3	8/16/98		4915
Benzene		ug/L	<1	100	87	87	100	89	89	2.3	8/16/98		4915
Trichloroethene		ug/L	<1	100	87	87	100	89	89	2.3	8/16/98		4915
Toluene		ug/L	<1	100	86	86	100	87	87	1.2	8/16/98		4915
Chlorobenzene		ug/L	<1	100	83	83	100	86	86	3.6	8/16/98		4915
[redacted]CB		mg/Kg	<0.1	0.500	0.520	104	0.500	0.520	104	0	8/20/98	4741	5026
[redacted]yanide		mg/Kg	<0.01	0.1	0.11	110	0.1	0.12	120	8.7	8/20/98		5028
Phenol		mg/Kg	<0.25	10.00	6.86	69	10.00	6.87	69	0	9/1/98	4730	5188
2-Chlorophenol		mg/Kg	<1.25	10.00	6.09	61	10.00	6.1	61	0	9/1/98	4730	5188
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.08	71	10.00	7.13	71	0	9/1/98	4730	5188
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	8.7	87	10.00	8.84	88	1.1	9/1/98	4730	5188
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.41	74	10.00	7.35	74	0	9/1/98	4730	5188
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	6.41	64	10.00	6.47	65	1.6	9/1/98	4730	5188
Acenaphthene		mg/Kg	<0.25	10.00	7.73	77	10.00	7.69	77	0	9/1/98	4730	5188
4-Nitrophenol		mg/Kg	<1.25	10.00	2.55	26	10.00	2.54	25	3.9	9/1/98	4730	5188
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	7.35	74	10.00	7.38	74	0	9/1/98	4730	5188
Pentachlorophenol		mg/Kg	<1.25	10.00	9.08	91	10.00	9.31	93	2.2	9/1/98	4730	5188
Pyrene		mg/Kg	<0.25	10.00	8.25	83	10.00	8.41	84	1.2	9/1/98	4730	5188
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
Arsenic		mg/Kg	<0.50	200	175	88	200	177	89	1.1	9/1/98	4799	5182
Barium		mg/Kg	<0.50	200	196	98	200	196	98	0	9/1/98	4799	5182
Cadmium		mg/Kg	<0.10	200	182	91	200	184	92	1.2	9/1/98	4799	5182
Chromium		mg/Kg	<0.50	200	185	93	200	189	95	2.1	9/1/98	4799	5182
Lead		mg/Kg	<0.50	200	184	92	200	185	93	1.1	9/1/98	4799	5182
Selenium		mg/Kg	<0.50	200	163	82	200	167	84	2.4	9/1/98	4799	5182
Silver		mg/Kg	<0.50	100	80	80	100	77	77	3.8	9/1/98	4799	5182
Uranium		mg/Kg	<10	200	182	91	200	185	93	2.2	9/1/98	4799	5182
Copper		mg/Kg	<1.0	200	189	95	200	191	96	1	9/1/98	4799	5182
Iron		mg/Kg	<2.0	200	204	102	200	208	104	1.9	8/27/98	4799	5122
Manganese		mg/Kg	<1.0	200	190	95	200	194	97	2.1	9/1/98	4799	5182
Zinc		mg/Kg	<2.0	200	173	87	200	174	87	0	9/1/98	4799	5182
Aluminum		mg/Kg	<10	200	194	97	200	194	97	0	8/27/98	4799	5122
Boron		mg/Kg	<10	200	173	87	200	173	87	0	9/1/98	4799	5182
[redacted]obalt		mg/Kg	<0.50	200	184	92	200	187	94	2.2	9/1/98	4799	5182
[redacted]olybdenum		mg/Kg	<1.0	200	182	91	200	186	93	2.2	9/1/98	4799	5182

Date: 9-30-98
Page # 17
Order ID Number: 9808000272

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Nickel		mg/Kg	<0.50	200	186	93	200	188	94	1.1	9/1/98	4799	5182
Total Phenols		mg/Kg	<0.25	0.8	0.76	95	0.8	0.77	96	1	8/19/98		5015
Fluoride		mg/Kg	0.5	2.5	2.82	93	2.5	2.89	96	3.2	8/25/98		5096
Nitrate		mg/Kg	0.6	5	5.02	88	5	5.18	92	4.4	8/25/98		5096
Chloride		mg/Kg	9	12.5	20.42	91	12.5	21.1	97	6.4	8/25/98		5096
Sulfate		mg/Kg	2.45	12.5	13.72	90	12.5	13.82	91	1.1	8/25/98		5096

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000272

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.6	7.6	0	8/14/98		4890
TDS		mg/Kg	530	544	2.6	9/2/98		5195

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0838	**P.O. Number:**	Project 19349
Client I.D.:	104948	**ARS Sample I.D.:**	ARS-98-3060
Date Sampled:	N/A	**Date Received:**	08/20/98
Time Sampled:	N/A	**Time Received**	1041
Type of Sample:	Solid	**Date of Report**	8/25/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<0.91	N/A	pCi/gm	<0.034	N/A	Bq/gm	EPA 901.1M	8/22/98 1544	MK
Ra-228	0.32	0.16	pCi/gm	0.012	0.006	Bq/gm	EPA 901.1M	8/22/98 1544	MK
Pb-210	<0.90	N/A	pCi/gm	<0.033	N/A	Bq/gm	EPA 901.1M	8/22/98 1544	MK
Total Activity	4.13	N/A	pCi/gm	0.153	N/A	Bq/gm	EPA 901.1M	8/22/98 1544	MK

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-98-0838	**P.O. Number:**	Project 19349
Client I.D.:	104949	**ARS Sample I.D.:**	ARS-98-3061
Date Sampled:	N/A	**Date Received:**	08/20/98
Time Sampled:	N/A	**Time Received**	1041
Type of Sample:	Solid	**Date of Report**	8/25/98

Analysis Description	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Result	Analysis Error ±2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<0.47	N/A	pCi/gm	<0.017	N/A	Bq/gm	EPA 901.1M	8/22/98 1502	MK
Ra-228	0.31	0.15	pCi/gm	0.011	0.006	Bq/gm	EPA 901.1M	8/22/98 1502	MK
Pb-210	1.23	0.93	pCi/gm	0.046	0.034	Bq/gm	EPA 901.1M	8/22/98 1502	MK
Total Activity	6.14	N/A	pCi/gm	0.227	N/A	Bq/gm	EPA 901.1M	8/22/98 1502	MK

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806

1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105069	Field Blank	8/13/98	15:30	8/15/98
105070	Trip Blank			8/15/98
105071	GSB-1 2-3'	8/13/98	9:11	8/15/98
105072	GSB-1 58-60'	8/13/98	14:25	8/15/98
105073	GSB-1 63-65'	8/13/98	14:40	8/15/98
105074	GSB-1B 63-65'	8/13/98	14:04	8/15/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/16/98		4915
Acrylonitrile		<5	ug/L	5	8/16/98		4915
Benzene		<1	ug/L	1	8/16/98		4915
Carbon tetrachloride		<1	ug/L	1	8/16/98		4915
Chlorobenzene		<1	ug/L	1	8/16/98		4915
1,2-dichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/16/98		4915
1,1,1-trichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2-trichloroethane		<1	ug/L	1	8/16/98		4915
1,1,2-trichloroethylene		<1	ug/L	1	8/16/98		4915
Chloroform		<1	ug/L	1	8/16/98		4915
Dichlorobenzene		<2	ug/L	2	8/16/98		4915
[redacted]dichloroethylene		<1	ug/L	1	8/16/98		4915
[redacted]loropropenes		<1	ug/L	1	8/16/98		4915
Ethylbenzene		<1	ug/L	1	8/16/98		4915
Bromodichloromethane		<1	ug/L	1	8/16/98		4915
Bromomethane		<5	ug/L	5	8/16/98		4915
Chloromethane		<1	ug/L	1	8/16/98		4915
Dichlorodifluoromethane		<1	ug/L	1	8/16/98		4915
Dichloromethane		<1	ug/L	1	8/16/98		4915
Trichlorofluoromethane		<1	ug/L	1	8/16/98		4915
Tetrachloroethylene		<1	ug/L	1	8/16/98		4915
Toluene		<1	ug/L	1	8/16/98		4915
Trichloroethylene		<1	ug/L	1	8/16/98		4915
Vinyl chloride		<1	ug/L	1	8/16/98		4915
m,p-xylene		<1	ug/L	1	8/16/98		4915
o-xylene		<1	ug/L	1	8/16/98		4915
1,1-dichloroethane		<1	ug/L	1	8/16/98		4915
Ethylene dibromide		<1	ug/L	1	8/16/98		4915
cis-1,2-dichlorethylene		<1	ug/L	1	8/16/98		4915
trans-1,2-dichloroethylene		<1	ug/L	1	8/16/98		4915
Methylene chloride		<5	ug/L	5	8/16/98		4915
Surr. Dibromofluoromethane		115	%	72-130	8/16/98		4915
Surr. Toluene-d8		111	%	77-127	8/16/98		4915
Surr. 4-Bromofluorobenzene		110	%	72-131	8/16/98		4915
Total Mercury		<0.25	mg/Kg	0.25	8/18/98	4745	4952
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5029
Chloride		<2.0	mg/Kg	2.0	9/1/98		5187
[redacted]oride		<0.2	mg/Kg	0.2	8/25/98		5096
[redacted]ate		<0.2	mg/Kg	0.2	8/25/98		5096

Date: 9-30-98
Page # 11
Order ID Number: 9808000307

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Chloride		<1.0	mg/Kg	1.0	8/25/98		5096
Sulfate		<1.0	mg/Kg	1.0	8/25/98		5096
Arsenic		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Barium		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Cadmium		<0.10	mg/Kg	0.50	9/1/98	4799	5182
Chromium		<0.50	mg/Kg	0.10	9/1/98	4799	5182
Lead		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Selenium		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Silver		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Uranium		<2.0	mg/Kg	2.0	9/1/98	4799	5182
Copper		<1.0	mg/Kg	1.0	9/1/98	4799	5182
Iron		<2.0	mg/Kg	2.0	9/1/98	4799	5182
Manganese		<1.0	mg/Kg	1.0	9/1/98	4799	5182
Zinc		<2.0	mg/Kg	2.0	9/1/98	4799	5182
Aluminum		<10	mg/Kg	10	9/1/98	4799	5182
Boron		<10	mg/Kg	10	9/1/98	4799	5182
Cobalt		<0.50	mg/Kg	0.50	9/1/98	4799	5182
Molybdenum		<1.0	mg/Kg	1.0	9/1/98	4799	5182
[redacted]ckel		<0.50	mg/Kg	0.50	9/1/98	4799	5182
[redacted]RPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
TRPHC		<10.0	mg/Kg	10	8/30/98	4810	5168
Benzene		<0.050	mg/Kg	0.050	8/18/98		4967
Toluene		<0.050	mg/Kg	0.050	8/18/98		4967
Ethylbenzene		<0.050	mg/Kg	0.050	8/18/98		4967
m,p,o-xylene		<0.050	mg/Kg	0.050	8/18/98		4967
Total Phenols		<0.25	mg/Kg	0.25	8/19/98		5015
Benzidine		<2.5	mg/kg	2.5	8/29/98	4725	5160
Hexachlorobenzene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Pentachlorobenzene		<0.25	mg/kg	0.25	8/29/98	4725	5160
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Hexachloroethane		<0.25	mg/kg	0.25	8/29/98	4725	5160
2,4-dichlorophenol		<1.25	mg/kg	1.25	8/29/98	4725	5160
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	8/29/98	4725	5160
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	8/29/98	4725	5160
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	8/29/98	4725	5160
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	8/29/98	4725	5160
bis (chloromethyl) ether		<1.25	mg/kg	1.25	8/29/98	4725	5160
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	8/29/98	4725	5160
2,4-dinitrotoluene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Diphenylhydrazine		<1.25	mg/kg	1.25	8/29/98	4725	5160
Hexachlorobutadiene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Isophorone		<1.25	mg/kg	1.25	8/29/98	4725	5160
Nitrobenzene		<0.25	mg/kg	0.25	8/29/98	4725	5160
[redacted]4-dinitro-o-cresol		<1.25	mg/kg	1.25	8/29/98	4725	5160
[redacted]4-dinitrophenols		<1.25	mg/kg	1.25	8/29/98	4725	5160

Date: 9-30-98

Order ID Number: 9808000307

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
n-nitrosodiethylamine		<0.25	mg/kg	0.25	8/29/98	4725	5160
N-nitrosodimethylamine		<0.25	mg/kg	0.25	8/29/98	4725	5160
N-nitrosodibutylamine		<1.25	mg/kg	1.25	8/29/98	4725	5160
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	8/29/98	4725	5160
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	8/29/98	4725	5160
Pentachlorophenol		<1.25	mg/kg	1.25	8/29/98	4725	5160
Dibutyl phthalate		<0.25	mg/kg	0.25	8/29/98	4725	5160
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	8/29/98	4725	5160
Diethyl phthalate		<0.25	mg/kg	0.25	8/29/98	4725	5160
Dimethyl phthalate		<0.25	mg/kg	0.25	8/29/98	4725	5160
Anthracene		<0.25	mg/kg	0.25	8/29/98	4725	5160
3,4-benzofluoranthene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Fluoranthene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Fluorene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Phenanthrene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Pyrene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Naphthalene		<0.25	mg/kg	0.25	8/29/98	4725	5160
[redacted]ethylnaphthalene		<0.25	mg/kg	0.25	8/29/98	4725	5160
[redacted]methylnaphthalene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Benzo-a-pyrene		<0.25	mg/kg	0.25	8/29/98	4725	5160
Surr. 2-Fluorophenol		70	%	25-121	8/29/98	4725	5160
Surr. Phenol-d6		70	%	24-113	8/29/98	4725	5160
Surr. Nitroobenzene-d5		52	%	23-120	8/29/98	4725	5160
Surr. 2-Fluorobiphenyl		84	%	30-115	8/29/98	4725	5160
Surr. 2,4,6-Tribromophenol		72	%	19-122	8/29/98	4725	5160
Surr. Terphenyl-d14		65	%	28-137	8/29/98	4725	5160
Acrolein		<125	ug/Kg	125	8/24/98		5082
Acrylonitrile		<125	ug/Kg	125	8/24/98		5082
Benzene		<25	ug/Kg	25	8/24/98		5082
Carbon tetrachloride		<25	ug/Kg	25	8/24/98		5082
Chlorobenzene		<25	ug/Kg	25	8/24/98		5082
1,2-dichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,1-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Chloroform		<25	ug/Kg	25	8/24/98		5082
Dichlorobenzene		<50	ug/Kg	2	8/24/98		5082
1,1-dichloroethylene		<25	ug/Kg	50	8/24/98		5082
Dichloropropenes		<25	ug/Kg	25	8/24/98		5082
Ethylbenzene		<25	ug/Kg	25	8/24/98		5082
Bromodichloromethane		<25	ug/Kg	25	8/24/98		5082
Bromomethane		<125	ug/Kg	125	8/24/98		5082
[redacted]oromethane		<25	ug/Kg	25	8/24/98		5082
[redacted]lorodifluoromethane		<25	ug/Kg	25	8/24/98		5082

Order ID Number: 9808000307

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Dichloromethane		<25	ug/Kg	25	8/24/98		5082
Trichlorofluoromethane		<25	ug/Kg	25	8/24/98		5082
Tetrachloroethylene		<25	ug/Kg	25	8/24/98		5082
Toluene		<25	ug/Kg	25	8/24/98		5082
Trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Vinyl chloride		<25	ug/Kg	25	8/24/98		5082
m,p-xylene		<25	ug/Kg	25	8/24/98		5082
o-xylene		<25	ug/Kg	25	8/24/98		5082
1,1-dichloroethane		<25	ug/Kg	25	8/24/98		5082
Ethylene dibromide		<25	ug/Kg	25	8/24/98		5082
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/24/98		5082
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/24/98		5082
Methylene chloride		<125	ug/Kg	125	8/24/98		5082
Surr. Dibromofluoromethane		112	%	72-130	8/24/98		5082
Surr. Toluene-d8		105	%	77-127	8/24/98		5082
Surr. 4-Bromofluorobenzene		112	%	72-131	8/24/98		5082

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	117	117	8/16/98	4915
1,1-Dichloroethene		100	ug/L	119	119	8/16/98	4915
Chloroform		100	ug/L	120	120	8/16/98	4915
1,2-Dichloropropane		100	ug/L	118	118	8/16/98	4915
Toluene		100	ug/L	117	117	8/16/98	4915
Chlorobenzene		100	ug/L	115	115	8/16/98	4915
Ethylbenzene		100	ug/L	116	116	8/16/98	4915
pH		7	s.u.	7	100	8/17/98	4935
Total Mercury		5.0	mg/L	5.1	102	8/18/98	4952
Cyanide		0.12	mg/L	0.11	110	8/20/98	5029
Fluoride		2.5	mg/L	2.335	93	8/25/98	5096
Nitrate		5.0	mg/L	4.625	93	8/25/98	5096
[illegible]ride		12.5	mg/L	11.83	95	8/25/98	5096
[illegible]ate		12.5	mg/L	11.465	92	8/25/98	5096
Arsenic		1.0	mg/L	1.0	100	9/1/98	5182
Barium		1.0	mg/L	0.99	99	9/1/98	5182
Cadmium		1.0	mg/L	1.0	100	9/1/98	5182
Chromium		1.0	mg/L	1.0	100	9/1/98	5182
Lead		1.0	mg/L	1.0	100	9/1/98	5182
Selenium		1.0	mg/L	1.0	100	9/1/98	5182
Silver		0.20	mg/L	0.20	100	9/1/98	5182
Uranium		1.0	mg/L	1.0	100	9/1/98	5182
Copper		1.0	mg/L	1.0	100	9/1/98	5182
Iron		50	mg/L	51	102	9/1/98	5182
Manganese		1.0	mg/L	1.0	100	9/1/98	5182
Zinc		1.0	mg/L	1.0	100	9/1/98	5182
Aluminum		125	mg/L	128	102	9/1/98	5182
Boron		1.0	mg/L	1.0	100	9/1/98	5182
Cobalt		1.0	mg/L	1.0	100	9/1/98	5182
Molybdenum		1.0	mg/L	1.0	100	9/1/98	5182
Nickel		1.0	mg/L	1.0	100	9/1/98	5182
TRPHC		100	mg/L	104	104	8/22/98	5045
TRPHC		100	mg/L	99	99	8/30/98	5168
Benzene		0.100	mg/L	0.098	98	8/18/98	4967
Toluene		0.100	mg/L	0.097	97	8/18/98	4967
Ethylbenzene		0.100	mg/L	0.098	98	8/18/98	4967
m,p,o-xylene		0.300	mg/L	0.275	92	8/18/98	4967
TDS		1000	mg/L	978	98	9/10/98	5273
[illegible]al Phenols		0.80	mg/L	0.81	101	8/19/98	5015

Order ID Number: 9808000307

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	86	108	9/21/98	5480
1,4-Dichlorobenzene		80	mg/L	87	109	9/21/98	5480
2-nitrophenol		80	mg/L	84	105	9/21/98	5480
2,4-Dichlorophenol		80	mg/L	86	108	9/21/98	5480
Hexachlorobutadiene		80	mg/L	82	103	9/21/98	5480
4-Chloro-3-methylphenol		80	mg/L	83	104	9/21/98	5480
2,4,6-Trichlorophenol		80	mg/L	85	106	9/21/98	5480
Acenaphthene		80	mg/L	81	101	9/21/98	5480
n-Nitrosodiphenylamine		80	mg/L	81	101	9/21/98	5480
Pentachlorophenol		80	mg/L	89	111	9/21/98	5480
Fluoranthene		80	mg/L	86	108	9/21/98	5480
Di-n-octylphthalate		80	mg/L	111	139	9/21/98	5480
Benzo(a)pyrene		80	mg/L	86	108	9/21/98	5480
Vinyl chloride		100	mg/L	110	110	8/24/98	5082
1,1-Dichloroethene		100	mg/L	90	90	8/24/98	5082
Chloroform		100	mg/L	109	109	8/24/98	5082
1,2-Dichloropropane		100	mg/L	92	92	8/24/98	5082
Toluene		100	mg/L	96	96	8/24/98	5082
hlorobenzene		100	mg/L	98	98	8/24/98	5082
thylbenzene		100	mg/L	100	100	8/24/98	5082

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page # 16

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	85	85	100	87	87	2.3	8/16/98		4915
Benzene		ug/L	<1	100	87	87	100	89	89	2.3	8/16/98		4915
Trichloroethene		ug/L	<1	100	87	87	100	89	89	2.3	8/16/98		4915
Toluene		ug/L	<1	100	86	86	100	87	87	1.2	8/16/98		4915
Chlorobenzene		ug/L	<1	100	83	83	100	86	86	3.6	8/16/98		4915
1,1-Dichloroethene		ug/L	<1	100	81	81	100	87	87	7.1	8/24/98		5082
Benzene		ug/L	<1	100	86	86	100	82	82	4.8	8/24/98		5082
Trichloroethene		ug/L	<1	100	93	93	100	84	84	10	8/24/98		5082
Toluene		ug/L	<1	100	88	88	100	81	81	8.3	8/24/98		5082
[redacted]robenzene		ug/L	<1	100	93	93	100	83	83	11	8/24/98		5082
[redacted] Mercury		mg/Kg	<0.25	2.5	2.7	93	2.5	2.7	93	0	8/18/98	4745	4952
Cyanide		mg/Kg	<0.01	0.12	0.1	83	0.12	0.1	83	0	8/20/98		5029
Fluoride		mg/Kg	0.5	2.5	2.82	93	2.5	2.89	96	3.2	8/25/98		5096
Nitrate		mg/Kg	0.61	5.0	5.02	88	5.0	5.18	91	3.4	8/25/98		5096
Chloride		mg/Kg	8.82	12.5	20.42	93	12.5	21.10	98	5.2	8/25/98		5096
Sulfate		mg/Kg	2.46	12.5	13.72	90	12.5	13.82	91	1.1	8/25/98		5096
Arsenic		mg/Kg	1.2	200	168	83	200	161	81	2.4	9/1/98	4799	5182
Barium		mg/Kg	<0.5	200	196	98	200	196	98	0	9/1/98	4799	5182
Cadmium		mg/Kg	<0.10	200	168	84	200	160	80	4.9	9/1/98	4799	5182
Chromium		mg/Kg	3.2	200	177	87	200	172	84	3.5	9/1/98	4799	5182
Lead		mg/Kg	0.59	200	168	84	200	163	81	3.5	9/1/98	4799	5182
Selenium		mg/Kg	1.2	200	163	81	200	167	83	2.4	9/1/98	4799	5182
Silver		mg/Kg	<0.50	100	81	81	100	91	91	12	9/1/98	4799	5182
Uranium		mg/Kg	<2.0	200	159	80	200	164	82	2.5	9/1/98	4799	5182
Copper		mg/Kg	1.9	200	182	90	200	180	89	1.1	9/1/98	4799	5182
Iron		mg/Kg	<2.0	200	204	102	200	208	104	1.9	9/1/98	4799	5182
Manganese		mg/Kg	15	200	183	84	200	182	84	0	9/1/98	4799	5182
Zinc		mg/Kg	7.2	200	163	78	200	165	79	1.3	9/1/98	4799	5182
Aluminum		mg/Kg	<10	200	194	97	200	194	97	0	9/1/98	4799	5182
Boron		mg/Kg	<10	200	174	87	200	172	86	1.2	9/1/98	4799	5182
Cobalt		mg/Kg	4.3	200	162	79	200	159	77	2.6	9/1/98	4799	5182
Molybdenum		mg/Kg	2.4	200	173	85	200	171	84	1.2	9/1/98	4799	5182
Nickel		mg/Kg	4.3	200	161	78	200	160	78	0	9/1/98	4799	5182
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
TRPHC		mg/Kg	<10.0	250	243	97	250	231	92	5.3	8/30/98	4810	5168
Benzene		mg/Kg	<0.050	5.00	4.63	93	5.00	4.6	92	1.1	8/18/98		4967
Toluene		mg/Kg	<0.050	5.00	4.6	92	5.00	4.59	92	0	8/18/98		4967
[redacted]lbenzene		mg/Kg	<0.050	5.00	5.22	104	5.00	5.19	104	0	8/18/98		4967
[redacted]o-xylene		mg/Kg	<0.050	15.00	13.1	87	15.00	13.1	87	0	8/18/98		4967

Order ID Number: 9808000307

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Total Phenols		mg/Kg	<0.25	0.8	0.76	98	0.8	0.77	96	2.1	8/19/98		5015
Phenol		mg/Kg	<0.25	10	6.45	65	10	5.81	58	11	8/27/98	4725	5160
2-Chlorophenol		mg/Kg	<1.25	10	6.59	66	10	6.64	66	0	8/27/98	4725	5160
1,4-Dichlorobenzene		mg/Kg	<0.25	10	7.41	74	10	7.45	75	1.3	8/27/98	4725	5160
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10	7.19	72	10	7.28	73	1.4	8/27/98	4725	5160
1,2,4-trichlorobenzene		mg/Kg	<0.25	10	7.36	76	10	7.32	73	4.0	8/27/98	4725	5160
4-Chloro-3-methylphenol		mg/Kg	<1.25	10	6.92	69	10	6.92	69	0	8/27/98	4725	5160
Acenaphthene		mg/Kg	<0.25	10	7.45	75	10	7.53	75	0	8/27/98	4725	5160
4-Nitrophenol		mg/Kg	<1.25	10	2.66	27	10	2.54	25	7.7	8/27/98	4725	5160
2,4-Dinitrotoluene		mg/Kg	<0.25	10	7.12	71	10	7.26	73	2.8	8/27/98	4725	5160
Pentachlorophenol		mg/Kg	<1.25	10	6.59	66	10	6.9	69	4.4	8/27/98	4725	5160
Pyrene		mg/Kg	<0.25	10	8.61	86	10	8.77	88	2.3	8/27/98	4725	5160

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000307

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.3	8.3	0	8/17/98		4935
TDS		mg/Kg	880	864	1.8	9/10/98		5273

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98
Page # 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000568

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
106259	GSB-7 2-3'	8/25/98	15:13	8/28/98
106260	GSB-7 33-35'	8/26/98	9:00	8/28/98
106261	GSB-7 58-60'	8/26/98	11:11	8/28/98
106262	GSB-5 2-3'	8/26/98	13:18	8/28/98
106263	GSB-5 18-20'	8/26/98	14:29	8/28/98
106264	GSB-5 38-40'	8/26/98	15:55	8/28/98
106265	GSB-7 48-50'			8/28/98
106266	Field Blank	8/26/98	16:30	8/28/98
106267	Trip Blank			8/28/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000568

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/7/98		5220
Acrylonitrile		<5	ug/L	5	9/7/98		5220
Benzene		<1	ug/L	1	9/7/98		5220
Carbon tetrachloride		<1	ug/L	1	9/7/98		5220
Chlorobenzene		<1	ug/L	1	9/7/98		5220
1,2-dichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/7/98		5220
1,1,1-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethane		<1	ug/L	1	9/7/98		5220
1,1,2-trichloroethylene		<1	ug/L	1	9/7/98		5220
Chloroform		<1	ug/L	1	9/7/98		5220
Dichlorobenzene		<2	ug/L	2	9/7/98		5220
[redacted]dichloroethylene		<1	ug/L	1	9/7/98		5220
[redacted]loropropenes		<1	ug/L	1	9/7/98		5220
Ethylbenzene		<1	ug/L	1	9/7/98		5220
Bromodichloromethane		<1	ug/L	1	9/7/98		5220
Bromomethane		<5	ug/L	5	9/7/98		5220
Chloromethane		<1	ug/L	1	9/7/98		5220
Dichlorodifluoromethane		<1	ug/L	1	9/7/98		5220
Dichloromethane		<1	ug/L	1	9/7/98		5220
Trichlorofluoromethane		<1	ug/L	1	9/7/98		5220
Tetrachloroethylene		<1	ug/L	1	9/7/98		5220
Toluene		<1	ug/L	1	9/7/98		5220
Trichloroethylene		<1	ug/L	1	9/7/98		5220
Vinyl chloride		<1	ug/L	1	9/7/98		5220
m,p-xylene		<1	ug/L	1	9/7/98		5220
o-xylene		<1	ug/L	1	9/7/98		5220
1,1-dichloroethane		<1	ug/L	1	9/7/98		5220
Ethylene dibromide		<1	ug/L	1	9/7/98		5220
cis-1,2-dichlorethylene		<1	ug/L	1	9/7/98		5220
trans-1,2-dichloroethylene		<1	ug/L	1	9/7/98		5220
Methylene chloride		<5	ug/L	5	9/7/98		5220
Surr. Dibromofluoromethane		96	%	72-130	9/7/98		5220
Surr. Toluene-d8		89	%	77-127	9/7/98		5220
Surr. 4-Bromofluorobenzene		86	%	72-131	9/7/98		5220
Acrolein		<125	ug/Kg	125	9/8/98		5230
Acrylonitrile		<125	ug/Kg	125	9/8/98		5230
Benzene		<25	ug/Kg	25	9/8/98		5230
[redacted]bon tetrachloride		<25	ug/Kg	25	9/8/98		5230
[redacted]orobenzene		<25	ug/Kg	25	9/8/98		5230

Date: 9-30-98
Page # 15
Order ID Number: 9808000568

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,1-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethane		<25	ug/Kg	25	9/8/98		5230
1,1,2-trichloroethylene		<25	ug/Kg	25	9/8/98		5230
Chloroform		<25	ug/Kg	25	9/8/98		5230
Dichlorobenzene		<50	ug/Kg	50	9/8/98		5230
1,1-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Dichloropropenes		<25	ug/Kg	25	9/8/98		5230
Ethylbenzene		<25	ug/Kg	25	9/8/98		5230
Bromodichloromethane		<25	ug/Kg	25	9/8/98		5230
Bromomethane		<125	ug/Kg	125	9/8/98		5230
Chloromethane		<25	ug/Kg	25	9/8/98		5230
Dichlorodifluoromethane		<25	ug/Kg	25	9/8/98		5230
Dichloromethane		<25	ug/Kg	25	9/8/98		5230
Trichlorofluoromethane		<25	ug/Kg	25	9/8/98		5230
Tetrachloroethylene		<25	ug/Kg	25	9/8/98		5230
Toluene		<25	ug/Kg	25	9/8/98		5230
[redacted]ichloroethylene		<25	ug/Kg	25	9/8/98		5230
[redacted]nyl chloride		<25	ug/Kg	25	9/8/98		5230
m,p-xylene		<25	ug/Kg	25	9/8/98		5230
o-xylene		<25	ug/Kg	25	9/8/98		5230
1,1-dichloroethane		<25	ug/Kg	25	9/8/98		5230
Ethylene dibromide		<25	ug/Kg	25	9/8/98		5230
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/8/98		5230
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/8/98		5230
Methylene chloride		<125	ug/Kg	125	9/8/98		5230
Surr. Dibromofluoromethane		103	%	72-130	9/8/98		5230
Surr. Toluene-d8		90	%	77-127	9/8/98		5230
Surr. 4-Bromofluorobenzene		91	%	72-131	9/8/98		5230
Total Mercury		<0.10	mg/Kg	0.25	9/1/98	4826	5180
TRPHC		<10.0	mg/Kg	10	8/30/98	4810	5168
Cyanide		<0.01	mg/Kg	0.01	9/3/98		5200
MTBE		<0.050	mg/Kg	0.050	9/2/98		5197
Benzene		<0.050	mg/Kg	0.050	9/2/98		5197
Toluene		<0.050	mg/Kg	0.050	9/2/98		5197
Ethylbenzene		<0.050	mg/Kg	0.050	9/2/98		5197
m,p,o-xylene		<0.050	mg/Kg	0.050	9/2/98		5197
Total Phenols		<0.25	mg/Kg	0.25	9/16/98		5355
Chloride		<2.0	mg/kg	2	9/16/98		5360
PCB		0.1	mg/Kg	0.1	9/18/98	5044	5401
Arsenic		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Barium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Cadmium		<0.10	mg/Kg	0.10	9/16/98	5050	5358
[redacted]hromium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
[redacted]ead		<0.50	mg/Kg	0.50	9/16/98	5050	5358

Date: 9-30-98
Page # 16
Order ID Number: 9808000568

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Selenium		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Silver		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Uranium		<2.0	mg/Kg	2.0	9/16/98	5050	5358
Copper		<1.0	mg/Kg	1.0	9/16/98	5050	5358
Iron		<10	mg/Kg	10	9/17/98	5050	5376
Manganese		<1.0	mg/Kg	1.0	9/16/98	5050	5358
Zinc		<2.0	mg/Kg	2.0	9/16/98	5050	5358
Aluminum		<10	mg/Kg	10	9/17/98	5050	5376
Boron		<10	mg/Kg	10	9/16/98	5050	5358
Cobalt		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Molybdenum		<1.0	mg/Kg	1.0	9/16/98	5050	5358
Nickel		<0.50	mg/Kg	0.50	9/16/98	5050	5358
Fluoride		<0.2	mg/Kg	0.2	9/21/98		5483
Chloride		<1.0	mg/Kg	1	9/21/98		5483
Nitrate		<0.2	mg/Kg	0.2	9/21/98		5483
Sulfate		<1.0	mg/Kg	1	9/21/98		5483
Benzidine		<2.5	mg/kg	2.5	9/15/98	4849	5339
Hexachlorobenzene		<0.25	mg/kg	0.25	9/15/98	4849	5339
[redacted]tachlorobenzene		<0.25	mg/kg	0.25	9/15/98	4849	5339
[redacted]4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Hexachloroethane		<0.25	mg/kg	0.25	9/15/98	4849	5339
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/15/98	4849	5339
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/15/98	4849	5339
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/15/98	4849	5339
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/15/98	4849	5339
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/15/98	4849	5339
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/15/98	4849	5339
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/15/98	4849	5339
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Diphenylhydrazine		<1.25	mg/kg	1.25	9/15/98	4849	5339
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Isophorone		<1.25	mg/kg	1.25	9/15/98	4849	5339
Nitrobenzene		<0.25	mg/kg	0.25	9/15/98	4849	5339
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/15/98	4849	5339
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/15/98	4849	5339
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/15/98	4849	5339
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/15/98	4849	5339
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/15/98	4849	5339
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/15/98	4849	5339
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/15/98	4849	5339
Pentachlorophenol		<1.25	mg/kg	1.25	9/15/98	4849	5339
Dibutyl phthalate		<0.25	mg/kg	0.25	9/15/98	4849	5339
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/15/98	4849	5339
[redacted]thyl phthalate		<0.25	mg/kg	0.25	9/15/98	4849	5339
[redacted]ethyl phthalate		<0.25	mg/kg	0.25	9/15/98	4849	5339

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM
Order ID Number: 9808000568

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Anthracene		<0.25	mg/kg	0.25	9/15/98	4849	5339
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Fluoranthene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Fluorene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Phenanthrene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Pyrene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Naphthalene		<0.25	mg/kg	0.25	9/15/98	4849	5339
1-methylnaphthalene		<0.25	mg/kg	0.25	9/15/98	4849	5339
2-methylnaphthalene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/15/98	4849	5339
Surr. 2-Fluorophenol		39	%	25-121	9/15/98	4849	5339
Surr. Phenol-d6		28	%	24-113	9/15/98	4849	5339
Surr. Nitroobenzene-d5		52	%	23-120	9/15/98	4849	5339
Surr. 2-Fluorobiphenyl		60	%	30-115	9/15/98	4849	5339
Surr. 2,4,6-Tribromophenol		47	%	19-122	9/15/98	4849	5339
Surr. Terphenyl-d14		52	%	28-137	9/15/98	4849	5339

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000568

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cyanide		0.12	mg/L	0.12	100	9/3/98	5200
Total Mercury		5	mg/L	4.9	98	9/1/98	5180
Vinyl chloride		100	ug/L	94	94	9/7/98	5220
1,1-Dichloroethene		100	ug/L	120	120	9/7/98	5220
Chloroform		100	ug/L	111	111	9/7/98	5220
1,2-Dichloropropane		100	ug/L	101	101	9/7/98	5220
Toluene		100	ug/L	113	113	9/7/98	5220
Chlorobenzene		100	ug/L	110	110	9/7/98	5220
Ethylbenzene		100	ug/L	109	109	9/7/98	5220
1,1-Dichloroethene		100	ug/L	97	97	9/8/98	5230
Chloroform		100	ug/L	98	98	9/8/98	5230
[redacted]Dichloropropane		100	ug/L	96	96	9/8/98	5230
[redacted]uene		100	ug/L	106	106	9/8/98	5230
Chlorobenzene		100	ug/L	110	110	9/8/98	5230
Ethylbenzene		100	ug/L	114	114	9/8/98	5230
TRPHC		100.0	mg/L	99.0	99	8/30/98	5168
MTBE		0.100	mg/L	0.101	101	9/2/98	5197
Benzene		0.100	mg/L	0.091	91	9/2/98	5197
Toluene		0.100	mg/L	0.091	91	9/2/98	5197
Ethylbenzene		0.100	mg/L	0.092	92	9/2/98	5197
m,p,o-xylene		0.300	mg/L	0.269	90	9/2/98	5197
Total Phenols		0.80	mg/L	0.81	101	9/16/98	5355
Chloride		500	mg/L	499	100	9/16/98	5360
TDS		1000	mg/L	985	99	9/19/98	5418
PCB		0.40	mg/L	0.41	103	9/18/98	5401
Arsenic		1.0	mg/L	1.0	100	9/16/98	5355
Barium		1.0	mg/L	1.0	100	9/16/98	5355
Cadmium		1.0	mg/L	1.0	100	9/16/98	5355
Chromium		1.0	mg/L	1.0	100	9/16/98	5355
Lead		1.0	mg/L	1.0	100	9/16/98	5355
Selenium		1.0	mg/L	1.0	100	9/16/98	5355
Silver		1.0	mg/L	1.0	98	9/16/98	5355
Uranium		1.0	mg/L	1.0	100	9/16/98	5355
Copper		1.0	mg/L	0.97	97	9/16/98	5355
Iron		100	mg/L	100	100	9/17/98	5376
Manganese		1.0	mg/L	1.0	100	9/16/98	5355
Zinc		1.0	mg/L	0.99	99	9/16/98	5355
[redacted]uminum		250	mg/L	257	103	9/17/98	5376
[redacted]on		1.0	mg/L	1.0	100	9/16/98	5355

Order ID Number: 9808000568

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cobalt		1.0	mg/L	1.0	100	9/16/98	5355
Molybdenum		1.0	mg/L	1.0	100	9/16/98	5355
Nickel		1.0	mg/L	1.0	100	9/16/98	5355
Fluoride		2.5	mg/L	2.345	94	9/21/98	5483
Chloride		1.5	mg/L	11.535	92	9/21/98	5483
Nitrate		5	mg/L	4.79	96	9/21/98	5483
Sulfate		12.5	mg/L	11.83	95	9/21/98	5483
Phenol		80	mg/L	83	104	9/15/98	5339
1,4-Dichlorobenzene		80	mg/L	75	94	9/15/98	5339
2-nitrophenol		80	mg/L	84	105	9/15/98	5339
2,4-Dichlorophenol		80	mg/L	86	108	9/15/98	5339
Hexachlorobutadiene		80	mg/L	78	98	9/15/98	5339
4-Chloro-3-methylphenol		80	mg/L	67	84	9/15/98	5339
2,4,6-Trichlorophenol		80	mg/L	85	106	9/15/98	5339
Acenaphthene		80	mg/L	84	105	9/15/98	5339
n-Nitrosodiphenylamine		80	mg/L	74	93	9/15/98	5339
Pentachlorophenol		80	mg/L	71	89	9/15/98	5339
[illegible]uoranthene		80	mg/L	67	84	9/15/98	5339
[illegible]-n-octylphthalate		80	mg/L	83	104	9/15/98	5339
Benzo(a)pyrene		80	mg/L	76	95	9/15/98	5339

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000568

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Cyanide		mg/L	<0.01	0.12	0.12	100	0.12	0.12	100	0	9/3/98		5200
Total Mercury		mg/kg	<0.10	2.6	2.7	104	2.6	2.7	104	0	9/1/98		5180
1,1-Dichloroethene		ug/L	<1	100	102	102	100	96	96	2.3	9/7/98		5220
Benzene		ug/L	<1	100	102	102	100	104	104	1.9	9/7/98		5220
Trichloroethene		ug/L	<1	100	117	117	100	117	117	0	9/7/98		5220
Toluene		ug/L	<1	100	101	101	100	102	102	0.99	9/7/98		5220
Chlorobenzene		ug/L	<1	100	88	88	100	87	87	1.1	9/7/98		5220
1,1-Dichloroethene		ug/L	<1	100	94	94	100	95	95	1.1	9/8/98		5230
Benzene		ug/L	<1	100	105	105	100	107	107	1.9	9/8/98		5230
[illegible]hloroethene		ug/L	<1	100	115	115	100	116	116	0.87	9/8/98		5230
[illegible]ene		ug/L	<1	100	106	106	100	107	107	0.9	9/8/98		5230
Chlorobenzene		ug/L	<1	100	91	91	100	91	91	0	9/8/98		5230
TRPHC		mg/kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168
MTBE		mg/kg	<0.050	5.00	4.77	95	5.00	4.88	98	3.1	9/2/98		5197
Benzene		mg/kg	<0.050	5.00	4.44	89	5.00	4.54	91	2.2	9/2/98		5197
Toluene		mg/kg	<0.050	5.00	4.53	91	5.00	4.62	92	1.1	9/2/98		5197
Ethylbenzene		mg/kg	<0.050	5.00	4.53	91	5.00	4.64	93	2.2	9/2/98		5197
m,p,o-xylene		mg/kg	<0.050	15.00	13.2	88	15.00	13.5	90	2.2	9/2/98		5197
Total Phenols		mg/kg	6.9	25	27.1	81	25	27.4	82	1.2	9/16/98		5355
Chloride		mg/kg	2,400	50000	57211	110	50000	57017	109	0.9	9/16/98		5360
PCB		mg/Kg	<0.1	0.400	0.430	108	0.400	0.450	113	4.5	9/18/98	5044	5401
Arsenic		mg/Kg	<0.50	200	170	85	200	174	87	2.3	9/16/98	5050	5358
Barium		mg/Kg	<0.50	200	176	88	200	180	90	2.2	9/16/98	5050	5358
Cadmium		mg/Kg	<0.10	200	174	87	200	177	86	1.2	9/16/98	5050	5358
Chromium		mg/Kg	<0.50	200	177	89	200	177	86	3.4	9/16/98	5050	5358
Lead		mg/Kg	<0.50	200	170	85	200	174	87	2.3	9/16/98	5050	5358
Selenium		mg/Kg	<0.50	200	154	77	200	155	76	1.3	9/16/98	5050	5358
Silver		mg/Kg	<0.50	100	109	109	100	112	112	1.8	9/16/98	5050	5358
Uranium		mg/Kg	<2.0	200	194	97	200	199	100	3.0	9/16/98	5050	5358
Copper		mg/Kg	<1.0	200	172	86	200	177	89	3.4	9/16/98	5050	5358
Manganese		mg/Kg	<1.0	200	176	88	200	180	90	2.2	9/16/98	5050	5358
Zinc		mg/Kg	<2.0	200	173	87	200	174	87	0	9/16/98	5050	5358
Boron		mg/Kg	<10	200	165	83	200	167	84	1.2	9/16/98	5050	5358
Cobalt		mg/Kg	<0.50	200	171	86	200	174	87	1.2	9/16/98	5050	5358
Molybdenum		mg/Kg	<1.0	200	177	86	200	181	91	5.6	9/16/98	5050	5358
Nickel		mg/Kg	<0.50	200	166	83	200	173	87	4.7	9/16/98	5050	5358
Aluminum		mg/Kg	<10	200	178	89	200	173	87	2.3	9/17/98	5050	5376
[illegible]		mg/Kg	<10	200	202	101	200	198	99	2.0	9/17/98	5050	5376
[illegible]ride		mg/Kg	1.77	5	6.42	93	5	6.61	97	4.2	9/21/98		5483

Order ID Number: 9808000568

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Chloride		mg/Kg	8.37	25	31.56	93	25	32.03	95	2.1	9/21/98		5483
Nitrate		mg/Kg	2.24	10	11.47	92	10	11.73	95	3.2	9/21/98		5483
Sulfate		mg/Kg	59.58	25	81.97	90	25	81.04	86	4.5	9/21/98		5483
Phenol		mg/Kg	<0.25	10.00	6.67	67	10.00	7.36	74	9.9	9/15/98	4849	5339
2-Chlorophenol		mg/Kg	<1.25	10.00	5.91	59	10.00	6.48	65	9.7	9/15/98	4849	5339
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.3	73	10.00	7.82	78	6.6	9/15/98	4849	5339
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	6.77	68	10.00	7.88	79	15	9/15/98	4849	5339
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.19	72	10.00	8.06	81	12	9/15/98	4849	5339
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	6.52	65	10.00	7.32	73	12	9/15/98	4849	5339
Acenaphthene		mg/Kg	<0.25	10.00	8.14	81	10.00	9.29	93	14	9/15/98	4849	5339
4-Nitrophenol		mg/Kg	<1.25	10.00	4.35	44	10.00	5.43	54	20	9/15/98	4849	5339
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	7.4	74	10.00	8.65	87	16	9/15/98	4849	5339
Pentachlorophenol		mg/Kg	<1.25	10.00	5.39	54	10.00	6.36	64	17	9/15/98	4849	5339
Pyrene		mg/Kg	<0.25	10.00	7.95	80	10.00	8.68	87	8.4	9/15/98	4849	5339

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-30-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000568

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.5	9	0	8/28/98		5155
TDS		mg/Kg	270	292	7.8	9/19/98		5418

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105612	Field Blank	8/18/98	15:30	8/20/98
105613	Trip Blank			8/20/98
105614	TMW-2 53-55'	8/18/98	12:49	8/20/98
105615	TMW-2 63-65'	8/18/98	13:50	8/20/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
1,1-dichloroethylene		<1	ug/L	1	9/1/98		5183
[illegible]loropropenes		<1	ug/L	1	9/1/98		5183
[illegible]ylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	8/24/98		5082
Acrylonitrile		<125	ug/Kg	125	8/24/98		5082
Benzene		<25	ug/Kg	25	8/24/98		5082
Carbon tetrachloride		<25	ug/Kg	25	8/24/98		5082
[illegible]orobenzene		<25	ug/Kg	25	8/24/98		5082
[illegible]dichloroethane		<25	ug/Kg	25	8/24/98		5082

Order ID Number: 9808000400

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,1-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Chloroform		<25	ug/Kg	25	8/24/98		5082
Dichlorobenzene		<50	ug/Kg	2	8/24/98		5082
1,1-dichloroethylene		<25	ug/Kg	50	8/24/98		5082
Dichloropropenes		<25	ug/Kg	25	8/24/98		5082
Ethylbenzene		<25	ug/Kg	25	8/24/98		5082
Bromodichloromethane		<25	ug/Kg	25	8/24/98		5082
Bromomethane		<125	ug/Kg	125	8/24/98		5082
Chloromethane		<25	ug/Kg	25	8/24/98		5082
Dichlorodifluoromethane		<25	ug/Kg	25	8/24/98		5082
Dichloromethane		<25	ug/Kg	25	8/24/98		5082
Trichlorofluoromethane		<25	ug/Kg	25	8/24/98		5082
Tetrachloroethylene		<25	ug/Kg	25	8/24/98		5082
Toluene		<25	ug/Kg	25	8/24/98		5082
Trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Vinyl chloride		<25	ug/Kg	25	8/24/98		5082
[redacted]p-xylene		<25	ug/Kg	25	8/24/98		5082
[redacted]xylene		<25	ug/Kg	25	8/24/98		5082
1,1-dichloroethane		<25	ug/Kg	25	8/24/98		5082
Ethylene dibromide		<25	ug/Kg	25	8/24/98		5082
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/24/98		5082
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/24/98		5082
Methylene chloride		<125	ug/Kg	125	8/24/98		5082
Surr. Dibromofluoromethane		112	%	72-130	8/24/98		5082
Surr. Toluene-d8		105	%	77-127	8/24/98		5082
Surr. 4-Bromofluorobenzene		112	%	72-131	8/24/98		5082
Benzidine		<2.5	mg/kg	2.5	9/10/98	4829	5276
Hexachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachloroethane		<0.25	mg/kg	0.25	9/10/98	4829	5276
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diphenylhydrazine		<1.25	mg/kg	1.25	9/10/98	4829	5276
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
[redacted]sophorone		<1.25	mg/kg	1.25	9/10/98	4829	5276
[redacted]trobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276

Date: 9-29-98
Page # 12
Order ID Number: 9808000400

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/10/98	4829	5276
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/10/98	4829	5276
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
Dibutyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Dimethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Anthracene		<0.25	mg/kg	0.25	9/10/98	4829	5276
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluorene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Phenanthrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
[redacted]hthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
[redacted]ethylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
2-methylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/10/98	4829	5276
Surr. 2-Fluorophenol		42	%	25-121	9/10/98	4829	5276
Surr. Phenol-d6		51	%	24-113	9/10/98	4829	5276
Surr. Nitroobenzene-d5		35	%	23-120	9/10/98	4829	5276
Surr. 2-Fluorobiphenyl		51	%	30-115	9/10/98	4829	5276
Surr. 2,4,6-Tribromophenol		47	%	19-122	9/10/98	4829	5276
Surr. Terphenyl-d14		59	%	28-137	9/10/98	4829	5276
Benzidine		<2.5	mg/kg	2.5	9/16/98	4885	5363
Hexachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Pentachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4885	5363
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Hexachloroethane		<0.25	mg/kg	0.25	9/16/98	4885	5363
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/16/98	4885	5363
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4885	5363
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/16/98	4885	5363
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/16/98	4885	5363
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/16/98	4885	5363
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/16/98	4885	5363
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/16/98	4885	5363
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Diphenylhydrazine		<1.25	mg/kg	1.25	9/16/98	4885	5363
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/16/98	4885	5363
[redacted]achlorocyclopentadiene		<0.25	mg/kg	0.25	9/16/98	4885	5363
[redacted]horone		<1.25	mg/kg	1.25	9/16/98	4885	5363

Date: 9-29-98

Order ID Number: 9808000400

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Nitrobenzene		<0.25	mg/kg	0.25	9/16/98	4885	5363
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/16/98	4885	5363
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/16/98	4885	5363
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/16/98	4885	5363
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/16/98	4885	5363
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/16/98	4885	5363
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/16/98	4885	5363
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/16/98	4885	5363
Pentachlorophenol		<1.25	mg/kg	1.25	9/16/98	4885	5363
Dibutyl phthalate		<0.25	mg/kg	0.25	9/16/98	4885	5363
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/16/98	4885	5363
Diethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4885	5363
Dimethyl phthalate		<0.25	mg/kg	0.25	9/16/98	4885	5363
Anthracene		<0.25	mg/kg	0.25	9/16/98	4885	5363
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Fluoranthene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Fluorene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Phenanthrene		<0.25	mg/kg	0.25	9/16/98	4885	5363
[redacted]yrene		<0.25	mg/kg	0.25	9/16/98	4885	5363
[redacted]aphthalene		<0.25	mg/kg	0.25	9/16/98	4885	5363
1-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4885	5363
2-methylnaphthalene		<0.25	mg/kg	0.25	9/16/98	4885	5363
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/16/98	4885	5363
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/16/98	4885	5363
Surr. 2-Fluorophenol		61	%	25-121	9/16/98	4885	5363
Surr. Phenol-d6		69	%	24-113	9/16/98	4885	5363
Surr. Nitroobenzene-d5		52	%	23-120	9/16/98	4885	5363
Surr. 2-Fluorobiphenyl		71	%	30-115	9/16/98	4885	5363
Surr. 2,4,6-Tribromophenol		60	%	19-122	9/16/98	4885	5363
Surr. Terphenyl-d14		71	%	28-137	9/16/98	4885	5363
Cyanide		<0.01	mg/Kg	0.01	8/24/98		5087
TRPHC		<10.0	mg/Kg	10.0	8/22/98	4743	5045
Arsenic		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Barium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Cadmium		<0.10	mg/Kg	0.10	8/27/98	4797	5120
Chromium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Lead		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Total Mercury		<0.10	mg/Kg	0.10	8/25/98	4765	5101
Selenium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Silver		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Uranium		<2.0	mg/Kg	2.0	8/27/98	4797	5120
Copper		<1.0	mg/Kg	1.0	8/27/98	4797	5120
Iron		<2.0	mg/Kg	2.0	8/27/98	4798	5122
Manganese		<1.0	mg/Kg	1.0	8/27/98	4797	5120
[redacted]inc		<2.0	mg/Kg	2.0	8/27/98	4797	5120
[redacted]uminum		<10.0	mg/Kg	10	8/27/98	4798	5122

Date: 9-29-98
Page # 14
Order ID Number: 9808000400

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Boron		<10	mg/Kg	10	8/27/98	4797	5120
Cobalt		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Molybdenum		<1.0	mg/Kg	1.0	8/27/98	4797	5120
Nickel		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Total Phenol		<0.25	mg/Kg	0.25	8/26/98		5110
PCB		<0.1	mg/Kg	0.1	8/26/98	4796	5112
Fluoride		<0.2	mg/Kg	0.2	9/2/98		5192
Nitrate		<0.2	mg/Kg	0.2	9/2/98		5192
Chloride		<1.0	mg/Kg	1.0	9/2/98		5192
Sulfate		<1.0	mg/Kg	1.0	9/2/98		5192

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	mg/L	110	110	8/24/98	5082
1,1-Dichloroethene		100	mg/L	90	90	8/24/98	5082
Chloroform		100	mg/L	109	109	8/24/98	5082
1,2-Dichloropropane		100	mg/L	92	92	8/24/98	5082
Toluene		100	mg/L	96	96	8/24/98	5082
[illegible]hlorobenzene		100	mg/L	98	98	8/24/98	5082
[illegible]thylbenzene		100	mg/L	100	100	8/24/98	5082
Phenol		80	mg/L	82	103	9/10/98	5276
1,4-Dichlorobenzene		80	mg/L	82	100	9/10/98	5276
2-nitrophenol		80	mg/L	86	108	9/10/98	5276
2,4-Dichlorophenol		80	mg/L	89	111	9/10/98	5276
Hexachlorobutadiene		80	mg/L	85	106	9/10/98	5276
4-Chloro-3-methylphenol		80	mg/L	75	94	9/10/98	5276
2,4,6-Trichlorophenol		80	mg/L	80	100	9/10/98	5276
Acenaphthene		80	mg/L	82	103	9/10/98	5276
n-Nitrosodiphenylamine		80	mg/L	77	96	9/10/98	5276
Pentachlorophenol		80	mg/L	80	100	9/10/98	5276
Fluoranthene		80	mg/L	75	94	9/10/98	5276
Di-n-octylphthalate		80	mg/L	95	119	9/10/98	5276
Benzo(a)pyrene		80	mg/L	84	105	9/10/98	5276
Phenol		80	mg/L	78	98	9/16/98	5363
1,4-Dichlorobenzene		80	mg/L	73	91	9/16/98	5363
2-nitrophenol		80	mg/L	75	94	9/16/98	5363
2,4-Dichlorophenol		80	mg/L	79	99	9/16/98	5363
Hexachlorobutadiene		80	mg/L	74	93	9/16/98	5363
4-Chloro-3-methylphenol		80	mg/L	66	83	9/16/98	5363
2,4,6-Trichlorophenol		80	mg/L	78	98	9/16/98	5363
Acenaphthene		80	mg/L	82	103	9/16/98	5363
n-Nitrosodiphenylamine		80	mg/L	69	86	9/16/98	5363
Pentachlorophenol		80	mg/L	69	86	9/16/98	5363
Fluoranthene		80	mg/L	64	80	9/16/98	5363
[illegible]i-n-octylphthalate		80	mg/L	65	81	9/16/98	5363
[illegible]enzo(a)pyrene		80	mg/L	73	91	9/16/98	5363

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
pH		7.0	s.u.	7.0	100	8/24/98	5085
Cyanide		0.12	mg/L	0.11	92	8/24/98	5087
TRPHC		100	mg/L	104	104	8/22/98	5045
TDS		1,000	mg/L	978	98	9/10/98	5273
Arsenic		1.0	mg/L	0.98	98	8/27/98	5120
Barium		1.0	mg/L	1.0	100	8/27/98	5120
Cadmium		1.0	mg/L	0.97	97	8/27/98	5120
Chromium		1.0	mg/L	1.0	100	8/27/98	5120
Lead		1.0	mg/L	0.98	98	8/27/98	5120
Total Mercury		1.0	mg/L	1.1	110	8/25/98	5101
Selenium		1.0	mg/L	0.98	98	8/27/98	5120
Silver		0.2	mg/L	0.20	100	8/27/98	5120
Uranium		1.0	mg/L	1.0	100	8/27/98	5120
Copper		1.0	mg/L	1.0	100	8/27/98	5120
Iron		50	mg/L	52	104	8/27/98	5122
Manganese		1.0	mg/L	1.0	100	8/27/98	5120
Zinc		1.0	mg/L	0.99	99	8/27/98	5120
[illegible]inum		100	mg/L	103	103	8/27/98	5122
[illegible]on		1.0	mg/L	1.0	100	8/27/98	5120
Cobalt		1.0	mg/L	0.99	99	8/27/98	5120
Molybdenum		1.0	mg/L	0.99	99	8/27/98	5120
Nickel		1.0	mg/L	0.97	97	8/27/98	5120
Total Phenol		0.8	mg/L	0.80	100	8/26/98	5110
PCB		0.4	mg/L	0.38	95	8/26/98	5112
Fluoride		2.5	mg/L	2.45	98	9/2/98	5192
Nitrate		5	mg/L	5.06	101	9/2/98	5192
Chloride		12.5	mg/L	11.905	95	9/2/98	5192
Sulfate		12.5	mg/L	12.735	102	9/2/98	5192

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 17

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	1.0	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Cyanide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.11	92	8.3	8/24/98		5087
1,1-Dichloroethene		mg/Kg	<1	100	81	81	100	98	98	19	8/24/98		5082
Benzene		mg/Kg	<1	100	86	86	100	93	93	7.8	8/24/98		5082
Trichloroethene		mg/Kg	<1	100	93	93	100	90	90	3.3	8/24/98		5082
Toluene		mg/Kg	<1	100	88	88	100	101	101	14	8/24/98		5082
Chlorobenzene		mg/Kg	<1	100	93	93	100	93	93	0	8/24/98		5082
TRPHC			<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
Phenol		mg/Kg	<0.25	10.00	4.17	42	10.00	4.38	44	4.7	9/10/98	4829	5276
2-Chlorophenol		mg/Kg	<1.25	10.00	3.72	37	10.00	3.88	38	2.7	9/10/98	4829	5276
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	3.89	39	10.00	4.06	41	5.0	9/10/98	4829	5276
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.23	52	10.00	5.54	55	5.6	9/10/98	4829	5276
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.9	49	10.00	5.05	51	4.0	9/10/98	4829	5276
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	4.28	43	10.00	4.49	45	4.6	9/10/98	4829	5276
Acenaphthene		mg/Kg	<0.25	10.00	4.88	49	10.00	4.93	49	0	9/10/98	4829	5276
4-Nitrophenol		mg/Kg	<1.25	10.00	4.54	45	10.00	5.34	53	16	9/10/98	4829	5276
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5	50	10.00	5.16	52	3.9	9/10/98	4829	5276
Pentachlorophenol		mg/Kg	<1.25	10.00	3.31	33	10.00	3.59	36	8.7	9/10/98	4829	5276
Pyrene		mg/Kg	<0.25	10.00	6.32	63	10.00	6.25	63	0	9/10/98	4829	5276
Phenol		mg/Kg	<0.25	10.00	5.43	54	10.00	5.33	53	1.9	9/16/98	4885	5363
2-Chlorophenol		mg/Kg	<1.25	10.00	5.11	51	10.00	5.11	51	0	9/16/98	4885	5363
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	5.91	59	10.00	5.9	59	0.0	9/16/98	4885	5363
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.98	80	10.00	7.71	77	3.8	9/16/98	4885	5363
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.11	61	10.00	6.06	61	0.0	9/16/98	4885	5363
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	4.29	43	10.00	4.92	49	13	9/16/98	4885	5363
Acenaphthene		mg/Kg	<0.25	10.00	6.64	66	10.00	6.49	65	1.5	9/16/98	4885	5363
4-Nitrophenol		mg/Kg	<1.25	10.00	4.8	48	10.00	4.26	43	11	9/16/98	4885	5363
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	6.05	61	10.00	5.97	60	1.7	9/16/98	4885	5363
Pentachlorophenol		mg/Kg	<1.25	10.00	3.41	34	10.00	3.11	31	9.2	9/16/98	4885	5363
Pyrene		mg/Kg	<0.25	10.00	6.09	61	10.00	6.08	61	0	9/16/98	4885	5363
Arsenic		mg/Kg	<0.50	200	160	80	200	162	81	1.2	8/27/98	4797	5120
Barium		mg/Kg	<0.50	200	195	98	200	199	100	2.0	8/27/98	4797	5120
Cadmium		mg/Kg	<0.10	200	164	82	200	164	82	0	8/27/98	4797	5120
Chromium		mg/Kg	<0.50	200	177	89	200	176	88	1.1	8/27/98	4797	5120

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Lead		mg/Kg	<0.50	200	170	85	200	170	85	0	8/27/98	4797	5120
Total Mercury		mg/Kg	<0.10	1	1.2	120	1	1.2	120	0	8/23/98	4765	5101
Selenium		mg/Kg	<0.50	200	150	75	200	150	75	0	8/27/98	4797	5120
Silver		mg/Kg	<0.50	100	88	88	100	84	84	4.7	8/27/98	4797	5120
Uranium		mg/Kg	<2.0	200	174	87	200	198	99	13	8/27/98	4797	5120
Copper		mg/Kg	<1.0	200	181	91	200	179	90	1.1	8/27/98	4797	5120
Iron		mg/Kg	<2.0	200	204	102	200	208	104	1.9	8/27/98	4798	5122
Manganese		mg/Kg	<1.0	200	174	87	200	175	88	1.1	8/27/98	4797	5120
Zinc		mg/Kg	<2.0	200	160	80	200	162	81	1.2	8/27/98	4797	5120
Aluminum		mg/Kg	<10.0	200	194	97	200	194	84	14	8/27/98	4798	5122
Boron		mg/Kg	<10	200	162	81	200	162	81	0	8/27/98	4797	5120
Cobalt		mg/Kg	<0.50	200	172	86	200	168	84	2.4	8/27/98	4797	5120
Molybdenum		mg/Kg	<1.0	200	179	90	200	175	88	2.2	8/27/98	4797	5120
Nickel		mg/Kg	<0.50	200	168	84	200	168	84	0	8/27/98	4797	5120
Total Phenol		mg/Kg	<0.25	0.8	0.8	100	0.8	0.81	101	1.0	8/26/98		5110
PCB		mg/Kg	<0.1	0.5	0.48	96	0.5	0.46	92	4.3	8/26/98	4796	5112

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000400

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
Ph		s.u.	4.6	4.7	2.2	8/24/98		5085
TDS		mg/kg	880	864	1.8	9/10/98		5273

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105740	Field Blank	8/19/98	15:30	8/21/98
105741	Trip Blank			8/21/98
[illegible]742	TMW-1 2-3'	8/19/98	8:30	8/21/98
[illegible]743	TMW-1 63-65'	8/19/98	15:00	8/21/98
105744	TMW-1A 63-65'	8/19/98	15:00	8/21/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
[illegible]1-dichloroethylene		<1	ug/L	1	9/1/98		5183
[illegible]chloropropenes		<1	ug/L	1	9/1/98		5183
Ethylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	9/3/98		5205
Acrylonitrile		<125	ug/Kg	125	9/3/98		5205
Benzene		<25	ug/Kg	25	9/3/98		5205
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5205
[illegible]lorobenzene		<25	ug/Kg	25	9/3/98		5205

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Chloroform		<25	ug/Kg	25	9/3/98		5205
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5205
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5205
Dichloropropenes		<25	ug/Kg	25	9/3/98		5205
Ethylbenzene		<25	ug/Kg	25	9/3/98		5205
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5205
Bromomethane		<125	ug/Kg	125	9/3/98		5205
Chloromethane		<25	ug/Kg	25	9/3/98		5205
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5205
Dichloromethane		<25	ug/Kg	25	9/3/98		5205
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5205
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5205
[redacted]ene		<25	ug/Kg	25	9/3/98		5205
[redacted]hloroethylene		<25	ug/Kg	25	9/3/98		5205
Vinyl chloride		<25	ug/Kg	25	9/3/98		5205
m,p-xylene		<25	ug/Kg	25	9/3/98		5205
o-xylene		<25	ug/Kg	25	9/3/98		5205
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5205
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5205
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5205
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5205
Methylene chloride		<125	ug/Kg	125	9/3/98		5205
Surr. Dibromofluoromethane		101	%	72-130	9/3/98		5205
Surr. Toluene-d8		99	%	77-127	9/3/98		5205
Surr. 4-Bromofluorobenzene		102	%	72-131	9/3/98		5205
Total Mercury		<0.10	mg/Kg	<0.10	8/25/98	4765	5101
Cyanide		<0.01	mg/Kg	0.01	8/24/98		5087
Phenolics		<0.01	mg/kg	0.01	8/26/98		5110
Fluoride		<0.1	mg/kg	0.1	9/2/98		5192
Nitrate		<0.1	mg/kg	0.1	9/2/98		5192
Chloride		<0.5	mg/kg	0.5	9/2/98		5192
Sulfate		<0.5	mg/kg	0.5	9/2/98		5192
Fluoride		<0.1	mg/kg	0.1	9/9/98		5251
Nitrate		<0.1	mg/kg	0.1	9/9/98		5251
Arsenic		<0.50	mg/kg	0.5	9/4/98		5208
Barium		<0.50	mg/kg	0.5	9/4/98		5208
Cadmium		<0.10	mg/kg	0.5	9/4/98		5208
Chromium		<0.50	mg/kg	0.5	9/4/98		5208
[redacted]ad		<0.50	mg/kg	0.5	9/4/98		5208
[redacted]enium		<0.50	mg/kg	0.5	9/4/98		5208

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Silver		<0.50	mg/kg	0.5	9/4/98		5208
Uranium		<2.0	mg/kg	2.0	9/4/98		5208
Copper		<1.0	mg/kg	1.0	9/4/98		5208
Iron		<10	mg/kg	10	9/17/98		5372
Manganese		<1.0	mg/kg	1.0	9/4/98		5208
Zinc		<2.0	mg/kg	2.0	9/4/98		5208
Aluminum		<10	mg/kg	10	9/17/98		5372
Boron		<10	mg/kg	10	9/4/98		5208
Cobalt		<0.50	mg/kg	0.5	9/4/98		5208
Molybdenum		<1.0	mg/kg	1.0	9/4/98		5208
Nickel		<0.50	mg/kg	0.5	9/4/98		5208
PCB		<0.1	mg/kg	0.1	9/3/98	4795	5204
TRPHC		<10.0	mg/kg	10	8/22/98	4743	5045
Chloride		<2.0	mg/kg	2.0	9/16/98		5360
Sulfate		<1.0	mg/kg	1.0	9/19/98		5484
Benzidine		<2.5	mg/kg	2.5	9/10/98	4829	5276
Hexachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachloroethane		<0.25	mg/kg	0.25	9/10/98	4829	5276
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diphenylhydrazine		<1.25	mg/kg	1.25	9/10/98	4829	5276
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Isophorone		<1.25	mg/kg	1.25	9/10/98	4829	5276
Nitrobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/10/98	4829	5276
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/10/98	4829	5276
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
Dibutyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Dimethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Anthracene		<0.25	mg/kg	0.25	9/10/98	4829	5276
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluorene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Phenanthrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Naphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
1-methylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
2-methylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Surr. 2-Fluorophenol		42	%	25-121	9/10/98	4829	5276
Surr. Phenol-d6		51	%	24-113	9/10/98	4829	5276
Surr. Nitroobenzene-d5		32	%	23-120	9/10/98	4829	5276
Surr. 2-Fluorobiphenyl		51	%	30-115	9/10/98	4829	5276
Surr. 2,4,6-Tribromophenol		47	%	19-122	9/10/98	4829	5276
Surr. Terphenyl-d14		59	%	28-137	9/10/98	4829	5276

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	ug/L	104	104	9/3/98	5205
1,1-Dichloroethene		100	ug/L	119	119	9/3/98	5205
Chloroform		100	ug/L	112	112	9/3/98	5205
1,2-Dichloropropane		100	ug/L	106	106	9/3/98	5205
Toluene		100	ug/L	115	115	9/3/98	5205
Ethylbenzene		100	ug/L	112	112	9/3/98	5205
Cyanide		0.12	mg/L	0.11	92	8/24/98	5087
Total Mercury		1.0	mg/L	1.0	100	8/25/98	5101
Phenolics		0.8	mg/L	0.8	100	8/26/98	5110
Fluoride		2.5	mg/L	2.51	100	9/2/98	5192
Nitrate		5.0	mg/L	5.055	101	9/2/98	5192
Chloride		12.5	mg/L	12.02	96	9/2/98	5192
Sulfate		12.5	mg/L	12.755	102	9/2/98	5192
Fluoride		2.5	mg/L	2.42	97	9/9/98	5251
Nitrate		5.0	mg/L	4.765	95	9/9/98	5251
Arsenic		1.0	mg/L	1.0	100	9/4/98	5208
Barium		1.0	mg/L	1.0	100	9/4/98	5208
Cadmium		1.0	mg/L	0.98	98	9/4/98	5208
Chromium		1.0	mg/L	1.0	100	9/4/98	5208
Lead		1.0	mg/L	0.97	97	9/4/98	5208
Selenium		1.0	mg/L	1.0	100	9/4/98	5208
Silver		0.2	mg/L	0.20	100	9/4/98	5208
Uranium		1.0	mg/L	1.0	100	9/4/98	5208
Copper		1.0	mg/L	1.0	100	9/4/98	5208
Iron		100.0	mg/L	102.0	102	9/17/98	5372
Manganese		1.0	mg/L	1.0	100	9/4/98	5208
Zinc		1.0	mg/L	0.96	96	9/4/98	5208
Aluminum		250.0	mg/L	258.0	103	9/17/98	5372
Boron		1.0	mg/L	1.0	100	9/4/98	5208

Order ID Number: 9808000435

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cobalt		1.0	mg/L	1.0	100	9/4/98	5208
Molybdenum		1.0	mg/L	1.0	100	9/4/98	5208
Nickel		1.0	mg/L	1.0	100	9/4/98	5208
PCB		0.4	mg/L	0.45	113	9/3/98	5204
TRPHC		100	mg/L	104	104	8/22/98	5045
TDS		1000	mg/L	978	98	9/10/98	5273
Chloride		500	mg/L	499	100	9/16/98	5360
Sulfate		12.5	mg/L	13.195	106	9/19/98	5484
Phenol		80	mg/L	82	103	9/10/98	5276
1,4-Dichlorobenzene		80	mg/L	82	100	9/10/98	5276
2-nitrophenol		80	mg/L	86	108	9/10/98	5276
2,4-Dichlorophenol		80	mg/L	89	111	9/10/98	5276
Hexachlorobutadiene		80	mg/L	85	106	9/10/98	5276
4-Chloro-3-methylphenol		80	mg/L	75	94	9/10/98	5276
2,4,6-Trichlorophenol		80	mg/L	80	100	9/10/98	5276
Acenaphthene		80	mg/L	82	103	9/10/98	5276
[redacted]itrosodiphenylamine		80	mg/L	77	96	9/10/98	5276
[redacted]ntachlorophenol		80	mg/L	80	100	9/10/98	5276
Fluoranthene		80	mg/L	75	94	9/10/98	5276
Di-n-octylphthalate		80	mg/L	95	119	9/10/98	5276
Benzo(a)pyrene		80	mg/L	84	105	9/10/98	5276

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	9.4	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
1,1-Dichloroethene		mg/Kg	<25	100	98	98	100	95	95	3.1	9/3/98		5205
Benzene		mg/Kg	<25	100	102	102	100	104	104	1.9	9/3/98		5205
Trichloroethene		mg/Kg	<25	100	108	108	100	108	108	0	9/3/98		5205
Toluene		mg/Kg	<25	100	100	100	100	101	101	1.0	9/3/98		5205
hlorobenzene		mg/Kg	<25	100	88	88	100	87	87	1.1	9/3/98		5205
anide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.11	92	8.3	8/24/98		5087
Total Mercury		mg/kg	<0.10	1.0	1.2	120	1.0	1.2	120	0	8/25/98	4765	5101
Phenolics		mg/kg	<0.01	0.8	0.79	99	0.8	0.8	100	1	8/26/98		5110
Fluoride		mg/kg	0.42	2.5	2.80	95	2.5	2.84	97	1.0	9/2/98		5192
Nitrate		mg/kg	1.0	5.0	5.91	98	5.0	5.89	98	0	9/2/98		5192
Chloride		mg/kg	41	12.5	51.42	83	12.5	52.56	92	10	9/2/98		5192
Sulfate		mg/kg	4.55	12.5	17.21	101	12.5	17.21	101	0	9/2/98		5192
Fluoride		mg/kg	1.05	2.5	3.21	86	2.5	3.25	88	2.3	9/3/98		5251
Nitrate		mg/kg	0.75	5.0	5.46	94	5.0	5.44	94	0.0	9/3/98		5251
Chloride		mg/kg	2,400	50000	57211	110	50000	57017	109	1.1	9/16/98		5360
Sulfate		mg/kg	9.36	25	35.63	105	25	36.25	108	2.8	9/19/98		5424
Arsenic		mg/kg	0.68	200	171	85	200	169	84	1.2	9/4/98		5208
Barium		mg/kg	150	200	328	89	200	323	87	2.3	9/4/98		5208
Cadmium		mg/kg	<0.10	200	163	82	200	163	82	0	9/4/98		5208
Chromium		mg/kg	<0.50	200	178	89	200	175	88	1.1	9/4/98		5208
Lead		mg/kg	<0.50	200	166	83	200	164	82	1.2	9/4/98		5208
Selenium		mg/kg	<0.50	200	150	75	200	150	75	0	9/4/98		5208
Silver		mg/kg	<0.50	100	88	88	100	82	82	7.1	9/4/98		5208
Uranium		mg/kg	<0.50	200	196	98	200	199	100	2	9/4/98		5208
Copper		mg/kg	<0.50	200	185	93	200	190	95	2.1	9/4/98		5208
Iron		mg/kg	<10	200	153	77	200	150	75	2.6	9/17/98	4848	5372
Manganese		mg/kg	<0.50	200	183	92	200	179	90	2.2	9/4/98		5208
Zinc		mg/kg	<0.50	200	156	78	200	153	77	1.3	9/4/98		5208
Aluminum		mg/kg	<10	200	172	86	200	170	85	1.2	9/17/98	4848	5372
Boron		mg/kg	<0.50	200	162	81	200	159	80	1.2	9/4/98		5208
Cobalt		mg/kg	<0.50	200	175	88	200	175	88	0	9/4/98		5208
Molybdenum		mg/kg	<0.50	200	186	93	200	184	88	5.5	9/4/98		5208
Nickel		mg/kg	<0.50	200	173	87	200	173	92	5.6	9/4/98		5208
CB		mg/kg	<1.0	0.5	0.45	90	0.5	0.48	87	3.4	9/3/98	4795	5204

Order ID Number: 9808000435

ject Number: 19350
Project Name: Shell Tasker Road
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
TRPHC		mg/kg	<10.0	250	276	110	250	235	96	14	8/22/98	4743	5045
Phenol		mg/Kg	<0.25	10.00	4.17	42	10.00	4.38	44	4.7	9/10/98	4829	5276
2-Chlorophenol		mg/Kg	<1.25	10.00	3.72	37	10.00	3.88	38	2.7	9/10/98	4829	5276
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	3.89	39	10.00	4.06	41	5.0	9/10/98	4829	5276
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	5.23	52	10.00	5.54	55	5.6	9/10/98	4829	5276
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.9	49	10.00	5.05	51	4.0	9/10/98	4829	5276
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	4.28	43	10.00	4.49	45	4.6	9/10/98	4829	5276
Acenaphthene		mg/Kg	<0.25	10.00	4.88	49	10.00	4.93	49	0	9/10/98	4829	5276
4-Nitrophenol		mg/Kg	<1.25	10.00	4.54	45	10.00	5.34	53	16	9/10/98	4829	5276
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	5	50	10.00	5.16	52	3.9	9/10/98	4829	5276
Pentachlorophenol		mg/Kg	<1.25	10.00	3.31	33	10.00	3.59	36	8.7	9/10/98	4829	5276
Pyrene		mg/Kg	<0.25	10.00	6.32	63	10.00	6.25	63	0	9/10/98	4829	5276

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000435

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	9.5	9.6	1.0	8/25/98		5104
TDS		mg/kg	880	864	1.8	9/10/98		5273

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98
Page # 1

Project Number: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM

Order ID Number: 9808000186

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
104631	Field Blank	8/10/98	15:00	8/11/98
104632	Trip Blank			8/11/98
[illegible]33	MW-7 48-50'	8/10/98	11:13	8/11/98
[illegible]634	MW-7 63-65'	8/10/98	13:56	8/11/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000186

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/13/98		4865
Acrylonitrile		<5	ug/L	5	8/13/98		4865
Benzene		<1	ug/L	1	8/13/98		4865
Carbon tetrachloride		<1	ug/L	1	8/13/98		4865
Chlorobenzene		<1	ug/L	1	8/13/98		4865
1,2-dichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/13/98		4865
1,1,1-trichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2-trichloroethane		<1	ug/L	1	8/13/98		4865
1,1,2-trichloroethylene		<1	ug/L	1	8/13/98		4865
Chloroform		<1	ug/L	1	8/13/98		4865
Dichlorobenzene		<2	ug/L	2	8/13/98		4865
1,1-dichloroethylene		<1	ug/L	1	8/13/98		4865
Dichloropropenes		<1	ug/L	1	8/13/98		4865
Ethylbenzene		<1	ug/L	1	8/13/98		4865
Bromodichloromethane		<1	ug/L	1	8/13/98		4865
Bromomethane		<5	ug/L	5	8/13/98		4865
Chloromethane		<1	ug/L	1	8/13/98		4865
Dichlorodifluoromethane		<1	ug/L	1	8/13/98		4865
Dichloromethane		<1	ug/L	1	8/13/98		4865
Trichlorofluoromethane		<1	ug/L	1	8/13/98		4865
Tetrachloroethylene		<1	ug/L	1	8/13/98		4865
Toluene		<1	ug/L	1	8/13/98		4865
Trichloroethylene		<1	ug/L	1	8/13/98		4865
Vinyl chloride		<1	ug/L	1	8/13/98		4865
m,p-xylene		<1	ug/L	1	8/13/98		4865
o-xylene		<1	ug/L	1	8/13/98		4865
1,1-dichloroethane		<1	ug/L	1	8/13/98		4865
Ethylene dibromide		<1	ug/L	1	8/13/98		4865
cis-1,2-dichlorethylene		<1	ug/L	1	8/13/98		4865
trans-1,2-dichloroethylene		<1	ug/L	1	8/13/98		4865
Methylene chloride		<5	ug/L	5	8/13/98		4865
Surr. Dibromofluoromethane		107	%	72-130	8/13/98		4865
Surr. Toluene-d8		112	%	77-127	8/13/98		4865
Surr. 4-Bromofluorobenzene		110	%	72-131	8/13/98		4865
Acrolein		<125	ug/Kg	125	8/13/98		4869
Acrylonitrile		<125	ug/Kg	125	8/13/98		4869
Benzene		<25	ug/Kg	25	8/13/98		4869
Carbon tetrachloride		<25	ug/Kg	25	8/13/98		4869

Project Number: 19349
Order ID Number: 9808000186
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Chlorobenzene		<25	ug/Kg	25	8/13/98		4869
1,2-dichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,1-trichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2-trichloroethane		<25	ug/Kg	25	8/13/98		4869
1,1,2-trichloroethylene		<25	ug/Kg	25	8/13/98		4869
Chloroform		<25	ug/Kg	25	8/13/98		4869
Dichlorobenzene		<50	ug/Kg	50	8/13/98		4869
1,1-dichloroethylene		<25	ug/Kg	25	8/13/98		4869
Dichloropropenes		<25	ug/Kg	25	8/13/98		4869
Ethylbenzene		<25	ug/Kg	25	8/13/98		4869
Bromodichloromethane		<25	ug/Kg	25	8/13/98		4869
Bromomethane		<25	ug/Kg	25	8/13/98		4869
Chloromethane		<25	ug/Kg	25	8/13/98		4869
Dichlorodifluoromethane		<25	ug/Kg	25	8/13/98		4869
Dichloromethane		<25	ug/Kg	25	8/13/98		4869
Trichlorofluoromethane		<25	ug/Kg	25	8/13/98		4869
Tetrachloroethylene		<25	ug/Kg	25	8/13/98		4869
[redacted]ene		<25	ug/Kg	25	8/13/98		4869
[redacted]loroethylene		<25	ug/Kg	25	8/13/98		4869
Vinyl chloride		<25	ug/Kg	25	8/13/98		4869
m,p-xylene		<25	ug/Kg	25	8/13/98		4869
o-xylene		<25	ug/Kg	25	8/13/98		4869
1,1-dichloroethane		<25	ug/Kg	25	8/13/98		4869
Ethylene dibromide		<25	ug/Kg	25	8/13/98		4869
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/13/98		4869
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/13/98		4869
Methylene chloride		<125	ug/Kg	125	8/13/98		4869
Surr. Dibromofluoromethane		120	%	71-132	8/13/98		4869
Surr. Toluene-d8		116	%	82-124	8/13/98		4869
Surr. 4-Bromofluorobenzene		118	%	76-126	8/13/98		4869
Total Mercury		<0.25	mg/Kg	0.25	8/13/98	4715	4866
PCB		<0.1	mg/Kg	0.1	8/20/98	4741	5026
Cyanide		<0.01	mg/Kg	0.0	8/20/98		5028
TRPHC		<10.0	mg/Kg	10.0	8/22/98	4743	5045
Benzidine		<2.5	mg/Kg	2.5	8/25/98	4721	5105
Hexachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pentachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Hexachloroethane		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2,4-dichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105

Project Number: 19349
Order ID Number: 9808000186
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	8/25/98	4721	5105
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Diphenylhydrazine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Hexachlorobutadiene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Isophorone		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Nitrobenzene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2,4-dinitro-o-cresol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
2,4-dinitrophenols		<1.25	mg/Kg	1.25	8/25/98	4721	5105
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	8/25/98	4721	5105
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pentachlorophenol		<1.25	mg/Kg	1.25	8/25/98	4721	5105
Phenol		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Dibutyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
[redacted](2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
[redacted]ethyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Dimethyl phthalate		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Anthracene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Fluoranthene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Fluorene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Phenanthrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Pyrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Naphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
1-methylnaphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
2-methylnaphthalene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Benzo-a-pyrene		<0.25	mg/Kg	0.25	8/25/98	4721	5105
monomethylnaphthalenes		<0.25	mg/Kg	0.25	8/25/98	4721	5105
Surr. 2-Fluorophenol		52	%	25-121	8/25/98	4721	5105
Surr. Phenol-d6		61	%	24-113	8/25/98	4721	5105
Surr. Nitroobenzene-d5		55	%	23-120	8/25/98	4721	5105
Surr. 2-Fluorobiphenyl		62	%	30-115	8/25/98	4721	5105
Surr. 2,4,6-Tribromophenol		86	%	19-122	8/25/98	4721	5105
Surr. Terphenyl-d14		67	%	28-137	8/25/98	4721	5105
Arsenic		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Barium		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Cadmium		<0.10	mg/Kg	0.10	8/12/98	4718	5090
Chromium		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Lead		<0.50	mg/Kg	0.50	8/12/98	4718	5090
[redacted]Selenium		<0.50	mg/Kg	0.50	8/12/98	4718	5090
[redacted]ver		<0.50	mg/Kg	0.50	8/12/98	4718	5090

Order ID Number: 9808000186

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Uranium		<1.0	mg/Kg	1.0	8/12/98	4718	5090
Copper		<1.0	mg/Kg	1.0	8/12/98	4718	5090
Iron		<10	mg/Kg	10	8/12/98	4718	5090
Manganese		<1.0	mg/Kg	1.0	8/12/98	4718	5090
Zinc		<2.0	mg/Kg	2.0	8/12/98	4718	5090
Aluminum		<10	mg/Kg	10	8/12/98	4718	5090
Boron		<10	mg/Kg	10	8/12/98	4718	5090
Cobalt		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Molybdenum		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Nickel		<0.50	mg/Kg	0.50	8/12/98	4718	5090
Total Phenols		<0.25	mg/Kg	0.25	8/19/98		5015
Fluoride		<0.2	mg/Kg	0.2	8/25/98		5096
Nitrate		<0.2	mg/Kg	0.2	8/25/98		5096
Chloride		<1.0	mg/Kg	1	8/25/98		5096
Sulfate		<1.0	mg/Kg	1	8/25/98		5096

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000186

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	110	110	8/13/98	4865
1,1-Dichloroethene		100	ug/L	105	105	8/13/98	4865
Chloroform		100	ug/L	118	118	8/13/98	4865
1,2-Dichloropropane		100	ug/L	118	118	8/13/98	4865
Toluene		100	ug/L	120	120	8/13/98	4865
Chlorobenzene		100	ug/L	118	118	8/13/98	4865
Ethylbenzene		100	ug/L	116	116	8/13/98	4865
Vinyl chloride		100	ug/L	118	118	8/13/98	4869
1,1-Dichloroethene		100	ug/L	116	116	8/13/98	4869
Chloroform		100	ug/L	114	114	8/13/98	4869
1,2-Dichloropropane		100	ug/L	114	114	8/13/98	4869
[illegible]oluene		100	ug/L	117	117	8/13/98	4869
[illegible]hlorobenzene		100	ug/L	114	114	8/13/98	4869
Ethylbenzene		100	ug/L	117	117	8/13/98	4869
Total Mercury		5.0	mg/L	4.90	98	8/13/98	4866
PCB		0.40	mg/L	0.44	110	8/20/98	5026
Cyanide		0.12	mg/L	0.10	83	8/20/98	5028
TRPHC		<10.0	mg/L	104.000	104	8/22/98	5045
Phenol		80	mg/L	89	111	8/25/98	5105
1,4-Dichlorobenzene		80	mg/L	85	106	8/25/98	5105
2-nitrophenol		80	mg/L	84	105	8/25/98	5105
2,4-Dichlorophenol		80	mg/L	87	109	8/25/98	5105
Hexachlorobutadiene		80	mg/L	87	109	8/25/98	5105
4-Chloro-3-methylphenol		80	mg/L	84	105	8/25/98	5105
2,4,6-Trichlorophenol		80	mg/L	85	107	8/25/98	5105
Acenaphthene		80	mg/L	83	104	8/25/98	5105
n-Nitrosodiphenylamine		80	mg/L	85	107	8/25/98	5105
Pentachlorophenol		80	mg/L	89	111	8/25/98	5105
Fluoranthene		80	mg/L	84	105	8/25/98	5105
Di-n-octylphthalate		80	mg/L	81	101	8/25/98	5105
Benzo(a)pyrene		80	mg/L	84	105	8/25/98	5105
Arsenic		1.0	mg/L	1.0	100	8/24/98	5090
Barium		1.0	mg/L	0.97	97	8/24/98	5090
Cadmium		1.0	mg/L	1.0	100	8/24/98	5090
Chromium		1.0	mg/L	1.0	100	8/24/98	5090
Lead		1.0	mg/L	1.0	100	8/24/98	5090
Selenium		1.0	mg/L	1.0	100	8/24/98	5090
Silver		0.2	mg/L	0.2	100	8/24/98	5090
[illegible]anium		1.0	mg/L	0.99	99	8/24/98	5090

Order ID Number: 9808000186

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Copper		1.0	mg/L	0.99	99	8/24/98	5090
Iron		1.0	mg/L	1.0	100	8/24/98	5090
Manganese		1.0	mg/L	1.0	100	8/24/98	5090
Zinc		1.0	mg/L	1.0	100	8/24/98	5090
Aluminum		1.0	mg/L	1.0	100	8/24/98	5090
Boron		1.0	mg/L	1.0	100	8/24/98	5090
Cobalt		1.0	mg/L	1.0	100	8/24/98	5090
Molybdenum		1.0	mg/L	1.0	100	8/24/98	5090
Nickel		1.0	mg/L	1.0	100	8/24/98	5090
pH		7.0	mg/L	7.0	100	8/13/98	4870
TDS		1000	mg/L	1005	101	9/2/98	5195
Total Phenols		0.8	mg/L	0.81	101	8/19/98	5015
Fluoride		2.5	mg/L	2.325	93	8/25/98	5096
Nitrate		5	mg/L	4.605	92	8/25/98	5096
Chloride		12.5	mg/L	11.755	94	8/25/98	5096
Sulfate		12.5	mg/L	11.355	91	8/25/98	5096

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000186

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	109	109	100	109	109	0	8/13/98		4865
Benzene		ug/L	<1	100	111	111	100	105	105	5.6	8/13/98		4865
Trichloroethene		ug/L	<1	100	110	110	100	105	105	4.7	8/13/98		4865
Toluene		ug/L	<1	100	111	111	100	106	106	4.6	8/13/98		4865
Chlorobenzene		ug/L	<1	100	103	103	100	101	101	2.0	8/13/98		4865
1,1-Dichloroethene		ug/Kg	<25	100	85	85	100	92	92	7.9	8/13/98		4869
Benzene		ug/Kg	<25	100	90	90	100	95	95	5.4	8/13/98		4869
Trichloroethene		ug/Kg	<25	100	89	89	100	95	95	6.5	8/13/98		4869
[illegible]luene		ug/Kg	<25	100	91	91	100	96	96	5.3	8/13/98		4869
[illegible]lorobenzene		ug/Kg	<25	100	87	87	100	87	87	0.0	8/13/98		4869
Total Mercury		mg/Kg	<0.25	2.5	2.40	96	2.5	2.40	96	0	8/13/98	4715	4866
PCB		mg/Kg	<0.1	0.50	0.52	104	0.50	0.52	104	0	8/20/98	4741	5026
Cyanide		mg/Kg	<0.01	0.1	0.11	110	0.1	0.12	120	8.7	8/20/98		5028
trphc		mg/Kg	<10.0	250	276	110	250	235	94	16.0	8/22/98	4743	5045
Phenol		mg/Kg	<0.25	10.00	8.2	82	10.00	8.49	85	2.4	8/25/98	4721	5105
2-Chlorophenol		mg/Kg	<1.25	10.00	7.93	79	10.00	7.98	80	1.3	8/25/98	4721	5105
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.61	76	10.00	7.87	79	3.9	8/25/98	4721	5105
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	8.23	82	10.00	9.53	95	8.2	8/25/98	4721	5105
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.7	77	10.00	7.89	79	2.6	8/25/98	4721	5105
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	8.3	83	10.00	8.51	85	2.4	8/25/98	4721	5105
Acenaphthene		mg/Kg	<0.25	10.00	9.01	90	10.00	8.73	87	3.4	8/25/98	4721	5105
4-Nitrophenol		mg/Kg	<1.25	10.00	6.62	66	10.00	5.73	57	15	8/25/98	4721	5105
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	9.38	94	10.00	8.8	88	6.6	8/25/98	4721	5105
Pentachlorophenol		mg/Kg	<1.25	10.00	6.87	69	10.00	7.55	76	9.7	8/25/98	4721	5105
Pyrene		mg/Kg	<0.25	10.00	9.19	92	10.00	9.7	97	5.2	8/25/98	4721	5105
Arsenic		mg/Kg	<0.50	200	191	96	200	193	97	1.0	8/24/98	4718	5090
Barium		mg/Kg	<0.50	200	206	103	200	206	103	0	8/24/98	4718	5090
Cadmium		mg/Kg	<0.10	200	194	97	200	197	99	2.0	8/24/98	4718	5090
Chromium		mg/Kg	<0.50	200	205	103	200	207	103	0	8/24/98	4718	5090
Lead		mg/Kg	<0.50	200	194	97	200	197	99	2.0	8/24/98	4718	5090
Selenium		mg/Kg	<0.50	200	171	86	200	172	86	0	8/24/98	4718	5090
Silver		mg/Kg	<0.50	25	22	88	25	23	92	4.4	8/24/98	4718	5090
Uranium		mg/Kg	<1.0	200	192	96	200	192	96	0	8/24/98	4718	5090
Copper		mg/Kg	<1.0	200	209	105	200	210	105	0	8/24/98	4718	5090
Iron		mg/Kg	<10	250	269	108	250	275	110	1.8	8/24/98	4718	5090
Manganese		mg/Kg	<1.0	200	207	104	200	211	106	1.9	8/24/98	4718	5090
[illegible]inc		mg/Kg	<2.0	200	190	95	200	188	94	1.0	8/24/98	4718	5090
[illegible]minum		mg/Kg	<10	250	245	98	250	245	98	0	8/24/98	4718	5090

Date: 10-1-98
Page # 17
Order ID Number: 9808000186

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Boron		mg/Kg	<10	200	188	94	200	189	94	0	8/24/98	4718	5090
Cobalt		mg/Kg	<0.50	200	200	100	200	200	100	0	8/24/98	4718	5090
Molybdenum		mg/Kg	<0.50	200	205	103	200	208	104	1.0	8/24/98	4718	5090
Nickel		mg/Kg	<0.50	200	199	100	200	199	100	0	8/24/98	4718	5090
Total Phenols		mg/Kg	<0.25	0.80	0.76	95	0.80	0.77	96	1.0	8/19/98		5015
Fluoride		mg/Kg	0.4	2.5	2.55	86	2.5	2.68	91	5.6	8/25/98		5096
Nitrate		mg/Kg	0.65	5.0	5.05	88	5.0	5.1	89	1.1	8/25/98		5096
Chloride		mg/Kg	6.0	12.5	18.05	96	12.5	18.15	97	1.1	8/25/98		5096
Sulfate		mg/Kg	3.0	12.5	14.38	91	12.5	14.41	91	0	8/25/98		5096

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-1-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000186

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.9	8.9	0	8/13/98		4870
TDS		mg/Kg	530	544	2.6	9/2/98		5195

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
[illegible]142	Trip Blank			8/5/98
[illegible]143	Field Blank	7/30/98	17:30	8/5/98
104144	Trip Blank			8/5/98
104145	Field Blank	7/31/98	17:45	8/5/98
104146	CSS #8	7/30/98	13:55	8/5/98
104147	MW-3 53-55'	7/31/98	13:30	8/5/98
104148	MW-3 63-65'	7/31/98	14:25	8/5/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/6/98		4735
Acrylonitrile		<5	ug/L	5	8/6/98		4735
Benzene		<1	ug/L	1	8/6/98		4735
Carbon tetrachloride		<1	ug/L	1	8/6/98		4735
Chlorobenzene		<1	ug/L	1	8/6/98		4735
1,2-dichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/6/98		4735
1,1,1-trichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2-trichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2-trichloroethylene		<1	ug/L	1	8/6/98		4735
Chloroform		<1	ug/L	1	8/6/98		4735
Dichlorobenzene		<2	ug/L	2	8/6/98		4735
1,1-dichloroethylene		<1	ug/L	1	8/6/98		4735
Dichloropropenes		<1	ug/L	1	8/6/98		4735
Ethylbenzene		<1	ug/L	1	8/6/98		4735
Bromodichloromethane		<1	ug/L	1	8/6/98		4735
Bromomethane		<5	ug/L	5	8/6/98		4735
Chloromethane		<1	ug/L	1	8/6/98		4735
Dichlorodifluoromethane		<1	ug/L	1	8/6/98		4735
Dichloromethane		<1	ug/L	1	8/6/98		4735
Trichlorofluoromethane		<1	ug/L	1	8/6/98		4735
Tetrachloroethylene		<1	ug/L	1	8/6/98		4735
Toluene		<1	ug/L	1	8/6/98		4735
Trichloroethylene		<1	ug/L	1	8/6/98		4735
Vinyl chloride		<1	ug/L	1	8/6/98		4735
m,p-xylene		<1	ug/L	1	8/6/98		4735
o-xylene		<1	ug/L	1	8/6/98		4735
1,1-dichloroethane		<1	ug/L	1	8/6/98		4735
Ethylene dibromide		<1	ug/L	1	8/6/98		4735
cis-1,2-dichlorethylene		<1	ug/L	1	8/6/98		4735
trans-1,2-dichloroethylene		<1	ug/L	1	8/6/98		4735
Methylene chloride		<5	ug/L	5	8/6/98		4735
Surr. Dibromofluoromethane		95	%	72-130	8/6/98		4735
Surr. Toluene-d8		105	%	77-127	8/6/98		4735
Surr. 4-Bromofluorobenzene		102	%	72-131	8/6/98		4735
Acrolein		<125	ug/Kg	125	8/6/98		4736
Acrylonitrile		<125	ug/Kg	125	8/6/98		4736
Benzene		<25	ug/Kg	25	8/6/98		4736
Carbon tetrachloride		<25	ug/Kg	25	8/6/98		4736
Chlorobenzene		<25	ug/Kg	25	8/6/98		4736
1,2-dichloroethane		<25	ug/Kg	25	8/6/98		4736

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,1-trichloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,2-trichloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,2-trichloroethylene		<25	ug/Kg	25	8/6/98		4736
Chloroform		<25	ug/Kg	25	8/6/98		4736
Dichlorobenzene		<50	ug/Kg	50	8/6/98		4736
1,1-dichloroethylene		<25	ug/Kg	25	8/6/98		4736
Dichloropropenes		<25	ug/Kg	25	8/6/98		4736
Ethylbenzene		<25	ug/Kg	25	8/6/98		4736
Bromodichloromethane		<25	ug/Kg	25	8/6/98		4736
Bromomethane		<25	ug/Kg	25	8/6/98		4736
Chloromethane		<25	ug/Kg	25	8/6/98		4736
Dichlorodifluoromethane		<25	ug/Kg	25	8/6/98		4736
Dichloromethane		<25	ug/Kg	25	8/6/98		4736
Trichlorofluoromethane		<25	ug/Kg	25	8/6/98		4736
Tetrachloroethylene		<25	ug/Kg	25	8/6/98		4736
Toluene		<25	ug/Kg	25	8/6/98		4736
Trichloroethylene		<25	ug/Kg	25	8/6/98		4736
Vinyl chloride		<25	ug/Kg	25	8/6/98		4736
[redacted]xylene		<25	ug/Kg	25	8/6/98		4736
o-xylene		<25	ug/Kg	25	8/6/98		4736
1,1-dichloroethane		<25	ug/Kg	25	8/6/98		4736
Ethylene dibromide		<25	ug/Kg	25	8/6/98		4736
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/6/98		4736
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/6/98		4736
Methylene chloride		<125	ug/Kg	125	8/6/98		4736
Surr. Dibromofluoromethane		85	%	72-130	8/6/98		4736
Surr. Toluene-d8		99	%	77-127	8/6/98		4736
Surr. 4-Bromofluorobenzene		96	%	72-131	8/6/98		4736
PCB		<0.1	mg/Kg	0.1	8/10/98	4691	4805
Cyanide		<0.01	mg/Kg	0.01	8/11/98		4815
Total Mercury		<0.25	mg/Kg	0.25	8/11/98	4662	4812
Fluoride		<0.2	mg/Kg	0.2	8/13/98		4862
Nitrate		<0.2	mg/Kg	0.2	8/13/98		4862
Chloride		<1.0	mg/Kg	1.0	8/13/98		4862
Sulfate		<1.0	mg/Kg	1.0	8/13/98		4862
Chloride		<1.0	mg/Kg	1.0	8/17/98		4930
TRPHC		<10.0	mg/Kg	10	8/6/98	4663	4738
Arsenic		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Barium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Cadmium		<0.1	mg/Kg	0.1	8/20/98	4710	5030
Chromium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Lead		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Selenium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Silver		<0.05	mg/Kg	0.5	8/20/98	4710	5030
[redacted]nium		<1.0	mg/Kg	1.0	8/20/98	4710	5030
[redacted]pper		<1.0	mg/Kg	1.0	8/20/98	4710	5030
Iron		<2.0	mg/Kg	2.0	8/20/98	4710	5030
Manganese		<1.0	mg/Kg	1.0	8/20/98	4710	5030

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Zinc		<2.0	mg/Kg	2.0	8/20/98	4710	5030
Aluminum		<10	mg/Kg	10	8/20/98	4710	5030
Boron		<10	mg/Kg	10	8/20/98	4710	5030
Cobalt		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Molybdenum		<1.0	mg/Kg	1.0	8/20/98	4710	5030
Nickel		<0.05	mg/Kg	0.5	8/20/98	4710	5030
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
Total Phenols		<0.25	mg/Kg	0.25	8/11/98		4813
Benzidine		<2.5	mg/kg	2.5	9/18/98	4916	5412
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diphenylhydrazine		<1.25	mg/kg	1.25	9/18/98	4916	5412
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Isophorone		<1.25	mg/kg	1.25	9/18/98	4916	5412
Nitrobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	4916	5412
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	4916	5412
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Anthracene		<0.25	mg/kg	0.25	9/18/98	4916	5412
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluorene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
naphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Surr. 2-Fluorophenol		76	%	25-121	8/21/98	4650	5040
Surr. Phenol-d6		79	%	24-113	8/21/98	4650	5040
Surr. Nitroobenzene-d5		75	%	23-120	8/21/98	4650	5040
Surr. 2-Fluorobiphenyl		84	%	30-115	8/21/98	4650	5040
Surr. 2,4,6-Tribromophenol		92	%	19-122	8/21/98	4650	5040
Surr. Terphenyl-d14		109	%	28-137	8/21/98	4650	5040

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	100	100	8/6/98	4735
1,1-Dichloroethene		100	ug/L	94	94	8/6/98	4735
Chloroform		100	ug/L	97	97	8/6/98	4735
1,2-Dichloropropane		100	ug/L	120	120	8/6/98	4735
Toluene		100	ug/L	97	97	8/6/98	4735
Chlorobenzene		100	ug/L	92	92	8/6/98	4735
Ethylbenzene		100	ug/L	98	98	8/6/98	4735
Vinyl chloride		100	ug/L	100	100	8/6/98	4736
1,1-Dichloroethene		100	ug/L	94	94	8/6/98	4736
Chloroform		100	ug/L	97	97	8/6/98	4736
1,2-Dichloropropane		100	ug/L	120	120	8/6/98	4736
Toluene		100	ug/L	97	97	8/6/98	4736
Chlorobenzene		100	ug/L	92	92	8/6/98	4736
Ethylbenzene		100	ug/L	98	98	8/6/98	4736
PCB		0.40	mg/L	0.42	105	8/10/98	4805
Cyanide		0.12	mg/L	0.12	100	8/11/98	4815
Total Mercury		5.00	mg/L	4.75	95	8/11/98	4812
pH		7.0	mg/L	7.0	100	8/9/98	4775
Fluoride		2.5	mg/L	2.41	96	8/13/98	4862
Nitrate		5.0	mg/L	4.815	96	8/13/98	4862
Chloride		12.5	mg/L	11.86	95	8/13/98	4862
Sulfate		12.5	mg/L	12.55	100	8/13/98	4862
Chloride		12.5	mg/L	13.085	105	8/17/98	4930
TRPHC		100	mg/L	99	99	8/6/98	4738
Arsenic		1.0	mg/L	0.97	97	8/20/98	5030
Barium		1.0	mg/L	0.97	97	8/20/98	5030
Cadmium		1.0	mg/L	0.95	95	8/20/98	5030
Chromium		1.0	mg/L	0.96	96	8/20/98	5030
Lead		1.0	mg/L	0.95	95	8/20/98	5030
Selenium		1.0	mg/L	0.97	97	8/20/98	5030
Silver		0.2	mg/L	0.19	98	8/20/98	5030
Uranium		1.0	mg/L	0.97	97	8/20/98	5030
Copper		1.0	mg/L	0.99	99	8/20/98	5030
Iron		1.0	mg/L	1.0	100	8/20/98	5030
Manganese		1.0	mg/L	0.97	97	8/20/98	5030
Zinc		1.0	mg/L	0.95	95	8/20/98	5030
Aluminum		1.0	mg/L	0.97	97	8/20/98	5030
Boron		1.0	mg/L	0.97	97	8/20/98	5030

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Date: 10-6-98

Order ID Number: 9808000070

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cobalt		1.0	mg/L	0.98	98	8/20/98	5030
Molybdenum		1.0	mg/L	0.97	97	8/20/98	5030
Nickel		1.0	mg/L	0.99	99	8/20/98	5030
TRPHC		100	mg/L	104	104	8/22/98	5045
Total Phenols		0.80	mg/L	0.81	101	8/11/98	4813
TDS		1,000	mg/L	961	96	8/13/98	4872
Phenol		80	mg/L	83	104	8/21/98	5040
1,4-Dichlorobenzene		80	mg/L	80	100	8/21/98	5040
2-nitrophenol		80	mg/L	86	108	8/21/98	5040
2,4-Dichlorophenol		80	mg/L	84	105	8/21/98	5040
Hexachlorobutadiene		80	mg/L	80	100	8/21/98	5040
4-Chloro-3-methylphenol		80	mg/L	83	104	8/21/98	5040
2,4,6-Trichlorophenol		80	mg/L	83	104	8/21/98	5040
Acenaphthene		80	mg/L	79	99	8/21/98	5040
n-Nitrosodiphenylamine		80	mg/L	83	104	8/21/98	5040
Pentachlorophenol		80	mg/L	96	120	8/21/98	5040
Pyrene		80	mg/L	78	98	8/21/98	5040
Benzo(a)pyrene		80	mg/L	82	103	8/21/98	5040

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page # 19

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	83	83	100	85	85	2.4	8/6/98		4735
Benzene		ug/L	<1	100	105	105	100	109	109	3.7	8/6/98		4735
Trichloroethene		ug/L	<1	100	86	86	100	91	91	5.6	8/6/98		4735
Toluene		ug/L	<1	100	94	94	100	97	97	3.1	8/6/98		4735
Chlorobenzene		ug/L	<1	100	88	88	100	90	90	2.2	8/6/98		4735
1,1-Dichloroethene		ug/Kg	<25	100	82	82	100	82	82	0	8/6/98		4736
Benzene		ug/Kg	<1	100	105	105	100	105	105	0	8/6/98		4736
Trichloroethene		ug/Kg	<25	100	89	89	100	89	89	0	8/6/98		4736
Toluene		ug/Kg	<25	100	94	94	100	95	95	1.0	8/6/98		4736
Chlorobenzene		ug/Kg	<25	100	88	88	100	88	88	0	8/6/98		4736
PCB		mg/Kg	<0.1	0.50	0.44	88	0.50	0.47	94	6.6	8/10/98	4691	4805
[redacted]anide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	8/11/98		4815
[redacted]tal Mercury		mg/Kg	<0.25	2.5	2.2	88	2.5	2.2	88	0	8/11/98		4812
Fluoride		mg/Kg	0.95	12.5	12.9	96	12.5	13.22	98	2.1	8/13/98		4862
Nitrate		mg/Kg	<0.2	25	25.94	104	25	25.96	104	0	8/13/98		4862
Chloride		mg/Kg	15.1	62.5	72.72	92	62.5	73.07	93	1.1	8/13/98		4862
Sulfate		mg/Kg	20	62.5	79.19	95	62.5	80.76	97	2.1	8/13/98		4862
Chloride		mg/Kg	11.44	12.5	25.09	109	12.5	25.2	110	0.91	8/17/98		4930
TRPHC		mg/Kg	<10.0	250	235	94	250	220	88	6.6	8/6/98	4663	4738
Arsenic		mg/Kg	<0.50	200	156	78	200	158	79	1.3	8/20/98	4710	5030
Barium		mg/Kg	24	200	199	88	200	202	89	1.1	8/20/98	4710	5030
Cadmium		mg/Kg	0.51	200	160	80	200	160	80	0	8/20/98	4710	5030
Chromium		mg/Kg	3.8	200	174	85	200	174	85	0	8/20/98	4710	5030
Lead		mg/Kg	2.7	200	168	83	200	171	84	1.2	8/20/98	4710	5030
Selenium		mg/Kg	<0.50	200	156	78	200	161	81	3.8	8/20/98	4710	5030
Silver		mg/Kg	<0.50	100	84	84	100	79	79	6.1	8/20/98	4710	5030
Uranium		mg/Kg	<0.50	200	150	75	200	151	76	1.3	8/20/98	4710	5030
Copper		mg/Kg	2.3	200	177	87	200	177	89	2.3	8/20/98	4710	5030
Iron		mg/Kg	<0.50	200	154	77	200	150	75	2.6	8/20/98	4710	5030
Manganese		mg/Kg	40	200	212	86	200	212	86	0	8/20/98	4710	5030
Zinc		mg/Kg	9.3	200	176	83	200	180	86	3.6	8/20/98	4710	5030
Aluminum		mg/Kg	<0.50	200	219	110	200	205	106	3.7	8/20/98	4710	5030
Boron		mg/Kg	7.9	200	170	81	200	174	83	2.4	8/20/98	4710	5030
Cobalt		mg/Kg	3.9	200	170	83	200	175	86	3.6	8/20/98	4710	5030
Molybdenum		mg/Kg	1.8	200	173	86	200	175	87	1.2	8/20/98	4710	5030
Nickel		mg/Kg	3.2	200	167	82	200	169	83	1.2	8/20/98	4710	5030
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
Total Phenols		mg/Kg	<0.01	0.80	0.77	96	0.80	0.79	99	3.1	8/11/98		4813
Phenol		mg/Kg	<0.25	10.00	8.84	88	10.00	8.71	87	1.1	8/21/98	4650	5040
[redacted]-Chlorophenol		mg/Kg	<1.25	10.00	8.70	87	10.00	8.40	84	3.5	8/21/98	4650	5040
[redacted]4-Dichlorobenzene		mg/Kg	<0.25	10.00	8.23	82	10.00	7.98	80	2.5	8/21/98	4650	5040
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.80	78	10.00	9.06	91	15	8/21/98	4650	5040

Order ID Number: 9808000070

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.43	74	10.00	7.65	77	4.0	8/21/98	4650	5040
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	8.41	84	10.00	9.32	93	10	8/21/98	4650	5040
Acenaphthene		mg/Kg	<0.25	10.00	9.89	99	10.00	9.96	100	1.0	8/21/98	4650	5040
4-Nitrophenol		mg/Kg	<1.25	10.00	8.78	88	10.00	7.79	78	12	8/21/98	4650	5040
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	11.1	111	10.00	11.2	112	0.9	8/21/98	4650	5040
Pentachlorophenol		mg/Kg	<1.25	10.00	8.64	86	10.00	6.84	68	23	8/21/98	4650	5040
Pyrene		mg/Kg	<0.25	10.00	11.4	114	10.00	12.6	126	10	8/21/98	4650	5040

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000070

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		mg/Kg	8.2	8.2	0	8/9/98		4775
TDS		mg/Kg	160	144	11	8/13/98		4872

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98
Page # 1

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105953	Field Blank	8/20/98	16:00	8/22/98
105954	Trip Blank			8/22/98
105955	TSB-1 2-3'	8/20/98	8:52	8/22/98
105956	TSB-1 3-5'	8/20/98	9:05	8/22/98
105957	TSB-1 8-10'	8/20/98	9:23	8/22/98
105958	TSB-2 2-3'	8/20/98	14:17	8/22/98
105959	TSB-2 3-5'	8/20/98	14:20	8/22/98
105960	TSB-2 18-20'	8/20/98	15:03	8/22/98
105961	TSB-1 43-45'	8/20/98	12:11	8/22/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
1,1-dichloroethylene		<1	ug/L	1	9/1/98		5183
chloropropenes		<1	ug/L	1	9/1/98		5183
Ethylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	9/3/98		5205
Acrylonitrile		<125	ug/Kg	125	9/3/98		5205
Benzene		<25	ug/Kg	25	9/3/98		5205
Carbon tetrachloride		<25	ug/Kg	25	9/3/98		5205
hlorobenzene		<25	ug/Kg	25	9/3/98		5205

Order ID Number: 9808000469

[redacted]ect Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,1-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethane		<25	ug/Kg	25	9/3/98		5205
1,1,2-trichloroethylene		<25	ug/Kg	25	9/3/98		5205
Chloroform		<25	ug/Kg	25	9/3/98		5205
Dichlorobenzene		<50	ug/Kg	2	9/3/98		5205
1,1-dichloroethylene		<25	ug/Kg	50	9/3/98		5205
Dichloropropenes		<25	ug/Kg	25	9/3/98		5205
Ethylbenzene		<25	ug/Kg	25	9/3/98		5205
Bromodichloromethane		<25	ug/Kg	25	9/3/98		5205
Bromomethane		<125	ug/Kg	125	9/3/98		5205
Chloromethane		<25	ug/Kg	25	9/3/98		5205
Dichlorodifluoromethane		<25	ug/Kg	25	9/3/98		5205
Dichloromethane		<25	ug/Kg	25	9/3/98		5205
Trichlorofluoromethane		<25	ug/Kg	25	9/3/98		5205
Tetrachloroethylene		<25	ug/Kg	25	9/3/98		5205
Toluene		<25	ug/Kg	25	9/3/98		5205
Trichloroethylene		<25	ug/Kg	25	9/3/98		5205
[redacted]l chloride		<25	ug/Kg	25	9/3/98		5205
m,p-xylene		<25	ug/Kg	25	9/3/98		5205
o-xylene		<25	ug/Kg	25	9/3/98		5205
1,1-dichloroethane		<25	ug/Kg	25	9/3/98		5205
Ethylene dibromide		<25	ug/Kg	25	9/3/98		5205
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/3/98		5205
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/3/98		5205
Methylene chloride		<125	ug/Kg	125	9/3/98		5205
Surr. Dibromofluoromethane		101	%	72-130	9/3/98		5205
Surr. Toluene-d8		99	%	77-127	9/3/98		5205
Surr. 4-Bromofluorobenzene		102	%	72-131	9/3/98		5205
Total Mercury		<0.10	mg/Kg	<0.10	8/25/98	4765	5101
Cyanide		<0.01	mg/Kg	0.01	8/27/98		5128
Phenolics		<0.01	mg/kg	0.01	8/26/98		5110
Fluoride		<0.1	mg/kg	0.1	9/3/98		5197
Nitrate		<0.1	mg/kg	0.1	9/3/98		5197
Chloride		<0.5	mg/kg	0.5	9/3/98		5197
Sulfate		<0.5	mg/kg	0.5	9/3/98		5197
Fluoride		<0.1	mg/kg	0.1	9/3/98		5198
Nitrate		<0.1	mg/kg	0.1	9/3/98		5198
Chloride		<0.5	mg/kg	0.5	9/3/98		5198
Sulfate		<0.5	mg/kg	0.5	9/3/98		5198
Fluoride		<0.1	mg/kg	0.1	9/3/98		5199
Nitrate		<0.1	mg/kg	0.1	9/3/98		5199
Chloride		<0.5	mg/kg	0.5	9/3/98		5199
Sulfate		<0.5	mg/kg	0.5	9/3/98		5199
[redacted]8		<0.1	mg/kg	0.1	9/3/98	4795	5206

Order ID Number: 9808000469

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		<0.50	mg/kg	0.50	9/15/98	4920	5328
Barium		<0.50	mg/kg	0.50	9/15/98	4920	5328
Cadmium		<0.10	mg/kg	0.10	9/15/98	4920	5328
Chromium		<0.50	mg/kg	0.50	9/15/98	4920	5328
Lead		<0.50	mg/kg	0.50	9/15/98	4920	5328
Selenium		<0.50	mg/kg	0.50	9/15/98	4920	5328
Silver		<0.50	mg/kg	0.50	9/15/98	4920	5328
Uranium		<2.0	mg/kg	2.0	9/15/98	4920	5328
Copper		<1.0	mg/kg	1.0	9/15/98	4920	5328
Iron		<10	mg/kg	10	9/17/98	4848	5372
Manganese		<1.0	mg/kg	1.0	9/15/98	4920	5328
Zinc		<2.0	mg/kg	2.0	9/15/98	4920	5328
Aluminum		<10	mg/kg	10	9/17/98	4848	5372
Boron		<10.0	mg/kg	10.0	9/15/98	4920	5328
Cobalt		<0.50	mg/kg	0.50	9/15/98	4920	5328
Molybdenum		<1.0	mg/kg	1.0	9/15/98	4920	5328
Nickel		<0.50	mg/kg	0.50	9/15/98	4920	5328
Benzidine		<2.5	mg/kg	2.5	9/22/98	4911	5502
Hexachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]entachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachloroethane		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/22/98	4911	5502
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Diphenylhydrazine		<1.25	mg/kg	1.25	9/22/98	4911	5502
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Isophorone		<1.25	mg/kg	1.25	9/22/98	4911	5502
Nitrobenzene		<0.25	mg/kg	0.25	9/22/98	4911	5502
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/22/98	4911	5502
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/22/98	4911	5502
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/22/98	4911	5502
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/22/98	4911	5502
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pentachlorophenol		<1.25	mg/kg	1.25	9/22/98	4911	5502
Dibutyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
[redacted]iethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502

Date: 10-6-98
Page # 27
Order ID Number: 9808000469

[redacted]ect Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Dimethyl phthalate		<0.25	mg/kg	0.25	9/22/98	4911	5502
Anthracene		<0.25	mg/kg	0.25	9/22/98	4911	5502
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluoranthene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Fluorene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Phenanthrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Naphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
1-methylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
2-methylnaphthalene		<0.25	mg/kg	0.25	9/22/98	4911	5502
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/22/98	4911	5502
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/22/98	4911	5502
Surr. 2-Fluorophenol		48	%	25-121	9/22/98	4911	5502
Surr. Phenol-d6		56	%	24-113	9/22/98	4911	5502
Surr. Nitroobenzene-d5		48	%	23-120	9/22/98	4911	5502
Surr. 2-Fluorobiphenyl		59	%	30-115	9/22/98	4911	5502
Surr. 2,4,6-Tribromophenol		41	%	19-122	9/22/98	4911	5502
Surr. Terphenyl-d14		59	%	28-137	9/22/98	4911	5502
[redacted]zidine		<2.5	mg/kg	2.5	9/10/98	4829	5276
Hexachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachloroethane		<0.25	mg/kg	0.25	9/10/98	4829	5276
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/10/98	4829	5276
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diphenylhydrazine		<1.25	mg/kg	1.25	9/10/98	4829	5276
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Isophorone		<1.25	mg/kg	1.25	9/10/98	4829	5276
Nitrobenzene		<0.25	mg/kg	0.25	9/10/98	4829	5276
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/10/98	4829	5276
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/10/98	4829	5276
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/10/98	4829	5276
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/10/98	4829	5276
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pentachlorophenol		<1.25	mg/kg	1.25	9/10/98	4829	5276
[redacted]tyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276

Date: 10-6-98
Page # 28
Order ID Number: 9808000469

oject Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Diethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Dimethyl phthalate		<0.25	mg/kg	0.25	9/10/98	4829	5276
Anthracene		<0.25	mg/kg	0.25	9/10/98	4829	5276
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluoranthene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Fluorene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Phenanthrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Naphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
1-methylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
2-methylnaphthalene		<0.25	mg/kg	0.25	9/10/98	4829	5276
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/10/98	4829	5276
monomethylnaphthalenes		<0.25	mg/kg	0.25	9/10/98	4829	5276
Surr. 2-Fluorophenol		42	%	25-121	9/10/98	4829	5276
Surr. Phenol-d6		51	%	24-113	9/10/98	4829	5276
Surr. Nitroobenzene-d5		35	%	23-120	9/10/98	4829	5276
Surr. 2-Fluorobiphenyl		51	%	30-115	9/10/98	4829	5276
rr. 2,4,6-Tribromophenol		47	%	19-122	9/10/98	4829	5276
Surr. Terphenyl-d14		59	%	28-137	9/10/98	4829	5276
TRPHC		<10.0	mg/kg	10	8/30/98	4810	5168
Total Phenols		<0.25	mg/kg	0.25	8/26/98		5109
Total Phenols		<0.25	mg/kg	0.25	8/26/98		5110

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	ug/L	104	104	9/3/98	5205
1,1-Dichloroethene		100	ug/L	119	119	9/3/98	5205
Chloroform		100	ug/L	112	112	9/3/98	5205
1,2-Dichloropropane		100	ug/L	106	106	9/3/98	5205
[illegible]uene		100	ug/L	115	115	9/3/98	5205
[illegible]lbenzene		100	ug/L	112	112	9/3/98	5205
Cyanide		0.12	mg/L	0.11	92	8/27/98	5128
Total Mercury		1.0	mg/L	1.0	100	8/25/98	5101
Phenolics		0.8	mg/L	0.82	103	8/26/98	5110
Fluoride		2.5	mg/L	2.46	98	9/3/98	5197
Nitrate		5.0	mg/L	4.885	98	9/3/98	5197
Chloride		12.5	mg/L	11.59	93	9/3/98	5197
Sulfate		12.5	mg/L	12.295	98	9/3/98	5197
Fluoride		2.5	mg/L	2.455	98	9/3/98	5198
Nitrate		5.0	mg/L	4.885	98	9/3/98	5198
Chloride		12.5	mg/L	11.575	93	9/3/98	5198
Sulfate		12.5	mg/L	12.225	98	9/3/98	5198
Fluoride		2.5	mg/L	2.445	98	9/3/98	5199
Nitrate		5.0	mg/L	4.9	98	9/3/98	5199
Chloride		12.5	mg/L	11.535	92	9/3/98	5199
Sulfate		12.5	mg/L	12.3	98	9/3/98	5199
pH		7.0	s.u.	7.0	100	8/25/98	5104
PCB		0.40	mg/L	0.38	95	8/26/98	5112
PCB		0.40	mg/L	0.45	112	9/3/98	5204
Arsenic		1.0	mg/L	0.97	97	9/15/98	5328
Barium		1.0	mg/L	1.0	100	9/15/98	5328
Cadmium		1.0	mg/L	0.96	96	9/15/98	5328
Chromium		1.0	mg/L	0.96	96	9/15/98	5328
Lead		1.0	mg/L	0.97	97	9/15/98	5328
Selenium		1.0	mg/L	1.0	100	9/15/98	5328
Silver		1.0	mg/L	0.98	98	9/15/98	5328
[illegible]nium		1.0	mg/L	0.99	99	9/15/98	5328

Order ID Number: 9808000469

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Copper		1.0	mg/L	1.0	100	9/15/98	5328
Iron		100	mg/L	102	102	9/15/98	5328
Manganese		1.0	mg/L	0.990	99	9/15/98	5328
Zinc		1.0	mg/L	0.95	95	9/15/98	5328
Aluminum		250	mg/L	258	103	9/15/98	5328
Boron		1.0	mg/L	0.99	99	9/15/98	5328
Cobalt		1.0	mg/L	0.98	98	9/15/98	5328
Molybdenum		1.0	mg/L	0.96	96	9/15/98	5328
Nickel		1.0	mg/L	1.0	100	9/15/98	5328
TDS		1,000	mg/L	997	100	9/16/98	5364
Phenol		80	mg/L	82	103	9/10/98	5276
1,4-Dichlorobenzene		80	mg/L	82	100	9/10/98	5276
2-nitrophenol		80	mg/L	86	108	9/10/98	5276
2,4-Dichlorophenol		80	mg/L	89	111	9/10/98	5276
Hexachlorobutadiene		80	mg/L	85	106	9/10/98	5276
4-Chloro-3-methylphenol		80	mg/L	75	94	9/10/98	5276
2,4,6-Trichlorophenol		80	mg/L	80	100	9/10/98	5276
Acenaphthene		80	mg/L	82	103	9/10/98	5276
n-Nitrosodiphenylamine		80	mg/L	77	96	9/10/98	5276
Pentachlorophenol		80	mg/L	80	100	9/10/98	5276
Fluoranthene		80	mg/L	75	94	9/10/98	5276
Di-n-octylphthalate		80	mg/L	95	119	9/10/98	5276
Benzo(a)pyrene		80	mg/L	84	105	9/10/98	5276
Phenol		80	mg/L	73	91	9/11/98	5823
1,4-Dichlorobenzene		80	mg/L	75	94	9/11/98	5823
2-nitrophenol		80	mg/L	77	96	9/11/98	5823
2,4-Dichlorophenol		80	mg/L	80	100	9/11/98	5823
Hexachlorobutadiene		80	mg/L	78	98	9/11/98	5823
4-Chloro-3-methylphenol		80	mg/L	69	86	9/11/98	5823
2,4,6-Trichlorophenol		80	mg/L	79	99	9/11/98	5823
Acenaphthene		80	mg/L	78	98	9/11/98	5823
n-Nitrosodiphenylamine		80	mg/L	77	96	9/11/98	5823
Pentachlorophenol		80	mg/L	67	84	9/11/98	5823
Fluoranthene		80	mg/L	66	86	9/11/98	5823
Di-n-octylphthalate		80	mg/L	83	104	9/11/98	5823
Benzo(a)pyrene		80	mg/L	75	94	9/11/98	5823
TRPHC		100	mg/L	99	99	8/30/98	5168
Total Phenols		0.80	mg/L	0.80	100	8/26/98	5109
Total Phenols		0.80	mg/L	0.82	103	8/26/98	5110

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	9.4	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
1,1-Dichloroethene		mg/Kg	<25	100	98	98	100	95	95	3.1	9/3/98		5205
Benzene		mg/Kg	<25	100	102	102	100	104	104	1.9	9/3/98		5205
Trichloroethene		mg/Kg	<25	100	108	108	100	108	108	0	9/3/98		5205
Toluene		mg/Kg	<25	100	100	100	100	101	101	1.0	9/3/98		5205
Chlorobenzene		mg/Kg	<25	100	88	88	100	87	87	1.1	9/3/98		5205
Cyanide		mg/Kg	<0.01	0.12	0.11	92	0.12	0.11	92	0	8/27/98		5128
Total Mercury		mg/kg	<0.10	1.0	1.2	120	1.0	1.2	120	0	8/25/98	4765	5101
[illegible]nolics		mg/kg	<0.01	0.8	0.81	101	0.8	0.81	101	0	8/26/98		5110
[illegible]ride		mg/kg	<0.1	2.5	2.43	97	2.5	2.43	97	0.0	9/3/98		5197
Nitrate		mg/kg	1.05	5.0	6.11	101	5.0	6.12	101	0	9/3/98		5197
Chloride		mg/kg	46.6	12.5	58.82	98	12.5	57.4	86	13	9/3/98		5197
Sulfate		mg/kg	7.42	12.5	19.54	97	12.5	19.51	97	0	9/3/98		5197
Fluoride		mg/kg	3.65	2.5	5.81	86	2.5	5.76	84	2.4	9/3/98		5198
Nitrate		mg/kg	0.9	5.0	5.63	95	5.0	5.63	95	0.0	9/3/98		5198
Chloride		mg/kg	13	12.5	24.1	89	12.5	24.09	89	0.0	9/3/98		5198
Sulfate		mg/kg	3.5	12.5	15.9	99	12.5	15.87	99	0	9/3/98		5198
Fluoride		mg/kg	2.2	2.5	4.71	100	2.5	4.75	102	2.0	9/3/98		5199
Nitrate		mg/kg	1.6	5.0	7.25	113	5.0	7.25	113	0.0	9/3/98		5199
Chloride		mg/kg	13.5	12.5	24.83	91	12.5	24.94	92	1.1	9/3/98		5199
Sulfate		mg/kg	28.5	12.5	35.91	59	12.5	36.2	62	5	9/3/98		5199
PCB		mg/kg	<0.1	0.5	0.48	96	0.5	0.46	92	4.3	8/26/98	4796	5112
PCB		mg/kg	<0.1	0.5	0.45	90	0.5	0.48	96	6.5	9/2/98	4795	5204
Arsenic		mg/kg	<0.50	200	170	85	200	170	85	0	9/15/98	4920	5328
Barium		mg/kg	90	200	182	46	200	179	45	2.2	9/15/98	4920	5328
Cadmium		mg/kg	0.32	200	165	82	200	167	83	1.2	9/15/98	4920	5328
Chromium		mg/kg	8.6	200	177	84	200	177	84	0	9/15/98	4920	5328
Lead		mg/kg	5.5	200	164	79	200	166	80	1.3	9/15/98	4920	5328
Selenium		mg/kg	0.57	200	156	78	200	157	78	0	9/15/98	4920	5328
Silver		mg/kg	<0.50	100	88	88	100	94	94	6.6	9/15/98	4920	5328
Uranium		mg/kg	<2.0	200	194	97	200	189	95	2.1	9/15/98	4920	5328
Copper		mg/kg	5.4	200	178	86	200	178	86	0	9/15/98	4920	5328
Iron		mg/kg	<10	200	153	77	200	150	89	14	9/15/98	4920	5328
Manganese		mg/kg	77	200	174	49	200	177	50	2	9/15/98	4920	5328

Date: 10-6-98

Order ID Number: 9808000469

[illegible]ject Number: 19350
[illegible]ct Name: Shell Grimes

Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Zinc		mg/kg	34	200	165	66	200	160	63	4.7	9/15/98	4920	5328
Aluminum		mg/kg	<10	200	172	86	200	170	85	1.2	9/15/98	4920	5328
Boron		mg/kg	17	200	165	74	200	166	75	1.3	9/15/98	4920	5328
Cobalt		mg/kg	7.8	200	172	85	200	173	83	2.4	9/15/98	4920	5328
Molybdenum		mg/kg	2.9	200	174	86	200	177	87	1.2	9/15/98	4920	5328
Nickel		mg/kg	8.6	200	170	81	200	172	82	1.2	9/15/98	4920	5328
Phenol		mg/kg	<0.25	10.00	4.17	42	10.00	4.38	44	4.7	9/10/98	4829	5276
2-Chlorophenol		mg/kg	<1.25	10.00	3.72	37	10.00	3.88	38	2.7	9/10/98	4829	5276
1,4-Dichlorobenzene		mg/kg	<0.25	10.00	3.89	39	10.00	4.06	41	5.0	9/10/98	4829	5276
n-Nitrosodi-n-propylamine		mg/kg	<0.25	10.00	5.23	52	10.00	5.54	55	5.6	9/10/98	4829	5276
1,2,4-trichlorobenzene		mg/kg	<0.25	10.00	4.9	49	10.00	5.05	51	4.0	9/10/98	4829	5276
4-Chloro-3-methylphenol		mg/kg	<1.25	10.00	4.28	43	10.00	4.49	45	4.6	9/10/98	4829	5276
Acenaphthene		mg/kg	<0.25	10.00	4.88	49	10.00	4.93	49	0	9/10/98	4829	5276
4-Nitrophenol		mg/kg	<1.25	10.00	4.54	45	10.00	5.34	53	16	9/10/98	4829	5276
2,4-Dinitrotoluene		mg/kg	<0.25	10.00	5	50	10.00	5.16	52	3.9	9/10/98	4829	5276
Pentachlorophenol		mg/kg	<1.25	10.00	3.31	33	10.00	3.59	36	8.7	9/10/98	4829	5276
Pyrene		mg/kg	<0.25	10.00	6.32	63	10.00	6.25	63	0	9/10/98	4829	5276
Phenol		mg/kg	<0.25	10.00	4.17	42	10.00	4.38	44	4.7	9/11/98	4828	5283
2-Chlorophenol		mg/kg	<1.25	10.00	3.72	37	10.00	3.88	38	2.7	9/11/98	4828	5283
1,4-Dichlorobenzene		mg/kg	<0.25	10.00	3.89	39	10.00	4.06	41	5.0	9/11/98	4828	5283
n-Nitrosodi-n-propylamine		mg/kg	<0.25	10.00	5.23	52	10.00	5.54	55	5.6	9/11/98	4828	5283
1,2,4-trichlorobenzene		mg/kg	<0.25	10.00	4.9	49	10.00	5.05	51	4.0	9/11/98	4828	5283
4-Chloro-3-methylphenol		mg/kg	<1.25	10.00	4.28	43	10.00	4.49	45	4.6	9/11/98	4828	5283
[illegible]cenaphthene		mg/kg	<0.25	10.00	4.88	49	10.00	4.93	49	0	9/11/98	4828	5283
[illegible]Nitrophenol		mg/kg	<1.25	10.00	4.54	45	10.00	5.34	53	16	9/11/98	4828	5283
2,4-Dinitrotoluene		mg/kg	<0.25	10.00	5	50	10.00	5.16	52	3.9	9/11/98	4828	5283
Pentachlorophenol		mg/kg	<1.25	10.00	3.31	33	10.00	3.59	36	8.7	9/11/98	4828	5283
Pyrene		mg/kg	<0.25	10.00	6.32	63	10.00	6.25	63	0	9/11/98	4828	5283
TRPHC		mg/kg	<10.0	250.00	231	92	250.00	220	88	4.4	8/30/98	4810	5168
Total Phenols		mg/kg	<0.01	0.80	0.79	99	0.80	0.80	80	20	8/26/98		5109
Total Phenols		mg/kg	<0.01	0.80	0.81	101	0.80	0.81	101	0	8/26/98		5110

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 10-6-98

Project Number: 19350
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000469

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	9.5	9.6	1.0	8/25/98		5104
TDS		mg/kg	2,100	2,200		9/16/98		5364

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes.
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105222	Field Blank	8/14/98	15:30	8/18/98
105223	Trip Blank			8/18/98
[illegible]224	GSB-2 5-6'	8/14/98	9:19	8/18/98
[illegible]225	GSB-2 45-47'	8/14/98	11:45	8/18/98
105226	GSB-2 55-57'	8/14/98	13:30	8/18/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/24/98		5081
Acrylonitrile		<5	ug/L	5	8/24/98		5081
Benzene		<1	ug/L	1	8/24/98		5081
Carbon tetrachloride		<1	ug/L	1	8/24/98		5081
Chlorobenzene		<1	ug/L	1	8/24/98		5081
1,2-dichloroethane		<1	ug/L	1	8/24/98		5081
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/24/98		5081
1,1,1-trichloroethane		<1	ug/L	1	8/24/98		5081
1,1,2-trichloroethane		<1	ug/L	1	8/24/98		5081
1,1,2-trichloroethylene		<1	ug/L	1	8/24/98		5081
Chloroform		<1	ug/L	1	8/24/98		5081
Dichlorobenzene		<2	ug/L	2	8/24/98		5081
1,1-dichloroethylene		<1	ug/L	1	8/24/98		5081
chloropropenes		<1	ug/L	1	8/24/98		5081
Ethylbenzene		<1	ug/L	1	8/24/98		5081
Bromodichloromethane		<1	ug/L	1	8/24/98		5081
Bromomethane		<5	ug/L	5	8/24/98		5081
Chloromethane		<1	ug/L	1	8/24/98		5081
Dichlorodifluoromethane		<1	ug/L	1	8/24/98		5081
Dichloromethane		<1	ug/L	1	8/24/98		5081
Trichlorofluoromethane		<1	ug/L	1	8/24/98		5081
Tetrachloroethylene		<1	ug/L	1	8/24/98		5081
Toluene		<1	ug/L	1	8/24/98		5081
Trichloroethylene		<1	ug/L	1	8/24/98		5081
Vinyl chloride		<1	ug/L	1	8/24/98		5081
m,p-xylene		<1	ug/L	1	8/24/98		5081
o-xylene		<1	ug/L	1	8/24/98		5081
1,1-dichloroethane		<1	ug/L	1	8/24/98		5081
Ethylene dibromide		<1	ug/L	1	8/24/98		5081
cis-1,2-dichlorethylene		<1	ug/L	1	8/24/98		5081
trans-1,2-dichloroethylene		<1	ug/L	1	8/24/98		5081
Methylene chloride		<5	ug/L	5	8/24/98		5081
Surr. Dibromofluoromethane		120	%	72-130	8/24/98		5081
Surr. Toluene-d8		104	%	77-127	8/24/98		5081
Surr. 4-Bromofluorobenzene		115	%	72-131	8/24/98		5081
Acrolein		<125	ug/Kg	125	8/24/98		5082
Acrylonitrile		<125	ug/Kg	125	8/24/98		5082
Benzene		<25	ug/Kg	25	8/24/98		5082
Carbon tetrachloride		<25	ug/Kg	25	8/24/98		5082
hlorobenzene		<25	ug/Kg	25	8/24/98		5082

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,1-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethane		<25	ug/Kg	25	8/24/98		5082
1,1,2-trichloroethylene		<25	ug/Kg	25	8/24/98		5082
Chloroform		<25	ug/Kg	25	8/24/98		5082
Dichlorobenzene		<50	ug/Kg	2	8/24/98		5082
1,1-dichloroethylene		<25	ug/Kg	50	8/24/98		5082
Dichloropropenes		<25	ug/Kg	25	8/24/98		5082
Ethylbenzene		<25	ug/Kg	25	8/24/98		5082
Bromodichloromethane		<25	ug/Kg	25	8/24/98		5082
Bromomethane		<125	ug/Kg	125	8/24/98		5082
Chloromethane		<25	ug/Kg	25	8/24/98		5082
Dichlorodifluoromethane		<25	ug/Kg	25	8/24/98		5082
Dichloromethane		<25	ug/Kg	25	8/24/98		5082
Trichlorofluoromethane		<25	ug/Kg	25	8/24/98		5082
Tetrachloroethylene		<25	ug/Kg	25	8/24/98		5082
Toluene		<25	ug/Kg	25	8/24/98		5082
[redacted]richloroethylene		<25	ug/Kg	25	8/24/98		5082
[redacted]nyl chloride		<25	ug/Kg	25	8/24/98		5082
m,p-xylene		<25	ug/Kg	25	8/24/98		5082
o-xylene		<25	ug/Kg	25	8/24/98		5082
1,1-dichloroethane		<25	ug/Kg	25	8/24/98		5082
Ethylene dibromide		<25	ug/Kg	25	8/24/98		5082
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/24/98		5082
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/24/98		5082
Methylene chloride		<125	ug/Kg	125	8/24/98		5082
Surr. Dibromofluoromethane		112	%	72-130	8/24/98		5082
Surr. Toluene-d8		105	%	77-127	8/24/98		5082
Surr. 4-Bromofluorobenzene		112	%	72-131	8/24/98		5082
Total Mercury		<0.25	mg/Kg	0.25	8/25/98		5101
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5029
Phenolics		<0.01	mg/Kg	<0.01	8/26/98		5110
Chloride		<1.0	mg/Kg	1.0	8/25/98		5103
Arsenic		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Barium		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Cadmium		<0.10	mg/Kg	0.10	8/27/98	4798	5122
Chromium		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Lead		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Selenium		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Silver		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Uranium		<2.0	mg/Kg	2.0	8/27/98	4798	5122
Copper		<1.0	mg/Kg	1.0	8/27/98	4798	5122
Iron		<2.0	mg/Kg	2.0	8/27/98	4798	5122
Manganese		<1.0	mg/Kg	1.0	8/27/98	4798	5122
[redacted]nc		<2.0	mg/Kg	2.0	8/27/98	4798	5122

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Aluminum		<10	mg/Kg	10	8/27/98	4798	5122
Boron		<10	mg/Kg	10	8/27/98	4798	5122
Cobalt		<0.50	mg/Kg	0.50	8/27/98	4798	5122
Molybdenum		<1.0	mg/Kg	1.0	8/27/98	4798	5122
Nickel		<0.50	mg/Kg	0.50	8/27/98	4798	5122
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
TRPHC		<10.0	mg/Kg	10	8/30/98	4810	5168
Benzene		<0.050	mg/Kg	0.050	8/20/98		5031
Toluene		<0.050	mg/Kg	0.050	8/20/98		5031
Ethylbenzene		<0.050	mg/Kg	0.050	8/20/98		5031
m,p,o-xylene		<0.050	mg/Kg	0.050	8/20/98		5031
Benzidine		<2.5	mg/kg	2.5	8/21/98	4650	5040
Hexachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Pentachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Hexachloroethane		<0.25	mg/kg	0.25	8/21/98	4650	5040
2,4-dichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
bis (chloromethyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4-dinitrotoluene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Diphenylhydrazine		<1.25	mg/kg	1.25	8/21/98	4650	5040
Hexachlorobutadiene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Isophorone		<1.25	mg/kg	1.25	8/21/98	4650	5040
Nitrobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4-dinitrophenols		<1.25	mg/kg	1.25	8/21/98	4650	5040
n-nitrosodiethylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosodimethylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosodibutylamine		<1.25	mg/kg	1.25	8/21/98	4650	5040
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	8/21/98	4650	5040
Pentachlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
Dibutyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Diethyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Dimethyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Anthracene		<0.25	mg/kg	0.25	8/21/98	4650	5040
3,4-benzofluoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Fluoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Fluorene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Phenanthrene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Pyrene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Naphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
1-methylnaphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
2-methylnaphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Benzo-a-pyrene		<0.25	mg/kg	0.25	8/21/98	4650	5040
monomethylnaphthalenes		<0.25	mg/kg	0.25	8/21/98	4650	5040
Surr. 2-Fluorophenol		63	%	25-121	8/21/98	4650	5040
Surr. Phenol-d6		65	%	24-113	8/21/98	4650	5040
Surr. Nitroobenzene-d5		59	%	23-120	8/21/98	4650	5040
Surr. 2-Fluorobiphenyl		72	%	30-115	8/21/98	4650	5040
Surr. 2,4,6-Tribromophenol		79	%	19-122	8/21/98	4650	5040
Surr. Terphenyl-d14		107	%	28-137	8/21/98	4650	5040

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	111	111	8/24/98	5081
1,1-Dichloroethene		100	ug/L	90	90	8/24/98	5081
Chloroform		100	ug/L	109	109	8/24/98	5081
1,2-Dichloropropane		100	ug/L	92	92	8/24/98	5081
Toluene		100	ug/L	96	96	8/24/98	5081
Chlorobenzene		100	ug/L	98	98	8/24/98	5081
Ethylbenzene		100	ug/L	100	100	8/24/98	5081
Vinyl chloride		100	mg/L	110	110	8/24/98	5082
1,1-Dichloroethene		100	mg/L	90	90	8/24/98	5082
Chloroform		100	mg/L	109	109	8/24/98	5082
1,2-Dichloropropane		100	mg/L	92	92	8/24/98	5082
Toluene		100	mg/L	96	96	8/24/98	5082
Chlorobenzene		100	mg/L	98	98	8/24/98	5082
Ethylbenzene		100	mg/L	100	100	8/24/98	5082
pH		7.0	s.u.	7.0	100	8/19/98	5018
Total Mercury		1.0	mg/L	1.0	100	8/25/98	5101
Cyanide		0.12	mg/L	0.11	110	8/20/98	5029
Phenolics		0.80	mg/L	0.80	100	8/26/98	5110
Fluoride		2.5	mg/L	2.325	93	8/25/98	5096
Nitrate		5.0	mg/L	4.605	92	8/25/98	5096
Chloride		12.5	mg/L	11.755	94	8/25/98	5096
Sulfate		12.5	mg/L	11.355	91	8/25/98	5096
Arsenic		1.0	mg/L	1.0	100	9/3/98	5202
Barium		1.0	mg/L	0.98	98	9/3/98	5202
Cadmium		1.0	mg/L	1.0	100	9/3/98	5202
Chromium		1.0	mg/L	1.0	100	9/3/98	5202
Lead		1.0	mg/L	1.0	100	9/3/98	5202
Selenium		1.0	mg/L	1.0	100	9/3/98	5202
Silver		0.20	mg/L	0.20	100	9/3/98	5202
Uranium		1.0	mg/L	1.0	100	9/3/98	5202
Copper		1.0	mg/L	1.0	100	9/3/98	5202
Iron		50	mg/L	51	102	9/3/98	5202
Manganese		1.0	mg/L	1.0	100	9/3/98	5202
Zinc		1.0	mg/L	1.0	100	9/3/98	5202
Aluminum		125	mg/L	128	102	9/3/98	5202
Boron		1.0	mg/L	1.0	100	9/3/98	5202
Cobalt		1.0	mg/L	1.0	100	9/3/98	5202
Molybdenum		1.0	mg/L	1.0	100	9/3/98	5202
Nickel		1.0	mg/L	1.0	100	9/3/98	5202
TRPHC		100	mg/L	104	104	08/22/98	5045

Order ID Number: 9808000344

oject Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
TRPHC		100	mg/L	99	99	8/30/98	5168
Benzene		0.100	mg/L	0.096	96	8/20/98	5031
Toluene		0.100	mg/L	0.095	95	8/20/98	5031
Ethylbenzene		0.100	mg/L	0.095	95	8/20/98	5031
m,p,o-xylene		0.300	mg/L	0.275	92	8/20/98	5031
TDS		1000	mg/L	978	98	9/10/98	5273
Phenol		80	mg/L	82	103	8/31/98	5172
1,4-Dichlorobenzene		80	mg/L	85	106	8/31/98	5172
2-nitrophenol		80	mg/L	83	104	8/31/98	5172
2,4-Dichlorophenol		80	mg/L	84	105	8/31/98	5172
Hexachlorobutadiene		80	mg/L	87	109	8/31/98	5172
4-Chloro-3-methylphenol		80	mg/L	81	101	8/31/98	5172
2,4,6-Trichlorophenol		80	mg/L	84	105	8/31/98	5172
Acenaphthene		80	mg/L	82	103	8/31/98	5172
n-Nitrosodiphenylamine		80	mg/L	80	100	8/31/98	5172
Fluoranthene		80	mg/L	78	98	8/31/98	5172
Di-n-octyl phthalate		80	mg/L	93	116	8/31/98	5172
Benzo(a)pyrene		80	mg/L	86	108	8/31/98	5172

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	86	86	100	85	85	1.2	8/24/98		5081
Benzene		ug/L	<1	100	90	90	100	92	92	2.2	8/24/98		5081
Trichloroethene		ug/L	<1	100	96	96	100	98	98	2.1	8/24/98		5081
Toluene		ug/L	<1	100	93	93	100	95	95	2.1	8/24/98		5081
Chlorobenzene		ug/L	<1	100	92	92	100	94	94	2.2	8/24/98		5081
1,1-Dichloroethene		ug/Kg	<25	100	81	81	100	87	87	7.1	8/24/98		5082
Benzene		ug/Kg	<25	100	86	86	100	82	82	4.8	8/24/98		5082
Trichloroethene		ug/Kg	<25	100	93	93	100	84	84	10	8/24/98		5082
Toluene		ug/Kg	<25	100	88	88	100	81	81	8.3	8/24/98		5082
Chlorobenzene		ug/Kg	<25	100	93	93	100	83	83	11	8/24/98		5082
[illegible]tal Mercury		mg/Kg	<0.10	1.0	1.2	120	1.0	1.2	120	0	8/25/98	4765	5101
[illegible]anide		mg/Kg	<0.01	0.12	0.1	83	0.12	0.1	83	0	8/20/98		5029
Fluoride		mg/Kg	0.75	2.5	2.55	72	2.5	2.68	77	6.7	8/25/98		5096
Nitrate		mg/Kg	1.26	5.0	5.05	76	5.0	5.10	77	1.3	8/25/98		5096
Chloride		mg/Kg	6.17	12.5	18.05	95	12.5	18.15	96	1	8/25/98		5096
Sulfate		mg/Kg	3.02	12.5	14.38	91	12.5	14.41	91	0.0	8/25/98		5096
Arsenic		mg/Kg	0.96	200	170	85	200	165	82	3.6	9/3/98	4800	5202
Barium		mg/Kg	6.1	200	188	91	200	185	89	2.2	9/3/98	4800	5202
Cadmium		mg/Kg	<0.10	200	176	88	200	175	88	0	9/3/98	4800	5202
Chromium		mg/Kg	3.4	200	183	90	200	179	88	2.2	9/3/98	4800	5202
Lead		mg/Kg	0.62	200	178	89	200	177	88	1.1	9/3/98	4800	5202
Selenium		mg/Kg	<0.50	200	164	82	200	160	80	2.5	9/3/98	4800	5202
Silver		mg/Kg	<0.50	100	86	86	200	91	91	5.6	9/3/98	4800	5202
Uranium		mg/Kg	<2.0	200	162	81	200	160	80	1.2	9/3/98	4800	5202
Copper		mg/Kg	11	200	180	85	200	180	85	0	9/3/98	4800	5202
Iron		mg/Kg	<2.0	200	204	102	200	208	104	1.9	8/27/98	4800	5202
Manganese		mg/Kg	<1.0	200	179	90	200	177	89	1.1	9/3/98	4800	5202
Zinc		mg/Kg	8.6	200	170	81	200	172	82	1.2	9/3/98	4800	5202
Aluminum		mg/Kg	<10.0	200	194	97	200	194	97	0	8/27/98	4800	5202
Boron		mg/Kg	<10.1	200	167	84	200	168	84	0	9/3/98	4800	5202
Cobalt		mg/Kg	1.2	200	176	87	200	178	88	1.1	9/3/98	4800	5202
Molybdenum		mg/Kg	<1.0	200	181	91	200	177	89	2.2	9/3/98	4800	5202
Nickel		mg/Kg	24	200	177	77	200	176	76	1.3	9/3/98	4800	5202
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
TRPHC		mg/Kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168
Benzene		mg/Kg	<0.050	5.00	4.64	93	5.00	4.75	95	2.1	8/20/98		5031
Toluene		mg/Kg	<0.050	5.00	4.66	93	5.00	4.78	96	3.2	8/20/98		5031
Ethylbenzene		mg/Kg	<0.050	5.00	465	93	5.00	5.51	110	17	8/20/98		5031
[illegible],p,o-xylene		mg/Kg	<0.050	15.00	13.7	91	15.00	14	93	2.2	8/20/98		5031

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/Kg	<0.25	10.00	6.45	65	10.00	5.91	59	9.7	8/31/98	4770	5172
2-Chlorophenol		mg/Kg	<1.25	10.00	5.82	58	10.00	5.34	53	9.0	8/31/98	4770	5172
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	6.82	68	10.00	5.96	60	13	8/31/98	4770	5172
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.00	70	10.00	6.42	64	9.0	8/31/98	4770	5172
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	6.8	68	10.00	6.09	61	11.0	8/31/98	4770	5172
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	6.12	61	10.00	5.73	57	6.8	8/31/98	4770	5172
Acenaphthene		mg/Kg	<0.25	10.00	7.69	77	10.00	7.04	70	9.5	8/31/98	4770	5172
4-Nitrophenol		mg/Kg	<1.25	10.00	5.71	57	10.00	5.42	54	5.5	8/31/98	4770	5172
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	7.71	77	10.00	6.96	70	9.5	8/31/98	4770	5172
Pentachlorophenol		mg/Kg	<1.25	10.00	5.84	58	10.00	5.32	53	9.0	8/31/98	4770	5172
Pyrene		mg/Kg	<0.25	10.00	10.8	108	10.00	10.1	101	6.7	8/31/98	4770	5172

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000344

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
TDS			880	864	1.8	9/10/98		5273
pH			8.6	8.6	0	8/19/98		5018

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
104099	MW-4 18-20'	8/3/98	10:20	8/5/98
104100	MW-4 63-65'	8/3/98	14:50	8/5/98
104159	Trip Blank			8/5/98
104160	Field Blank	8/3/98	16:00	8/5/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/6/98		4735
Acrylonitrile		<5	ug/L	5	8/6/98		4735
Benzene		<1	ug/L	1	8/6/98		4735
Carbon tetrachloride		<1	ug/L	1	8/6/98		4735
Chlorobenzene		<1	ug/L	1	8/6/98		4735
1,2-dichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/6/98		4735
1,1,1-trichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2-trichloroethane		<1	ug/L	1	8/6/98		4735
1,1,2-trichloroethylene		<1	ug/L	1	8/6/98		4735
Chloroform		<1	ug/L	1	8/6/98		4735
Dichlorobenzene		<2	ug/L	2	8/6/98		4735
1-dichloroethylene		<1	ug/L	1	8/6/98		4735
Dichloropropenes		<1	ug/L	1	8/6/98		4735
Ethylbenzene		<1	ug/L	1	8/6/98		4735
Bromodichloromethane		<1	ug/L	1	8/6/98		4735
Bromomethane		<5	ug/L	5	8/6/98		4735
Chloromethane		<1	ug/L	1	8/6/98		4735
Dichlorodifluoromethane		<1	ug/L	1	8/6/98		4735
Dichloromethane		<1	ug/L	1	8/6/98		4735
Trichlorofluoromethane		<1	ug/L	1	8/6/98		4735
Tetrachloroethylene		<1	ug/L	1	8/6/98		4735
Toluene		<1	ug/L	1	8/6/98		4735
Trichloroethylene		<1	ug/L	1	8/6/98		4735
Vinyl chloride		<1	ug/L	1	8/6/98		4735
m,p-xylene		<1	ug/L	1	8/6/98		4735
o-xylene		<1	ug/L	1	8/6/98		4735
1,1-dichloroethane		<1	ug/L	1	8/6/98		4735
Ethylene dibromide		<1	ug/L	1	8/6/98		4735
cis-1,2-dichlorethylene		<1	ug/L	1	8/6/98		4735
trans-1,2-dichloroethylene		<1	ug/L	1	8/6/98		4735
Methylene chloride		<5	ug/L	5	8/6/98		4735
Surr. Dibromofluoromethane		95	%	72-130	8/6/98		4735
Surr. Toluene-d8		105	%	77-127	8/6/98		4735
Surr. 4-Bromofluorobenzene		102	%	72-131	8/6/98		4735
Acrolein		<125	ug/Kg	125	8/6/98		4736
Acrylonitrile		<125	ug/Kg	125	8/6/98		4736
Benzene		<25	ug/Kg	25	8/6/98		4736
Carbon tetrachloride		<25	ug/Kg	25	8/6/98		4736
Chlorobenzene		<25	ug/Kg	25	8/6/98		4736

Date: 9-29-98
Page # 11
Order ID Number: 9808000066

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,2-dichloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,1-trichloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,2-trichloroethane		<25	ug/Kg	25	8/6/98		4736
1,1,2-trichloroethylene		<25	ug/Kg	25	8/6/98		4736
Chloroform		<25	ug/Kg	25	8/6/98		4736
Dichlorobenzene		<50	ug/Kg	50	8/6/98		4736
1,1-dichloroethylene		<25	ug/Kg	25	8/6/98		4736
Dichloropropenes		<25	ug/Kg	25	8/6/98		4736
Ethylbenzene		<25	ug/Kg	25	8/6/98		4736
Bromodichloromethane		<25	ug/Kg	25	8/6/98		4736
Bromomethane		<25	ug/Kg	25	8/6/98		4736
Chloromethane		<25	ug/Kg	25	8/6/98		4736
Dichlorodifluoromethane		<25	ug/Kg	25	8/6/98		4736
Dichloromethane		<25	ug/Kg	25	8/6/98		4736
Trichlorofluoromethane		<25	ug/Kg	25	8/6/98		4736
Tetrachloroethylene		<25	ug/Kg	25	8/6/98		4736
Toluene		<25	ug/Kg	25	8/6/98		4736
[redacted]ichloroethylene		<25	ug/Kg	25	8/6/98		4736
[redacted]inyl chloride		<25	ug/Kg	25	8/6/98		4736
m,p-xylene		<25	ug/Kg	25	8/6/98		4736
o-xylene		<25	ug/Kg	25	8/6/98		4736
1,1-dichloroethane		<25	ug/Kg	25	8/6/98		4736
Ethylene dibromide		<25	ug/Kg	25	8/6/98		4736
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/6/98		4736
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/6/98		4736
Methylene chloride		<125	ug/Kg	125	8/6/98		4736
Surr. Dibromofluoromethane		85	%	72-130	8/6/98		4736
Surr. Toluene-d8		99	%	77-127	8/6/98		4736
Surr. 4-Bromofluorobenzene		96	%	72-131	8/6/98		4736
PCB		<0.1	mg/Kg	0.1	8/10/98	4691	4805
Cyanide		<0.01	mg/Kg	0.01	8/11/98		4815
Total Mercury		<0.25	mg/Kg	0.25	8/11/98	4662	4812
Fluoride		<0.2	mg/Kg	0.2	8/13/98		4861
Nitrate		<1.0	mg/Kg	1.0	8/13/98		4861
Chloride		<1.0	mg/Kg	1.0	8/17/98		4930
Chloride		<1.0	mg/Kg	1.0	8/20/98		5025
Sulfate		<0.2	mg/Kg	0.2	8/17/98		4930
Arsenic		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Barium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Cadmium		<0.1	mg/Kg	0.1	8/20/98	4710	5030
Chromium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Lead		<0.05	mg/Kg	0.5	8/20/98	4710	5030
[redacted]elenium		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Silver		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Uranium		<1.0	mg/Kg	1.0	8/20/98	4710	5030

Order ID Number: 9808000066

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Copper		<1.0	mg/Kg	1.0	8/20/98	4710	5030
Iron		<2.0	mg/Kg	2.0	8/20/98	4710	5030
Manganese		<1.0	mg/Kg	1.0	8/20/98	4710	5030
Zinc		<2.0	mg/Kg	2.0	8/20/98	4710	5030
Aluminum		<10	mg/Kg	10	8/20/98	4710	5030
Boron		<10	mg/Kg	10	8/20/98	4710	5030
Cobalt		<0.05	mg/Kg	0.5	8/20/98	4710	5030
Molybdenum		<1.0	mg/Kg	1.0	8/20/98	4710	5030
Nickel		<0.05	mg/Kg	0.5	8/20/98	4710	5030
TRPHC		<10.0	mg/Kg	10	8/22/98	4743	5045
Benzidine		<2.5	mg/kg	2.5	8/21/98	4650	5040
Hexachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Pentachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Hexachloroethane		<0.25	mg/kg	0.25	8/21/98	4650	5040
2,4-dichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
[redacted]s (2-chloroethyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
[redacted]is (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
bis (chloromethyl) ether		<1.25	mg/kg	1.25	8/21/98	4650	5040
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4-dinitrotoluene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Diphenylhydrazine		<1.25	mg/kg	1.25	8/21/98	4650	5040
Hexachlorobutadiene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Isophorone		<1.25	mg/kg	1.25	8/21/98	4650	5040
Nitrobenzene		<0.25	mg/kg	0.25	8/21/98	4650	5040
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	8/21/98	4650	5040
2,4-dinitrophenols		<1.25	mg/kg	1.25	8/21/98	4650	5040
n-nitrosodiethylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosodimethylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosodibutylamine		<1.25	mg/kg	1.25	8/21/98	4650	5040
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	8/21/98	4650	5040
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	8/21/98	4650	5040
Pentachlorophenol		<1.25	mg/kg	1.25	8/21/98	4650	5040
Dibutyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Diethyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Dimethyl phthalate		<0.25	mg/kg	0.25	8/21/98	4650	5040
Anthracene		<0.25	mg/kg	0.25	8/21/98	4650	5040
3,4-benzofluoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040
[redacted]uoranthene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Fluorene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Phenanthrene		<0.25	mg/kg	0.25	8/21/98	4650	5040

Project Number: 19349
Order ID Number: 9808000066
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Pyrene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Naphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
1-methylnaphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
2-methylnaphthalene		<0.25	mg/kg	0.25	8/21/98	4650	5040
Benzo-a-pyrene		<0.25	mg/kg	0.25	8/21/98	4650	5040
monomethylnaphthalenes		<0.25	mg/kg	0.25	8/21/98	4650	5040
Surr. 2-Fluorophenol		61	mg/kg	25-121	8/21/98	4650	5040
Surr. Phenol-d6		64	mg/kg	24-113	8/21/98	4650	5040
Surr. Nitroobenzene-d5		48	mg/kg	23-120	8/21/98	4650	5040
Surr. 2-Fluorobiphenyl		73	mg/kg	30-115	8/21/98	4650	5040
Surr. 2,4,6-Tribromophenol		56	mg/kg	19-122	8/21/98	4650	5040
Surr. Terphenyl-d14		56	mg/kg	28-137	8/21/98	4650	5040
Total Phenols		<0.25	mg/kg	0.25	8/11/98		4813

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	100	100	8/6/98	4735
1,1-Dichloroethene		100	ug/L	94	94	8/6/98	4735
Chloroform		100	ug/L	97	97	8/6/98	4735
1,2-Dichloropropane		100	ug/L	120	120	8/6/98	4735
Toluene		100	ug/L	97	97	8/6/98	4735
Chlorobenzene		100	ug/L	92	92	8/6/98	4735
Ethylbenzene		100	ug/L	98	98	8/6/98	4735
Vinyl chloride		100	ug/L	100	100	8/6/98	4736
1,1-Dichloroethene		100	ug/L	94	94	8/6/98	4736
Chloroform		100	ug/L	97	97	8/6/98	4736
1,2-Dichloropropane		100	ug/L	120	120	8/6/98	4736
Toluene		100	ug/L	97	97	8/6/98	4736
Chlorobenzene		100	ug/L	92	92	8/6/98	4736
Ethylbenzene		100	ug/L	98	98	8/6/98	4736
PCB		0.40	mg/L	0.42	105	8/10/98	4805
Cyanide		0.12	mg/L	0.12	100	8/11/98	4815
Total Mercury		5.00	mg/L	4.75	95	8/11/98	4812
pH		7.0	mg/L	7.0	100	8/9/98	4775
Fluoride		2.5	mg/L	2.455	98	8/13/98	4861
Nitrate		5.0	mg/L	4.835	97	8/13/98	4861
Chloride		12.5	mg/L	13.085	105	8/17/98	4930
Chloride		12.5	mg/L	11.585	93	8/20/98	5025
Sulfate		12.5	mg/L	13.265	106	8/17/98	4930
TDS		1,000	mg/L	972	97	8/13/98	4872
Arsenic		1.0	mg/L	0.97	97	8/20/98	5030
Barium		1.0	mg/L	0.97	97	8/20/98	5030
Cadmium		1.0	mg/L	0.95	95	8/20/98	5030
Chromium		1.0	mg/L	0.96	96	8/20/98	5030
Lead		1.0	mg/L	0.95	95	8/20/98	5030
Selenium		1.0	mg/L	0.97	97	8/20/98	5030
Silver		0.2	mg/L	0.19	95	8/20/98	5030
Uranium		1.0	mg/L	0.97	97	8/20/98	5030
Copper		1.0	mg/L	0.99	99	8/20/98	5030
Iron		1.0	mg/L	1.0	100	8/20/98	5030
Manganese		1.0	mg/L	0.97	97	8/20/98	5030
Zinc		1.0	mg/L	0.95	95	8/20/98	5030

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Aluminum		1.0	mg/L	0.97	97	8/20/98	5030
Boron		1.0	mg/L	0.97	97	8/20/98	5030
Cobalt		1.0	mg/L	0.98	98	8/20/98	5030
Molybdenum		1.0	mg/L	0.97	97	8/20/98	5030
Nickel		1.0	mg/L	0.99	99	8/20/98	5030
TRPHC		100	mg/L	104	104	8/22/98	5045
Phenol		80	mg/L	83	104	8/21/98	5040
1,4-Dichlorobenzene		80	mg/L	80	100	8/21/98	5040
2-nitrophenol		80	mg/L	86	108	8/21/98	5040
2,4-Dichlorophenol		80	mg/L	84	105	8/21/98	5040
Hexachlorobutadiene		80	mg/L	80	100	8/21/98	5040
4-Chloro-3-methylphenol		80	mg/L	83	104	8/21/98	5040
2,4,6-Trichlorophenol		80	mg/L	83	104	8/21/98	5040
Acenaphthene		80	mg/L	79	99	8/21/98	5040
n-Nitrosodiphenylamine		80	mg/L	83	104	8/21/98	5040
Pentachlorophenol		80	mg/L	96	120	8/21/98	5040
Pyrene		80	mg/L	78	98	8/21/98	5040
Benzo(a)pyrene		80	mg/L	82	103	8/21/98	5040
Total Phenols		0.80	mg/L	0.81	101	8/11/98	4813

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 16

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	83	83	100	85	85	2.4	8/6/98		4735
Benzene		ug/L	<1	100	105	105	100	109	109	3.7	8/6/98		4735
Trichloroethene		ug/L	<1	100	86	86	100	91	91	5.6	8/6/98		4735
Toluene		ug/L	<1	100	94	94	100	97	97	3.1	8/6/98		4735
Chlorobenzene		ug/L	<1	100	88	88	100	90	90	2.2	8/6/98		4735
1,1-Dichloroethene		ug/Kg	<25	100	82	82	100	82	82	0	8/6/98		4736
Benzene		ug/Kg	<25	100	105	105	100	105	105	0	8/6/98		4736
Trichloroethene		ug/Kg	<25	100	89	89	100	89	89	0	8/6/98		4736
Toluene		ug/Kg	<25	100	94	94	100	95	95	1.0	8/6/98		4736
Chlorobenzene		ug/Kg	<25	100	88	88	100	88	88	0	8/6/98		4736
PCB		mg/Kg	<0.1	0.50	0.44	88	0.50	0.47	94	6.6	8/10/98	4691	4805
[redacted]anide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	8/11/98		4815
[redacted]otal Mercury		mg/Kg	<0.25	2.5	2.2	88	2.5	2.2	88	0	8/11/98	4662	4812
Fluoride		mg/Kg	0.4	12.5	12.52	97	12.5	13.06	101	4.0	8/13/98		4861
Nitrate		mg/Kg	0.6	25	25.99	102	25	26.14	102	0	8/13/98		4861
Chloride		mg/Kg	11.44	12.5	25.09	109	12.5	25.2	110	0.9	8/17/98		4930
Chloride		mg/Kg	38.95	12.5	49.22	82	12.5	49.81	87	5.9	8/21/98		5250
Sulfate		mg/Kg	49.2	12.5	62.38	105	12.5	62.01	102	2.9	8/17/98		4930
Arsenic		mg/Kg	<0.50	200	156	78	200	158	79	1.3	8/20/98	4710	5030
Barium		mg/Kg	24	200	199	88	200	202	89	1.1	8/20/98	4710	5030
Cadmium		mg/Kg	0.51	200	160	80	200	160	80	0	8/20/98	4710	5030
Chromium		mg/Kg	3.8	200	174	85	200	174	85	0	8/20/98	4710	5030
Lead		mg/Kg	2.7	200	168	83	200	171	84	1.2	8/20/98	4710	5030
Selenium		mg/Kg	<0.50	200	156	78	200	161	81	3.8	8/20/98	4710	5030
Silver		mg/Kg	<0.50	100	84	84	100	79	79	6.1	8/20/98	4710	5030
Uranium		mg/Kg	<0.50	200	150	75	200	151	76	1.3	8/20/98	4710	5030
Copper		mg/Kg	2.3	200	177	88	200	177	88	0	8/20/98	4710	5030
Iron		mg/Kg	<0.50	200	154	77	200	150	75	2.6	8/20/98	4710	5030
Manganese		mg/Kg	40	200	212	86	200	212	86	0	8/20/98	4710	5030
Zinc		mg/Kg	9.3	200	176	83	200	180	85	2.4	8/20/98	4710	5030
Aluminum		mg/Kg	<0.50	200	219	110	200	205	103	6.6	8/20/98	4710	5030
Boron		mg/Kg	7.9	200	170	81	200	174	83	2.4	8/20/98	4710	5030
Cobalt		mg/Kg	3.9	200	170	83	200	175	86	3.6	8/20/98	4710	5030
Molybdenum		mg/Kg	1.8	200	173	86	200	175	87	1.2	8/20/98	4710	5030
Nickel		mg/Kg	3.2	200	167	82	200	169	83	1.2	8/20/98	4710	5030
TRPHC		mg/Kg	<10.0	250	276	110	250	234	94	16	22-Aug	4743	5045
Phenol		mg/Kg	<0.25	10.00	8.84	88	10.00	8.71	87	1.1	8/21/98	4650	5040
2-Chlorophenol		mg/Kg	<1.25	10.00	8.7	87	10.00	8.4	84	3.5	8/21/98	4650	5040
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	8.23	82	10.00	7.98	80	2.5	8/21/98	4650	5040
[redacted]Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.8	78	10.00	9.06	91	15	8/21/98	4650	5040

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	7.43	74	10.00	7.65	77	4.0	8/21/98	4650	5040
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	8.41	81	10.00	9.32	93	14	8/21/98	4650	5040
Acenaphthene		mg/Kg	<0.25	10.00	9.89	99	10.00	9.96	100	10	8/21/98	4650	5040
4-Nitrophenol		mg/Kg	<1.25	10.00	8.78	88	10.00	7.79	78	12	8/21/98	4650	5040
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	11.1	111	10.00	11.2	112	0.9	8/21/98	4650	5040
Pentachlorophenol		mg/Kg	<1.25	10.00	8.64	86	10.00	6.84	68	23	8/21/98	4650	5040
Pyrene		mg/Kg	<0.25	10.00	11.4	114	10.00	12.6	126	10	8/21/98	4650	5040
Total Phenols		mg/Kg	<0.25	0.80	0.77	96	0.80	0.79	99	3.1	8/11/98		4813

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9808000066

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		mg/Kg	8.2	8.2	0	8/9/98		4775
TDS		mg/Kg	160	144	11	8/13/98		4872

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
105406	Field Blank	8/17/98	16:20	8/19/98
105407	Trip Blank	8/17/98		8/19/98
105408	TSB-8 2-3'	8/17/98	13:25	8/19/98
105409	TSB-8 8-10'	8/17/98	13:28	8/19/98
105410	TSB-8 40-42'	8/17/98	15:52	8/19/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	9/1/98		5183
Acrylonitrile		<5	ug/L	5	9/1/98		5183
Benzene		<1	ug/L	1	9/1/98		5183
Carbon tetrachloride		<1	ug/L	1	9/1/98		5183
Chlorobenzene		<1	ug/L	1	9/1/98		5183
1,2-dichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2,2-tetrachloroethane		<1	ug/L	1	9/1/98		5183
1,1,1-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethane		<1	ug/L	1	9/1/98		5183
1,1,2-trichloroethylene		<1	ug/L	1	9/1/98		5183
Chloroform		<1	ug/L	1	9/1/98		5183
Dichlorobenzene		<2	ug/L	2	9/1/98		5183
1,1-dichloroethylene		<1	ug/L	1	9/1/98		5183
Dichloropropenes		<1	ug/L	1	9/1/98		5183
[illegible]ylbenzene		<1	ug/L	1	9/1/98		5183
Bromodichloromethane		<1	ug/L	1	9/1/98		5183
Bromomethane		<5	ug/L	5	9/1/98		5183
Chloromethane		<1	ug/L	1	9/1/98		5183
Dichlorodifluoromethane		<1	ug/L	1	9/1/98		5183
Dichloromethane		<1	ug/L	1	9/1/98		5183
Trichlorofluoromethane		<1	ug/L	1	9/1/98		5183
Tetrachloroethylene		<1	ug/L	1	9/1/98		5183
Toluene		<1	ug/L	1	9/1/98		5183
Trichloroethylene		<1	ug/L	1	9/1/98		5183
Vinyl chloride		<1	ug/L	1	9/1/98		5183
m,p-xylene		<1	ug/L	1	9/1/98		5183
o-xylene		<1	ug/L	1	9/1/98		5183
1,1-dichloroethane		<1	ug/L	1	9/1/98		5183
Ethylene dibromide		<1	ug/L	1	9/1/98		5183
cis-1,2-dichlorethylene		<1	ug/L	1	9/1/98		5183
trans-1,2-dichloroethylene		<1	ug/L	1	9/1/98		5183
Methylene chloride		<5	ug/L	5	9/1/98		5183
Surr. Dibromofluoromethane		120	%	72-130	9/1/98		5183
Surr. Toluene-d8		107	%	77-127	9/1/98		5183
Surr. 4-Bromofluorobenzene		99	%	72-131	9/1/98		5183
Acrolein		<125	ug/Kg	125	9/6/98		5207
Acrylonitrile		<125	ug/Kg	125	9/6/98		5207
Benzene		<25	ug/Kg	25	9/6/98		5207
Carbon tetrachloride		<25	ug/Kg	25	9/6/98		5207
Chlorobenzene		<25	ug/Kg	25	9/6/98		5207
[illegible]2-dichloroethane		<25	ug/Kg	25	9/6/98		5207

Date: 9-29-98
Page # 8
Order ID Number: 9808000380

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,1-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethane		<25	ug/Kg	25	9/6/98		5207
1,1,2-trichloroethylene		<25	ug/Kg	25	9/6/98		5207
Chloroform		<25	ug/Kg	25	9/6/98		5207
Dichlorobenzene		<50	ug/Kg	50	9/6/98		5207
1,1-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Dichloropropenes		<25	ug/Kg	25	9/6/98		5207
Ethylbenzene		<25	ug/Kg	25	9/6/98		5207
Bromodichloromethane		<25	ug/Kg	25	9/6/98		5207
Bromomethane		<125	ug/Kg	125	9/6/98		5207
Chloromethane		<25	ug/Kg	25	9/6/98		5207
Dichlorodifluoromethane		<25	ug/Kg	25	9/6/98		5207
Dichloromethane		<25	ug/Kg	25	9/6/98		5207
Trichlorofluoromethane		<25	ug/Kg	25	9/6/98		5207
Tetrachloroethylene		<25	ug/Kg	25	9/6/98		5207
Toluene		<25	ug/Kg	25	9/6/98		5207
Trichloroethylene		<25	ug/Kg	25	9/6/98		5207
Vinyl chloride		<25	ug/Kg	25	9/6/98		5207
m,p-xylene		<25	ug/Kg	25	9/6/98		5207
[redacted]ylene		<25	ug/Kg	25	9/6/98		5207
[redacted],1-dichloroethane		<25	ug/Kg	25	9/6/98		5207
Ethylene dibromide		<25	ug/Kg	25	9/6/98		5207
cis-1,2-dichlorethylene		<25	ug/Kg	25	9/6/98		5207
trans-1,2-dichloroethylene		<25	ug/Kg	25	9/6/98		5207
Methylene chloride		<125	ug/Kg	125	9/6/98		5207
Surr. Dibromofluoromethane		101	%	72-130	9/6/98		5207
Surr. Toluene-d8		89	%	77-127	9/6/98		5207
Surr. 4-Bromofluorobenzene		92	%	72-131	9/6/98		5207
Total Mercury		<0.10	mg/Kg	<0.10	8/25/98	4765	5101
Cyanide		<0.01	mg/Kg	0.01	8/20/98		5029
Fluoride		<0.1	mg/Kg	0.1	8/27/98		5126
Nitrate		<0.2	mg/Kg	0.2	8/27/98		5126
Chloride		<0.5	mg/Kg	0.5	8/27/98		5126
Sulfate		<0.5	mg/Kg	0.5	8/27/98		5126
Arsenic		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Barium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Cadmium		<0.10	mg/Kg	0.10	8/27/98	4797	5120
Chromium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Lead		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Selenium		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Silver		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Uranium		<2.0	mg/Kg	2.0	8/27/98	4797	5120
Copper		<1.0	mg/Kg	0.50	8/27/98	4797	5120
Iron		<2.0	mg/Kg	2.0	8/27/98	4797	5120
Manganese		<1.0	mg/Kg	1.0	8/27/98	4797	5120
[redacted]nc		<2.0	mg/Kg	2.0	8/27/98	4797	5120

Date: 9-29-98
Page # 9
Order ID Number: 9808000380

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Aluminum		<10	mg/Kg	10	8/27/98	4797	5120
Boron		<10	mg/Kg	10	8/27/98	4797	5120
Cobalt		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Molybdenum		<1.0	mg/Kg	1.0	8/27/98	4797	5120
Nickel		<0.50	mg/Kg	0.50	8/27/98	4797	5120
Phenolics		<0.01	mg/Kg	0.01	8/26/98		5110
PCBs		<0.1	mg/Kg	0.1	9/3/98	4795	5206
Benzidine		<2.5	mg/kg	2.5	9/18/98	4916	5412
Hexachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachloroethane		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
bis (chloromethyl) ether		<1.25	mg/kg	1.25	9/18/98	4916	5412
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrotoluene		<0.25	mg/kg	0.25	9/18/98	4916	5412
[redacted]phenylhydrazine		<1.25	mg/kg	1.25	9/18/98	4916	5412
Hexachlorobutadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Isophorone		<1.25	mg/kg	1.25	9/18/98	4916	5412
Nitrobenzene		<0.25	mg/kg	0.25	9/18/98	4916	5412
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	9/18/98	4916	5412
2,4-dinitrophenols		<1.25	mg/kg	1.25	9/18/98	4916	5412
n-nitrosodiethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodimethylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosodibutylamine		<1.25	mg/kg	1.25	9/18/98	4916	5412
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	9/18/98	4916	5412
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pentachlorophenol		<1.25	mg/kg	1.25	9/18/98	4916	5412
Dibutyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Diethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Dimethyl phthalate		<0.25	mg/kg	0.25	9/18/98	4916	5412
Anthracene		<0.25	mg/kg	0.25	9/18/98	4916	5412
3,4-benzofluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluoranthene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Fluorene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Phenanthrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Naphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
1-methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412
[redacted]methylnaphthalene		<0.25	mg/kg	0.25	9/18/98	4916	5412

Order ID Number: 9808000380

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzo-a-pyrene		<0.25	mg/kg	0.25	9/18/98	4916	5412
Surr. 2-Fluorophenol		48	%	25-121	9/18/98	4916	5412
Surr. Phenol-d6		51	%	24-113	9/18/98	4916	5412
Surr. Nitroobenzene-d5		52	%	23-120	9/18/98	4916	5412
Surr. 2-Fluorobiphenyl		53	%	30-115	9/18/98	4916	5412
Surr. 2,4,6-Tribromophenol		37	%	19-122	9/18/98	4916	5412
Surr. Terphenyl-d14		59	%	28-137	9/18/98	4916	5412

Quality Control Report
Continuing Calibration Verification Standard

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	9/1/98	5183
1,1-Dichloroethene		100	ug/L	117	117	9/1/98	5183
Chloroform		100	ug/L	103	103	9/1/98	5183
1,2-Dichloropropane		100	ug/L	115	115	9/1/98	5183
Toluene		100	ug/L	119	119	9/1/98	5183
Chlorobenzene		100	ug/L	118	118	9/1/98	5183
Ethylbenzene		100	ug/L	115	115	9/1/98	5183
Vinyl chloride		100	ug/L	92	92	9/6/98	5207
1,1-Dichloroethene		100	ug/L	98	98	9/6/98	5207
Chloroform		100	ug/L	91	91	9/6/98	5207
1,2-Dichloropropane		100	ug/L	82	82	9/6/98	5207
Toluene		100	ug/L	86	86	9/6/98	5207
Chlorobenzene		100	ug/L	87	87	9/6/98	5207
Ethylbenzene		100	ug/L	86	86	9/6/98	5207
pH		7.0	s.u.	7.0	100	8/24/98	5089
Total Mercury		1.0	mg/L	1.0	100	8/25/98	5101
Cyanide		0.12	mg/L	0.11	110	8/20/98	5029
Fluoride		2.5	mg/L	2.425	97	5/27/98	5126
Nitrate		5.0	mg/L	4.75	95	5/27/98	5126
Chloride		12.5	mg/L	11.84	95	5/27/98	5126
Sulfate		12.5	mg/L	12.09	97	5/27/98	5126
Arsenic		1.0	mg/L	0.98	98	8/27/98	5120
Barium		1.0	mg/L	1.0	100	8/27/98	5120
Cadmium		1.0	mg/L	0.98	98	8/27/98	5120
Chromium		1.0	mg/L	1.0	100	8/27/98	5120
Lead		1.0	mg/L	0.99	99	8/27/98	5120
Selenium		1.0	mg/L	0.99	99	8/27/98	5120
Silver		0.20	mg/L	0.20	100	8/27/98	5120
Uranium		1.0	mg/L	1.0	100	8/27/98	5120
Copper		1.0	mg/L	1.0	100	8/27/98	5120
Iron		50	mg/L	51	102	8/27/98	5120
Manganese		1.0	mg/L	1.0	100	8/27/98	5120
Zinc		1.0	mg/L	0.97	97	8/27/98	5120
Aluminum		125	mg/L	128	102	8/27/98	5120
Boron		1.0	mg/L	0.99	99	8/27/98	5120
Cobalt		1.0	mg/L	0.99	99	8/27/98	5120
Molybdenum		1.0	mg/L	0.99	99	8/27/98	5120
Nickel		1.0	mg/L	0.99	99	8/27/98	5120
Phenolics		0.80	mg/L	0.80	100	8/26/98	5110
PCB		0.40	mg/L	0.45	113	9/3/98	5206

Order ID Number: 9808000380

oject Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
TDS		1,000	mg/L	997	100	9/16/98	5364
Phenol		80	mg/L	76	95	9/18/98	5412
1,4-Dichlorobenzene		80	mg/L	67	84	9/18/98	5412
2-nitrophenol		80	mg/L	75	94	9/18/98	5412
2,4-Dichlorophenol		80	mg/L	80	100	9/18/98	5412
Hexachlorobutadiene		80	mg/L	64	80	9/18/98	5412
4-Chloro-3-methylphenol		80	mg/L	67	84	9/18/98	5412
2,4,6-Trichlorophenol		80	mg/L	66	83	9/18/98	5412
Acenaphthene		80	mg/L	68	85	9/18/98	5412
n-Nitrosodiphenylamine		80	mg/L	86	104	9/18/98	5412
Pentachlorophenol		80	mg/L	89	111	9/18/98	5412
Fluoranthene		80	mg/L	74	93	9/18/98	5412
Di-n-octylphthalate		80	mg/L	91	114	9/18/98	5412
Benzo(a)pyrene		80	mg/L	69	86	9/18/98	5412

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 13

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	111	111	100	98	98	12	9/1/98		5183
Benzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
Trichloroethene		ug/L	<1	100	96	96	100	90	90	6.5	9/1/98		5183
Toluene		ug/L	<1	100	111	111	100	101	101	9.4	9/1/98		5183
Chlorobenzene		ug/L	<1	100	101	101	100	93	93	8.2	9/1/98		5183
1,1-Dichloroethene		mg/Kg	<69	100	97	97	100	97	97	0	9/6/98		5207
Benzene		mg/Kg	<69	100	104	104	100	105	105	0.96	9/6/98		5207
Trichloroethene		mg/Kg	<69	100	117	117	100	116	116	0.9	9/6/98		5207
Toluene		mg/Kg	<69	100	104	104	100	104	104	0.0	9/6/98		5207
Chlorobenzene		mg/Kg	<69	100	90	90	100	89	89	1.1	9/6/98		5207
Total Mercury		mg/Kg	<0.10	1.0	1.2	120	1.0	1.2	120	0	8/25/98	4765	5101
[redacted]yanide		mg/Kg	<0.01	0.12	0.1	83	0.12	0.1	83	0	8/20/98		5029
[redacted]oride		mg/Kg	3.31	2.5	5.90	104	2.5	5.69	95	9	8/27/98		5126
Nitrate		mg/Kg	8.58	5.0	13.20	92	5.0	13.17	92	0	8/27/98		5126
Chloride		mg/Kg	70.26	12.5	79.35	73	12.5	78.96	70	4.2	8/27/98		5126
Sulfate		mg/Kg	60.07	12.5	69.61	76	12.5	69.49	75	1.3	8/27/98		5126
Arsenic		mg/Kg	<0.50	200	152	76	200	152	76	0	8/27/98		5120
Barium		mg/Kg	240	200	380	70	200	412	86	20	8/27/98		5120
Cadmium		mg/Kg	<0.10	200	135	68	200	132	66	3	8/27/98		5120
Chromium		mg/Kg	2.5	200	147	72	200	147	72	0	8/27/98		5120
Lead		mg/Kg	0.77	200	136	68	200	137	68	0	8/27/98		5120
Selenium		mg/Kg	<0.50	200	140	70	200	138	69	1.1	8/27/98		5120
Silver		mg/Kg	<0.50	100	61	61	100	78	78	24	8/27/98		5120
Uranium		mg/Kg	<2.0	200	150	75	200	151	76	1.3	8/27/98		5120
Copper		mg/Kg	1.2	200	173	83	200	169	84	1.2	8/27/98		5120
Iron		mg/Kg	<2	200	204	102	200	208	104	1.9	8/27/98		5120
Manganese		mg/Kg	17	200	163	73	200	166	75	2.7	8/27/98		5120
Zinc		mg/Kg	5.5	200	133	64	200	133	64	0	8/27/98		5120
Aluminum		mg/Kg	<10	200	194	97	200	194	97	0	8/27/98		5120
Boron		mg/Kg	<10	200	159	80	200	162	81	1.2	8/27/98		5120
Cobalt		mg/Kg	4.5	200	145	70	200	144	70	0	8/27/98		5120
Molybdenum		mg/Kg	1.3	200	146	72	200	149	74	2.7	8/27/98		5120
Nickel		mg/Kg	4.5	200	144	70	200	143	69	1.4	8/27/98		5120
Phenolics		mg/Kg	<0.01	0.80	0.79	99	0.80	0.80	100	1	8/26/98		5110
PCB		mg/Kg	<0.1	0.5	0.45	90	0.5	0.48	96	6.4	3-Sep	4795	5206
Phenol		mg/Kg	<0.25	10.00	4.05	41	10.00	3.69	37	10	9/18/98	4916	5412
2-Chlorophenol		mg/Kg	<1.25	10.00	3.82	38	10.00	3.54	35	8.2	9/18/98	4916	5412
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	4.86	49	10.00	4.45	45	8.5	9/18/98	4916	5412
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	4.05	40	10.00	3.74	37	7.8	9/18/98	4916	5412
[redacted]2,4-trichlorobenzene		mg/Kg	<0.25	10.00	4.38	44	10.00	4.02	40	9.5	9/18/98	4916	5412
[redacted]Chloro-3-methylphenol		mg/Kg	<1.25	10.00	3.73	37	10.00	3.48	35	5.6	9/18/98	4916	5412

Order ID Number: 9808000380

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Acenaphthene		mg/Kg	<0.25	10.00	5.04	50	10.00	4.79	48	4.1	9/18/98	4916	5412
4-Nitrophenol		mg/Kg	<1.25	10.00	2.75	28	10.00	2.46	25	11	9/18/98	4916	5412
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	4.59	46	10.00	4.35	44	4.4	9/18/98	4916	5412
Pentachlorophenol		mg/Kg	<1.25	10.00	3.74	37	10.00	3.45	35	5.6	9/18/98	4916	5412
Pyrene		mg/Kg	<0.25	10.00	4.58	46	10.00	4.51	45	2.2	9/18/98	4916	5412

Quality Control Report
Duplicate

Jeff Kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, NM

Order ID Number: 9808000380

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		mg/Kg	8.0	8.0	0	8/24/98		5089
TDS		mg/Kg	2,100	2,200	4.7	9/16/98		5364

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
103762	Field Blank	7/29/98	15:50	7/31/98
103763	Trip Blank			7/31/98
103764	MW-2 62-64D	7/29/98	15:40	7/31/98
103765	MW-2 58-60'	7/29/98	15:30	7/31/98
103766	MW-2 13-15'	7/29/98	15:30	7/31/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/3/98		4726
Acrylonitrile		<5	ug/L	5	8/3/98		4726
Benzene		<1	ug/L	1	8/3/98		4726
Carbon tetrachloride		<1	ug/L	1	8/3/98		4726
Chlorobenzene		<1	ug/L	1	8/3/98		4726
1,2-dichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/3/98		4726
1,1,1-trichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2-trichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2-trichloroethylene		<1	ug/L	1	8/3/98		4726
Chloroform		<1	ug/L	1	8/3/98		4726
chlorobenzene		<2	ug/L	2	8/3/98		4726
1,1-dichloroethylene		<1	ug/L	1	8/3/98		4726
Dichloropropenes		<1	ug/L	1	8/3/98		4726
Ethylbenzene		<1	ug/L	1	8/3/98		4726
Bromodichloromethane		<1	ug/L	1	8/3/98		4726
Bromomethane		<5	ug/L	5	8/3/98		4726
Chloromethane		<1	ug/L	1	8/3/98		4726
Dichlorodifluoromethane		<1	ug/L	1	8/3/98		4726
Dichloromethane		<1	ug/L	1	8/3/98		4726
Trichlorofluoromethane		<1	ug/L	1	8/3/98		4726
Tetrachloroethylene		<1	ug/L	1	8/3/98		4726
Toluene		<1	ug/L	1	8/3/98		4726
Trichloroethylene		<1	ug/L	1	8/3/98		4726
Vinyl chloride		<1	ug/L	1	8/3/98		4726
m,p-xylene		<1	ug/L	1	8/3/98		4726
o-xylene		<1	ug/L	1	8/3/98		4726
1,1-dichloroethane		<1	ug/L	1	8/3/98		4726
Ethylene dibromide		<1	ug/L	1	8/3/98		4726
cis-1,2-dichlorethylene		<1	ug/L	1	8/3/98		4726
trans-1,2-dichloroethylene		<1	ug/L	1	8/3/98		4726
Methylene chloride		<5	ug/L	5	8/3/98		4726
Surr. Dibromofluoromethane		85	%	72-130	8/3/98		4726
Surr. Toluene-d8		99	%	77-127	8/3/98		4726
Surr. 4-Bromofluorobenzene		96	%	72-131	8/3/98		4726

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/Kg	125	8/4/98		4727
Acrylonitrile		<125	ug/Kg	125	8/4/98		4727
Benzene		<25	ug/Kg	25	8/4/98		4727
Carbon tetrachloride		<25	ug/Kg	25	8/4/98		4727
Chlorobenzene		<25	ug/Kg	25	8/4/98		4727
1,2-dichloroethane		<25	ug/Kg	25	8/4/98		4727
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	8/4/98		4727
1,1,1-trichloroethane		<25	ug/Kg	25	8/4/98		4727
1,1,2-trichloroethane		<25	ug/Kg	25	8/4/98		4727
1,1,2-trichloroethylene		<25	ug/Kg	25	8/4/98		4727
Chloroform		<25	ug/Kg	25	8/4/98		4727
Dichlorobenzene		<50	ug/Kg	50	8/4/98		4727
1,1-dichloroethylene		<25	ug/Kg	25	8/4/98		4727
Dichloropropenes		<25	ug/Kg	25	8/4/98		4727
Ethylbenzene		<25	ug/Kg	25	8/4/98		4727
Bromodichloromethane		<25	ug/Kg	25	8/4/98		4727
Bromomethane		<25	ug/Kg	25	8/4/98		4727
Chloromethane		<25	ug/Kg	25	8/4/98		4727
Dichlorodifluoromethane		<25	ug/Kg	25	8/4/98		4727
Chloromethane		<25	ug/Kg	25	8/4/98		4727
Trichlorofluoromethane		<25	ug/Kg	25	8/4/98		4727
Tetrachloroethylene		<25	ug/Kg	25	8/4/98		4727
Toluene		<25	ug/Kg	25	8/4/98		4727
Trichloroethylene		<25	ug/Kg	25	8/4/98		4727
Vinyl chloride		<25	ug/Kg	25	8/4/98		4727
m,p-xylene		<25	ug/Kg	25	8/4/98		4727
o-xylene		<25	ug/Kg	25	8/4/98		4727
1,1-dichloroethane		<25	ug/Kg	25	8/4/98		4727
Ethylene dibromide		<25	ug/Kg	25	8/4/98		4727
cis-1,2-dichlorethylene		<25	ug/Kg	25	8/4/98		4727
trans-1,2-dichloroethylene		<25	ug/Kg	25	8/4/98		4727
Methylene chloride		<125	ug/Kg	125	8/4/98		4727
Surr. Dibromofluoromethane		85	%	71-132	8/4/98		4727
Surr. Toluene-d8		99	%	82-124	8/4/98		4727
Surr. 4-Bromofluorobenzene		96	%	76-126	8/4/98		4727
PCB's		<0.1	mg/Kg	0.1	8/4/98	4628	4728
Total Mercury		<0.25	mg/Kg	0.25	8/4/98	4626	4729
Fluoride		<0.1	mg/Kg	0.1	8/5/98		4730
Nitrate		<0.1	mg/Kg	0.1	8/5/98		4730
Chloride		<0.5	mg/Kg	0.5	8/5/98		4730
Sulfate		<0.5	mg/Kg	0.5	8/5/98		4730
Cadmium		<0.10	mg/Kg	0.10	8/8/98	4641	4761
Silver		<0.50	mg/Kg	0.50	8/8/98	4641	4761
Barium		<0.50	mg/Kg	0.50	8/8/98	4641	4761
Cobalt		<0.50	mg/Kg	0.50	8/8/98	4641	4761
Copper		<1.0	mg/Kg	1.0	8/8/98	4641	4761

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Manganese		<1.0	mg/Kg	1.0	8/8/98	4641	4761
Molybdenum		<1.0	mg/Kg	1.0	8/8/98	4641	4761
Zinc		<2.0	mg/Kg	2.0	8/8/98	4641	4761
Boron		<10	mg/Kg	10	8/8/98	4641	4761
Cyanide		<0.01	mg/Kg	0.01	8/11/98		4815
Benzidine		<2.5	mg/Kg	2.5	8/14/98	4832	4892
Hexachlorobenzene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Pentachlorobenzene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Hexachloroethane		<0.25	mg/Kg	0.25	8/14/98	4832	4892
2,4-dichlorophenol		<1.25	mg/Kg	1.25	8/14/98	4832	4892
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	8/14/98	4832	4892
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	8/14/98	4832	4892
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	8/14/98	4832	4892
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	8/14/98	4832	4892
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	8/14/98	4832	4892
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	8/14/98	4832	4892
2,4-dinitrotoluene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Diphenylhydrazine		<1.25	mg/Kg	1.25	8/14/98	4832	4892
Hexachlorobutadiene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Isophorone		<1.25	mg/Kg	1.25	8/14/98	4832	4892
Nitrobenzene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
2,4-dinitro-o-cresol		<1.25	mg/Kg	1.25	8/14/98	4832	4892
2,4-dinitrophenols		<1.25	mg/Kg	1.25	8/14/98	4832	4892
N-nitrosodiethylamine		<0.25	mg/Kg	0.25	8/14/98	4832	4892
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	8/14/98	4832	4892
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	8/14/98	4832	4892
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	8/14/98	4832	4892
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Pentachlorophenol		<1.25	mg/Kg	1.25	8/14/98	4832	4892
Phenol		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Dibutyl phthalate		<0.25	mg/Kg	0.25	8/14/98	4832	4892
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Diethyl phthalate		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Dimethyl phthalate		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Anthracene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Fluoranthene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Fluorene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Phenanthrene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Pyrene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Naphthalene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
1-methylnaphthalene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
2-methylnaphthalene		<0.25	mg/Kg	0.25	8/14/98	4832	4892

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzo-a-pyrene		<0.25	mg/Kg	0.25	8/14/98	4832	4892
Surr. 2-Fluorophenol		52	%	25-121	8/14/98	4832	4892
Surr. Phenol-d6		61	%	24-113	8/14/98	4832	4892
Surr. Nitroobenzene-d5		55	%	23-120	8/14/98	4832	4892
Surr. 2-Fluorobiphenyl		62	%	30-115	8/14/98	4832	4892
Surr. 2,4,6-Tribromophenol		86	%	19-122	8/14/98	4832	4892
Surr. Terphenyl-d14		67	%	28-137	8/14/98	4832	4892
Arsenic		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Selenium		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Chromium		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Lead		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Aluminum		<10	mg/Kg	10	8/18/98	4645	4955
Iron		<2.0	mg/Kg	2	8/18/98	4645	4955
Nickel		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Uranium		<1.0	mg/Kg	1	8/18/98	4645	4955
TRPHC		<10.0	mg/Kg	10.0	8/22/98	4743	5045
TRPHC		<10.0	mg/Kg	10.0	8/30/98	4810	5168
Total Phenols		<0.25	mg/Kg	0.25	8/11/98		4813

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	117	117	8/3/98	4726
1,1-Dichloroethene		100	ug/L	112	112	8/3/98	4726
Chloroform		100	ug/L	116	116	8/3/98	4726
1,2-Dichloropropane		100	ug/L	119	119	8/3/98	4726
Toluene		100	ug/L	116	116	8/3/98	4726
Chlorobenzene		100	ug/L	116	116	8/3/98	4726
Ethylbenzene		100	ug/L	117	117	8/3/98	4726
Vinyl chloride		100	ug/L	108	108	8/4/98	4727
1,1-Dichloroethene		100	ug/L	106	106	8/4/98	4727
Chloroform		100	ug/L	111	111	8/4/98	4727
2-Dichloropropane		100	ug/L	117	117	8/4/98	4727
oluene		100	ug/L	113	113	8/4/98	4727
Chlorobenzene		100	ug/L	107	107	8/4/98	4727
Ethylbenzene		100	ug/L	113	113	8/4/98	4727
PCB's		0.40	mg/L	0.42	105	8/4/98	4728
Total Mercury		5.0	mg/L	5.1	102	8/4/98	4729
Fluoride		2.5	mg/L	2.515	101	8/5/98	4730
Nitrate		5.0	mg/L	4.08	82	8/5/98	4730
Chloride		12.5	mg/L	12.07	97	8/5/98	4730
Sulfate		12.5	mg/L	12.45	100	8/5/98	4730
Cadmium		1.0	mg/L	1.0	100	8/8/98	4761
Silver		0.20	mg/L	0.20	100	8/8/98	4761
Barium		1.0	mg/L	1.0	100	8/8/98	4761
Cobalt		1.0	mg/L	1.0	100	8/8/98	4761
Copper		1.0	mg/L	1.0	100	8/8/98	4761
Manganese		1.0	mg/L	1.0	100	8/8/98	4761
Molybdenum		1.0	mg/L	1.0	100	8/8/98	4761
Zinc		1.0	mg/L	1.0	100	8/8/98	4761
Boron		1.0	mg/L	1.0	100	8/8/98	4761
Cyanide		0.12	mg/L	0.12	100	8/11/98	4815
Phenol		80	mg/L	66	83	8/14/98	4892
1,4-Dichlorobenzene		80	mg/L	75	94	8/14/98	4892
2-nitrophenol		80	mg/L	84	105	8/14/98	4892
2,4-Dichlorophenol		80	mg/L	78	98	8/14/98	4892
Hexachlorobutadiene		80	mg/L	81	101	8/14/98	4892

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
4-Chloro-3-methylphenol		80	mg/L	81	101	8/14/98	4892
2,4,6-Trichlorophenol		80	mg/L	83	104	8/14/98	4892
Acenaphthene		80	mg/L	76	95	8/14/98	4892
n-Nitrosodiphenylamine		80	mg/L	68	85	8/14/98	4892
Pentachlorophenol		80	mg/L	82	103	8/14/98	4892
Fluoranthene		80	mg/L	92	101	8/14/98	4892
Di-n-octylphthalate		80	mg/L	94	118	8/14/98	4892
Benzo(a)pyrene		80	mg/L	77	96	8/14/98	4892
Arsenic		1.0	mg/L	1.0	100	8/18/98	4955
Selenium		1.0	mg/L	1.0	100	8/18/98	4955
Chromium		1.0	mg/L	0.99	99	8/18/98	4955
Lead		1.0	mg/L	1.0	100	8/18/98	4955
Aluminum		1.0	mg/L	1.0	100	8/18/98	4955
Iron		1.0	mg/L	0.99	99	8/18/98	4955
Nickel		1.0	mg/L	0.98	98	8/18/98	4955
Uranium		1.0	mg/L	1.0	100	8/18/98	4955
TDS		1,000	mg/L	1,004	100	8/12/98	4835
[illegible]RPHC		100	mg/L	101	101	8/22/98	5045
[illegible]RPHC		100	mg/L	99	99	8/30/98	5168

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	92	92	100	92	92	0	8/3/98		4726
Benzene		ug/L	<1	100	119	119	100	118	118	0.84	8/3/98		4726
Trichloroethene		ug/L	<1	100	111	111	100	113	113	1.8	8/3/98		4726
Toluene		ug/L	<1	100	115	115	100	118	118	2.6	8/3/98		4726
Chlorobenzene		ug/L	<1	100	108	108	100	109	109	0.92	8/3/98		4726
1,1-Dichloroethene		ug/Kg	<25	100	81	81	100	82	82	1.2	8/4/98		4727
Benzene		ug/Kg	<25	100	98	98	100	98	98	0	8/4/98		4727
Trichloroethene		ug/Kg	<25	100	85	85	100	87	87	2.3	8/4/98		4727
[illegible]luene		ug/Kg	<25	100	84	84	100	86	86	2.4	8/4/98		4727
[illegible]hlorobenzene		ug/Kg	<25	100	85	85	100	86	86	1.2	8/4/98		4727
PCB's		mg/Kg	<0.1	0.50	0.49	98	0.50	0.50	100	2.0	8/4/98		4728
Fluoride		mg/Kg	1.7	2.5	4.00	92	2.5	4.22	101	9.3	8/5/98		4730
Nitrate		mg/Kg	3.1	5.0	7.95	97	5.0	8.06	99	2.0	8/5/98		4730
Chloride		mg/Kg	93.8	12.5	104.37	85	12.5	100.57	54	4.0	8/5/98		4730
Sulfate		mg/Kg	192	12.5	206.36	115	12.5	197.84	46	4.0	8/5/98		4730
Cadmium		mg/Kg	0.19	200	174	87	200	178	89	2.3	8/8/98		4761
Silver		mg/Kg	<0.50	100	78	78	100	98	98	23	8/8/98		4761
Barium		mg/Kg	27	200	214	94	200	206	90	4.3	8/8/98		4761
Cobalt		mg/Kg	7.1	200	183	88	200	188	90	2.2	8/8/98		4761
Copper		mg/Kg	1.6	200	186	82	200	192	95	15	8/8/98		4761
Manganese		mg/Kg	55	200	238	92	200	237	91	1.1	8/8/98		4761
Molybdenum		mg/Kg	2.7	200	185	91	200	196	97	6.4	8/8/98		4761
Zinc		mg/Kg	20	200	210	95	200	212	96	1	8/8/98		4761
Boron		mg/Kg	13	200	178	83	200	182	84	1.2	8/8/98		4761
Cyanide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	8/11/98		4815
Phenol		mg/Kg	<0.25	10.00	7.69	77	10.00	7.01	70	9.5	8/14/98	4592	4892
2-Chlorophenol		mg/Kg	<1.25	10.00	7.69	77	10.00	7.14	71	8.1	8/14/98	4592	4892
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.47	75	10.00	7.07	71	5.5	8/14/98	4592	4892
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.28	73	10.00	7.08	71	2.8	8/14/98	4592	4892
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	8.64	84	10.00	8.14	81	3.6	8/14/98	4592	4892
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	9.36	94	10.00	8.56	86	8.9	8/14/98	4592	4892
Acenaphthene		mg/Kg	<0.25	10.00	8.88	89	10.00	8.41	84	5.8	8/14/98	4592	4892
4-Nitrophenol		mg/Kg	<1.25	10.00	7.68	77	10.00	6.87	69	11	8/14/98	4592	4892

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	8.9	89	10.00	8.76	88	1.1	8/14/98	4592	4892
Pentachlorophenol		mg/Kg	<1.25	10.00	5.94	59	10.00	6.73	67	13	8/14/98	4592	4892
Pyrene		mg/Kg	<0.25	10.00	9.78	98	10.00	9.4	94	4.2	8/14/98	4592	4892
Arsenic		mg/Kg	<0.50	200	153	77	200	155	78	1.3	8/18/98	4645	4955
Selenium		mg/Kg	<0.50	200	166	83	200	158	79	4.9	8/18/98	4645	4955
Chromium		mg/Kg	12	200	177	83	200	176	82	1.2	8/18/98	4645	4955
Lead		mg/Kg	7.2	200	171	82	200	168	80	2.5	8/18/98	4645	4955
Aluminum		mg/Kg	<1.0	200	180	90	200	182	91	1.1	8/18/98	4645	4955
Iron		mg/Kg	<2.0	200	192	96	200	191	96	0	8/18/98	4645	4955
Nickel		mg/Kg	11	200	167	78	200	167	75	3.9	8/18/98	4645	4955
Uranium		mg/Kg	<1.0	100	108	108	100	108	18	0	8/18/98	4645	4955
TRPHC		mg/Kg	<10.0	250	276	110	250	235	94	16	8/22/98	4743	5045
TRPHC		mg/Kg	<10.0	250	231	92	250	220	88	4.4	8/30/98	4810	5168

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM

Order ID Number: 9807000548

Parameter	Flag	Units	Sample	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.3	8.3	0	7/31/98		4715
TDS		mg/Kg	2,500	2,450	2.0	8/12/98		4835

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98
Page # 1

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
103637	Trip Blank			7/30/98
103638	Field Blank	7/28/98	15:30	7/30/98
103639	CSS #1	7/28/98	14:30	7/30/98
103640	CSS #2	7/28/98	14:39	7/30/98
103641	CSS #3	7/28/98	14:46	7/30/98
103642	CSS #4	7/28/98	14:25	7/30/98
103643	CSS #5	7/28/98	15:00	7/30/98
103644	CSS #7	7/28/98	15:06	7/30/98
103645	CSS #6	7/28/98	15:15	7/30/98

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich
Director

Quality Control Report
Blanks

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/Kg	125	7/31/98		4719
Acrylonitrile		<125	ug/Kg	125	7/31/98		4719
Benzene		<25	ug/Kg	25	7/31/98		4719
Carbon tetrachloride		<25	ug/Kg	25	7/31/98		4719
Chlorobenzene		<25	ug/Kg	25	7/31/98		4719
1,2-dichloroethane		<25	ug/Kg	25	7/31/98		4719
1,1,2,2-tetrachloroethane		<25	ug/Kg	25	7/31/98		4719
1,1,1-trichloroethane		<25	ug/Kg	25	7/31/98		4719
1,1,2-trichloroethane		<25	ug/Kg	25	7/31/98		4719
1,1,2-trichloroethylene		<25	ug/Kg	25	7/31/98		4719
Chloroform		<25	ug/Kg	25	7/31/98		4719
Dichlorobenzene		<50	ug/Kg	2	7/31/98		4719
1-dichloroethylene		<25	ug/Kg	50	7/31/98		4719
Dichloropropenes		<25	ug/Kg	25	7/31/98		4719
Ethylbenzene		<25	ug/Kg	25	7/31/98		4719
Bromodichloromethane		<25	ug/Kg	25	7/31/98		4719
Bromomethane		<125	ug/Kg	125	7/31/98		4719
Chloromethane		<25	ug/Kg	25	7/31/98		4719
Dichlorodifluoromethane		<25	ug/Kg	25	7/31/98		4719
Dichloromethane		<25	ug/Kg	25	7/31/98		4719
Trichlorofluoromethane		<25	ug/Kg	25	7/31/98		4719
Tetrachloroethylene		<25	ug/Kg	25	7/31/98		4719
Toluene		<25	ug/Kg	25	7/31/98		4719
Trichloroethylene		<25	ug/Kg	25	7/31/98		4719
Vinyl chloride		<25	ug/Kg	25	7/31/98		4719
m,p-xylene		<25	ug/Kg	25	7/31/98		4719
o-xylene		<25	ug/Kg	25	7/31/98		4719
1,1-dichloroethane		<25	ug/Kg	25	7/31/98		4719
Ethylene dibromide		<25	ug/Kg	25	7/31/98		4719
cis-1,2-dichlorethylene		<25	ug/Kg	25	7/31/98		4719
trans-1,2-dichloroethylene		<25	ug/Kg	25	7/31/98		4719
Methylene chloride		<125	ug/Kg	125	7/31/98		4719
Surr. Dibromofluoromethane		86	%	71-132	7/31/98		4719
Surr. Toluene-d8		99	%	82-124	7/31/98		4719
Surr. 4-Bromofluorobenzene		97	%	76-126	7/31/98		4719

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	8/3/98		4726
Acrylonitrile		<5	ug/L	5	8/3/98		4726
Benzene		<1	ug/L	1	8/3/98		4726
Carbon tetrachloride		<1	ug/L	1	8/3/98		4726
Chlorobenzene		<1	ug/L	1	8/3/98		4726
1,2-dichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2,2-tetrachloroethane		<1	ug/L	1	8/3/98		4726
1,1,1-trichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2-trichloroethane		<1	ug/L	1	8/3/98		4726
1,1,2-trichloroethylene		<1	ug/L	1	8/3/98		4726
Chloroform		<1	ug/L	1	8/3/98		4726
Dichlorobenzene		<2	ug/L	2	8/3/98		4726
1,1-dichloroethylene		<1	ug/L	1	8/3/98		4726
Dichloropropenes		<1	ug/L	1	8/3/98		4726
Ethylbenzene		<1	ug/L	1	8/3/98		4726
Bromodichloromethane		<1	ug/L	1	8/3/98		4726
Bromomethane		<5	ug/L	5	8/3/98		4726
Chloromethane		<1	ug/L	1	8/3/98		4726
Dichlorodifluoromethane		<1	ug/L	1	8/3/98		4726
Dichloromethane		<1	ug/L	1	8/3/98		4726
Trichlorofluoromethane		<1	ug/L	1	8/3/98		4726
Tetrachloroethylene		<1	ug/L	1	8/3/98		4726
Toluene		<1	ug/L	1	8/3/98		4726
Trichloroethylene		<1	ug/L	1	8/3/98		4726
Vinyl chloride		<1	ug/L	1	8/3/98		4726
m,p-xylene		<1	ug/L	1	8/3/98		4726
o-xylene		<1	ug/L	1	8/3/98		4726
1,1-dichloroethane		<1	ug/L	1	8/3/98		4726
Ethylene dibromide		<1	ug/L	1	8/3/98		4726
cis-1,2-dichlorethylene		<1	ug/L	1	8/3/98		4726
trans-1,2-dichloroethylene		<1	ug/L	1	8/3/98		4726
Methylene chloride		<5	ug/L	5	8/3/98		4726
Fluoride		<0.1	mg/Kg	0.1	8/5/98		4731
Nitrate		<0.1	mg/Kg	0.1	8/5/98		4731
Chloride		<0.5	mg/Kg	0.5	8/5/98		4731
Sulfate		<0.5	mg/Kg	0.5	8/5/98		4731
Total Mercury		<0.1	mg/Kg	0.1	8/6/98	4625	4737
Cadmium		<0.10	mg/Kg	0.10	8/10/98	4643	4795
Silver		<0.50	mg/Kg	0.50	8/10/98	4643	4795
Barium		<0.50	mg/Kg	0.50	8/10/98	4643	4795
Cobalt		<0.50	mg/Kg	0.50	8/10/98	4643	4795
Copper		<1.0	mg/Kg	1.0	8/10/98	4643	4795
Manganese		<1.0	mg/Kg	1.0	8/10/98	4643	4795

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Molybdenum		<1.0	mg/Kg	1.0	8/10/98	4643	4795
Zinc		<2.0	mg/Kg	2.0	8/10/98	4643	4795
Boron		<10	mg/Kg	10	8/10/98	4643	4795
PCB		<0.1	mg/Kg	0.1	8/10/98	4691	4801
Cyanide		<0.01	mg/Kg	0.01	8/11/98		4815
Benzidine		<2.5	mg/Kg	2.5	8/13/98	4590	4860
Hexachlorobenzene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Pentachlorobenzene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
1,2,4,5-tetrachlorobenzene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Hexachloroethane		<0.25	mg/Kg	0.25	8/13/98	4590	4860
2,4-dichlorophenol		<1.25	mg/Kg	1.25	8/13/98	4590	4860
2,4,5-trichlorophenol		<1.25	mg/Kg	1.25	8/13/98	4590	4860
2,4,6-trichlorophenol		<1.25	mg/Kg	1.25	8/13/98	4590	4860
bis (2-chloroethl) ether		<1.25	mg/Kg	1.25	8/13/98	4590	4860
bis (2-chloroisopropyl) ether		<1.25	mg/Kg	1.25	8/13/98	4590	4860
bis (chloromethyl) ether		<1.25	mg/Kg	1.25	8/13/98	4590	4860
3,3-dichlorobenzidine		<1.25	mg/Kg	1.25	8/13/98	4590	4860
[illegible]4-dinitrotoluene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
[illegible]phenylhydrazine		<1.25	mg/Kg	1.25	8/13/98	4590	4860
Hexachlorobutadiene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Isophorone		<1.25	mg/Kg	1.25	8/13/98	4590	4860
Nitrobenzene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
2,4-dinitro-o-cresol		<0.25	mg/Kg	0.25	8/13/98	4590	4860
2,4-dinitrophenols		<1.25	mg/Kg	1.25	8/13/98	4590	4860
i-nitrosodiethylamine		<0.25	mg/Kg	0.25	8/13/98	4590	4860
N-nitrosodimethylamine		<0.25	mg/Kg	0.25	8/13/98	4590	4860
N-nitrosodibutylamine		<1.25	mg/Kg	1.25	8/13/98	4590	4860
N-nitrosodiphenylamine		<0.25	mg/Kg	0.25	8/13/98	4590	4860
N-nitrosopyrrolidine		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Pentachlorophenol		<1.25	mg/Kg	1.25	8/13/98	4590	4860
Phenol		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Dibutyl phthalate		<0.25	mg/Kg	0.25	8/13/98	4590	4860
bis(2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Diethyl phthalate		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Dimethyl phthalate		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Anthracene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Fluoranthene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Fluorene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Phenanthrene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
[illegible]yrene		<0.25	mg/Kg	0.25	8/13/98	4590	4860

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Naphthalene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
1-methylnaphthalene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
2-methylnaphthalene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Benzo-a-pyrene		<0.25	mg/Kg	0.25	8/13/98	4590	4860
monomethylnaphthalenes		<0.25	mg/Kg	0.25	8/13/98	4590	4860
Surr. 2-Fluorophenol		51	%	25-121	8/13/98	4590	4860
Surr. Phenol-d6		59	%	24-113	8/13/98	4590	4860
Surr. Nitroobenzene-d5		55	%	23-120	8/13/98	4590	4860
Surr. 2-Fluorobiphenyl		61	%	30-115	8/13/98	4590	4860
Surr. 2,4,6-Tribromophenol		80	%	19-122	8/13/98	4590	4860
Surr. Terphenyl-d14		77	%	28-137	8/13/98	4590	4860
Arsenic		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Selenium		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Chromium		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Lead		<0.50	mg/Kg	0.5	8/18/98	4645	4955
Aluminum		<10	mg/Kg	10	8/18/98	4645	4955
Iron		<2.0	mg/Kg	2	8/18/98	4645	4955
[illegible]ickel		<0.50	mg/Kg	0.5	8/18/98	4645	4955
[illegible]anium		<1.0	mg/Kg	1	8/18/98	4645	4955
Benzene		<0.050	mg/Kg	0.05	8/4/98		4730
Toluene		<0.050	mg/Kg	0.05	8/4/98		4730
Ethylbenzene		<0.050	mg/Kg	0.05	8/4/98		4730
m,p,o-xylene		<0.050	mg/Kg	0.05	8/4/98		4730
TRPHC		<10	mg/Kg	10	8/22/98	4743	5045
TRPHC		<10	mg/Kg	10	8/30/98	4810	5168
Total Phenols		<0.25	mg/Kg	0.25	8/11/98		4813

Quality Control Report
Continuing Calibration Verification Standard

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	107	107	7/31/98	4719
1,1-Dichloroethene		100	ug/L	113	113	7/31/98	4719
Chloroform		100	ug/L	113	113	7/31/98	4719
1,2-Dichloropropane		100	ug/L	113	113	7/31/98	4719
Toluene		100	ug/L	116	116	7/31/98	4719
Chlorobenzene		100	ug/L	112	112	7/31/98	4719
Ethylbenzene		100	ug/L	119	119	7/31/98	4719
Fluoride		2.5	mg/L	2.515	101	8/5/98	4731
Nitrate		5.0	mg/L	4.08	82	8/5/98	4731
Chloride		12.5	mg/L	12.07	97	8/5/98	4731
ulfate		12.5	mg/L	12.45	100	8/5/98	4731
otal Mercury		5.000	mg/L	5.100	102	8/6/98	4737
Cadmium		1.0	mg/L	1.0	100	8/10/98	4795
Silver		0.20	mg/L	0.20	100	8/10/98	4795
Barium		1.0	mg/L	1.0	100	8/10/98	4795
Cobalt		1.0	mg/L	1.0	100	8/10/98	4795
Copper		1.0	mg/L	1.0	100	8/10/98	4795
Manganese		1.0	mg/L	1.0	97	8/10/98	4795
Molybdenum		1.0	mg/L	1.0	100	8/10/98	4795
Zinc		1.0	mg/L	1.0	100	8/10/98	4795
Boron		1.0	mg/L	1.0	100	8/10/98	4795
PCB		0.40	mg/Kg	0.42	105	8/10/98	4801
Cyanide		0.12	mg/L	0.12	100	8/11/98	4815
Phenol		80	mg/L	72	90	8/13/98	4860
1,4-Dichlorobenzene		80	mg/L	75	94	8/13/98	4860
2-nitrophenol		80	mg/L	81	101	8/13/98	4860
2,4-Dichlorophenol		80	mg/L	82	103	8/13/98	4860
Hexachlorobutadiene		80	mg/L	79	98	8/13/98	4860
4-Chloro-3-methylphenol		80	mg/L	78	98	8/13/98	4860
2,4,6-Trichlorophenol		80	mg/L	80	100	8/13/98	4860
Acenaphthene		80	mg/L	75	94	8/13/98	4860
n-Nitrosodiphenylamine		80	mg/L	73	91	8/13/98	4860
Pentachlorophenol		80	mg/L	86	108	8/13/98	4860
Fluoranthene		80	mg/L	77	96	8/13/98	4860
Di-n-octylphthalate		80	mg/L	76	95	8/13/98	4860
enzo(a)pyrene		80	mg/L	79	99	8/13/98	4860

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Arsenic		1.0	mg/L	1.0	100	8/18/98	4955
Selenium		1.0	mg/L	1.0	100	8/18/98	4955
Chromium		1.0	mg/L	0.99	99	8/18/98	4955
Lead		1.0	mg/L	1.0	100	8/18/98	4955
Aluminum		1.0	mg/L	1.0	100	8/18/98	4955
Iron		1.0	mg/L	0.99	99	8/18/98	4955
Nickel		1.0	mg/L	0.98	98	8/18/98	4955
Uranium		1.0	mg/L	1.0	100	8/18/98	4955
Benzene		0.100	mg/L	0.097	97	8/4/98	4730
Toluene		0.100	mg/L	0.097	97	8/4/98	4730
Ethylbenzene		0.100	mg/L	0.099	99	8/4/98	4730
m,p,o-xylene		0.300	mg/L	0.292	97	8/4/98	4730
TRPHC		100	mg/L	104	104	8/22/98	5045
TRPHC		100	mg/L	99	99	8/30/98	5168
TDS		1,000	mg/L	1,004	100	8/12/98	4835
Total Phenol		0.8	mg/L	0.81	101	8/11/98	4813

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	81	81	100	81	81	0	7/31/98		4719
Benzene		ug/L	<1	100	105	105	100	105	105	0	7/31/98		4719
Trichloroethene		ug/L	<1	100	89	89	100	89	89	0	7/31/98		4719
Toluene		ug/L	<1	100	95	95	100	95	95	0	7/31/98		4719
Chlorobenzene		ug/L	<1	100	86	86	100	86	86	0	7/31/98		4719
Fluoride		mg/Kg	1.7	2.5	4.00	92	2.5	4.22	101	9.3	8/5/98		4731
Nitrate		mg/Kg	3.1	5.0	7.95	97	5.0	8.06	99	2	8/5/98		4731
Chloride		mg/Kg	93.8	12.5	104.37	85	12.5	100.57	54	4.0	8/5/98		4731
Sulfate		mg/Kg	192	12.5	206.36	115	12.5	197.84	46	4.0	8/5/98		4731
tal Mercury		mg/Kg	0.1	2.5	2.8	108	2.5	2.7	104	3.8	8/6/98	4625	4737
admium		mg/Kg	0.31	200	171	85	200	166	83	2.4	8/10/98	4643	4795
Silver		mg/Kg	<0.50	100	90	90	100	91	91	1.1	8/10/98	4643	4795
Barium		mg/Kg	95	200	277	91	200	271	88	3.4	8/10/98	4643	4795
Cobalt		mg/Kg	11	200	178	84	200	176	83	1.2	8/10/98	4643	4795
Copper		mg/Kg	5.4	200	188	91	200	182	88	3.4	8/10/98	4643	4795
Manganese		mg/Kg	180	200	360	90	200	370	95	5.4	8/10/98	4643	4795
Molybdenum		mg/Kg	3.7	200	180	88	200	180	88	0	8/10/98	4643	4795
Zinc		mg/Kg	38	200	226	94	200	226	94	0	8/10/98	4643	4795
Boron		mg/Kg	20	200	184	82	200	184	82	0	8/10/98	4643	4795
PCB		mg/Kg	<0.1	0.50	0.44	88	0.50	0.47	94	6.6	8/10/98	4691	4801
Cyanide		mg/Kg	<0.01	0.12	0.12	100	0.12	0.12	100	0	8/11/98		4815
Phenol		mg/Kg	<0.25	10.00	7.69	77	10.00	7.01	70	9.5	8/13/98	4590	4860
2-Chlorophenol		mg/Kg	<1.25	10.00	7.69	77	10.00	7.14	71	8.1	8/13/98	4590	4860
1,4-Dichlorobenzene		mg/Kg	<0.25	10.00	7.47	72	10.00	7.07	71	1.4	8/13/98	4590	4860
n-Nitrosodi-n-propylamine		mg/Kg	<0.25	10.00	7.28	73	10.00	7.08	71	2.8	8/13/98	4590	4860
1,2,4-trichlorobenzene		mg/Kg	<0.25	10.00	8.64	86	10.00	8.14	81	6	8/13/98	4590	4860
4-Chloro-3-methylphenol		mg/Kg	<1.25	10.00	9.36	94	10.00	8.56	86	8.9	8/13/98	4590	4860
Acenaphthene		mg/Kg	<0.25	10.00	8.88	89	10.00	8.41	84	5.8	8/13/98	4590	4860
4-Nitrophenol		mg/Kg	<1.25	10.00	7.68	77	10.00	6.87	69	11	8/13/98	4590	4860
2,4-Dinitrotoluene		mg/Kg	<0.25	10.00	8.9	89	10.00	8.76	88	1.1	8/13/98	4590	4860
Pentachlorophenol		mg/Kg	<1.25	10.00	5.94	59	10.00	6.73	67	13	8/13/98	4590	4860
Pyrene		mg/Kg	<0.25	10.00	9.78	98	10.00	9.4	94	4.2	8/13/98	4590	4860

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter		Sample	Spike Amount	Matrix Spike	MS Percent	Duplicate Spike Amount	MSD	MSD Percent	MS/MSD	Date	Prep	Run
Arsenic	mg/Kg	<0.50	200	153	77	200	155	78	1.3	8/18/98	4645	4955
Selenium	mg/Kg	<0.50	200	166	83	200	158	79	4.9	8/18/98	4645	4955
Chromium	mg/Kg	12	200	177	83	200	176	82	1.2	8/18/98	4645	4955
Lead	mg/Kg	7.2	200	171	82	200	168	80	2.5	8/18/98	4645	4955
Aluminum	mg/Kg	<1.0	200	180	90	200	182	91	1.1	8/18/98	4645	4955
Iron	mg/Kg	<2.0	200	192	96	200	191	96	0	8/18/98	4645	4955
Nickel	mg/Kg	11	200	167	78	200	167	75	3.9	8/18/98	4645	4955
Uranium	mg/Kg	<1.0	100	108	108	100	108	18	0	8/18/98	4645	4955
Benzene	mg/Kg	<0.050	5	4.97	99	5	4.97	99	0	8/4/98		4730
Toluene	mg/Kg	<0.050	5	4.95	99	5	4.97	99	0	8/4/98		4730
Ethylbenzene	mg/Kg	<0.050	5	5.05	101	5	5.12	102	1	8/4/98		4730
m,p,o-xylene	mg/Kg	<0.050	15	15.1	101	15	15.4	103	2	8/4/98		4730
TRPHC	mg/Kg	<10	250	252	101	250	231	92	9.3	8/22/98	4743	5045
TRPHC	mg/Kg	<10	250	231	92	250	220	88	4.4	8/30/98	4810	5168

Quality Control Report
Duplicate

Jeff kindley / Sharon Hall
Philip Services Corp.
7904 IH 20 West
Midland, TX 79706

Date: 9-29-98

Project Number: 19349
Project Name: Shell Grimes
Project Location: Casey House, Hobbs, NM

Order ID Number: 9807000518

Parameter	Flag	Units	Sample Result	Dup Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8	8	0	7/31/98		4715
TDS		mg/Kg	2,500	2,450	2.0	8/12/98		4835

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Avenue, Ste. 9
Lubbock, TX 79424
Phone: 800-378-1296
Fax: (806) 794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: **American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.**

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

109052 58

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 082

Company Name: Philip Services Corporation
Address: 7904 IH 20 West, Midland, Texas 79706
Phone #: (915) 563-0118
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	H2SO4	NONE	NaOH	SAMPLING: DATE	TIME
109052	Tmw-1	1	500ml Plastic	✓					✓				10/1/98	1:25
	Tmw-1	1	Liter Plastic	✓								✓	10/01/98	"
	Tmw-1	1	Liter Plastic	✓							✓		10/01/98	"
	Tmw-1	1	Liter Glass	✓						✓			10/01/98	"
	Tmw-1	3	40ml VOA	✓				✓					10/01/98	"
	Tmw-1	2	Liter Glass	✓							✓		10/01/98	"
	Tmw-1	3	Liter Glass	✓							✓		10/01/98	"
	Tmw-1	1	Liter Glass	✓							✓		10/01/98	"
	Tmw-1	1	Liter Glass	✓							✓		10/01/98	"
	Tmw-1	1	Liter Glass	✓				✓					10/01/98	"
109053	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓					✓					✓	✓	✓			
														✓	✓				
																✓			
									✓										
										✓									
											✓								
												✓							
											✓								
																	✓		
		✓																	
									•										

Relinquished by: Shawn E. Hall Date: 10/2/98 Time: 11:10
Received by: Helen Shelton Date: 10/2/98 Time: 11:10 AM

Relinquished by: Helen Shelton Date: 10/2/98 Time: 6:30PM
Received by:

Relinquished by: Date: Time:
Received at Laboratory by: Date: 10/3/98 Time: 1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS: Normal Turnaround.

Carrier # Overnight 159-389-390

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - KS

Phillips 52 KS 11/01

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 082

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, TX 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	1:1 H_2SO_4	NONE	NaOH	SAMPLING: DATE	TIME
109054	TMW-2	1	500ml Plastic	✓					✓				10/01/98	1:54
	TMW-2	1	Liter Plastic	✓								✓	10/01/98	1859
	TMW-2	1	Liter Plastic	✓							✓		10/01/98	"
	TMW-2	1	Liter Glass	✓						✓			10/01/98	"
	TMW-2	3	40ml VOA	✓				✓					10/01/98	"
	TMW-2	2	Liter Glass	✓							✓		10/01/98	"
	TMW-2	3	Liter Glass	✓							✓		10/01/98	"
	TMW-2	1	Liter Glass	✓							✓		10/01/98	"
	TMW-2	1	Liter Glass	✓							✓		10/01/98	"
	TMW-2	1	Liter Glass	✓				✓					10/01/98	"
109055	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se Unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓					✓					✓	✓	✓			
										✓	✓	✓							
		✓															✓		

Relinquished by: Shawn E. Hall Date: 10/1/98 Time: 11:10
Received by: Helen Shelton Date: 10/2/98 Time: 11:10 AM
Relinquished by: Helen Shelton Date: 10/2/98 Time: 6:30 PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: 10/3/98 Time: 1015

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-AS

ORIGINAL COPY

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS: Normal Turnaround

Carrier # Greyhound 159-384-389-0

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 082

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE/H_2SO_4	NONE	NaOH	SAMPLING: DATE	TIME
109056	TMW-3	1	500ml Plastic	✓					✓				10/01/98	2:20
	TMW-3	1	Liter Plastic	✓								✓	10/01/98	"
	TMW-3	1	Liter Plastic	✓							✓		10/01/98	"
	TMW-3	1	Liter Glass	✓						✓			10/01/98	"
	TMW-3	3	40ml VOA	✓				✓					10/01/98	"
	TMW-3	2	Liter Glass	✓							✓		10/01/98	"
	TMW-3	3	Liter Glass	✓							✓		10/01/98	"
	TMW-3	1	Liter Glass	✓							✓		10/01/98	"
	TMW-3	1	Liter Glass	✓							✓		10/01/98	"
	TMW-3	1	Liter Glass	✓				✓					10/01/98	"
109057	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓										✓				
														✓				
															✓			
									✓									
										✓								
											✓							
												✓				✓		
		✓																
									•									

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hood	10/1/98	11:10	Helen Shelton	10/2/98	11:10 AM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Helen Shelton	10/2/98	6:30PM			
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				10/3/98	1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review

REMARKS:
Normal Turnaround.

Carrier # Greyhound 159-384-3900

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 082

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West
Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19 350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
109058	Field Blank	2	40ml VOA	✓				✓				10/1/98	2:54

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	✓ See Attached				Turn Around Time if different from standard	Hold
														✓					

Relinquished by: Date: Time:
Jeanne E. Hall 10/2/98 11:10
Received by: Helen Shelton 10/2/98 11:10 AM

Relinquished by: Date: Time:
Helen Shelton 10/2/98 6:30PM
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
10/13/98 1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS:
Normal Turnaround

Carrier # Greyhound 139-384-38

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 2 samples-HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE / H_2SO_4	NONE	NaOH	SAMPLING: DATE	TIME
109940	GMW-3	1	500ml Plastic	✓					✓				10/01/98	9:45
	GMW-3	1	1 Liter Plastic	✓								✓	10/01/98	"
	GMW-3	1	1 Liter Plastic	✓							✓		10/01/98	"
	GMW-3	1	1 Liter Glass	✓						✓			10/01/98	"
	GMW-3	3	40ml VOA	✓				✓					10/01/98	"
	GMW-3	2	1 Liter Glass	✓							✓		10/01/98	"
	GMW-3	3	1 Liter Glass	✓							✓		10/01/98	"
	GMW-3	1	1 Liter Glass	✓							✓		10/01/98	"
	GMW-3	1	1 Liter Glass	✓							✓		10/01/98	"
	GMW-3	1	1 Liter Glass	✓				✓					10/01/98	"
109600	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se Unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanides	Wet Chemistry	Phenols	Radium 226 | 228	Turn Around Time if different from standard	Hold
				✓					✓			✓		✓	✓	✓			
		✓														✓			

Relinquished by: Jeffrey Kindley Date: 10/01/98 Time: 5:00 PM
Received by: Helen Shelton Date: 10/7/98 Time: 5:00 PM

Relinquished by: Helen Shelton Date: 10/7/98 Time: 6:30 PM
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wrather Date: 10-8-98 Time: 9:15

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review MM

REMARKS: Normal Turnaround

159384 3823

Carrier # Skycourier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - HS

ORIGINAL COPY

109439

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 164

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	H2SO4	NONE	NAOH	SAMPLING: DATE	TIME
109439	GMW-1	1	500ml	✓					✓				10/07/98	10:15
	GMW-1	1	Liter	✓								✓	10/07/98	"
	GMW-1	1	Liter	✓							✓		10/07/98	"
	GMW-1	1	Liter	✓						✓			10/07/98	"
	GMW-1	3	40ml VOA	✓				✓					10/07/98	"
	GMW-1	3	Liters	✓							✓		10/07/98	"
	GMW-1	2	Liters	✓							✓		10/07/98	"
	GMW-1	1	Liter	✓							✓		10/07/98	"
	GMW-1	1	Liter	✓							✓		10/07/98	"
	GMW-1	1	Liter	✓				✓					10/07/98	"
109599	GMW-1 Trip Blank	2	40ml VOA	✓							✓		10/07/98	"

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se (1 Meth)	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanides	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓					✓					✓					
															✓				
																✓			
											✓								
			✓																
		✓															✓		

Relinquished by: Jeffrey Kindley 10/07/98 5:00 PM
Received by: Helen Shelton 10/7/98 5:00 PM
Relinquished by: Helen Shelton 10/7/98 6:30 PM
Received by:
Relinquished by:
Received at Laboratory by: Vicki Wodka 10-8-98 9:30 AM

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS: Normal Turnaround

159 384 382 3

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I H 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE/H2SO4	NONE	NaOH	SAMPLING: DATE	TIME
10941	GMW-5	1	500ml Plastic	✓					✓				10/07/98	11:00
	GMW-5	1	1 Liter Plastic	✓								✓	10/07/98	"
	GMW-5	1	1 Liter Plastic	✓							✓		10/07/98	"
	GMW-5	1	1 Liter Glass	✓						✓			10/07/98	"
	GMW-5	3	40ml VOA	✓				✓					10/07/98	"
	GMW-5 *	2	1 Liter Glass	✓							✓		10/07/98	"
	GMW-5	3	1 Liter Glass	✓							✓		10/07/98	"
	GMW-5	1	1 Liter Glass	✓							✓		10/07/98	"
	GMW-5	1	1 Liter Glass	✓							✓		10/07/98	"
	GMW-5	1	1 Liter Glass	✓				✓					10/07/98	"
109601	Trip Blank	2	40ml VOA	✓							✓		10/07/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. ~~8240~~/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226|228	Turn Around Time if different from standard	Hold
				✓															
														✓					
															✓				
																✓			
									✓										
												✓							
											✓								
											✓								
											✓								
		✓																	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	10/07/98	500PM	Helen Shelton	10/7/98	5:00 pm
Helen Shelton	10/7/98	6:30PM			
			Received at Laboratory by: Vicki Wadkins	10-8-98	9:15 a

LAB USE ONLY
Intact Y N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS: Normal Turnaround.

159 384 382 3

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-1 TS

ORIGINAL COPY

109059 - 74

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 083

Company Name: Phillip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaOH	NONE	HNO3	SAMPLING: DATE	TIME
109059	GMW-2	1	500ml Plastic	✓								✓	10/01/98	8:36
	GMW-2	1	1Liter Plastic	✓						✓			10/01/98	"
	GMW-2	1	1Liter Plastic	✓							✓		10/01/98	"
	GMW-2	1	1Liter Glass	✓					✓				10/01/98	"
	GMW-2	3	40ml VOA	✓				✓					10/01/98	"
	GMW-2	2	1Liter Glass	✓							✓		10/01/98	"
	GMW-2	3	1Liter Glass	✓							✓		10/01/98	"
	GMW-2	1	1Liter Glass	✓							✓		10/01/98	"
	GMW-2	1	1Liter Glass	✓							✓		10/01/98	"
	GMW-2	1	1Liter Glass	✓				✓					10/01/98	"
109060	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se Unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. ~~8240~~/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓															
														✓					
															✓				
																✓			
									✓										
										✓									
												✓							
											✓								
		✓																	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Haef	10/2/98	11:10	Helen Shelton	10/2/98	11:10 AM
Helen Shelton	10/2/98	6:30PM			
			Received at Laboratory by:	Date:	Time:
				10/3/98	1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 7 °
Log-in Review

REMARKS: Normal Turnaround.

Carrier # Greyhound 15-384-3891-0

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 083

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	H2SO4	NONE	NaOH	SAMPLING: DATE	TIME
10906 1	GMW-4	1	500ml Plastic	✓					✓					10/01/98	10:20
	GMW-4	1	Liter Plastic	✓									✓	10/01/98	"
	GMW-4	1	Liter Plastic	✓								✓		10/01/98	"
	GMW-4	1	Liter Glass	✓							✓			10/01/98	"
	GMW-4	3	40ml VOA	✓				✓						10/01/98	"
	GMW-4	2	Liter Glass	✓								✓		10/01/98	"
	GMW-4	3	Liter Glass	✓								✓		10/01/98	"
	GMW-4	1	Liter Glass	✓								✓		10/01/98	"
	GMW-4	1	Liter Glass	✓								✓		10/01/98	"
	GMW-4	1	Liter Glass	✓				✓						10/01/98	"
10906 2	Trip Blank	2	40ml VOA	✓								✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH 418.1	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se Unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓														
														✓				
															✓			
																✓		
									✓									
										✓								
												✓						
											✓							
																✓		
		✓																

Relinquished by: Shawn E. Hall Date: 10/2/98 Time: 11:10
Received by: Helen Shelton 10/2/98 11:10 am
Relinquished by: Helen Shelton 10/2/98 6:30PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: 10/3/98 Time: 1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-In Review

REMARKS:
Normal Turnaround
TPH water bottle broke

Carrier # Greyhound 159-384-385-6

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	~~H2SO4~~	NONE	NaOH	SAMPLING: DATE	TIME
109063	GMW-6	1	500ml Plastic	✓					✓				10/01/98	4:32
	GMW-6	1	Liter Plastic	✓								✓	10/01/98	"
	GMW-6	1	Liter Plastic	✓							✓		10/01/98	"
	GMW-6	1	Liter Glass	✓						✓			10/01/98	"
	GMW-6	3	40ml VOA	✓				✓					10/01/98	"
	GMW-6	2	Liter Glass	✓							✓		10/01/98	"
	GMW-6	3	Liter Glass	✓							✓		10/01/98	"
	GMW-6	1	Liter Glass	✓							✓		10/01/98	"
	GMW-6	1	Liter Glass	✓							✓		10/01/98	"
	GMW-6	1	Liter Glass	✓				✓					10/01/98	"
109064	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602
BTEX 8020/602
TPH (418.1)
PAH 8270
Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered
TCLP Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8240/8260/624
GC/MS Semi. Vol. 8270/625
PCB's 8080/608
Pest. 8080/608
BOD, TSS, PH
Cyanide
Wet Chemistry
Phenols
Radium 226 | Radium 228
Turn Around Time if different from standard
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Sharon E. Hall	10/2/98	11:10	Helen Shelton	10/2/98	1:10 PM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Helen Shelton	10/2/98	6:30 PM			
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				10/01/98	10:35 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-HS

ORIGINAL COPY

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 6 °
Log-in Review

REMARKS:
Normal Turnaround

Carrier # Greyhound 159-374-385-6

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I-H 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	NaOH	SAMPLING: DATE	TIME
109065	GMW-7	1	500ml Plastic	✓					✓				10/01/98	10:50
	GMW-7	1	Liter Plastic	✓								✓	10/01/98	"
	GMW-7	1	Liter Plastic	✓							✓		10/01/98	"
	GMW-7	1	Liter Glass	✓						✓			10/01/98	"
	GMW-7	3	40ml VOA	✓				✓					10/01/98	"
	GMW-7	2	Liter Glass	✓							✓		10/01/98	"
	GMW-7	3	Liter Glass	✓							✓		10/01/98	"
	GMW-7	1	Liter Glass	✓							✓		10/01/98	"
	GMW-7	1	Liter Glass	✓							✓		10/01/98	"
	GMW-7	1	Liter Glass	✓				✓					10/01/98	"
109066	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se (unfiltered)	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓															
														✓					
															✓				
																✓			
									✓										
										✓									
												✓							
											✓								
																	✓		
		✓																	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	10/2/98	11:10	Helen Shelton	10/2/98	11:10 PM
Helen Shelton	10/2/98	6:30PM			
			Received at Laboratory by:	10/3/98	1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS: Normal Turnaround

Carrier # Greyhound 159-384-3854

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I-H 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	~~H2SO4~~	NONE	NaOH	SAMPLING: DATE	TIME
109067	GMW-8	1	500ml Plastic	✓					✓				10/01/98	11:20
	GMW-8	1	Liter Plastic	✓								✓	10/01/98	"
	GMW-8	1	Liter Plastic	✓							✓		10/01/98	"
	GMW-8	1	Liter Glass	✓						✓			10/01/98	"
	GMW-8	3	40ml VOA	✓				✓					10/01/98	"
	GMW-8	2	Liter Glass	✓							✓		10/01/98	"
	GMW-8	3	Liter Glass	✓							✓		10/01/98	"
	GMW-8	1	Liter Glass	✓							✓		10/01/98	"
	GMW-8	1	Liter Glass	✓							✓		10/01/98	"
	GMW-8	1	Liter Glass	✓				✓					10/01/98	"
109068	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST	
MTBE 8020/602	
BTEX 8020/602	
TPH (418.1)	✓
PAH 8270	
Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered	✓
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8240/8260/624	✓
GC/MS Semi. Vol. 8270/625	✓
PCB's 8080/608	✓
Pest. 8080/608	✓
BOD, TSS, PH	
Cyanide	✓
Wet Chemistry	✓
Phenols	✓
Radium 226/228	
Turn Around Time if different from standard	
Hold	

Relinquished by: Steve E. Hood	Date: 10/2/98	Time: 11:10
Relinquished by: Helen Shelton	Date: 10/2/98	Time: 6:30PM
Relinquished by:	Date:	Time:
Received by: Helen Shelton	Date: 10/2/98	Time: 11:10 AM
Received by:	Date:	Time:
Received at Laboratory by:	Date: 10/5/98	Time: 1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 0 °
Log-in Review

REMARKS: Normal Turnaround

Carrier # Greyhound 159-384-387

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 9349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	H_2SO_4	NONE	NaOH	SAMPLING: DATE	TIME
109069	GMW-9	1	500ml Plastic	✓					✓					10/01/98	2:46
	GMW-9	1	Liter Plastic	✓									✓	10/01/98	"
	GMW-9	1	Liter Plastic	✓								✓		10/01/98	"
	GMW-9	1	Liter Glass	✓							✓			10/01/98	"
	GMW-9	3	40ml VOA	✓				✓						10/01/98	"
	GMW-9	2	Liter Glass	✓								✓		10/01/98	"
	GMW-9	3	Liter Glass	✓								✓		10/01/98	"
	GMW-9	1	Liter Glass	✓								✓		10/01/98	"
	GMW-9	1	Liter Glass	✓								✓		10/01/98	"
	GMW-9	1	Liter Glass	✓				✓						10/01/98	"
109070	Trip Blank	2	40ml VOA	✓								✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se unfiltered	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Plants	Radium 226/228	Turn Around Time if different from standard	Hold
				✓															
														✓					
															✓				
																✓			
									✓										
										✓									
												✓							
											✓								
																	✓		
		✓																	

Relinquished by: Shawn E. Heel Date: 10/2/98 Time: 11:10
Received by: Helen Shelton Date: 10/2/98 Time: 11:10 AM
Relinquished by: Helen Shelton Date: 10/2/98 Time: 6:30 PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Parker Date: 10/3/98 Time: 1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 6 °
Log-in Review

REMARKS:
Normal Turnaround
Bus 159 384 390 0

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Philip Services Corporation
Phone #: (915) - 563 - 0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) - 563 - 9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE/H2SO4	NONE	NaOH	SAMPLING: DATE	TIME
10907	GMW - 10	1	500ml Plastic	✓					✓				10/01/98	8:15
	GMW - 10	1	Liter Plastic	✓								✓	10/01/98	"
	GMW - 10	1	Liter Plastic	✓							✓		10/01/98	"
	GMW - 10	1	Liter Glass	✓						✓			10/01/98	"
	GMW - 10	3	40ml VOA	✓				✓					10/01/98	"
	GMW - 10	2	Liter Glass	✓							✓		10/01/98	"
	GMW - 10	3	Liter Glass	✓							✓		10/01/98	"
	GMW - 10	1	Liter Glass	✓							✓		10/01/98	"
	GMW - 10	1	Liter Glass	✓							✓		10/01/98	"
	GMW - 10	1	Liter Glass	✓				✓					10/01/98	"
10907 2	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se (Unfiltered)	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide	Wet Chemistry	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓															
														✓					
															✓				
																✓			
									✓	24hr									
										✓									
												✓							
											✓								
																✓			
		✓																	

Relinquished by: Shawn E. Noel Date: 10/2/98 Time: 11:10
Received by: Helen Shelton Date: 10/2/98 Time: 11:10 AM

Relinquished by: Helen Shelton Date: 10/2/98 Time: 6:30PM
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Taylor Date: 10/3/98 Time: 1015

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples - HS

ORIGINAL COPY

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS:
Normal Turnaround.

Carrier # Greyhound 159-334-389-0

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Phillip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349 Shell
Project Name: Hobbs Gomez Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	~~ice~~ H_2SO_4	NONE	NaOH	SAMPLING: DATE	TIME
109073	MW-9D *	1	500ml Plastic	✓					✓				10/01/98	2:46
	MW-9D	1	Liter Plastic	✓								✓	10/01/98	"
	MW-9D	1	Liter Plastic	✓							✓		10/01/98	"
	MW-9D	1	Liter Glass	✓						✓			10/01/98	"
	MW-9D	3	VOA 40ml	✓				✓					10/01/98	"
	MW-9D	2	Liter Glass	✓							✓		10/01/98	"
	MW-9D	3	Liter Glass	✓							✓		10/01/98	"
	MW-9D	1	Liter Glass	✓							✓		10/01/98	"
	MW-9D	1	Liter Glass	✓							✓		10/01/98	"
	MW-9D	1	Liter Glass	✓				✓					10/01/98	"
109074	Trip Blank	2	40ml VOA	✓							✓		10/01/98	"

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH 418.1	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Cyanide Wet Chem	Phenols	Radium 226/228	Turn Around Time if different from standard	Hold
				✓										✓				
															✓			
		✓														✓		

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E Hood	10/2/98	11:10	Helen Shelton	10/2/98	11:10 PM
Helen Shelton	10/2/98	6:30PM			
			Received at Laboratory by:	Date:	Time:
				10/3/98	1015

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review

REMARKS:
Normal Turnaround
* metals are not Filtered

Carrier # Greyhound 159-334-396

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 17 samples-HS

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 510 / 511

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 west, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeff Kindley
Invoice to: (If different from above) Sam
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffry Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
106091	TSB-4 (2-3')	5	4oz Jars		✓						✓			08/24/98	1022
	TSB-4 (2-3')	1	40ml VOA		✓								✓	08/24/98	1022
92	TSB-4 (3-5')	5	4oz Jars		✓						✓			08/24/98	1017
	TSB-4 (3-5')	1	40ml VOA		✓								✓	08/24/98	1017
93	TSB-4 (18-20')	5	4oz Jars		✓						✓			08/24/98	1058
	TSB-4 (18-20')	1	40ml VOA		✓								✓	08/24/98	1058
94	TSB-5 (2-3')	5	4oz Jars		✓						✓			08/24/98	0853
	TSB-5 (2-3')	1	40ml VOA		✓								✓	08/24/98	0853
95	TSB-5 (3-5')	5	4oz Jars		✓						✓			08/24/98	0857
	TSB-5 (3-5')	1	40ml VOA		✓								✓	08/24/98	0857
96	TSB-5 (18-20')	5	4oz Jars		✓						✓			08/24/98	0925

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached VOCs			Turn Around Time if different from standard	Hold
		✓												✓				
															✓			
		✓												✓				
															✓			
		✓												✓				
															✓			
		✓												✓				
															✓			
		✓												✓				
															✓			
		✓												✓				

Relinquished by: Jeffry Kindley Date: August 25, 1998 Time: 700Am
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Windham Date: 8.26.98 Time: 9:00 Am

LAB USE ONLY
Intact Y N
Headspace Y / N
Temp °
Log-In Review

REMARKS:
Normal Turnaround

Carrier # BUS 901 984 6077

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

510/511 2 of

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley
Phone #: (915) 563-0118
FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation
7904 IH 20 West, Midland, Tx 79706

Project #: 19350
Project Name: Skull Tasker Road

Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

ANALYSIS REQUEST

SPECIAL HANDLING

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached	VOCs
106096	TSB-5 (18-20')	1	40ml VOA		✓							✓	08/24/98	0925											✓
97	TSB-9 (2-3')	5	4oz Jar		✓					✓			08/24/98	1530		✓								✓	
	TSB-9 (2-3')	1	40ml VOA		✓							✓	08/24/98	1530											✓
98	TSB-9 (3-5')	5	4oz Jar		✓					✓			08/24/98	1534		✓								✓	
	TSB-9 (3-5')	1	40ml VOA		✓							✓	08/24/98	1534											✓
99	TSB-9 (18-20')	5	4oz Jar		✓					✓			08/24/98	1605		✓								✓	
	TSB-9 (18-20')	1	40ml VOA		✓							✓	08/24/98	1605											✓
100	TSB-11 (2-3')	5	4oz Jar		✓					✓			08/24/98	1306		✓								✓	
	TSB-11 (2-3')	1	40ml VOA		✓							✓	08/24/98	1306											✓
101	TSB-11 (3-5')	5	4oz Jar		✓					✓			08/24/98	1311		✓								✓	
	TSB-11 (3-5')	1	40ml VOA		✓							✓	08/24/98	1311											✓

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/25/98	700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Whitaker	Date: 8-26-98	Time: 9:00am

REMARKS

Normal Turnaround

S10/S11 3 of 3

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley
Phone #: (915) 563-0118
FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation
7904 IH 20 West
Midland, Tx 79706

Project #: 19350
Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
106102	TSB-11 (18-20')	5	40ml VOA		✓					✓			08/24/98	1340
	TSB-11 (18-20')	1	40ml VOA		✓							✓	08/24/98	1340
103	TSB-11 (29-31')	5	40ml VOA		✓					✓			08/24/98	1430
	TSB-11 (29-31')	1	40ml VOA		✓							✓	08/24/98	1430
106104	Trip Blank	2		✓										
106105	Field Blank	2		✓										

ANALYSIS REQUEST: BTEX, MTBE | TPH (418.1) | Total Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | 8240/8260 | 8270 | See Attached VOCs

SPECIAL HANDLING: Turn around # of days | Fax ASAP | Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/25/98	700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Windham	Date: 8-26-98	Time: 9:00am

REMARKS

Normal
Turnaround.

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley
Phone #: (915) 563-0118
FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation
7904 I H 20 West
Midland, Tx 79706

Project #: 19349
Project Name: Shell Grimes Tank Battery

Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
107157	Trip Blank	2	40ml VOA	✓						✓			09/08/98	
158	Field Blank	2	40ml VOA	✓				✓		✓			09/08/98	1630
159	GSB-11 (2-3')	5	4oz Jars		✓								09/08/98	0911
	GSB-11 (2-3')	1	40ml VOA		✓							✓	09/08/98	0911
160	GSB-11 (33-35')	2	4oz Jars		✓					✓			09/08/98	1309
161	GSB-11 (48-50')	2	4oz Jars		✓					✓			09/08/98	1509
162	GSB-11D (48-50')	2	4oz Jars		✓					✓			09/08/98	1509

ANALYSIS REQUEST	
BTEX, MTBE	✓ ✓ ✓
TPH (418.1)	✓ ✓ ✓
Total Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
8240 / 8260	
8270	
See Attached	✓ ✓
VOC's	✓
Chlorides (300)	✓ ✓ ✓ ✓

SPECIAL HANDLING
Turn around # of days
Fax ASAP
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	09/09/98	4:10 PM	Helen Shelton	9/09/98	4:10 PM
Helen Shelton	9/9/98	6:00 PM			
			Received at Laboratory by: Vicki Windham	9-10-98	9:00 am

REMARKS
Normal Turnaround
ONE

Shipped Ground
1h samples - HS

159 3843702

108238

488 1 of 1

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: 1-915-563-0118

FAX #: 1-915-563-9526

Company Name & Address: Phillips Services Corporation, 7908 IH 20 West, Midland, Tx 79706

Project #: 19350

Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
108238	TMW-3 (2-3')	5	40z Jars		✓					✓			09/22/98	0850
	TMW-3 (2-3')	1	40ml VOA		✓							✓	09/22/98	0850
39	TMW-3 (3-5')	5	40z Jars		✓					✓			09/22/98	0855
	TMW-3 (3-5')	1	40ml VOA		✓							✓	09/22/98	0855
40	TMW-3 (23-25')	5	4 oz Jars		✓					✓			09/22/98	0940
	TMW-3 (23-25')	1	40 ml VOA		✓							✓	09/22/98	0940
41	TMW-3 (63-65')	5	40z Jars		✓					✓			09/22/98	1450
	TMW-3 (63-65')	1	40ml VOA		✓							✓	09/22/98	1450
42	Field Blank	2	40ml VOA	✓				✓					09/22/98	1630
43	Trip Blank	2	40ml VOA	✓						✓			09/22/98	1630

ANALYSIS REQUEST

BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached (VOC's)
	✓							✓	
									✓
	✓							✓	
									✓
	✓							✓	
									✓
	✓							✓	
									✓
	✓							✓	✓
	✓							✓	✓

SPECIAL HANDLING

Turn around # of days

Fax ASAP

Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	09/25/98	12:20PM	Helen Shelton	9/25/98	12:20PM
Helen Shelton	9/26/98	9:10PM			
			Received at Laboratory by: Vicki Wyndham	9-26-98	

REMARKS

Normal Turnaround

Shipped Greyhound 28 samples - HS

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 108

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West Midland, TX 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Other (Methanol)	SAMPLING: DATE	TIME
106786	GSB-9 (2-3')	5	40z Jars		✓					✓			09/02/98	0930
	GSB-9 (2-3')	1	40ml VOA		✓							✓	09/02/98	0930
87	GSB-9 (13-15')	2	4oz Jars		✓					✓			09/02/98	1000
88	GSB-9 (50-52')	2	4oz Jars		✓					✓			09/02/98	1159
89	GSB-10 (2-3')	5	4oz Jars		✓					✓			09/02/98	1354
	GSB-10 (2-3')	1	40ml VOA		✓							✓	09/02/98	1354
90	GSB-10 (3-5')	2	4oz Jars		✓					✓			09/02/98	1400
91	GSB-10 (50-52')	2	4oz Jars		✓					✓			09/02/98	1641
92	Field Blank	2	40ml VOA	✓				✓					09/02/98	1650
93	Trip Blank	2	40ml VOA	✓						✓			09/02/98	

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	VOCs	Chlorides (300)	Turn Around Time if different from standard	Hold
		✓												✓				
	●	●													✓			
	✓	✓														✓		
	✓	✓														✓		
		✓												✓				
															✓	●		
	✓	✓														✓		
	✓	✓														✓		
														✓				
														✓				

Relinquished by: Jeffrey Kindley Date: 09/03/98 Time: 0700 AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Victor Date: 9-4-98 Time: 9:30 AM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review ONA

REMARKS:
Normal Turnaround
9/14/98

Carrier # Bus 901984612 1

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 544 / 545

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeff Kindley
Invoice to: (If different from above) Sams
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	methanol	SAMPLING: DATE	TIME
106196	TSB-3 (2-3')	5	4oz Jars		✓					✓			08/25/98	1335
	TSB-3 (2-3')	1	40ml VOA		✓							✓	08/25/98	1335
106203	Trip Blank	2	40ml VOA	✓						✓			08/25/98	
106204	Field Blank	2	40ml VOA	✓				✓				✓	08/25/98	1630
97	TSB-3 (3-5')	5	4oz Jars		✓					✓			08/25/98	1342
	TSB-3 (3-5')	1	40ml VOA		✓							✓	08/25/98	1342
98	TSB-3 (18-20')	5	4oz Jars		✓					✓			08/25/98	1416
	TSB-3 (18-20')	1	40ml VOA		✓							✓	08/25/98	1416
99	TSB-12 (2-3')	5	4oz Jars		✓					✓			08/25/98	0844
	TSB-12 (2-3')	1	40ml VOA		✓							✓	08/25/98	0844
200	TSB-12 (3-5')	5	4oz Jars		✓					✓			08/25/98	0847

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	see Attached	VOC's			Turn Around Time if different from standard	Hold
		✓												✓					
															✓				
		✓												✓	✓				
		✓												✓	✓				
		✓												✓					
															✓				
		✓												✓					
															✓				
		✓												✓					
															✓				
		✓												✓					

Relinquished by: Date: Time:
August 26, 1998 Jeffrey Kindley 700AM
Relinquished by: Date: Time:
Relinquished by: Date: Time:

Received by: Date: Time:
Received by: Date: Time:
Received at Laboratory by: Nicki Watkins 8-27-98 9:10 AM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review AVA

REMARKS:
Normal Turnaround

Carrier # Bus 901 984 6085

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #_____

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeff Kindley
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	methanol	SAMPLING: DATE	TIME
106200	TSB-12 (3-5')	1	4oz Jar		✓					·		✓	08/25/98	0847
201	TSB-12 (18-20')	5	4oz Jar		✓					✓			08/25/98	0926
	TSB-12 (18-20')	1	40ml VOA		✓							✓	08/25/98	0926
202	TSB-12 (48-50')	5	4oz Jar		✓					✓			08/25/98	1124
	TSB-12 (48-50')	1	40ml VOA		✓							✓	08/25/98	1124
~~203~~	~~Trip~~													
~~204~~	~~Field~~													

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	VOC's			Turn Around Time if different from standard	Hold
															✓				
		✓												✓					
															✓				
		✓												✓					
															✓				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/26/98	700AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Wadham	8-27-98	9:10 am

LAB USE ONLY

Intact Y / N
Headspace Y / N
Temp 2 °
Log-In Review

REMARKS:

Normal Turnaround.

Carrier #_____

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

106028 - 30

488 1 of 2

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation, 7904 I H 20 West, Midland, Texas 79706

Project #: 9350

Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached VOC's
106028	TSB-7 (28-30)	1	4oz Jar		✓					✓			08/21/98	1545	✓	✓								
29	TSB-10 (2-3')	5	4oz Jars		✓					✓			08/21/98	900		✓							✓	
	TSB-10 (2-3')	1	40ml VOA		✓							✓	08/21/98	900										✓
30	TSB-10 (3-5')	5	4oz Jars		✓					✓			08/21/98	909		✓							✓	
	TSB-10 (3-5')	1	40ml VOA		✓							✓	08/21/98	909										✓
31	TSB-10 (8-10')	5	4oz Jars		✓					✓			08/21/98	924		✓							✓	
	TSB-10 (8-10')	1	40ml VOA		✓							✓	08/21/98	924										✓
32	TSB-10 (28-31')	1	4oz Jar		✓					✓			08/21/98	1016	✓	✓								
33	TSB-6 (18-20')	5	4oz Jars		✓					✓			08/21/98	1158		✓							✓	
	TSB-6 (18-20')	1	40ml VOA		✓							✓	08/21/98	1158										✓
106039	Field Blank	2	voas	X																				
106040	Trip Blank																							

SPECIAL HANDLING	
Turn around # of days	
Fax ASAP	
Hold	

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
1	Jeffrey Kindley	August 24, 1998	1:00 PM	Helen Shelton	8/24/98	1:00 PM
2	Helen Shelton	8/24/98	4:15 PM			
3				Received at Laboratory by: Mell K. Green	8-25-98	9:30am

REMARKS

Normal Turnaround

165 158 9803 Bus

Trip Blanks

26 + # not on COC = 30 - HS

488

2 of

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Phillip Services Corporation, 7904 I H 20 West, Midland, Tx 79706

Project #: 19350

Project Name: Shell Tarker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached	Volatiles (VOCs)
19034	TSB-6 (2-3')	5	40z Jars		✓					✓			08/21/98	1123		✓								✓	
	TSB-6 (2-3')	1	40ml VOA		✓							✓	08/21/98	1123											✓
35	TSB-6 (3-5')	5	40z Jars		✓					✓			08/21/98	1127		✓								✓	
	TSB-6 (3-5')	1	40ml VOA		✓							✓	08/21/98	1127											✓
	~~TSB-6 (18-20')~~ JWK	1	40z Jars		✓					✓			08/21/98	1158	✓	✓									
36	TSB-7 (2-3')	5	40z Jars		✓					✓			08/21/98	1406		✓								✓	
	TSB-7 (2-3')	1	40ml VOA		✓							✓	08/21/98	1406											✓
37	TSB-7 (3-5')	5	40z Jars		✓					✓			08/21/98	1412		✓								✓	
	TSB-7 (3-5')	1	40ml VOA		✓							✓	08/21/98	1412											✓
38	TSB-7 (8-10')	5	40z Jars		✓					✓			08/21/98	1421		✓								✓	
	TSB-7 (8-10')	1	40ml VOA		✓							✓	08/21/98	1421											✓

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	August 24, 1998	1:00 PM	Helen Shelton	8/24/98	1:00 PM
Helen Shelton	8/24/98	6:15 PM			
			Received at Laboratory by: Mell Green	8-25-98	9:30am

REMARKS

Normal Turnaround

2° 155 758 9803 Bus

30 samples - HS

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 114

Company Name: Philip Environmental Services
Phone #: (915) 563-0118
Address: 2904 IH 20 West Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeff Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
106823	GMW-2 (3')	1	4oz Jar		✓					✓			09/01/98	1600
106831	Field Blank	2	40ml VOA	✓				✓					09/01/98	1630
106832	Trip Blank	2	40ml VOA	✓						✓			09/01/98	
24	TSB-13 (2-3)	5	4oz Jar		✓					✓			09/01/98	0845
	TSB-13 (2-3)	1	40ml VOA		✓							✓	09/01/98	0845
25	TSB-13 (3-5')	5	4oz Jar		✓					✓			09/01/98	0850
	TSB-13 (3-5')	1	40ml VOA		✓							✓	09/01/98	0850
26	TSB-13 (8-10')	5	4oz Jar		✓					✓			09/01/98	0905
	TSB-13 (8-10')	1	40ml VOA		✓							✓	09/01/98	0905
27	TSB-13 (23-25')	5	4oz Jar		✓					✓			09/01/98	0949
	TSB-13 (23-25')	1	40ml VOA		✓							✓	09/01/98	0949

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8020/602	
BTEX 8020/602	
TPH (418.1)	✓
PAH 8270	
Total Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC.MS Vol. 8240/8260/624	
GC/MS Semi. Vol. 8270/625	
PCB's 8080/608	
Pest. 8080/608	
BOD, TSS, PH	
See Attached	✓
VOC's	✓
Total metals	✓
Chloride (300.1)	✓
Turn Around Time if different from standard	
Hold	

Relinquished by: Jeffrey Kindley Date: 09/03/98 Time: 0700 AM
Received by: Date: Time:

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

Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wyndham Date: 9-4-98 Time: 9:00 am

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review gra

REMARKS: Normal Turnaround

Carrier #

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

114 20

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeff Kindley
Phone #: (915) 563-0118
FAX #: (915) 563-9526

Company Name & Address: Phillip Services Corporation 7904 I-H 20 West Midland, Tx 79706

Project #: 19349
Project Name: Grimes Tank Battery

Project Location: Hobbs, N. M.
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached	Chlorides (300)	VOCs
106828	GSB-6 (2-3')	5	40z Jars		✓					✓			09/01/98	1229		✓							✓			✓
	GSB-6 (2-3')	1	40ml VOA		✓							✓	09/01/98	1229											✓	
29	GSB-6 (18-20')	2	4oz Jars		✓					✓			09/01/98	1309	✓	✓								✓		
30	GSB-6 (38-40')	2	4oz Jars		✓					✓			09/01/98	1535	✓	✓								✓		

SPECIAL HANDLING
Turn around # of days
Fax ASAP
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffy Kindley	09/03/98	700AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wonda	Date: 9-4-98	Time: 900AM

REMARKS
Normal Turnaround
AVG

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 27

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I H 20 West Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, NM
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
106457	GMW-9 (8-10')	5	40z Jars		✓					✓			08/31/98	0851
	GMW-9 (8-10')	1	40ml VOA		✓							✓	08/31/98	0851
~~106460~~ 106459	Field Blank	2	40ml VOA	✓				✓					08/31/98	1630
106460	Trip Blank	2	40ml VOA	✓						✓			08/31/98	
106458	GMW-9 (63-65')	5	40z Jars		✓					✓			08/31/98	1348
	GMW-9 (63-65')	1	40ml VOA		✓							✓	08/31/98	1348
106459	GMW-9D (63-65')	5	40z Jars		✓					✓			08/31/98	
	GMW-9D (63-65')	1	40ml VOA		✓							✓	08/31/98	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	VOC's			Turn Around Time if different from standard	Hold
		✓												✓					
															✓				
														✓					
														✓					
		✓												✓					
															✓				
		✓												✓					
															✓				

Relinquished by: Jeffrey Kindley Date: Sept 1, 1998 Time: 0700AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time: 9-2-98 8:30 AM

LAB USE ONLY
Intact (Y) / N
Headspace Y (N)
Temp 3 °
Log-in Review MM

REMARKS: Normal Turnaround.

Carrier # Bus 901 ~~4984~~ 6132

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

598 / 99

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation, 7904 I-20 West, Midland, Tx 79706

Project #: 19349

Project Name: Shell Grimes Battery

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
106342	GMW-10 (3-5')	5	40z Jars		✓					✓			08/27/98	0858
	GMW-10 (3-5')	1	40ml VOA		✓							✓	08/27/98	0858
343	GMW-10 (63-65')	5	40z Jars		✓					✓			08/27/98	1508
	GMW-10 (63-65')	1	40ml VOA		✓							✓	08/27/98	1508
344	GMW-10D (63-65')	5	40z Jars		✓					✓			08/27/98	
	GMW-10D (63-65')	1	40ml VOA		✓							✓	08/27/98	
345	Trip Blank	2	40ml VOA	✓						✓			08/27/98	
346	Field Blank	2	40ml VOA	✓				✓					08/27/98	1630

ANALYSIS REQUEST	SPECIAL HANDLING
BTEX, MTBE	Turn around # of days
TPH (418.1)	Fax ASAP
Total Metals Ag As Ba Cd Cr Pb Hg Se	Hold
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
8240 / 8260	
8270	
See Attached	
Voc's	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/28/98	0700 AM		8-29-98	0945
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

REMARKS

Normal Turnaround

TWM # 0 901 984 610 0 2°C

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 159 & 160

Company Name: Philip Services Corporation
Phone #: 915-563-0118
Address: 7904 IH 20 West Midland, Tx 79706
Fax #: 915-563-9526
Contact Person: Jeff Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
104530	Field Blank	2	40ml VOA	✓					✓		✓			08/06/98	1600
104531	Trip Blank	2	40ml VOA	✓							✓			08/06/98	
532	MW-6 (3-5')	5	4oz Jars		✓						✓			08/06/98	902
	MW-6 (3-5')	1	40ml VOA		✓								✓	08/06/98	902
533	MW-6 (63-65')	5	4oz Jars		✓						✓			08/06/98	1500
	MW-6 (63-65')	1	40ml VOA		✓								✓	08/06/98	1500

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC:MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	VOC's	See Attached			Turn Around Time if different from standard	Hold
														✓	✓				
															✓				
															✓				
														✓					
															✓				
														✓					

Relinquished by: Jeffrey Kindley Date: August 7, 1998 Time: 700 AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: 08/06/98 Time:

LAB USE ONLY

Intact Y / N
Headspace Y / N
Temp 0 °
Log-in Review

REMARKS:

Normal Turnaround.

Carrier # TNM40 901 984 6110

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 168

Company Name: Phillip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I H 20 West Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Sam
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
107012	GSB-3 (2-3)	5	40z Jars		✓					✓			09/03/98	0825
	GSB-3 (2-3)	1	40ml VOA		✓							✓	09/03/98	0825
13	GSB-3 (38-40)	2	4oz Jars		✓					✓			09/03/98	1121
14	GSB-3 (48-50)	2	4oz Jars		✓					✓			09/03/98	1218
15	GSB-3D (48-50)	2	4oz Jars		✓					✓			09/03/98	1218
16	GSB-8 (2-3')	5	4oz Jars		✓					✓			09/03/98	1421
	GSB-8 (2-3')	1	40ml VOA		✓							✓	09/03/98	1421
17	GSB-8 (43-45)	2	4oz Jars		✓					✓			09/03/98	1659
18	GSB-8 (57-59)	2	4oz Jars		✓					✓			09/04/98	0920
19	GSB-8D (57-59)	2	4oz Jars		✓					✓			09/04/98	0920
107020/107021	Trip Blank + Field Blank	4	40ml VOA	✓				✓		✓			09/04/98	1630

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	VOC's	Chloride	Turn Around Time if different from standard	Hold
		✓												✓				
															✓			
	✓	✓														✓		
	✓	✓														✓		
	✓	✓														✓		
		✓												✓				
															✓			
	✓	✓														✓		
	✓	✓														✓		
	✓	✓														✓		
														✓				

Relinquished by: Jeffrey Kindley Date: 09/08/98 Time: 2:45 PM
Received by: Helen Shelton Date: 9/8/98 Time: 2:45 PM
Relinquished by: Helen Shelton Date: 9/8/98 Time: 6:30 PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wrather Date: 9-9-98 Time: 9:00 AM

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 2 °
Log-in Review MV

REMARKS: Normal Turnaround

959 384 3691

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 28 samples-1R

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 167

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I-H 20 West, Midland, Texas 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
107002	GSB-4 (2-3')	5	40z Jars		✓					✓			09/04/98	1025
	GSB-4 (2-3')	1	40ml VOA		✓							✓	09/04/98	1025
3	GSB-4 (48-50')	2	4oz Jars		✓					✓			09/04/98	1420
4	GSB-4 (57-59')	2	4oz Jars		✓					✓			09/04/98	1451
5	GSB-4D (57-59')	2	4oz Jars		✓					✓			09/04/98	
107010	Field Blank	2	40ml VOA	✓				✓					09/04/98	1630
11	Trip Blank	2	40ml VOA	✓						✓			09/04/98	
6	TSB-8 (3-5')	5	4oz Jars		✓								09/04/98	1537
	TSB-8 (3-5')	1	40ml VOA		✓							✓	09/04/98	1537
7	TSB-8D (3-5')	5	4oz Jars		✓					✓			09/04/98	
	TSB-8D (3-5')	1	40ml VOA		✓							✓	09/04/98	

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	Chlorides (300)	VOC's		Turn Around Time if different from standard	Hold
		✓												✓					
																✓			
	✓	✓													✓				
	✓	✓													✓				
	✓	✓													✓				
														✓					
														✓					
		✓												✓					
																✓			
		✓												✓					
																✓			

Relinquished by: Jeffrey Kindley Date: 09/08/98 Time: 2:45 PM
Received by: Helen Shelton Date: 9/8/98 Time: 2:45 PM
Relinquished by: Helen Shelton Date: 9/8/98 Time: 6:30 PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wndha Date: 9-9-98 Time: 9:00 am

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 2 °
Log-in Review MD

REMARKS:
Normal Turnaround
159 389 3621

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 28 samples

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #_____

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 I H 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
107008	TSB-8 (8-10')	5	4 oz Jars		✓					✓			09/04/98	1546
	TSB-8 (8-10')	1	40ml VOA		✓							✓	09/04/98	1546
9	TSB-8 (40-42')	5	4 oz Jars		✓					✓			09/04/98	1610
	TSB-8 (40-42')	1	40ml VOA		✓							✓	09/04/98	1610

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH (418.1)	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	Chlorides (300)	VOC's	Turn Around Time if different from standard	Hold
														✓		✓		
																✓		
														✓				
																✓		

Relinquished by: Jeffrey Kindley Date: 09/08/98 Time: 2:45 PM
Received by: Helen Shelton Date: 9/8/98 Time: 2:45 PM
Relinquished by: Helen Shelton Date: 9/8/98 Time: 6:30 PM
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wrelle Date: 9-9-98 Time: 9:00 am

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 2 °
Log-in Review MS

REMARKS:
TSB-8 (8-10') (40-42)
Do not need TPH
Have been done already
Normal Turnaround

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 12 samples

ORIGINAL COPY

488

2 of

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Phillip Services Corporation, 7904 I H 20 West, Midland, Tx 79706

Project #: 19350

Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
10~~8~~034	TSB-6 (2-3')	5	40z Jars		✓					✓			08/21/98	1123
	TSB-6 (2-3')	1	40ml VOA		✓							✓	08/21/98	1123
35	TSB-6 (3-5')	5	40z Jars		✓					✓			08/21/98	1127
	TSB-6 (3-5')	1	40ml VOA		✓							✓	08/21/98	1127
	~~TSB-6 (18-20')~~ DWK	1	4oz Jar		✓					✓			08/21/98	1158
36	TSB-7 (2-3')	5	40z Jars		✓					✓			08/21/98	1406
	TSB-7 (2-3')	1	40ml VOA		✓							✓	08/21/98	1406
37	TSB-7 (3-5')	5	40z Jars		✓					✓			08/21/98	1412
	TSB-7 (3-5')	1	40ml VOA		✓							✓	08/21/98	1412
38	TSB-7 (8-10')	5	40z Jars		✓					✓			08/21/98	1421
	TSB-7 (8-10')	1	40ml VOA		✓							✓	08/21/98	1421

ANALYSIS REQUEST

BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached	Volatiles (VOCs)
✓	✓								✓	
										✓
	✓								✓	
										✓
✓	✓									
	✓								✓	
										✓
	✓								✓	
										✓
	✓								✓	
										✓

SPECIAL HANDLING

Turn around # of days

Fax ASAP

Hold

Relinquished by: Jeffy Kindly Date: August 24, 1998 Time: 1:00 PM

Received by: Helen Shelton 8/24/98 Time: 1:00 PM

Relinquished by: Helen Shelton Date: 8/24/98 Time: 6:15 PM

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Mell Green Date: 8-25-98 Time: 9:30am 2°

REMARKS

Normal Turnaround

155 758 9803 Bus

T 1,3,4,11,6,98

30 samples - HS

106028-38

488

1 of 2

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation, 7904 I-H 20 West, Midland, Texas 79706

Project #: 19350

Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached VOC's
106028	TSB-7 (28-30)	1	4oz Jar		✓					✓			08/21/98	1545	✓	✓								
29	TSB-10 (2-3')	5	4oz Jar		✓					✓			08/21/98	900		✓							✓	
	TSB-10 (2-3')	1	40ml VOA		✓							✓	08/21/98	900										✓
30	TSB-10 (3-5')	5	4oz Jar		✓					✓			08/21/98	909		✓							✓	
	TSB-10 (3-5')	1	40ml VOA		✓							✓	08/21/98	909										✓
31	TSB-10 (8-10')	5	4oz Jar		✓					✓			08/21/98	924		✓							✓	
	TSB-10 (8-10')	1	40ml VOA		✓							✓	08/21/98	924										✓
32	TSB-10 (28-31')	1	4oz Jar		✓					✓			08/21/98	1016	✓	✓								
33	TSB-6 (18-20')	5	4oz Jar		✓					✓			08/21/98	1158		✓							✓	
	TSB-6 (18-20')	1	40ml VOA		✓							✓	08/21/98	1158										✓
106039	Field Blank	1	voas	X																				
106040	Trip Blank	2																						

SPECIAL HANDLING
Turn around # of days
Fax ASAP
Hold

Relinquished by: Jeffrey Kindley Date: August 24, 1998 Time: 1:00 PM

Received by: Helen Shelton 8/24/98 1:00 PM

Relinquished by: Helen Shelton 8/24/98 Time: 4:15 PM

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Mell K. Green 8-25-98 9:30am

REMARKS

Normal Turnaround

155 158 9803 Bus

Temp 16 C

2° 26 + 4 not on COC = 30 - HS

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 123 / 124

Company Name: Philip Services Corporation
Phone #: 915-563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: 915-563-9526
Contact Person: Jeff Kindley / Sheron Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, N.M.
Sampler Signature: Jeff Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Nathanol	SAMPLING: DATE	TIME
41	Field Blank	2	40ml VOA	✓				✓					08/05/98	1700
104339	MW-5 (58-60')	5	4oz Jars		✓					✓			08/05/98	1130
	MW-5 (58-60')	1	40ml VOA		✓							✓	08/05/98	1130
40	MW-5 (63-65')	5	4oz Jars		✓					✓			08/05/98	1158
	MW-5 (63-65')	1	40ml VOA		✓							✓	08/05/98	1158
42	Trip Blank	2	40ml VOA	✓						✓			08/05/98	

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	VOC's	See Attached			Turn Around Time if different from standard	Hold
														✓	✓				
															✓				
														✓					
															✓				
														✓					
															✓				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeff Kindley	8/7/1998	730 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wyndham	Date: 8-7-98	Time: 9:30

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2 °
Log-in Review ONA

REMARKS:
Normal Turnaround

Carrier # Bus 901 984 620 9

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 272 / 273

Company Name: Phillips Services Corporation
Phone #: (915) - 563 - 0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563 - 9526
Contact Person: Jeffrey Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
104944	Field Blank	2	40ml VOA	✓					✓		✓			08/12/98	1530
47	Trip Blank	2	40ml VOA	✓							✓			08/12/98	1530
48	MW-8 (28-30')	5	4 Oz Jar		✓						✓			08/12/98	1004
	MW-8 (28-30')	1	40ml VOA		✓								✓	08/12/98	1004
49	MW-8 (63-65')	5	4 Oz Jar		✓						✓			08/12/98	1500
	MW-8 (63-65')	1	40ml VOA		✓								✓	08/12/98	1500
50	MW-7 (48-50) VW	1											✓		
51	MW-7 (63-65) VW	1											✓		

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	VOC's	See Attached.			Turn Around Time if different from standard	Hold
															✓				
															✓				
															✓				
														✓					
															✓				
														✓					
															✓				
															✓				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/13/98	700 AM			
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Windham	8-14-98	9:30 Am

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review

REMARKS:
Normal Turnaround.
VW
MW7 48-50/63-65 ADD on Fax

Carrier # Bus 901984619 8 previous COC

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 30 7 / 308

Company Name: Philip Services Corporation
Phone #: (915) -563- 0118
Address: 7904 I H 20 West Midland, Tx 79706
Fax #: (915) -563- 9526
Contact Person: Jeffrey Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
105069	Field Blank	2	40ml VOA	✓				✓					08/13/98	1530
70	Trip Blank	2	40ml VOA	✓						✓			08/13/98	
71	GSB-1 (2-3')	5	4 oz Jars		✓					✓			08/13/98	0911
	GSB-1 (2-3')	1	40 ml VOA		✓							✓	08/13/98	0911
72	GSB-1 (58-60')	2	4 oz Jars		✓					✓			08/13/98	1425
73	GSB-1 (63-65')	2	4 oz Jars		✓					✓			08/13/98	1440
74	GSB-1B (63-65')	2	4 oz Jars		✓					✓			08/13/98	1440

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8020/602	
BTEX 8020/602	✓
TPH	✓
PAH 8270	
Total Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC.MS Vol. 8240/8260/624	
GC/MS Semi. Vol. 8270/625	
PCB's 8080/608	
Pest. 8080/608	
BOD, TSS, PH	
VOC's (see Attached)	✓
Total Chlorides (300.1)	✓
Turn Around Time if different from standard	
Hold	

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
1	Jeffrey Kindley	August 14, 1998	700 AM			
2						
3				Received at Laboratory by: Armando Gomez	8/15/98	9:30 am

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp -2 °
Log-in Review

REMARKS: Normal Turnaround.

Carrier # Greyhound 901 994 601 1

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley

Phone #: (915) 563-0118

FAX #: (915) 563-9526

Company Name & Address: Philip Services Corporation, 7904 IH 20 West, Midland, Tx 79706

Project #: 19349

Project Name: Shell Grimes Tank Battery

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	Chloride (300)	See Attached	VOC's Past	Turn around # of days	Fax ASAP	Hold
106259	GSB-7 (2-3')	5	40ml VOA		✓					✓			08/25/98	1513		✓								✓		✓			
	GSB-7 (2-3')	1	40ml VOA		✓							✓	08/25/98	1513											✓				
106266	Field Blank	2	40ml VOA	✓				✓					08/26/98	1630										✓					
106267	Trip Blank	2	40ml VOA	✓						✓			08/26/98											✓					
106260	GSB-7 (33-35') (Container 34-36)	2	40ml VOA		✓					✓			08/26/98	0900	✓	✓								✓					
61	GSB-7 (58-60')	2	40ml VOA		✓					✓			08/26/98	1111	✓	✓								✓					
62	GSB-5 (2-3')	5	40ml VOA		✓					✓			08/26/98	1318		✓									✓	✓			
	GSB-5 (2-3')	1	40ml VOA		✓							✓	08/26/98	1318											✓				
63	GSB-5 (18-20')	2	40ml VOA		✓					✓			08/26/98	1429	✓	✓								✓					
64	GSB-5 (38-40')	2	40ml VOA		✓					✓			08/26/98	1555	✓	✓								✓					
65	GSB 7-48-50' not on COC	DON'T NEED TO RUN 106265 per JK																											

Relinquished by: Jeffrey Kindley **Date:** 08/27/98 **Time:** 700 AM

Relinquished by: **Date:** **Time:**

Relinquished by: **Date:** **Time:**

Received by: **Date:** **Time:**

Received by: **Date:** **Time:**

Received at Laboratory by: Vicki Wrather **Date:** 8-28-98 **Time:** 9:00 AM

REMARKS

Normal Turnaround

8/31/98

Bus 901 984 6099

400 / 401

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeff Kindley
Phone #: (915) 563-0118
Philip Services Corporation
FAX #: (915) 563-9526

Company Name & Address: 7904 I H 20 West
Midland, Tx 79706

Project #: 19350

Project Name: Shell Tooker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
105612	Field Blank	2	40ml VOA	✓				✓					08/18/98	1530
613	Trip Blank	2	40ml VOA	✓						✓			08/18/98	
14	TMW-2 (53-55')	5	4oz Jars		✓					✓			08/18/98	1249
	TMW-2 (53-55')	1	40ml VOA		✓							✓	08/18/98	1249
15	TMW-2 (63-65')	5	4oz Jars		✓					✓			08/18/98	1350
	TMW-2 (63-65')	1	40ml VOA		✓							✓	08/18/98	1350

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached VOC's
								✓	✓

SPECIAL HANDLING

Turn around # of days	Fax ASAP	Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	August 19, 1998	0700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Wardha	8-20-98	9:50 AM

REMARKS

Normal Turnaround

Bus 901 984 6033 2°

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 435/436

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Method	SAMPLING: DATE	TIME
105740	Field Blank	2	40ml VOA	✓				✓					08/19/98	1530
41	Trip Blank	2	40ml VOA	✓						✓			08/19/98	
42	TMW-1 (2-3')	5	4oz Jars		✓					✓			08/19/98	0830
	TMW-1 (2-3')	1	40ml VOA		✓							✓	08/19/98	0830
43	TMW-1 (63-65')	5	4oz Jars		✓					✓			08/19/98	1500
	TMW-1 (63-65')	1	40ml VOA		✓							✓	08/19/98	1500
44	TMW-1A (63-65')	5	4oz Jars		✓					✓			08/19/98	1500
	TMW-1A (63-65')	1	40ml VOA		✓							✓	08/19/98	1900

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	See Attached	VOC's			Turn Around Time if different from standard	Hold
														✓					
														✓					
														✓					
															✓				
														✓					
															✓				
														✓					
															✓				

Relinquished by: Jeffrey Kindley Date: August 19, 1998 Time: 700AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
Michi Windham 8-21-98 9:30

LAB USE ONLY
Intact Y N
Headspace Y / N
Temp 5°C °
Log-in Review MM

REMARKS:
Normal Turnaround

Carrier # TNM&O - 901 984 6055

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 186/187

Company Name: Philip Services Corporation
Phone #: (915) - 563 - 0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) - 563 - 9526
Contact Person: Jeffrey Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD:	HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
104631	Field Blank	2	40ml VOA	✓					✓		✓			08/10/98	1500
32	Trip Blank	2	40ml VOA	✓							✓			08/10/98	
33	MW-7 (48-50')	5	4oz Jars		✓						✓			08/10/98	1113
	MW-7 (48-50')	1	40ml VOA		✓								✓	08/10/98	1113
34	MW-7 (63-65')	5	4oz Jars		✓						✓			08/10/98	1356
	MW-7 (63-65')	1	40ml VOA		✓								✓	08/10/98	1356

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	VOC's	See Attached			Turn Around Time if different from standard	Hold
														✓	✓				
															✓				
															✓				
														✓					
															✓				
														✓					

Relinquished by: Jeffrey Kindley Date: 08/10/98 Time: 1700
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
Lilli Wrathe 8-11-98 9:30

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 3 °
Log-in Review MD

REMARKS:
Normal Turnaround

Carrier # Bus 901 984 6165

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley
Phone #: (915) -563-0118
FAX #: (915) -563-9526

Company Name & Address: Philip Services Corporation
7904 IH 20 West
Midland, Tx 79707

Project #: 19349
Project Name: Shell Grimes

Project Location: Grimes Battery, Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Methanol	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
104142	Trip Blank	2	40ml VOA	✓							✓		07/30/98	1730
43	Field Blank	2	40ml VOA	✓					✓		✓		07/30/98	1730
46	CSS #8	1	4oz Jar		✓						✓		07/30/98	1355
44	Trip Blank	2	40ml VOA	✓							✓		07/31/98	1745
45	Field Blank	2	40ml VOA	✓					✓		✓		07/31/98	1745
47	MW-3 (53-55')	5	4oz Jars		✓						✓		07/31/98	1330
	MW-3 (53-55')	1	40ml VOA		✓			✓			✓		07/31/98	1330
48	MW-3 (63-65')	5	4oz Jars		✓						✓		07/31/98	1425
	MW-3 (63-65')	1	40ml VOA		✓			✓			✓		07/31/98	1425

ANALYSIS REQUEST

BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	VOC's	Soil Attached	Chlorides (EPA 160.1)
									•	✓	
	✓									✓	
											✓
										✓	
										✓	
										✓	
									✓		
										✓	
									✓		

SPECIAL HANDLING

Turn around # of days
Fax ASAP
Hold

Relinquished by: Jeffrey Kindley **Date:** August 4, 1998 **Time:** 4:10 PM
Received by: Helen Shelton 8/4/98 **Time:** 4:10 PM

Relinquished by: Helen Shelton 8/4/98 **Time:** 8:40 PM
Received by: **Date:** **Time:**

Relinquished by: **Date:** **Time:**
Received at Laboratory by: Vicki Wrather 8-5-98 **Time:** 9:50 AM

REMARKS
run Both Trip Bk.
Normal Turnaround

Shipped Greyhound (-1) 21 samples - HS 155 358 597 6

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Philip Services Corporation
Phone #: (915) 563-0118
FAX #: (915) 563-9526
Company Name & Address: 7904 I H 20 West, Midland, Tx 79706
Project #: 19350
Project Name: Shell Tasker Road
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindly

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240/8260	8270	See Attached	VOC's
105953	Field Blank	2	40ml VOA	✓				✓					08/20/98	1600										✓	
954	Trip Blank	2	40ml VOA	✓						✓			08/20/98											✓	
955	TSB-1 (2-3')	5	4oz Jar		✓					✓			08/20/98	0852		✓								✓	
	TSB-1 (2-3')	1	40ml VOA		✓							✓	08/20/98	0852											✓
956	TSB-1 (3-5')	5	4oz Jar		✓					✓			08/20/98	905		✓								✓	
	TSB-1 (3-5')	1	40ml VOA		✓							✓	08/20/98	905											✓
957	TSB-1 (8-10')	5	4oz Jar		✓					✓			08/20/98	923		✓								✓	
	TSB-1 (8-10')	1	40ml VOA		✓							✓	08/20/98	923											✓
105961	TSB-1 (43-45')	1	4oz Jar		✓					✓			08/20/98	1211	✓	✓									
958	TSB-2 (2-3')	5	4oz Jar		✓					✓			08/20/98	1417		✓								✓	
	TSB-2 (2-3')	1	4oz Jar		✓							✓	08/20/98	1417											✓

SPECIAL HANDLING
Turn around # of days
Fax ASAP
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindly	August 21, 1998	700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Mell Green	Date: 8-22-98	Time: 10:00am

REMARKS
Normal Turnaround
17°C

Bus 901 984 6066

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Philip Services Corporation
Phone #: (915) 563-0118
FAX #: (915) 563-9526

Company Name & Address: 7904 IH20 West
Midland, Tx 79706

Project #: 19350
Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindy

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached	VOC's
105959	TSB-2 (3-5')	5	40ml VOA	✓	✓					✓			08/20/98	1420		✓								✓	
	TSB-2 (3-5')	1	40ml VOA		✓							✓	08/20/98	1420											✓
960	TSB-2 (18-20')	5	40ml VOA		✓					✓			08/20/98	1503		✓								✓	
	TSB-2 (18-20')	1	40ml VOA		✓							✓	08/20/98	1503											✓

SPECIAL HANDLING
Turn around # of days
Fax ASAP
Hold

Relinquished by: Jeffrey Kindy	Date: Aug 21, 1998	Time: 700 Am
Relinquished by:	Date:	Time:
Relinquished by:	Date:	Time:

Received by:	Date:	Time:
Received by:	Date:	Time:
Received at Laboratory by: Mell Green	Date: 8-22-98	Time: 10:00am

REMARKS
Normal Turnaround
12°C

Bus 901 984 606 6

344/345

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Philip Services Corporation
Phone #: (915) 563-0118
FAX #: (915) 563-9526
Company Name & Address: Philip Services Corporation 7904 IH 20 West, Midland, Tx 79706
Project #: 19349
Project Name: Grimes Tank Battery
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	See Attached VOC's	Total Chlorides (300.1)
105222	Field Blank	2	40ml VOA	✓				✓					08/14/98	1530									✓		
223	Trip Blank	2	40ml VOA	✓						✓			08/14/98										✓		
224	GSB-2 (5-6')	5	4oz Jar		✓					✓			08/14/98	0919									✓		
	GSB-2 (5-6')	1	4ml VOA		✓							✓	08/14/98	0919										✓	
225	GSB-2 (45-47')	2	4oz Jar		✓					✓			08/14/98	1145	✓	✓									✓
226	GSB-2 (55-57')	2	4oz Jar		✓					✓			08/14/98	1330	✓	✓									✓

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

Relinquished by: Jeffrey Kindley	**Date:** August 17, 1998	**Time:** 11:00 AM
Relinquished by: Helen Shelton	**Date:** 8/17/98	**Time:** 6:30PM
Relinquished by:	**Date:**	**Time:**
Received by: Helen Shelton	**Date:** 8/17/98	**Time:** 11:00 AM
Received by:	**Date:**	**Time:**
Received at Laboratory by: Vicki Wadha	**Date:** 8-18-98	**Time:** 9:55

REMARKS

Normal Turnaround

Shipped Overnight 2° 14 samples - HS 155 758 9259

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Jeffrey Kindley
Phone #: 915 - 563-0118
FAX #: 915-563-9526

Company Name & Address: Phillips Services Corporation
7904 IH 20 West
Midland, Tx 79706

Project #: 19349
Project Name: Shell Grimes

Project Location: Grimes Battery, Hobbs, N.M.
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	VOC's	See Attached
104099	MW-4 (18-20')	5	40ml VOA		✓					✓			08/03/98	1020											✓
	MW-4 (18-20')	1	40ml VOA		✓							✓	08/03/98	1020										✓	
~~104159~~	Trip Blank	2	40ml VOA	✓							✓		08/03/98	—										•	✓
104160	Field Blank	2	40ml VOA	✓				✓					08/03/98	1600										•	✓
~~104100~~	MW-4 (63-65')	5	40z Jar		✓					✓			08/03/98	1450											✓
104100	MW-4 (63-65')	1	40ml VOA		✓							✓	08/03/98	1450										✓	

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	08/04/98	0700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Windham	Date: 8-5-98	Time: 10:00 am

REMARKS
Normal Turnaround
ND
20 Bus 9019846187

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Philip Services Corporation

Phone #: (915)-563-0118

FAX #: (915)-563-9526

Company Name & Address: 7904 IH 20 West, Midland, Texas 79706

Project #: 19350

Project Name: Shell Tasker Road

Project Location: Hobbs, New Mexico

Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING DATE	SAMPLING TIME	BTEX, MTBE	TPH (418.1)	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240/8260	8270	See Attached	VOC's	Total Chlorides (300.1)
105406	Field Blank	2	40ml VOA	✓				✓					08/17/98	1620										✓	✓	✓
407	Trip Blank	2	40ml VOA	✓						✓			08/17/98											✓	✓	✓
408	TSB-8 (2-3')	5	4oz Jar		✓					✓			08/17/98	1325										✓		
	TSB-8 (2-3')	1	40ml VOA									✓	08/17/98	1325											✓	
409	TSB-8 (8-10')	2	4oz Jar		✓					✓			08/17/98	1328	✓	✓	Cancel									✓
410	TSB-8 (40-42')	2	4oz Jar		✓					✓			08/17/98	1552	✓	✓	Cancel per Jeff 8-19-98									✓

SPECIAL HANDLING

Turn around # of days

Fax ASAP

Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	August 18, 1998	0700 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wrocha	Date: 8-19-98	Time: 9:40 AM

REMARKS

Normal Turnaround

Bus 915 190 984 4614

Page ____ of ____

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 548 / 549

Company Name: Phillips Services Corporation
Phone #: 915-563-0118
Address: 7904 IH20 West, Midland, Tx 79706
Fax #: 915-563-9526
Contact Person: Jeff Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes
Project Location: Grimes Battery, Hobbs, NM
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
103762	Field Blank	2	40ml VOA	✓				✓					07/29/98	1550
64	MW-2 (62-64D)	5	402 Jars		✓					✓			07/29/98	1540
~~65~~	MW-2 (62-64D)	1	40ml VOA		✓							✓	07/29/98	1540
6566	MW-2 (58-60)	5	402 Jars		✓					✓			07/29/98	1530
~~67~~	MW-2 (58-60)	1	40ml VOA		✓							✓	07/29/98	1530
6668	MW 2 (13-15')	5	402		✓					✓				
6669	~~Trip Blank~~ MW MW2 (13-15')	1	40 ml		✓							✓		
103763	Trip Blank	2	40 ml	✓										

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8020/602	
BTEX 8020/602	
TPH	
PAH 8270	
Total Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC.MS Vol. 8240/8260/624	
GC/MS Semi. Vol. 8270/625	
PCB's 8080/608	
Pest. 8080/608	
BOD, TSS, PH	
VOC's	✓
See Attached	✓
Turn Around Time if different from standard	
Hold	

Relinquished by: Jeffrey Kindley Date: July 30 98 Time: 700AM
Received by: Date: Time:

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

Relinquished by: Date: Time:
Received at Laboratory by: Vicki Wrather Date: 7-31-98 Time: 9:10 Am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

LAB USE ONLY

Intact (Y) N
Headspace Y / N
Temp 2 °
Log-in Review GA

REMARKS:

Normal

per Sharon Hall 7-31-98 rw
writing MW2 + Trip Blk.

Carrier # Greyhound 901 984 417 6

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 517/518

Company Name: Philip Services Corporation
Phone #: 1-915-563-0118
Address: 7904 IH20 West, Midland, Tx 79706
Fax #: 1-915-563-9526
Contact Person: Jeff Kindley / Sharon Hall
Invoice to: (If different from above) Same
Project #: 19349
Project Name: Shell Grimes
Project Location: Casey Mouse, Hobbs, N.M.
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
103637	Trip Blank 339A+339B	2	40ml VOA	✓							✓		07/28/98	
38	Field Blank	2	40ml VOA	✓				✓					07/28/98	1530
39	CSS #1	1	4oz		✓						✓		07/28/98	1430
40	CSS #2	1	4oz		✓						✓		07/28/98	1439
41	CSS #3	1	4oz		✓						✓		07/28/98	1446
42	CSS #4	1	4oz		✓						✓		07/28/98	1425
43	CSS #5	1	4oz		✓						✓		07/28/98	1500
44	CSS #7	1	4oz		✓						✓		07/28/98	1506
45	CSS #6	5	4oz		✓						✓		07/28/98	1515
46	CSS #6 (DUP)	1	40ml VOA		✓							✓	07/28/98	1515
MS/MSD 1-9														

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8020/602	
BTEX 8020/602	✓ ✓
TPH	✓ ✓
PAH 8270	
Total Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC.MS Vol. 8240/8260/624	
GC/MS Semi. Vol. 8270/625	
PCB's 8080/608	
Pest. 8080/608	
BOD, TSS, PH	
See Attached	✓ ✓ ✓ ✓ ✓
VOC	✓
Turn Around Time if different from standard	
Hold	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	07/28/98	1700			

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

Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Cliff Wardlaw	7-30-98	9:30 am

LAB USE ONLY

Intact (Y) / N
Headspace Y / N
Temp 2 °
Log-in Review NA

REMARKS: Normal

Carrier # Bus 901 984 615 4

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.
1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Blank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.