STAM

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1105 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00215

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Bldg. MWL MWL-20 Expiration Date 6/12/91

Released By [signature]
Health Physics

Remarks 5

54-3000-022 (01/89)

DEC 1991
RECEIVED
EDMC

9212-1131

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9 2 1 2 1 1 3 2

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI Collection Date 6-4-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00215
1-aluminum moisture tin
ASTM moisture analysis

B00216
1-aluminum moisture tin
ASTM moisture analysis

B00217
1-aluminum moisture tin
ASTM moisture analysis

B00218
1-aluminum moisture tin
ASTM moisture analysis

B00219
1-aluminum moisture tin
ASTM moisture analysis

9 2 1 1 1 1 9 3

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
G.B. Gould G.B. Gould	Terry L. ENGLAND Terry England	6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-4-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00215	1-aluminum moisture tin	Soil	ASTM moisture analysis.
B00216	1-aluminum moisture tin	Soil	↓
B00217	1-aluminum moisture tin	Soil	
B00218	1-aluminum moisture tin	Soil	
B00219	1-aluminum moisture tin	Soil	
		N A	

Field Information** Samples surveyed by HPT and stickered for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building until delivery to lab.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212114

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1106 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00216

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg~~ WELL MW-20 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 5.5 - 6.0'

54-3000-022 (01/89)

9212111135

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9212111136

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI Collection Date 6-4-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00215
1-aluminum moisture tin
ASTM moisture analysis

B00216
1-aluminum moisture tin
ASTM moisture analysis

B00217
1-aluminum moisture tin
ASTM moisture analysis

B00218
1-aluminum moisture tin
ASTM moisture analysis

B00219
1-aluminum moisture tin
ASTM moisture analysis

9212111137

☐ Field Transfer of Custody

CHAIN OF POSSESSION		(Sign and Print Names)
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G. B. Gould Date Sampled 6-4-91 Time NA hours

Company Contact G. B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00215	1-aluminum moisture tin	Soil	ASTM moisture analysis.
B00216	1-aluminum moisture tin	Soil	↓
B00217	1-aluminum moisture tin	Soil	
B00218	1-aluminum moisture tin	Soil	
B00219	1-aluminum moisture tin	Soil	
		N	A

Field Information** Samples surveyed by HPT and stickered for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building until delivery to lab.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212111138

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1107 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00217

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

[redacted] Well MW-20 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 7.0'

54-3000-022 (01/89)

9212111139

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9212 1190

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI Collection Date 6-4-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00215
1-aluminum moisture tin
ASTM moisture analysis

B00216
1-aluminum moisture tin
ASTM moisture analysis

B00217
1-aluminum moisture tin
ASTM moisture analysis

B00218
1-aluminum moisture tin
ASTM moisture analysis

B00219
1-aluminum moisture tin
ASTM moisture analysis

9212-1191

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
G.B. Gould G.B. Gould	Jerry L. ENGLANS Jerry England	6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-4-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00215	1-aluminum moisture tin	Soil	ASTM moisture analysis.
B00216	1-aluminum moisture tin	Soil	↓
B00217	1-aluminum moisture tin	Soil	
B00218	1-aluminum moisture tin	Soil	
B00219	1-aluminum moistare tin	Soil	
		N	A

Field Information** Samples surveyed by HPT and stickered for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building until delivery to lab.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9 2 1 2 1 1 9 2

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1108 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00218

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

[redacted] Well MW-20 Expiration Date 6/24/91

Released By [signature]
Health Physics

Remarks 9.75

54-3000-022 (01/89)

9 2 1 2 1 1 1 9 3

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.86	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9212111194

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G. B. Gould

Company Contact G. B. Gould Telephone 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI Collection Date 6-4-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00215
1-aluminum moisture tin
ASTM moisture analysis

B00216
1-aluminum moisture tin
ASTM moisture analysis

B00217
1-aluminum moisture tin
ASTM moisture analysis

B00218
1-aluminum moisture tin
ASTM moisture analysis

B00219
1-aluminum moisture tin
ASTM moisture analysis

9211195

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)		
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-4-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00215	1-aluminum moisture tin	Soil	ASTM moisture analysis.
B00216	1-aluminum moisture tin	Soil	↓
B00217	1-aluminum moisture tin	Soil	↓
B00218	1-aluminum moisture tin	Soil	↓
B00219	1-aluminum moistare tin	Soil	↓
		N	A

Field Information** Samples surveyed by HPT and stickered for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building until delivery to lab.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212111196

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1109 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00219

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg.~~ 0211 MW-20 Expiration Date 6/12/91

Released By [signature]
Health Physics

Remarks 15'

54-3000-022 (01/89)

9212 1 1 1 9 7

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	638.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9212 1193

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI Collection Date 6-4-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00215
1-aluminum moisture tin
ASTM moisture analysis

B00216
1-aluminum moisture tin
ASTM moisture analysis

B00217
1-aluminum moisture tin
ASTM moisture analysis

B00218
1-aluminum moisture tin
ASTM moisture analysis

B00219
1-aluminum moisture tin
ASTM moisture analysis

9211199

☐ Field Transfer of Custody

CHAIN OF POSSESSION		(Sign and Print Names)
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-4-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00215	1-aluminum moisture tin	Soil	ASTM moisture analysis.
B00216	1-aluminum moisture tin	Soil	↓
B00217	1-aluminum moisture tin	Soil	
B00218	1-aluminum moisture tin	Soil	
B00219	1-aluminum moisture tin	Soil	
		N	A

Field Information** Samples surveyed by HPT and stickered for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building until delivery to lab.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212100

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1110 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00220

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Well MW-20 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 20'

54-3000-022 (01/89)

9 2 1 2 1 1 1 0 1

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	414.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9211102

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 509-376-2977

Project Designation/Sampling Locations 1100-EM-1, Phase 2 RT Collection Date 6-5-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00220 B 6-5-91
1- aluminum moisture tin, soil
ASTM moisture analysis
B00221
1- aluminum moisture tin, soil
ASTM moisture analysis.
B00222
1- aluminum moisture tin, soil
ASTM moisture analysis

☐ Field Transfer of Custody

CHAIN OF POSSESSION		(Sign and Print Names)
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 1000
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

9212110103

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-5-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00220	1- aluminum moisture tin	Soil	ASTM moisture analysis
B00221	1- aluminum moisture tin	Soil	
B00222	1- aluminum moisture tin	Soil	
~~B00223~~	~~1- alum. moisture tin~~ RAG 6-5-91	~~Soil~~	bbb 6-5-91
		N/A	

Field Information** Samples surveyed by HPT for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building at end of shift.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212110 4

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1111 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00221

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Bldg. 881 MW-20 Expiration Date 6/12/91

Released By Cay R. Nathis
Health Physics

Remarks 25'

54-3000-022 (01/89)

9 2 1 1 1 0 5

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	414.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9211106

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 509-376-2977

Project Designation/Sampling Locations 1100-EM-1, Phase 2 RI Collection Date 6-5-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00220 — 6-5-91

1- aluminum moisture tin, soil

ASTM moisture analysis

B00221

1- aluminum moisture tin, soil

ASTM moisture analysis.

B00222

1- aluminum moisture tin, soil

ASTM moisture analysis

9211107

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)		
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 1000
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-5-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00220	1- aluminum moisture tin	Soil	ASTM moisture analysis
B00221	1- aluminum moisture tin	Soil	↓
B00222	1- aluminum moisture tin	Soil	↓
~~B00223~~	~~1- alum. moisture tin~~ RAG 6-5-91	~~Soil~~	↓ bbb 6-5-91
		N/A	

Field Information** Samples surveyed by HPT for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building at end of shift.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9 2 1 2 1 1 0 3

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1112 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00222

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

[redacted] well MW-20 Expiration Date 6/12/91

Released By [signature]
Health Physics

Remarks 30'

54-3000-022 (01/89)

9 2 1 2 1 0 9

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone 509-376-2977

Project Designation/Sampling Locations 1100-EM-1, Phase 2 RI Collection Date 6-5-91

MW-20

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL 200E

Possible Sample Hazards/Remarks

Sample Identification

B00220 6-8-91

1- aluminum moisture tin, soil

ASTM moisture analysis

B00221

1- aluminum moisture tin, soil

ASTM moisture analysis.

B00222

1- aluminum moisture tin, soil

ASTM moisture analysis

9211111

☐ Field Transfer of Custody

CHAIN OF POSSESSION		(Sign and Print Names)
Relinquished by: G.B. Gould	Received by: JERRY L. ENGLAND	Date/Time: 6-11-91 1000
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-5-91 Time N/A hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00220	1- aluminum moisture tin	Soil	ASTM moisture analysis
B00221	1- aluminum moisture tin	Soil	↓
B00222	1- aluminum moisture tin	Soil	↓
~~B00223~~	~~1- alum. moisture tin~~ JRG 6-5-91	~~Soil~~	↓ JRG 6-5-91
		N/A	

Field Information** Samples surveyed by HPT for off-site transportation.

Special Handling and/or Storage Samples locked in central site wooden building at end of shift.

Possible Sample Hazards None observed or detected

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212111 2

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1113 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON B. GOULD DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00223

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Well MW-20 Expiration Date 6/12/9

Released By [illegible] Health Physics

Remarks 35'

54-3000-022 (01/89)

9 2 1 2 1 1 1 3

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9212111114

Westinghouse Hanford Company	CHAIN OF CUSTODY

Company Contact G.B. Gould Telephone 376-2977

Sample Collected by G.B. Gould Date 6-5-91 Time NA

Sample Locations MW-20, 1100-EM-1 Phase 2 RE, Horn Rapids Land Fill.

Ice Chest No. NA Field Logbook and Page No. NA

Remarks Sample locked in cab of drilling rig HO-68K-4558 overnight until HPT survey next day. Chain of custody was maintained.

Bill of Lading No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL, 200E.

Sample Identification

B00223
1-aluminum moisture tin
ASTM moisture analysis.

Chain of Possession

Relinquished by:	Received by:	Date/Time:
G.B. Gould G.B. Gould	JERRY L. ENGLAND Jerry England	6-11-91 10:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

A-6000-407 (07/89)

9212115

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector G.B. Gould Date Sampled 6-5-91 Time NA hours

Company Contact G.B. Gould Telephone (509) 376-2977

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00223	1- Alum. moisture tin	soil	ASTM MOISTURE ANALYSIS
		NA	

Field Information** Sample locked in cab of drilling rig # HO-68K-4558 overnight until HPT surveyed & released.

Special Handling and/or Storage NA

Possible Sample Hazards NA

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212116

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1168 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-21-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE ✓	1	ETAL-14
SIEVE ANALYSIS ✓	1	ETAL-07
HYD. CONDUCTIVITY ✓	1	ETAL-09/02
SPECIFIC GRAVITY ✓	1	ETAL-10

REMARKS B00Z24 RECEIVED BY: R.G. ALEXANDER DATE 6-21-91

APPROVED BY: R.G. ALEXANDER DATE 6-21-91

9 2 1 2 1 1 1 7

RADIATION RELEASE

Site MW-20 Expiration Date 6-21-91

Released By M Hoodlenpyle
Health Physics

Remarks 65.7' to 67.7'

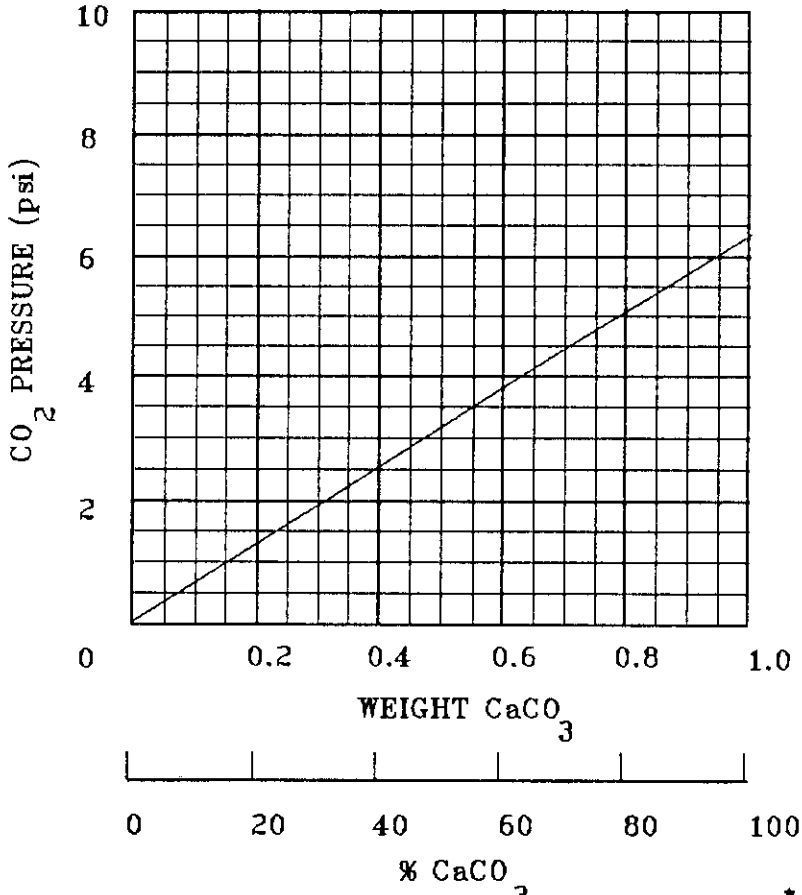
54-3000-022 (01/89)

54-3800-009(1-90)

CALCIUM CARBONATE DATA SHEET

SAMPLE NO.	1-1168	PAGE 1 OF 1	
TESTED BY	M.A. Baechler	DATE	7-31-91
PROCEDURE	ETAL-19 REV 0	DATE ISSUED	9-7-90
BALANCE NUMBER	3304	DATE DUE	9-21-91

ANALYZER NO. 5642



GRAMS $CaCO_3$	PRESSURE*
0	0
0.2	1.25
0.4	2.55
0.6	3.80
0.8	5.05
1.0	6.15

*AVG. OF TWO SAMPLES

SAMPLE WEIGHT 8.0 (g)

SAMPLE PRESSURE .1 (psi) % $CaCO_3$ .2 PER GRAM

CHECKED BY R.G. Alexander DATE 7-31-91

9 2 1 2 1 1 1 2 1 3

SOIL MOISTURE DATA SHEET

Sample No. 1-1168 Page 1 of 1

Tested By: R.G. ALEXANDER Date 7-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3310/3304 Calibration Due Date 9-21-91
Thermometer: GEL- 0006 Calibration Due Date 4-1-92
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1168	1917.80	1360.03	171.39	1746.41	1188.64	46.93

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; M.A. Baechler Date 8-5-91

9212111119

SIEVE ANALYSIS DATA SHEET

Sample No. 1-1168 Page 1 of 1

Tested By:	R.G. ALEXANDER	Date	8-2-91
Procedure No:	ETAL-07	Rev. 1	Date Issued 11-15-89
Test Plan No:	N/A	Rev. N/A	Date Issued N/A
Balance:	GEL- 3304	Calibration Due Date	9-21-91
Thermometer:	GEL- 0006	Calibration Due Date	4-1-92
N/A :	GEL- N/A	Calibration Due Date	N/A
N/A :	GEL- N/A	Calibration Due Date	N/A
N/A :	GEL- N/A	Calibration Due Date	N/A
N/A :	GEL- N/A	Calibration Due Date	N/A

Sample Description VOLCANIC ASH (WHITE) Sieve Time 10 (min)

Reduced by (X) Splitting ( ) Quartering ( ) Stockpile

Sieve Size	Sample Weight	Cumulative Wt. Retained	Cumulative % Retained	Cumulative % Passed
#4	72.08	Ø	Ø	100
#10		Ø	Ø	100
#40		0.2	0.3	99.7
#60		0.3	0.4	99.6
#100		0.6	0.8	99.2
#200		2.1	2.9	97.1
N/A	N/A	N/A	N/A	N/A

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING		Remarks
C = Percemtage of material passing a 200 Sieve	N/A %	
D = Original Dry Weight of Sample	N/A g	WASH GRADING
E = Dry Weight of Sample After Washing/Sieve	N/A g	
C = <(D-E)/D>*100		

All data are accurately and completely recorded. The test operator was trained ~~and~~ used calibrated instruments.

Checked By; M. G. Daucher Date 8-5-91

A-6400-204(2-87)

9212 1120

HYDROMETER ANALYSIS DATA SHEET

Sample No. 1-1168 Page ____ of ____

Tested By: R.G. ALEXANDER Date 8-1-91
Procedure No: ETAL-07 Rev. 1 Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: ETAL- 3304 Calibration Due Date 9-21-91
Thermometer: ETAL- 0002 Calibration Due Date 2-12-92
Hydrometer: ETAL- 1007 Calibration Due Date 1-25-92
N/A : ETAL- N/A Calibration Due Date N/A
N/A : ETAL- N/A Calibration Due Date N/A

Specific Gravity of Sample 2.30
% Passing No. 10 Sieve 100 (%)
Hygroscopic Correction Factor N/A

WEIGHT OF SAMPLE
Wt. Container + Soil 107.59 (g)
Wt. Container 35.51 (g)
Wt. Soil 72.08 (g)

COMPOSITE CORRECTION
1st Reading 6 at 25.0 °C
2nd Reading ____ at ____ °C

HYGROSCOPIC MOISTURE CONTENT
Wt. Container + Air Dry Soil N/A (g)
Wt. Container + Oven Dry Soil N/A (g)
Wt. Container N/A (g)
Water Content N/A (%)

REMARKS ASSUMED
a = 1.08 w = 72.08 K = 0.01416 ASSUMED

TUBE D

Date	Clock Time	Elapsed time (min)	Hydrometer Reading	Hydrometer with Composite Correction	Temperature (oC)	Soil in Suspension (%)	Particle Diameter (mm)
8-1	0759	2.0	25	19	25.0	28.5	0.0364
	0802	5.0	17	11	25.0	16.5	0.0241
	0812	15.0	11	5	25.0	7.5	0.0144
	0827	30.0	9	3	25.0	4.5	0.0103
	0857	60.0	7	1	25.0	1.5	0.0073
	1207	250.0	6	Ø	25.8	Ø	Ø
8-2	0757	1440.0	—	—	—	—	—

Formulas and Tables used to calculate percent soil in suspension, particle diameter and hygroscopic correction factor are found in ASTM D422

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; M. A. Bachler Date 8-5-91

9212-1-21

9 2 1 2 1 1 1 2 2

GRAIN SIZE ANALYSIS PLOT

Sample No. 1-1168

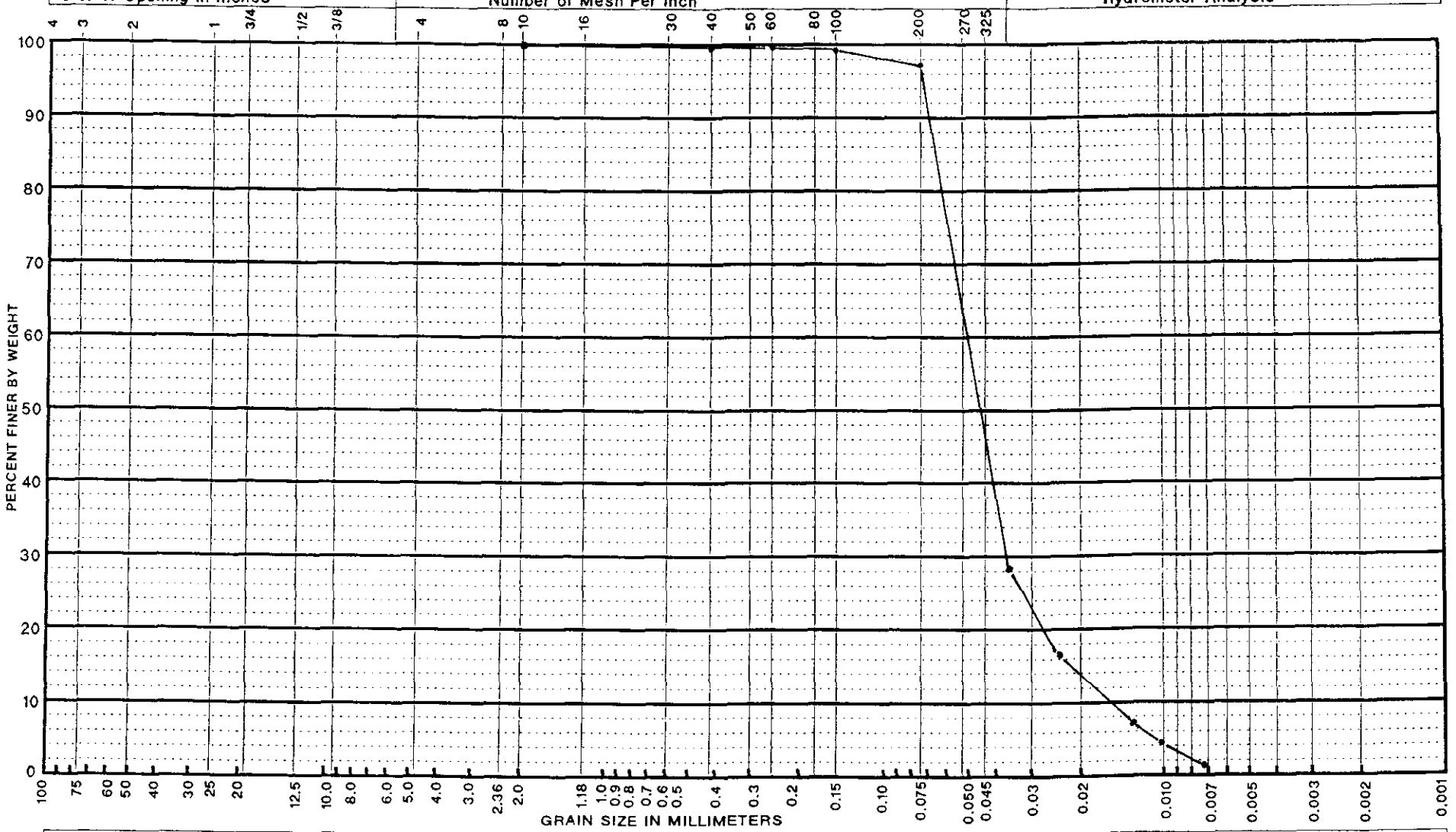
Page 1 of 1

Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-91

Plotted By R.G. ALEXANDER

Test Plan No. N/A Rev. N/A Date Issued N/A

Date



Remarks BOB Z 24 65.7 – 67.7'

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.

Checked By: M. A. Baecher Date 8-5-91

SPECIFIC GRAVITY OF SOILS DATA SHEET

Sample No. 1-1168 Page 1 of 1

Tested By:	R.G. ALEXANDER	Date	8-1-91
Procedure No:	ETAL-10	Rev. Ø	Date Issued 11-15-89
Test Plan No:	N/A	Rev. N/A	Date Issued N/A
Balance: ETAL-	3304	Calibration Due Date	9-21-91
Oven Thermometer: ETAL-	0006	Calibration Due Date	~~4-10-92~~ 4-1-92
Thermometer: ETAL-	0002	Calibration Due Date	2-12-92
Pycnometer: ETAL-	2554	Calibration Due Date	N/A
N/A : ETAL-	N/A	Calibration Due Date	N/A
N/A : ETAL-	N/A	Calibration Due Date	N/A

Wetting Agent "Ø" WATER

	DETERMINATION NO.	1	2	3
W_o	Wt. Oven Dry Soil, g	55.00	N/A	N/A
	Pycnometer No.	2554		
	Wt. Pycnometer, g	135.72		
W_a	Wt. Pycnometer+Wetting Agent, g	387.11		
W_b	Wt. Pycnometer+Wetting Agent + Soil, g	418.24		
	Temperature, T_x at W_b, °C	25.0		
G_w	Specific Gravity of Wetting Agent at T_x	1.00		
G_t	Specfic Gravity of Soil at T_x	2.30		
G_s	Specific Gravity of Soil at 20°C	2.30		

$$C_t = \frac{G_w \times Y_w \times W_o}{W_o + W_a - W_b}$$

Y_W = Unit Weight of Water (g/cm³)

*$G_s = K * G_t$

Average Specific Gravity at 20 °C

2.30 g/cm³

K Values found in ASTM D854-58, Table 1

* NOTE $G_s = G_t$ When Test Run at 20 °C

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.

Checked By: M.A. Baechler Date 8-5-91

A-6400-235(2-87)

9212113

HYDRAULIC CONDUCTIVITY DATA SHEET

Specimen ID 1-1168 Page 1 of 4

Tested By R.G. ALEXANDER Date 7-25-91

Procedure ETAL-09 Rev. 1 Date Issued 12-1-89

Test Plan N/A Rev. N/A

EQUIPMENT	NO.	CALIBRATION DUE DATE
Balance	3304/3310	9-21-91
Thermometer	0006	4-1-92
Thermocouple	N/A	N/A
Thermocouple		
Pressure Gauge		
Pressure Gauge		
Pressure Transducer		
Pressure Transducer		
Calipers	5623	7-31-91
Oven	N/A	N/A
Permeameter	N/A	N/A

Specimen Diameter (D) 9.83 cm

Specimen Length (L) 14.60 cm

$$A = \left(\frac{D}{2}\right)^2 \times 3.1415$$

Specimen Area (A) 75.89 cm

Darcy's Law $K = \frac{QL}{AH}$

K = Hydraulic Conductivity (cm/sec)

Q = Flow (cm^3/sec) = Vol. g/Time (sec)

A = Area (cm^2)

H = Hydraulic Head = $\frac{\text{Pressure (psi)}}{14.5 \text{ psi/bar}}$ X 1020 cm/bar

L = Length (cm)

Remarks V = 1107.99

All required data are accurately and completely recorded. The test operator was appropriately trained and utalized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data.

Checked by M.G. Baechler Date 8-5-91

A-6000-405 1 (07/89)

9 2 1 1 1 2 4

Sample No. 1-1168

SAMPLE COMPACTION

Compaction Method Static ☒/A Tamping ☒/A

STATIC or TAMPING	Load Applied, g/ Layer length, cm	Layer 1	N/A	11	N/A
		2		12	
	No. Tamps per Layer/ Layer Length, cm	3		13	
		4		14	
		5		15	
		6		16	
	Total No. of Layers N/A	7		17	
	INTACT SAMPLE	8		18	
		9		19	
		10		20	

Tamper Foot Diameter cm	N/A
Tamper Applied Load, g	N/A
Sample Diameter, (d), cm	9.83
Sample Length, (L), cm	14.60
Sample Mold or Permeameter Weight & Compacted Sample, g	1917.80
Sample Mold or Permeameter Weight, g	171.39
Weight of Compacted Sample, (E), g	1744.41
Weight of Container & Uncompacted Wet Sample, (A), g	1917.80
Weight of Container & Uncompacted Dry Sample, (B), g	1360.03
Weight of Water, g	557.77
Weight of Container, (C), g	171.39
Weight of Dry Soil, (WS), g	1188.64
Water Content, %	46.93
Compacted Bulk Density of Sample, (γm), g/cc	1.58
Compacted Sample Dry Density, (γd), g/cc	1.08

$$\gamma m = \frac{E}{(\pi)(d/2)^2(L)}$$

$$\gamma d = \left(\frac{\gamma m}{W + 100}\right) 100$$

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By M. G. Bachlu Date 8-5-91

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID 1-1168 Page 3 of 4

Procedure No. ETAL-09 Date Issued 12-1-89

Date Year __ (Mo/Day)	TIME			VOLUME DETERMINANTS							Operator Initials
	System Down (Hr:Min)	System Up (Hr:Min)	Time Change (Hr:Min)	Effluent		Container		System	Pressure		
				Temp (°C)	Weight (±0.1g)	Tare (±0.1g)	Tare & Effluent (±0.1g)	Temp (°C)	Pore H_2O ~~psi~~	Back H_2O (psi)	
7-24	—	0930	—	25.6	—	152.57	—	25.6	102	N/A	RGA
7-24	1130	1135	2:00	26.3	387.49	152.57	~~329.97~~ 234.98	26.3	102	N/A	RGA
7-24	1405	1410	2:30	27.1	454.74	152.57	302.17	27.1	102	N/A	RGA
7-24	1640	STOP	2:30	27.4	451.07	152.57	298.50	27.4	102	N/A	RGA
7-25	—	1320	—	25.7	—	152.57	—	25.7	102	N/A	RGA
7-25	1420	STOP	1:00	25.7	269.56	152.57	116.99	25.7	102	N/A	RGA
7-29	—	0750	—	24.4	—	152.57	—	24.4	102	N/A	RGA
7-29	1020	1025	2:30	24.7	425.63	152.57	273.06	24.7	102	N/A	RGA
7-29	1255	1300	2:30	25.1	428.35	152.57	275.78	25.1	102	N/A	RGA
7-29	1430	1435	1:30	25.6	316.01	152.57	163.44	25.6	102	N/A	RGA
7-29	1535	STOP	1:00	26.1	263.04	152.57	110.47	26.1	102	N/A	RGA
7-30	—	0750	—	24.0	—	152.57	—	24.0	102	N/A	RGA
7-30	0950	STOP	2:00	24.2	372.29	152.57	219.72	24.2	102	N/A	RGA
7-30	STOP	TEST	—	—	—	—	—	—	—	—	RGA

All required data are accurately and completely recorded. The test operator was appropriately trained and utilized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data

Check by M. A. Baechler Date 8-5-91

A-6000-405.2 (07/89)

9211126

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID 1-1168 Page 4 of 4

Procedure No. ETAL-09 Date Issued 12-1-89

Date Year __ (Mo/Day)	Hydraulic Conductivity (cm/sec)	Hydraulic Gradient (cm/cm)	Effluent Analysis		Effluent Description	Operator Initials
			Specimen Number	Lab. Notebook Location		
7-24	START	TEST	—	—	—	RGA
7-24	6.02×10^{-5}	6.99	—	—	CLEAR	RGA
7-24	6.3×10^{-5}	6.99	—	—	"	RGA
7-24	6.3×10^{-5}	6.99	—	—	"	RGA
7-25	START	TEST	—	—	—	RGA
7-25	6.1×10^{-5}	6.99	—	—	CLEAR	RGA
7-29	5.7×10^{-5}	6.99	—	—	"	RGA
7-29	5.8×10^{-5}	6.99	—	—	"	RGA
7-29	5.7×10^{-5}	6.99	—	—	"	RGA
7-29	5.8×10^{-5}	6.99	—	—	"	RGA
7-30	5.8×10^{-5}	6.99	—	—	"	RGA
7-30	STOP	TEST	5.8 +/- 0.2 X	10^{-5} CM/SEC	—	RGA

All required data are accurately and completely recorded. The test operator was appropriately trained and utilized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data.

Check by M. G. Bachler Date 8-5-91

A-6000-405.3 (07/89)

9 2 1 2 1 1 2 7

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator G.B. Gould

Company Contact G.B. Gould Telephone (509) 376-2977

Project Designation/Sampling Locations 1100-EM-1 Phase 2 RI/ Horn Rapids Landfill Collection Date 6-10-91

Ice Chest No. NA Field Logbook No. NA

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Hand carried to lab.

Shipped to ETAL, 200E

Possible Sample Hazards/Remarks None detected with field instruments.

Sample Identification

B00Z24
1- 6" Lexan ST liner, 4" O.D.
Analysis: Hydrometer & Permeameter

N A

N A

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
G.B. Gould	R.G. Alexander / R.G. ALEXANDER	6-20-91 / 1045
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)