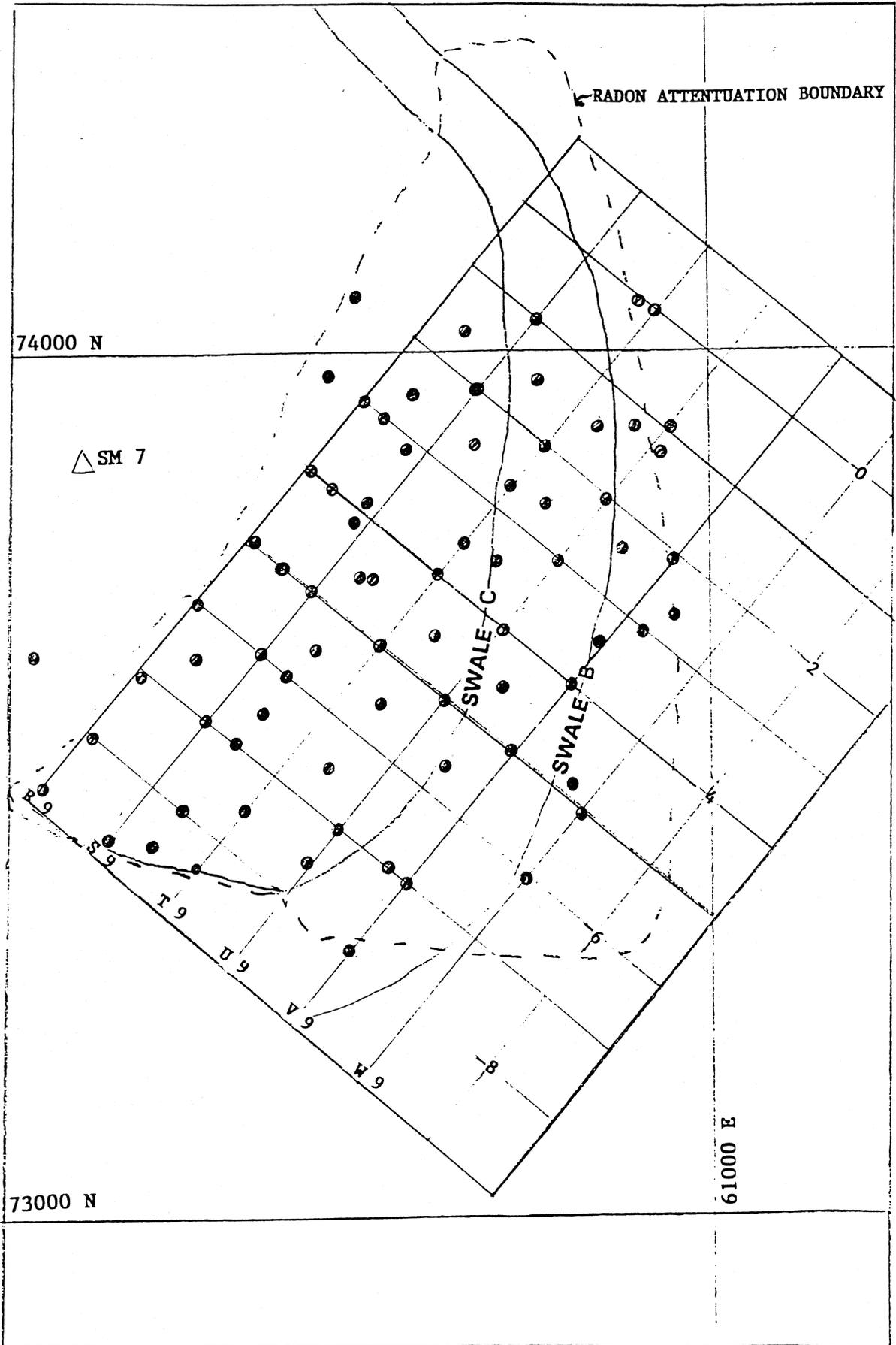




APPENDIX C

PHYSICAL PROPERTIES OF SOILS, RADON ATTENUATION COVER



SIEVE LOCATION BORROW PIT #2

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB03

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/91

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. 7
05/23/95	73400N & 60810 E	100	99	97	94	79	58.3	8	CL	Yes
05/23/95	73610N & 60830E	100	100	95	93	80	55.0	9	CL	Yes
05/23/95	73600N & 60220E	100	100	95	92	79	54.3	7	CL	Yes
06/07/95	73720N & 60950E	99	96	95	93	81	59.0	13	CL	Yes
06/07/95	74100N & 60940E	100	96.7	96	94	79	57.7	11	CL	Yes
06/20/95	73420N & 60610E	100	100	98	96	81	58.0	15	CL	Yes
06/20/95	73730N & 60720E	100	98	97	94	77	58.2	19	CL	Yes
06/20/95	73780N & 60710E	100	99	97	95	79	59.3	11	CL	Yes
06/20/95	73920N & 60730E	100	97	95	92	69	50.7	10	CL	Yes
06/21/95	73710N & 60880E	100	100	99	98	83	61.3	11	CL	Yes
06/21/95	73810N & 60960E	100	99	99	98	85	65.7	13	CL	Yes
06/21/95	73620N & 60900E	100	100	98	96	82	62.1	10	CL	Yes

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB03

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/99

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. ?
06/21/95	73650N & 60950 E	100	100	99	97	87	68.9	14	CL	Yes
06/21/95	73910N & 60970E	100	100	99	98	87	69.9	16	CL	Yes
06/21/95	73910N & 60920E	100	99	97	94	81	59.3	13	CL	Yes
06/21/95	73470N & 60850E	100	100	99	98	86	68.6	10	CL	Yes
06/21/95	73590N & 60700E	100	100	97	95	75	52.8	NP	ML	Yes
06/21/95	73380N & 60660E	100	100	98	96	79	57.0	9	CL	Yes
06/21/95	73640N & 60810E	100	99	98	97	87	68.1	18	CL	Yes
06/26/95	73600N & 60680E	100	98	97	95	78	54.5	16	CL	Yes
06/26/95	74040N & 60800E	100	97	96	93	77	53.6	8	CL	Yes
06/27/95	73580N & 60720E	100	100	98	95	79	55.5	9	CL	Yes
06/27/95	73620N & 60750E	100	98	97	95	80	56.6	10	CL	Yes
06/27/95	73690N & 60710E	100	100	99	97	84	59.5	15	CL	Yes

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB0:

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/9

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. ?
06/27/95	73770N & 60820E	100	95	94	91	76	56.0	12	CL	Yes
06/27/95	73820N & 60900E	100	99	98	97	85	63.1	15	CL	Yes
06/27/95	73920N & 60790E	100	99	97	96	80	57.2	16	CL	Yes
06/27/95	73750N & 60780E	100	99	98	96	82	60.1	11	CL	Yes
06/27/95	73920N & 60830E	100	98	98	96	83	59.6	9	CL	Yes
07/10/95	73810N & 60650E	99	97	95	93	71	53.2	8	CL	Yes
07/18/95	73330N & 60580E	100	99	97	96	81	58.2	11	CL	Yes
07/18/95	73520N & 60570E	98	96	95	92	76	54.1	12	CL	Yes
07/18/95	73600N & 60620E	100	99	98	93	81	55.7	16	CL	Yes
07/18/95	73490N & 60470E	100	99	98	96	82	60.2	16	CL	Yes
07/18/95	73640N & 60630E	100	99	98	96	83	60.0	11	CL	Yes
07/18/95	73720N & 60700E	100	100	97	95	82	60.0	13	CL	Yes

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB0:

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/9

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. 7
07/18/95	73450N & 60430E	100	99	98	96	82	60.4	11	CL	Yes
07/18/95	73700N & 60580E	100	97	96	93	77	57.9	14	CL	Yes
07/18/95	73710N & 60620E	100	97	95	91	73	49.3	13	CL	Yes
07/18/95	73710N & 60610E	100	99	98	96	79	59.2	10	CL	Yes
07/18/95	73920N & 60710E	100	100	99	97	82	59.9	11	CL	Yes
07/18/95	73960N & 60740E	100	99	98	96	84	63.8	9	CL	Yes
07/26/95	73530N & 60460E	100	98	96	93	77	52.7	14	CL	Yes
07/27/95	73450N & 60310E	100	98	97	95	74	54.3	13	CL	Yes
07/27/95	73480N & 60220E	100	99	98	96	83	61.0	15	CL	Yes
07/28/95	73400N & 60400E	100	99	98	95	76	54.4	11	CL	Yes
07/28/95	73460N & 60400E	100	98	97	88	58	43.2	16	CL	Yes
07/28/95	73620N & 60510E	100	99	98	95	59	44.9	19	CL	Yes

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB02

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/9

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. ?
07/28/95	73430N & 60370E	100	98	98	95	79	56.4	13	CL	Yes
07/28/95	73570N & 60410E	100	97	95	95	60	44.6	17	CL	Yes
07/28/95	73640N & 60480E	100	98	97	94	65	46.4	16	CL	Yes
07/28/95	73710N & 60550E	100	98	97	95	68	51.6	15	CL	Yes
07/28/95	73810N & 60610E	100	99	97	95	71	49.6	21	CL	Yes
07/28/95	73810N & 60650E	99	96	95	93	75	52.4	15	CL	Yes
07/28/95	73560N & 60280E	100	99	98	96	68	52.9	12	CL	Yes
07/28/95	73500N & 60330E	100	99	98	94	65	52.3	13	CL	Yes
07/28/95	73750N & 60500E	99	97	95	93	68	48.1	15	CL	Yes
07/28/95	73830N & 60580E	100	98	97	95	72	53.1	13	CL	Yes
07/28/95	73920N & 60630E	100	98	96	94	75	50.7	16	CL	Yes
07/28/95	74030N & 60720E	100	99	98	95	75	54.5	14	CL	Yes

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB03

TEST SUMMARY FOR RADON ATTENUATION MATERIAL

DATE OF REPORT 12/07/95

BORROW PIT #2

DATE	SAMPLE LOCATION	% PASS 3/4" SPEC. 95-100%	% PASS #4 SPEC. 90-100%	% PASS #10 SPEC. 85-100%	% PASS #40 SPEC. 65-100%	% PASS 100 SPEC. 50-100%	% PASS 200 SPEC. 40-85%	PLASTICITY INDEX	USCS SOIL CLASS	WITHIN SPECS. 7
07/28/95	73700N & 60420E	99	97	95	91	65	47.8	14	CL	Yes
07/28/95	73780N & 60470E	100	98	96	93	63	46.8	14	CL	Yes
07/28/95	73860N & 60530E	99	96	95	93	66	48.6	16	CL	Yes
07/28/95	73950N & 60600E	100	99	98	96	68	55.5	18	CL	Yes
07/95	73390N & 60580E	100	99	97	95	73	59.1	10	CL	Yes
07/95	73800N & 60800E	100	100	97	96	83	61.0	6	CL	Yes
07/95	73420N & 60360E	100	100	99	97	84	61.7	18	CL	Yes
07/95	73750N & 60300E	100	98	96	93	74	52.3	12	CL	Yes
07/95	73950N & 60600E	100	100	97	95	81	57.4	8	CL	Yes
07/95	73900N & 60480E	100	100	97	95	80	59.9	7	CL	Yes
07/95	74030N & 60500E	100	99	97	92	75	54.1	12	CL	Yes
08/22/95	73400N & 60650E	100	99	97	96	75	60.2	9	CL	Yes



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
Post Office Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450122
Report Date: 11/21/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Silty Clay</u>	Sampled By: <u>H. Kuebler/WT</u>	Date: <u>05/23/95</u>
Source: <u>SB20E 73400 N & 60810 E</u>	Submitted By: <u>H. Kuebler/WT</u>	Date: <u>05/23/95</u>
<u>Elev. 6990.4</u>	Authorized By: <u>Client</u>	Date: <u>05/23/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1 1/2"		
1"		
3/4"	100	100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	97	85-100
16	96	
30	95	
40	94	65-100
50	93	
100	79	50-100
200	58.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 23
Plasticity Index 8

Copies: Client (3), Billing (1) Field File (1)
23.5/cb:UNC.031

The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either expressed or implied is included or intended.

REVIEWED BY *H. Kuebler*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
Post Office Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450122
Report Date: 11/21/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Silty Clay Sampled By: H. Kuebler/WT Date: 05/23/95

Source: SB22E 73610 N & 60830 E Submitted By: H. Kuebler/WT Date: 05/23/95

Elev. 6989.5 Authorized By: Client Date: 05/23/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1 1/2"		
1"		
3/4"	100	100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	96	
10	95	85-100
16	94	
30	93	
40	93	65-100
50	92	
100	80	50-100
200	55	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A

Optimum Moisture, % N/A

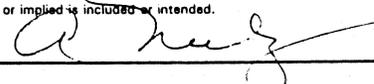
Plasticity Index, ASTM D4318

Liquid Limit 25

Plasticity Index 9

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523.4/cb:UNC.031

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
Post Office Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450122
Report Date: 11/21/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Silty Clay</u>	Sampled By: <u>H. Kuebler/WT</u>	Date: <u>05/23/95</u>
Source: <u>Q-8 73600 N & 60220 E</u>	Submitted By: <u>H. Kuebler/WT</u>	Date: <u>05/23/95</u>
<u>Elev. 6981.9</u>	Authorized By: <u>Client</u>	Date: <u>05/23/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1 1/2"		
1"		
3/4"	100	100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	95	
10	95	85-100
16	93	
30	92	
40	92	65-100
50	91	
100	79	50-100
200	54.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>23</u>
Plasticity Index	<u>7</u>

Copies: Client (3), Billing (1) Field File (1)
23.6/cb:UNC.031

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 06/13/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H. Kuebler Date: 06/07/95

Source: SB 23 + 00 73720 N & 6095 E Elev. Submitted By: H. Kuebler Date: 06/07/95

6989.1 Authorized By: Client Date: 06/07/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	99	
1/2"	98	
3/8"	97	
1/4"		
No. 4	96	
8	95	
10	95	
16	94	
30	94	
40	93	
50	92	
100	81	
200	59.0	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 29
Plasticity Index 13

Copies: Client (3), Billing (1), Field File (1)
7.2rh:UNC031

The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No oral warranty, guaranty, or representation, either expressed or implied is included or intended.

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031

Lab/Inv. No. 31450145

Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay

Sampled By: H.K. Date 6-20-95

Source: U + 7 73420 N & 60610 E

Submitted By: H.K. Date 6-20-95

Elev. 69683

Authorized By: Client Date 6-20-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	100	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	81	50-100
200	58.0	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA

Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 31

Plasticity Index 15

Copies: Client (3), Billing (1), Field File (1).
620\ha:UNC031

The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guarantee, or representation, either expressed or implied is included or intended.

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 06/13/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H. Kuebler Date: 06/07/95

Source: SB 27 + 00 Submitted By: H. Kuebler Date: 06/07/95

Authorized By: Client Date: 06/07/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	
1/2"	98.6	
3/8"	98.3	
1/4"		
No. 4	96.7	
8	96	
10	96	
16	95	
30	94	
40	94	
50	93	
100	79	
200	57.7	

Plasticity Index, ASTM D4318

Liquid Limit 27

Plasticity Index 11

Copies: Client (3), Billing (1), Field File (1)
7.1/rgo:UNC031

The above services and report were performed pursuant to the terms and conditions of the contract between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either expressed or implied is included or intended.

REVIEWED BY: *Herman Kuebler*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client:	UNC Mining and Milling Attn: Mr. Ed Morales PO Box 3077 Gallup, NM	Job No.	3145JB031
Project:	1996 Reclamation	Lab/Inv. No.	31450145
Location:	Church Rock, NM	Report Date:	8-25-95
Material:	Sandy Lean Clay	Sampled By:	H.K. Date 6-20-95
Source:	U + 7 73420 N & 60610 E Elev. 69683	Submitted By:	H.K. Date 6-20-95
		Authorized By:	Client Date 6-20-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	100	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	81	50-100
200	58.0	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

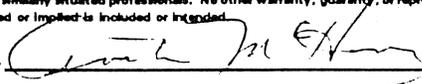
Maximum Dry Density, pcf	NA
Optimum Moisture, %	NA

Plasticity Index, ASTM D4318

Liquid Limit	31
Plasticity Index	15

Copies: Client (3), Billing (1), Field File (1).
620\ha:UNC031

The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either expressed or implied, is included or intended.

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K. Date 6-20-95

Source: T.5+4.5 73730 N. & 60720 E. Submitted By: H.K. Date 6-20-95

ELEV.6983.7 Authorized By: Client Date 6-20-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	96	
30	95	
40	94	65-100
50	93	
100	77	50-100
200	58.2	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 31
Plasticity Index 19

Copies: Client (3), Billing (1), Field File (1).
620.1\ha:UNC031

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K. Date: 6-20-95

Source: T+3.5 73780 N. & 60710 E. Submitted By: H.K. Date: 6-20-95

ELEV.6983.8 Authorized By: Client Date: 6-20-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	97	85-100
16	96	
30	96	
40	95	65-100
50	94	
100	79	50-100
200	59.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 27
Plasticity Index 11

Copies: Client (3), Billing (1), Field File (1).
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
Post Office Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450122
Report Date: 11/21/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H. Kuebler/WT Date: 06/20/95

Source: T+2 73920 N & 60730 E Submitted By: H. Kuebler/WT Date: 06/20/95

Elev. 6985.2 Authorized By: Client Date: 06/20/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1 1/2"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	97	90-100
8	95	
10	95	85-100
16	94	
30	93	
40	92	65-100
50	90	
100	69	50-100
200	50.7	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A

Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 26

Plasticity Index 10

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REVIEWED BY *H. Kuebler*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K. Date: 6-21-95

Source: SB25E 73710 N. & 60880 E. Submitted By: H.K. Date: 6-21-95

Elev. 6988.7 Authorized By: Client Date: 6-21-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	99	
30	98	
40	98	65-100
50	97	
100	83	50-100
200	61.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 25
Plasticity Index 11

Copies: Client (3), Billing (1), Field File (1).
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining and Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K.</u>	Date: <u>6-21-95</u>
Source: <u>SB24E 73810 N. & 60960 E.</u>	Submitted By: <u>H.K.</u>	Date: <u>6-21-95</u>
<u>Elev. 6988.E</u>	Authorized By: <u>Client</u>	Date: <u>6-21-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	99	
10	99	85-100
16	98	
30	98	
40	98	65-100
50	97	
100	85	50-100
200	65.7	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>28</u>
Plasticity Index	<u>13</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K.</u>	Date: <u>6-21-95</u>	
Source: <u>SB22E 73620 N. & 60900 E.</u>	Submitted By: <u>H.K.</u>	Date: <u>6-21-95</u>	
<u>Elev. 6989.5</u>	Authorized By: <u>Client</u>	Date: <u>6-21-95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	99	
10	98	85-100
16	98	
30	97	
40	96	65-100
50	95	
100	82	50-100
200	62.1	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>10</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K.</u>	Date <u>6-21-95</u>
Source: <u>SB22E 73650 N. & 60950 E.</u>	Submitted By: <u>H.K.</u>	Date <u>6-21-95</u>
<u>Elev. 6990.1</u>	Authorized By: <u>Client</u>	Date <u>6-21-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	98	
30	98	
40	97	65-100
50	97	
100	87	50-100
200	68.9	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 30
Plasticity Index 14

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K.</u>	Date: <u>6-21-95</u>
Source: <u>SB25E 73910 N. & 60970 E.</u>	Submitted By: <u>H.K.</u>	Date: <u>6-21-95</u>
<u>Elev. 6988.0</u>	Authorized By: <u>Client</u>	Date: <u>6-21-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	99	
30	98	
40	98	65-100
50	97	
100	87	50-100
200	69.9	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 32
Plasticity Index 16

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REVIEWED BY: *Ed Morales*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material:	Sandy Lean Clay	Sampled By:	H.K./WT	Date	6-21-95
Source:	SB25E 73910 N & 60920 E	Submitted By:	H.K./WT	Date	6-21-95
	Elev. 6987.0	Authorized By:	Client	Date	6-21-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	99	90-100
8	97	
10	97	85-100
16	96	
30	95	
40	94	65-100
50	93	
100	81	50-100
200	59.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	NA
Optimum Moisture, %	NA

Plasticity Index, ASTM D4318

Liquid Limit	27
Plasticity Index	13

Copies: Client (3), Billing (1), Field File (1).
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031

Lab/Inv. No. 31450145

Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay **Sampled By:** H.K. **Date:** 6-21-95

Source: W+5 73470 N. & 60850 E. **Submitted By:** H.K. **Date:** 6-21-95

Elev. 6990.1 **Authorized By:** Client **Date:** 6-21-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	98	
30	98	
40	98	65-100
50	97	
100	86	50-100
200	68.6	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA

Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 25

Plasticity Index 10

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Silt</u>	Sampled By: <u>H.K.</u>	Date <u>6-21-95</u>
Source: <u>W+6 73590 N. & 60700 E.</u>	Submitted By: <u>H.K.</u>	Date <u>6-21-95</u>
<u>Elev. 6985.9</u>	Authorized By: <u>Client</u>	Date <u>6-21-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	98	
10	97	85-100
16	96	
30	95	
40	95	65-100
50	93	
100	75	50-100
200	52.8	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>NP</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K. Date: 6-21-95

Source: V+7 73380 N. & 60660 E. Submitted By: H.K. Date: 6-21-95

Elve. 6990.1 Authorized By: Client Date: 6-21-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	98	
10	98	85-100
16	97	
30	97	
40	96	65-100
50	95	
100	79	50-100
200	57.0	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 25
Plasticity Index 9

Copies: Client (3), Billing (1), Field File (1).
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining and Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 8-25-95

Project: 1996 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K. Date: 6-21-95

Source: V-4 73640 N. & 60810 E. Submitted By: H.K. Date: 6-21-95

Elev.6989.1 Authorized By: Client Date: 6-21-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	99	
10	98	85-100
16	98	
30	98	
40	97	65-100
50	96	
100	87	50-100
200	68.1	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA

Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 29

Plasticity Index 18

Copies: Client (3), Billing (1), Field File (1).
621.2\ha:UNC031

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy lean clay (RAC) Sampled By: Harry Kuebler Date: 06/26/95

Source: U + 5 73600 N & 60680 E Elev. 6985.5 Submitted By: Harry Kuebler Date: 06/26/95

Authorized By: Client Date: 06/26/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"	100	
No. 4	98	
8	98	
10	97	
16	96	
30	95	
40	95	
50	94	
100	78	
200	54.5	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 27
Plasticity Index 16

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*26\rh:UNC0316.261

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(505) 327-4966 • fax 327-5293

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy lean clay (RAC) Sampled By: Harry Kuebler Date: 06/26/95

Source: S + 1 74040 N & 60800 E Elev. 6983.5 Submitted By: Harry Kuebler Date: 06/26/95

Authorized By: Client Date: 06/26/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"	100	
No. 4	97	
8	96	
10	96	
16	95	
30	94	
40	93	
50	92	
100	77	
200	53.6	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A

Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 24

Plasticity Index 8

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy lean clay (RAC)</u>	Sampled By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>	
Source: <u>U. 5+5 73580 N & 60720 E Elev. 6985.5</u>	Submitted By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>	
	Authorized By: <u>Client</u>	Date: <u>06/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"		
No. 4	100	
8	98	
10	98	
16	97	
30	96	
40	95	
50	94	
100	79	
200	55.5	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>9</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy lean clay (RAC)</u>	Sampled By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>
Source: <u>U.5+4.5 73620 N & 60750 E Elev. 6987.5</u>	Submitted By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>
	Authorized By: <u>Client</u>	Date: <u>06/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"	100	
3/8"	99	
No. 4	98	
8	97	
10	97	
16	96	
30	96	
40	95	
50	94	
100	80	
200	56.6	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>10</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy lean clay (RAC)</u>	Sampled By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>	
Source: <u>U+4 73690 N & 60710 E Elev. 6984.8</u>	Submitted By: <u>Harry Kuebler</u>	Date: <u>06/27/95</u>	
	Authorized By: <u>Client</u>	Date: <u>06/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"		
No. 4	100	
8	99	
10	99	
16	98	
30	97	
40	97	
50	96	
100	84	
200	59.5	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>28</u>
Plasticity Index	<u>15</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy lean clay (RAC) Sampled By: Harry Kuebler Date: 06/27/95

Source: U+3 73770 N & 60820 E Elev. 6986-6 Submitted By: Harry Kuebler Date: 06/27/95

Authorized By: Client Date: 06/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	97	
1/2"		
3/8"	96	
No. 4	95	
8	94	
10	94	
16	93	
30	92	
40	91	
50	90	
100	76	
200	56.0	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 28
Plasticity Index 12

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy lean clay</u>	Sampled By: <u>Harry Kuebler</u>	Date <u>06/27/95</u>
Source: <u>U + 2 73820 N & 60900 E Elev. 6987.6</u>	Submitted By: <u>Harry Kuebler</u>	Date <u>06/27/95</u>
	Authorized By: <u>Client</u>	Date <u>06/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"	100	
No. 4	99	
8	98	
10	98	
16	98	
30	97	
40	97	
50	96	
100	85	
200	63.1	

Moisture Density Relations, pcf (ASTM D698 Method A)

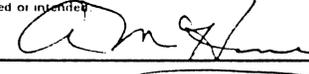
Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 29
Plasticity Index 15

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy lean clay (RAC) Sampled By: Harry Kuebler Date: 06/27/95

Source: T + 2.5 73920 N & 60790 E Elev. 6983.8 Submitted By: Harry Kuebler Date: 06/27/95

Authorized By: Client Date: 06/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"	100	
3/8"		
No. 4	99	
8	98	
10	97	
16	97	
30	96	
40	96	
50	95	
100	80	
200	57.2	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	N/A
Optimum Moisture, %	N/A

Plasticity Index, ASTM D4318

Liquid Limit	27
Plasticity Index	16

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
Post Office Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 11/16/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay (RAC)</u>	Sampled By: <u>H. Kuebler/WT</u>	Date: <u>06/27/95</u>	
Source: <u>T.5+3.5 73750 N & 60780 E</u>	Submitted By: <u>H. Kuebler/WT</u>	Date: <u>06/27/95</u>	
<u>Elev. 6984.1</u>	Authorized By: <u>Client</u>	Date: <u>06/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1 1/2"		
1"		
3/4"		
1/2"		
3/8"	100	
1/4"		
No. 4	99	
8	98	
10	98	
16	98	
30	97	
40	96	
50	95	
100	82	
200	60.1	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 26
Plasticity Index 11

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
P.O. Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450145
Report Date: 08/28/95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy lean clay (RAC) Sampled By: Harry Kuebler Date: 06/27/95

Source: T.5+2.5 73920 N & 60830 E Elev. 6984.3 Submitted By: Harry Kuebler Date: 06/27/95

Authorized By: Client Date: 06/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
3"		
2"		
1-1/2"		
1-1/8"		
1"		
3/4"		
1/2"		
3/8"	100	
No. 4	99	
8	98	
10	98	
16	97	
30	97	
40	96	
50	95	
100	83	
200	59.6	

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>25</u>
Plasticity Index	<u>9</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450415
Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: H. Kuebler /WT Date 07/10/95

Source: UNC R.8 + 4.2, 73810N & 60650E Submitted By: H. Kuebler /WT Date 07/10/95

Elevation 6982.6 Authorized By: Client Date 07/10/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	99	95 - 100
1/2"	98	
3/8"	98	
1/4"	---	
No. 4	97	90 - 100
8	96	
10	95	85 - 100
16	95	
30	94	
40	93	65 - 100
50	92	
100	71	50 - 100
200	53.2	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A

Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 25

Plasticity Index 8

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REVIEWED BY *H. Kuebler*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>V+8</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73330 N and 60580 E Elev. 6990.0</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	97	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	81	50-100
200	58.2	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>11</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay

Sampled By: H.K./WT Date 7-18-95

Source: T .5+6.5

Submitted By: H.K./WT Date 7-18-95

73520 N and 60570 E Elev. 6985.0

Authorized By: Client Date 7-18-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	98	95-100
1/2"	97	
3/8"	96	
1/4"		
No. 4	96	90-100
8	95	
10	95	85-100
16	94	
30	92	
40	92	65-100
50	91	
100	76	50-100
200	54.1	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

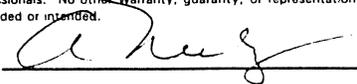
Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 27
Plasticity Index 12

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718.6\ha:UNC031

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: H.K./WT Date: 7-18-95

Source: T .5+5.5 Submitted By: H.K./WT Date: 7-18-95

73600 N and 60620 E Elev. 6984.3 Authorized By: Client Date: 7-18-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	94	
40	93	65-100
50	92	
100	81	50-100
200	55.7	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

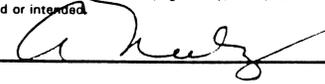
Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 32
Plasticity Index 16

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>T+7.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73490 N and 60470 E Elev. 6984.7</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	95	
100	82	50-100
200	60.2	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 31
Plasticity Index 16

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>T+5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73640 N and 60630 E Elev. 6983.8</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	95	
100	83	50-100
200	60.0	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>11</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay

Sampled By: H.K./WT Date 7-18-95

Source: T+4

Submitted By: H.K./WT Date 7-18-95

73720 N and 60700 E Elev. 6983.1

Authorized By: Client Date 7-18-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	100	
1/4"		
No. 4	100	90-100
8	98	
10	97	85-100
16	97	
30	96	
40	95	65-100
50	94	
100	82	50-100
200	60.0	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

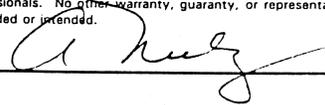
Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 28
Plasticity Index 13

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S .5+6.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73450 N and 60430 E Elev. 6983.9</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	82	50-100
200	60.4	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf NA
Optimum Moisture, % NA

Plasticity Index, ASTM D4318

Liquid Limit 26
Plasticity Index 11

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S .5+5.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73700 N and 60580 E Elev. 6983.5</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	98	
3/8"	98	
1/4"		
No. 4	97	90-100
8	96	
10	96	85-100
16	95	
30	94	
40	93	65-100
50	92	
100	77	50-100
200	57.9	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>30</u>
Plasticity Index	<u>14</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S .5+4.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73710 N and 60620 E Elev. 6983.0</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	98	
1/4"		
No. 4	97	90-100
8	95	
10	95	85-100
16	94	
30	92	
40	91	65-100
50	89	
100	73	50-100
200	49.3	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>13</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S 5+4.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>- 73710 N and 60610 E Elev. 6983.1</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	79	50-100
200	59.2	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

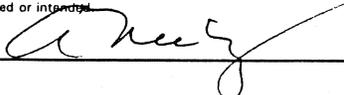
Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>10</u>

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PHYSICAL PROPERTIES OF AGGREGATES

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Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S.5+2.5</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73920 N and 60710 E Elev. 6983.9</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	98	
30	97	
40	97	65-100
50	96	
100	82	50-100
200	59.9	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>27</u>
Plasticity Index	<u>11</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450292
Report Date: 11-14-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
Source: <u>S+2</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-18-95</u>
<u>73960 N and 60740 E Elev. 6983.5</u>	Authorized By: <u>Client</u>	Date: <u>7-18-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	94	
100	84	50-100
200	63.8	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>25</u>
Plasticity Index	<u>9</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay

Sampled By: C. Padilla Date 07/26/95

Source: (S.5 + 7) 73530N & 60460E

Submitted By: C. Padilla Date 07/27/95

Elevation 6983.7

Authorized By: Client Date 07/26/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	98	
1/4"		
No. 4	98	90-100
8	97	
10	96	85-100
16	96	
30	94	
40	93	65-100
50	91	
100	77	50-100
200	52.7	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>27</u>
Plasticity Index	<u>14</u>

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/27/95</u>	
Source: <u>(S + 8.7) 73490N & 60310E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/27/95</u>	
<u>Elevation 6986.3</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	96	
30	96	
40	95	65-100
50	94	
100	74	50-100
200	54.3	40-85

Plasticity Index, ASTM D4318

Liquid Limit	26
Plasticity Index	13

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: C. Padilla Date: 07/27/95

Source: (R + 8.8) 73480N & 60220E Submitted By: C. Padilla Date: 07/27/95

Elevation 6986.0 Authorized By: Client Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	98	
30	97	
40	96	65-100
50	95	
100	83	50-100
200	61	40-85

Plasticity Index, ASTM D4318

Liquid Limit 28
Plasticity Index 15

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay

Sampled By: C. Padilla Date 07/28/95

Source: (T.8.5) 73400N & 60400E

Submitted By: C. Padilla Date 07/29/95

Elevation 6986.7

Authorized By: Client Date 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	98	
30	96	
40	95	65-100
50	93	
100	76	50-100
200	54.4	40-85

Plasticity Index, ASTM D4318

Liquid Limit	28
Plasticity Index	11

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay Sampled By: C. Padilla Date: 07/28/95

Source: (S.5 + 8) 73460N & 60400E Submitted By: C. Padilla Date: 07/29/95

Elevation 6986.0 Authorized By: Client Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	94	
30	90	
40	88	65-100
50	85	
100	58	50-100
200	43.2	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>23</u>
Plasticity Index	<u>16</u>

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay Sampled By: C. Padilla Date 07/28/95

Source: (S.5 + 6) 73620N & 60510E Submitted By: C. Padilla Date 07/29/95

Elevation 6983.2 Authorized By: Client Date 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	95	65-100
50	93	
100	59	50-100
200	44.9	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>19</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10-4-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C.P./WT</u>	Date: <u>7-28-95</u>
Source: <u>(S+5) 73430 N & 60370 E</u>	Submitted By: <u>C.P./WT</u>	Date: <u>7-29-95</u>
<u>Elev. 6983.0</u>	Authorized By: <u>Client</u>	Date: <u>7-27-95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	99	
1/4"		
No. 4	98	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	95	65-100
50	94	
100	79	50-100
200	56.4	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>29</u>
Plasticity Index	<u>13</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay

Sampled By: C. Padilla Date 07/28/95

Source: (S + 7) 73570N & 60410E

Submitted By: C. Padilla Date 07/29/95

Elevation 6983.4

Authorized By: Client Date 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	98	
3/8"		
1/4"		
No. 4	97	90-100
8	95	
10	95	85-100
16	94	
30	92	
40	91	65-100
50	88	
100	60	50-100
200	44.6	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>27</u>
Plasticity Index	<u>17</u>

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REVIEWED BY: *Chad D. ...*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay	Sampled By:	<u>C. Padilla</u>	Date	<u>07/28/95</u>
Source: (S + 6) 73640N & 60480E	Submitted By:	<u>C. Padilla</u>	Date	<u>07/29/95</u>
Elevation 6983.0	Authorized By:	<u>Client</u>	Date	<u>07/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	96	
30	95	
40	94	65-100
50	92	
100	65	50-100
200	46.4	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>23</u>
Plasticity Index	<u>16</u>

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REVIEWED BY *Chris D. King*



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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>	
Source: <u>(S + 5) 73710N & 60550E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>	
<u>Elevation 6982.4</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	96	
30	95	
40	95	65-100
50	93	
100	68	50-100
200	51.6	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>15</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: C. Padilla Date 07/28/95

Source: (R.8 + 3.8) 73810N & 60610E Submitted By: C. Padilla Date 07/29/95

Elevation 6982.6 Authorized By: Client Date 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	97	85-100
16	97	
30	96	
40	95	65-100
50	93	
100	71	50-100
200	49.1	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>29</u>
Plasticity Index	<u>21</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>
Source: <u>R.8 + 3.2 73810N & 60650E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>
<u>Elevation 6982.1</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	99	95-100
1/2"	98	
3/8"	98	
1/4"		
No. 4	96	90-100
8	95	
10	95	85-100
16	94	
30	94	
40	93	65-100
50	91	
100	75	50-100
200	52.4	40-85

Plasticity Index, ASTM D4318

Liquid Limit 24
Plasticity Index 15

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REVIEWED BY: *Christina M. Long*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>	
Source: <u>(R + 8) 73560N & 60280E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>	
<u>Elevation 6990.0</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	98	
30	97	
40	96	65-100
50	94	
100	68	50-100
200	52.9	40-85

Plasticity Index, ASTM D4318

Liquid Limit	28
Plasticity Index	12

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining and Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10-4-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: Sandy Lean Clay Sampled By: C.P./WT Date: 7-28-95

Source: (R.7+8.2) 73500N & 60330 E Submitted By: C.P./WT Date: 7-29-95

Elev. 6983.2 Authorized By: Client Date: 7-27-95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	98	
30	96	
40	94	65-100
50	91	
100	65	50-100
200	52.3	40-85

Plasticity Index, ASTM D4318

Liquid Limit 25
Plasticity Index 13

Copies: Client (3), Billing (1), Field File (1).

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: C. Padilla Date: 07/28/95

Source: (R.5 + 5) 73750N & 60500E Submitted By: C. Padilla Date: 07/29/95

Elevation 6982.4 Authorized By: Client Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	99	95-100
1/2"		
3/8"	98	
1/4"		
No. 4	97	90-100
8	96	
10	95	85-100
16	94	
30	93	
40	93	65-100
50	91	
100	68	50-100
200	48.1	40-85

Plasticity Index, ASTM D4318

Liquid Limit 25
Plasticity Index 15

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: C. Padilla Date: 07/28/95

Source: (R.5 + 4) 73830N & 60580E Submitted By: C. Padilla Date: 07/29/95

Elevation 6982.2 Authorized By: Client Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	99	
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	97	85-100
16	96	
30	95	
40	95	65-100
50	93	
100	72	50-100
200	53.1	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>24</u>
Plasticity Index	<u>13</u>

Copies: Client (3), Billing (1), Field File (1)
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REVIEWED BY: Chick M. Williams



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>	
Source: <u>(R.5 + 3) 73920N & 60630E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>	
<u>Elevation 6982.2</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	100	95-100
1/2"	100	
3/8"	99	
1/4"		
No. 4	98	90-100
8	96	
10	96	85-100
16	95	
30	94	
40	94	65-100
50	92	
100	75	50-100
200	50.7	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>24</u>
Plasticity Index	<u>16</u>

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>	
Source: <u>(R.5 + 1.5) 74030N & 60720E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>	
<u>Elevation 6983.0</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	95	65-100
50	94	
100	75	50-100
200	54.5	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>24</u>
Plasticity Index	<u>14</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>
Source: <u>(R + 6) 73700N & 60420E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>
<u>Elevation 6983.8</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	99	95-100
1/2"	98	
3/8"	98	
1/4"		
No. 4	97	90-100
8	95	
10	95	85-100
16	94	
30	92	
40	91	65-100
50	89	
100	65	50-100
200	47.8	40-85

Plasticity Index, ASTM D4318

Liquid Limit 26
Plasticity Index 14

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>	
Source: <u>(R + 5) 73780N & 60470E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>	
<u>Elevation 6981.2</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	99	
1/4"		
No. 4	98	90-100
8	97	
10	96	85-100
16	95	
30	94	
40	93	65-100
50	91	
100	63	50-100
200	46.8	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>14</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: C. Padilla Date: 07/28/95

Source: (R + 4) 73860N & 60530E Submitted By: C. Padilla Date: 07/29/95

Elevation 6982.0 Authorized By: Client Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"	100	
3/4"	99	95-100
1/2"	98	
3/8"	97	
1/4"		
No. 4	96	90-100
8	96	
10	95	85-100
16	94	
30	93	
40	93	65-100
50	91	
100	66	50-100
200	48.6	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>33</u>
Plasticity Index	<u>16</u>

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REVIEWED BY: *Ed Morales*



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay	Sampled By: C. Padilla	Date: 07/28/95
Source: (R + 3) 73950N & 60600E	Submitted By: C. Padilla	Date: 07/29/95
Elevation 6982.0	Authorized By: Client	Date: 07/27/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	96	65-100
50	95	
100	68	50-100
200	55.5	40-85

Plasticity Index, ASTM D4318

Liquid Limit	26
Plasticity Index	18

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Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>C. Padilla</u>	Date: <u>07/28/95</u>
Source: <u>73630N & 60350E</u>	Submitted By: <u>C. Padilla</u>	Date: <u>07/29/95</u>
<u>Elevation 6983.0</u>	Authorized By: <u>Client</u>	Date: <u>07/27/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	99	
1/4"		
No. 4	99	90-100
8	98	
10	98	85-100
16	97	
30	96	
40	94	65-100
50	93	
100	67	50-100
200	51.5	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>26</u>
Plasticity Index	<u>14</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 11-28-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-95</u>	
Source: <u>(U+7.5) 73390 N & 60580 E</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-95</u>	
<u>Elev. 6986.9</u>	Authorized By: <u>Client</u>	Date: <u>7-95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	99	90-100
8	98	
10	97	85-100
16	97	
30	96	
40	95	65-100
50	94	
100	73	50-100
200	59.1	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>28</u>
Plasticity Index	<u>10</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031

Lab/Inv. No. 31450415

Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay

Sampled By: H. Kuebler /WT Date July 1995

Source: UNC T.5 + 1.5, 73800N & 60800E

Submitted By: H. Kuebler /WT Date July 1995

Elevation 6984.0

Authorized By: Client Date July 1995

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95 - 100
1/2"	---	
3/8"	---	
1/4"	---	
No. 4	100	90 - 100
8	97	
10	97	85 - 100
16	97	
30	96	
40	96	65 - 100
50	95	
100	83	50 - 100
200	61.0	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	N/A
Optimum Moisture, %	N/A

Plasticity Index, ASTM D4318

Liquid Limit	25
Plasticity Index	6

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PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 11-28-95

Project: 1995 Reclamation

Location: Church Rock, NM

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H.K./WT</u>	Date: <u>7-95</u>	
Source: <u>(S.5+8.5) 73420 N & 60360 E</u>	Submitted By: <u>H.K./WT</u>	Date: <u>7-95</u>	
<u>Elev. 6986.1</u>	Authorized By: <u>Client</u>	Date: <u>7-95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"		
1/4"		
No. 4	100	90-100
8	99	
10	99	85-100
16	98	
30	97	
40	97	65-100
50	96	
100	84	50-100
200	61.7	40-85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>NA</u>
Optimum Moisture, %	<u>NA</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>32</u>
Plasticity Index	<u>18</u>

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H. Kuebler /WT</u>	Date: <u>July 1995</u>
Source: <u>(R.5 + 6.5), 73750N & 69300E</u>	Submitted By: <u>H. Kuebler /WT</u>	Date: <u>July 1995</u>
<u>Elevation 6984</u>	Authorized By: <u>Client</u>	Date: <u>July 1995</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95 - 100
1/2"	---	
3/8"	99	
1/4"	---	
No. 4	98	90 - 100
8	96	
10	96	85 - 100
16	95	
30	94	
40	93	65 - 100
50	91	
100	74	50 - 100
200	52.3	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf	<u>N/A</u>
Optimum Moisture, %	<u>N/A</u>

Plasticity Index, ASTM D4318

Liquid Limit	<u>27</u>
Plasticity Index	<u>12</u>

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450415
Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: H. Kuebler /WT Date: July 1995

Source: UNC R.5 + 2.5, 73950N & 60600E Submitted By: H. Kuebler /WT Date: July 1995

Elevation 6982.0 Authorized By: Client Date: July 1995

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95 - 100
1/2"	---	
3/8"	---	
1/4"	---	
No. 4	100	90 - 100
8	97	
10	97	85 - 100
16	96	
30	96	
40	95	65 - 100
50	94	
100	81	50 - 100
200	57.4	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 26
Plasticity Index 8

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PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450415
Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay Sampled By: H. Kuebler /WT Date July 1995

Source: UNC Q.5 + 3.0, 73900N & 60480E Submitted By: H. Kuebler /WT Date July 1995

Elevation 6987.0 Authorized By: Client Date July 1995

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95 - 100
1/2"	---	
3/8"	---	
1/4"	100	
No. 4	100	90 - 100
8	97	
10	97	85 - 100
16	96	
30	95	
40	95	65 - 100
50	94	
100	80	50 - 100
200	59.9	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 25
Plasticity Index 7

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: UNC Mining & Milling
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450415
Report Date: 12/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay	Sampled By: H. Kuebler /WT	Date: July 1995
Source: Q + 2, 74030N & 60500E	Submitted By: H. Kuebler /WT	Date: July 1995
Elevation 6982.4	Authorized By: Client	Date: July 1995

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95 - 100
1/2"	---	
3/8"	100	
1/4"	---	
No. 4	99	90 - 100
8	98	
10	97	85 - 100
16	96	
30	93	
40	92	65 - 100
50	89	
100	75	50 - 100
200	54.1	40 - 85

Moisture Density Relations, pcf (ASTM D698 Method A)

Maximum Dry Density, pcf N/A
Optimum Moisture, % N/A

Plasticity Index, ASTM D4318

Liquid Limit 28
Plasticity Index 12

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: H. Kuebler Date 08/22/95

Source: V + 7 73400N & 60650E Submitted By: H. Kuebler Date 08/22/95

Elevation 6990.0 Authorized By: Client Date 08/22/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	97	
10	97	85-100
16	97	
30	96	
40	96	65-100
50	95	
100	75	50-100
200	60.2	40-85

Plasticity Index, ASTM D4318

Liquid Limit 27
Plasticity Index 9

Copies: Client (3), Billing (1), Field File (1)
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Silty Clay</u>	Sampled By: <u>H. Kuebler</u>	Date: <u>08/22/95</u>
Source: <u>V + 5 73530N & 60760E</u>	Submitted By: <u>H. Kuebler</u>	Date: <u>08/22/95</u>
<u>Elevation 6988.2</u>	Authorized By: <u>Client</u>	Date: <u>08/22/95</u>

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	98	90-100
8	96	
10	96	85-100
16	95	
30	94	
40	94	65-100
50	92	
100	60	50-100
200	50.4	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>24</u>
Plasticity Index	<u>6</u>

Copies: Client (3), Billing (1), Field File (1)
822.3/dn:unc031

The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either expressed or implied, is included or intended.

REVIEWED BY *[Signature]*



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Since 1955

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966 • fax 327-5293

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Silty Clay Sampled By: H. Kuebler Date: 08/22/95

Source: V + 4 73600N & 60860E Submitted By: H. Kuebler Date: 08/22/95

Elevation 6989.5 Authorized By: Client Date: 08/22/95

SIEVE ANALYSIS, ASTM C136 & C117

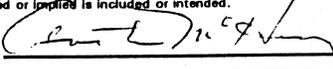
Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"		
3/8"	100	
1/4"		
No. 4	99	90-100
8	96	
10	96	85-100
16	95	
30	94	
40	94	65-100
50	93	
100	70	50-100
200	50.7	40-85

Plasticity Index, ASTM D4318

Liquid Limit 22
Plasticity Index 4

Copies: Client (3), Billing (1), Field File (1)
822.1/dn:unc031

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Farmington, New Mexico 87401
(505) 327-4966 • fax 327-5293

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: <u>Sandy Lean Clay</u>	Sampled By: <u>H. Kuebler</u>	Date: <u>08/22/95</u>	
Source: <u>T + 0 74040N & 60950E</u>	Submitted By: <u>H. Kuebler</u>	Date: <u>08/22/95</u>	
<u>Elevation 6986.0</u>	Authorized By: <u>Client</u>	Date: <u>08/22/95</u>	

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	98	
3/8"	98	
1/4"		
No. 4	97	90-100
8	95	
10	95	85-100
16	94	
30	93	
40	93	65-100
50	91	
100	73	50-100
200	51.8	40-85

Plasticity Index, ASTM D4318

Liquid Limit	<u>24</u>
Plasticity Index	<u>8</u>

Copies: Client (3), Billing (1), Field File (1)
823/dn:unc031

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Farmington, New Mexico 87401
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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client: **UNC Mining & Milling**
Attn: Mr. Ed Morales
PO Box 3077
Gallup, NM 87305

Job No. 3145JB031
Lab/Inv. No. 31450185
Report Date: 10/04/95

Project: 1995 Reclamation

Location: Church Rock, New Mexico

Material: Sandy Lean Clay Sampled By: H. Kuebler Date: 08/22/95

Source: S.5 + 1.5 73950N & 60820E Submitted By: H. Kuebler Date: 08/22/95

Elevation 6985.2 Authorized By: Client Date: 08/22/95

SIEVE ANALYSIS, ASTM C136 & C117

Sieve Size	% Passing Accumulative	Specification (As Required)
2"		
1-1/2"		
1-1/8"		
1"		
3/4"	100	95-100
1/2"	100	
3/8"	98	
1/4"		
No. 4	97	90-100
8	96	
10	96	85-100
16	95	
30	94	
40	94	65-100
50	93	
100	65	50-100
200	52.7	40-85

Plasticity Index, ASTM D4318

Liquid Limit 27
Plasticity Index 10

Copies: Client (3), Billing (1), Field File (1)
8.22/dn:unc031

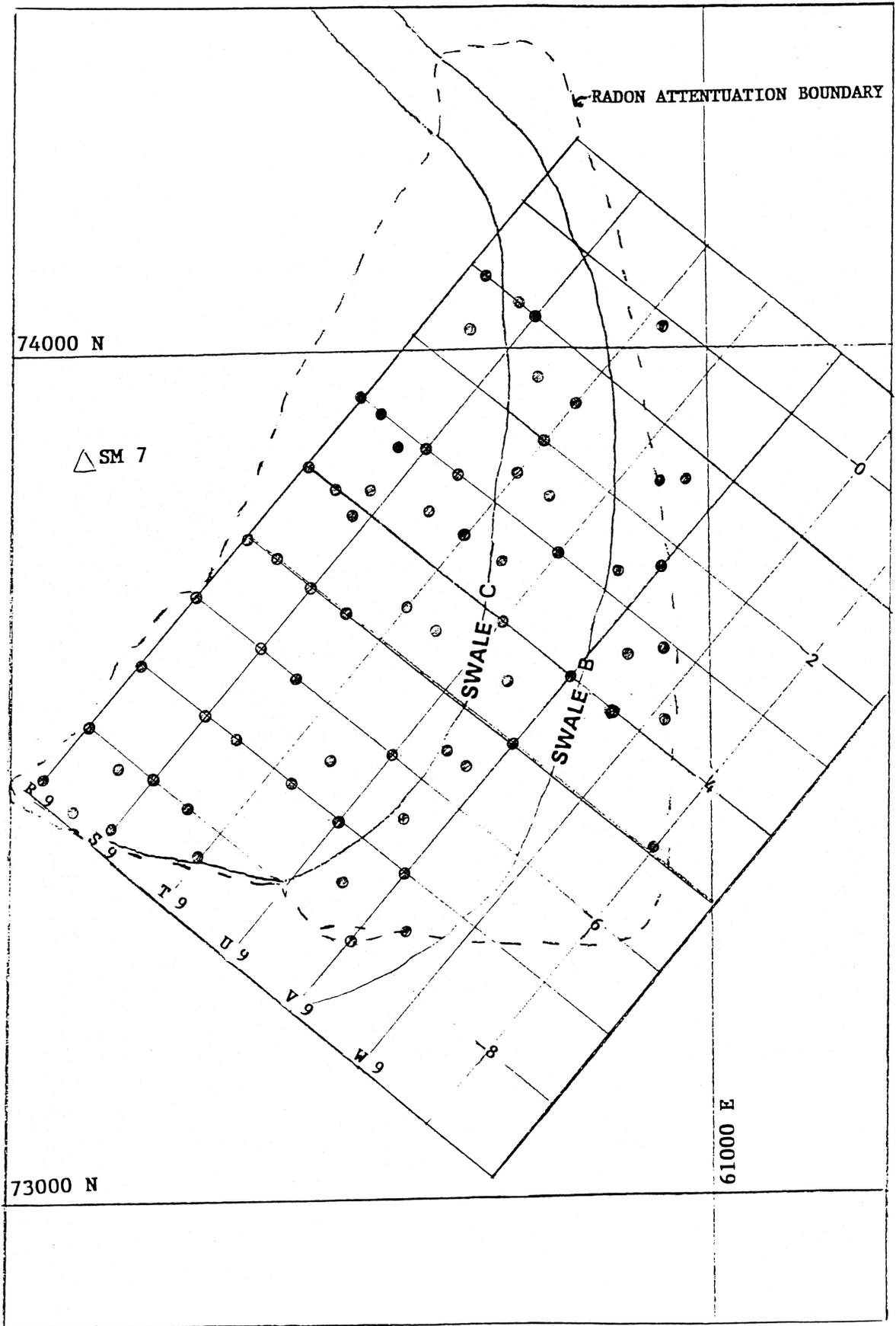
The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between WT and client. WT warrants that this was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either expressed or implied is included or intended.

REVIEWED BY: *[Signature]*



APPENDIX D

FIELD DENSITY TESTS, RADON ATTENUATION COVER



RAC DENSITIES BORROW PIT #2

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB031

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

SK

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
06/21/95	Sandcone	SB21E	73520.0	60850.0	6990.4	RAC	110.0	15.1	100	CL	Yes
06/21/95	Sandcone	SB22E	73650.0	60950.0	6990.1	RAC	111.2	15.8	99	CL	Yes
06/21/95	Sandcone	SB23E	73720.0	60950.0	6989.1	RAC	104.7	14.8	95	CL	Yes
06/21/95	Sandcone	SB24E	73810.0	60960.0	6988.3	RAC	115.1	16.1	100	CL	Yes
06/21/95	Sandcone	SB25E	73910.0	60920.0	6987.0	RAC	111.6	15.6	100	CL	Yes
06/21/95	Sandcone	SB24E	73810.0	60910.0	6987.9	RAC	105.8	14.8	96	CL	Yes
06/21/95	Sandcone	SB23E	73710.0	60880.0	6988.7	RAC	105.2	16.3	95	CL	Yes
06/21/95	Sandcone	SB22E	73620.0	60900.0	6989.5	RAC	107.5	14.1	97	CL	Yes
06/21/95	Sandcone	SB25E	73910.0	60970.0	6988.0	RAC	103.8	14.8	94	CL	No
06/21/95	Sandcone	SB27E	74100.0	60940.0	6985.4	RAC	114.3	15.7	100	CL	Yes
06/22/95	Sandcone - Retest	SB25E	73910.0	60970.0	6988.0	RAC	108.0	15.1	98	CL	Yes

RAC = Radon Attenuation Cover

cb/UNC.031/19

List: Client (3) Field File (1) Billing (1)



UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB03

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
06/28/95	Sandcone	S + 1	74040.0	60800.0	6983.5	RAC	103.8	15.4	91	CL	No
06/28/95	Sandcone	S.5 + 1.5	73970.0	60800.0	6984.1	RAC	108.1	14.2	95	CL	Yes
06/28/95	Sandcone	T + 2	73920.0	60730.0	6985.2	RAC	106.1	14.3	93	CL	No
06/28/95	Sandcone	U + 4	73690.0	60710.0	6984.8	RAC	107.1	14.0	94	CL	No
06/28/95	Sandcone	U.5 + 4.5	73620.0	60750.0	6987.5	RAC	108.3	14.4	95	CL	Yes
07/06/95	Sandcone	U + 7.5	73390.0	60580.0	6986.9	RAC	108.2	16.4	95	CL	Yes
07/06/95	Sandcone	U + 7	73420.0	60610.0	6986.3	RAC	110.5	16.7	97	CL	Yes
07/06/95	Sandcone	S + 8	73500.0	60360.0	6986.0	RAC	109.8	14.8	99	CL	Yes
07/06/95	Sandcone	T + 2.5	73920.0	60790.0	6983.8	RAC	114.3	17.2	100	CL	Yes
07/06/95	Sandcone	T.5 + 3.5	73750.0	60780.0	6984.1	RAC	102.8	16.1	90	CL	No
07/06/95	Sandcone	U.5 + 5	73580.0	60720.0	6985.5	RAC	105.2	16.6	92	CL	No

RAC = Radon Attenuation Cover

cb/UNC.031/20

Dist: Client (3) Field File (1) Billing (1)

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB031

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. 7
07/06/95	Sandcone	T + 7.5	73490.0	60470.0	6984.7	RAC	110.2	16.0	97	CL	Yes
07/06/95	Sandcone	U + 6.5	73590.0	60600.0	6985.9	RAC	105.9	15.3	96	CL	Yes
07/06/95	Sandcone - Retest	U.5 + 5.0	73580.0	60720.0	6985.5	RAC	106.6	14.7	96	CL	Yes
07/07/95	Sandcone	V + 8	73330.0	60580.0	6990.0	RAC	109.4	13.0	96	CL	Yes
07/07/95	Sandcone	V.5 + 7	73370.0	60670.0	6990.0	RAC	111.8	16.8	98	CL	Yes
07/07/95	Sandcone	V + 7	73400.0	60650.0	6989.0	RAC	108.2	12.8	94	CL	No
07/07/95	Sandcone	V + 4	73640.0	60810.0	6989.2	RAC	114.7	14.9	100	CL	Yes
07/07/95	Sandcone	V + 5	73550.0	60770.0	6988.0	RAC	112.8	16.7	99	CL	Yes
07/11/95	Sandcone	S.5 + 5	73700.0	60580.0	6983.5	RAC	111.4	14.3	97	CL	Yes
07/11/95	Sandcone	S.5 + 3	73860.0	60310.0	6983.4	RAC	110.7	13.6	97	CL	Yes
07/11/95	Sandcone	S.5 + 3.5	73810.0	60680.0	6983.3	RAC	114.1	14.1	100	CL	Yes
07/11/95	Sandcone	T + 3.5	73780.0	60710.0	6983.8	RAC	108.8	16.4	95	CL	Yes

RAC = Radon Attenuation Cover

cb/UNC.031/21

Dist: Client (3) Field File (1) Billing (1)

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB031

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
07/12/95	Sandcone - Retest	T.5+3.5	73750.0	60780.0	6984.4	RAC	113.0	16.7	99	CL	Yes
07/12/95	Sandcone	U+3	73770.0	60820.0	6986.6	RAC	112.3	17.4	98	CL	Yes
07/12/95	Sandcone	T+1.5	73940.0	60840.0	6987.1	RAC	114.6	15.7	100	CL	Yes
07/12/95	Sandcone	T.5+2.5	73830.0	60810.0	6984.2	RAC	111.5	17.8	98	CL	Yes
07/12/95	Sandcone - Retest	U+4	73690.0	60710.0	6984.8	RAC	111.6	14.7	98	CL	Yes
07/18/95	Sandcone	R.8+4.2	73820.0	60600.0	6983.0	RAC	112.5	16.2	100	CL	Yes
07/27/95	Sandcone	R+8.8	73480.0	60220.0	6986.0	RAC	107.6	15.0	97	CL	Yes
07/27/95	Sandcone	S+8.7	73490.0	60310.0	6986.3	RAC	109.0	15.6	98	CL	Yes
07/27/95	Sandcone	S.5+8.7	73430.0	60370.0	6986.3	RAC	106.2	15.3	96	CL	Yes
07/27/95	Sandcone	T+8.5	73400.0	60400.0	6986.7	RAC	107.3	15.7	97	CL	Yes
07/27/95	Sandcone	R+8	73560.0	60280.0	6990.0	RAC	106.8	16.1	96	CL	Yes
07/27/95	Sandcone	R.7+8.2	73500.0	60330.0	6983.2	RAC	106.0	16.0	95	CL	Yes

RAC = Radon Attenuation Cover

cb/UNC.031/23

Dist: Client (3) Field File (1) Billing (1)

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB031

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
07/27/95	Sandcone	S.5+8	73460.0	60400.0	6986.0	RAC	111.0	15.4	100	CL	Yes
07/27/95	Sandcone	R+7	73630.0	60350.0	6983.0	RAC	107.3	15.8	96	CL	Yes
07/27/95	Sandcone	S+7	73570.0	60410.0	6983.4	RAC	106.8	14.8	97	CL	Yes
07/27/95	Sandcone	S.5+7	73530.0	60460.0	6983.7	RAC	106.6	15.6	96	CL	Yes
07/27/95	Sandcone	R+6	73700.0	60420.0	6983.8	RAC	107.7	15.7	97	CL	Yes
07/27/95	Sandcone	S+6	73640.0	60480.0	6983.0	RAC	107.2	15.8	97	CL	Yes
07/27/95	Sandcone	S.5+6	73620.0	60510.0	6983.2	RAC	107.4	15.0	97	CL	Yes
07/27/95	Sandcone	R+5	73780.0	60470.0	6981.2	RAC	107.8	15.9	97	CL	Yes
07/27/95	Sandcone	R.5+5	73750.0	60500.0	6982.4	RAC	103.8	14.7	94	CL	No
07/27/95	Sandcone	S+5	73710.0	60550.0	6982.4	RAC	106.7	15.4	96	CL	Yes
07/27/95	Sandcone	R+4	73860.0	60530.0	6982.0	RAC	106.9	16.4	97	CL	Yes
07/27/95	Sandcone	R.5+4	73830.0	60580.0	6982.2	RAC	108.7	16.4	98	CL	Yes

RAC = Radon Attenuation Cover

cb/UNC.031/24

Dist: Client (3) Field File (1) Billing (1)

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB031

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
07/27/95	Sandcone	R.8+3.8	73810.0	60610.0	6982.6	RAC	107.0	15.1	97	CL	Yes
07/27/95	Sandcone	R.8+3.2	73910.0	60650.0	6982.1	RAC	105.5	15.3	95	CL	Yes
07/27/95	Sandcone	R.5+3	73920.0	60630.0	6982.2	RAC	105.9	16.1	96	CL	Yes
07/27/95	Sandcone	R+3	73950.0	60600.0	6982.0	RAC	105.4	15.9	95	CL	Yes
07/27/95	Sandcone	R.5+1.5	74030.0	60720.0	6983.0	RAC	103.8	14.6	94	CL	No
07/28/95	Sandcone - Retest	R.5+1.5	74030.0	60720.0	6983.0	RAC	105.5	15.6	95	CL	Yes
07/28/95	Sandcone - Retest	R.5+5	73750.0	60500.0	6982.4	RAC	106.0	14.8	96	CL	Yes

RAC= Radon Attenuation Cover

cb/UNC.031/25

Dist: Client (3) Field File (1) Billing (1)



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Farmington, New Mexico 87401
(505) 327-4966 • fax 327-5293

**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **08-23-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450145**
Authorized By **E. MORALES** Date **06-21-95**
Tested By **H. KUEBLER/WT** Date **06-21-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**
Test Locations Designated By **SPEC**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**
Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0387	15.1	110.0	0.0	14	110.7	14.7	99	14.7 TO 16.7	95	YES
2	0.0367	15.8	111.3	0.0	10	112.5	15.4	99	15.4 TO 17.4	95	YES
3	0.0365	14.8	104.8	0.0	14	110.7	14.7	95	14.7 TO 16.7	95	YES
4	0.0294	16.1	115.1	0.0	10	112.5	15.4	100+	15.4 TO 17.4	95	YES
5	0.0334	15.6	111.6	0.0	14	110.7	14.7	100+	14.7 TO 16.7	95	YES
6	0.0368	14.8	105.6	0.0	14	110.7	14.7	95	14.7 TO 16.7	95	YES
7	0.0334	16.3	105.2	0.0	14	110.7	14.7	95	14.7 TO 16.7	95	YES
8	0.0357	14.1	107.5	0.0	14	110.7	14.7	97	14.7 TO 16.7	95	NO
9	0.0301	14.8	104.1	0.0	14	110.7	14.7	94	14.7 TO 16.7	95	NO
10	0.0278	15.7	114.3	0.0	10	112.5	15.4	100+	15.4 TO 17.4	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	RAC, SB21E, 73520 N & 60850 E		6990.4	SUBGRADE
2	RAC, SB22E, 73650 N & 60950 E		6990.1	SUBGRADE
3	RAC, SB23E, 73720 N & 60950 E		6989.1	SUBGRADE
4	RAC, SB24E, 73810 N & 60960 E		6988.3	SUBGRADE
5	RAC, SB25E, 73910 N & 60920 E		6987.0	SUBGRADE
6	RAC, SB24E, 73810 N & 60910 E		6987.9	SUBGRADE
7	RAC, SB23E, 73710 N & 60880 E		6988.7	SUBGRADE
8	RAC, SB22E, 73620 N & 60900 E		6989.5	SUBGRADE
9	RAC, SB25E, 73910 N & 60970 E		6988.0	SUBGRADE
10	RAC, SB27E, 74100 N & 60940 E		6985.4	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
14	31450122	SILTY CLAY-RAC	BORROW PIT #2	14.7	110.7	D698-A
10	31450122	SILTY CLAY-RAC	BORROW PIT #2, STOCKPILE	15.4	112.5	D698-A

Comments: * DATUM Test Elevation = Top of RAC

Distribution : CLIENT - (3)
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTY, OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY _____

T. Krake *TK*

(SIGNED COPY ON FILE)



**Western
Technologies
Inc.**

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Since 1955

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966 • fax 327-5293

**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **08-23-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450145-1**
Authorized By **E. MORALES** Date **06-22-95**
Tested By **H. KUEBLER/WT** Date **06-22-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

Test Locations Designated By **SPEC**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**

Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0300	15.1	108.0	0.0	14	110.7	14.7	98	14.7 TO 16.7	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	RETEST OF #9 (06/21/95)		6988.0	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
14	31450122	SILTY CLAY-RAC	BORROW PIT #2	14.7	110.7	D698-A

Comments: * DATUM Test Elevation = Top of RAC

Distribution : CLIENT - (3)
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTEE OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY

T. Krake

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400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966 • fax 327-5293

**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **08-22-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450145-2**
Authorized By **E. MORALES** Date **06-28-95**
Tested By **C. PADILLA/WT** Date **06-28-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**
Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**
Calibrated Volume of Sand Cone Apparatus **0.0384** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0409	15.4	103.8	0.0	24	114.3	17.0	91	17.0 TO 19.0	95	NO
2	0.0470	14.2	108.0	0.0	23	114.0	13.9	95	13.9 TO 15.9	95	YES
3	0.0509	14.3	106.0	0.0	23	114.0	13.9	93	13.9 TO 15.9	95	NO
4	0.0570	14.0	107.2	0.0	23	114.0	13.9	94	13.9 TO 15.9	95	NO
5	0.0422	14.4	108.4	0.0	23	114.0	13.9	95	13.9 TO 15.9	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	74040 N & 60800 E, S + 1		6983.5	SUBGRADE
2	73970 N & 60800 E, S.5 + 1.5		6984.1	SUBGRADE
3	73920 N & 60730 E, T + 2		6985.2	SUBGRADE
4	73690 N & 60710 E, U + 4		6984.8	SUBGRADE
5	73620 N & 60750 E, U.5 + 4.5		6987.5	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
24	31450145	SANDY SILTY CLAY, RAC	S + 1,74040N&60800E, 6983.5	17.0	114.3	D698-A
23	31450145	SANDY LEAN CLAY, RAC	U + 4,73690N&60710E,6984.8	13.9	114.0	D698-A

Comments: **CB**
* DATUM Elevation of Test = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTEE OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY T. Krake



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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **10-17-95**
Job No. **3145JB031** Page 1 of 2
Event/Invoice No. **31450185**
Authorized By **E. MORALES** Date **07-06-95**
Tested By **H. KUEBLER/WT** Date **07-06-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**

Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0340	16.4	108.1	0.0	25	114.2	16.4	95	16.4 TO 18.4	95	YES
2	0.0359	16.7	110.4	0.0	25	114.2	16.4	97	16.4 TO 18.4	95	YES
3	0.0348	14.8	109.9	0.0	35	111.4	14.5	99	14.5 TO 16.5	95	YES
4	0.0331	17.2	114.4	0.0	24	114.3	17.0	100	17.0 TO 19.0	95	YES
5	0.0388	16.1	102.8	0.0	25	114.2	16.4	90	16.4 TO 18.4	95	NO
6	0.0382	16.6	105.4	0.0	25	114.2	16.4	92	16.4 TO 18.4	95	NO
7	0.0382	16.6	110.3	0.0	25	114.2	16.4	97	16.4 TO 18.4	95	YES
8	0.0367	15.3	106.6	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES
9	0.0404	14.7	106.0	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	U + 7.5, 73390 N & 60580 E		6986.9	SUBGRADE
2	U + 7, 73420 N & 60610 E		6986.3	SUBGRADE
3	S + 8, 73500 N & 60360 E		6986.0	SUBGRADE
4	T + 2.5, 73920 N & 60790 E		6983.8	SUBGRADE
5	T.5 + 3.5, 73750 N & 60780 E		6984.1	SUBGRADE
6	U.5 + 5, 73580 N & 60720 E		6985.5	SUBGRADE
7	T + 7.5, 73490 N & 60470 E		6984.7	SUBGRADE
8	U + 6.5, 73590 N & 60600 E		6985.9	SUBGRADE
9	RETEST OF #8 (07/08/95)		6985.5	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
25	31450145	SILTY CLAY	T + 3.5, 73780N & 60710E 6983.8	16.4	114.2	D698-A
35	31450185	SILTY CLAY	S + 8, 73500N & 60360E, 6985.0	14.5	111.4	D698-A
24	31450145	SANDY SILTY CLAY, RAC	S + 1, 74040N & 60800E, 6983.5	17.0	114.3	D698-A

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY A. McHaney



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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **11-15-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450185-2**
Authorized By **E. MORALES** Date **07-07-95**
Tested By **H. KUEBLER/WT** Date **07-07-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**

Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0384	13.0	109.5	0.0	19	114.3	11.0	96	11.0 TO 13.0	95	YES
2	0.0337	16.8	111.8	0.0	25	114.2	16.4	98	16.4 TO 18.4	95	YES
3	0.0336	12.8	108.2	0.0	19	114.3	11.0	95	11.0 TO 13.0	95	YES
4	0.0305	14.9	114.6	0.0	23	114.0	13.9	100+	13.9 TO 15.9	95	YES
5	0.0323	16.7	113.7	0.0	25	114.2	16.4	100	16.4 TO 18.4	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	V+8, 73330 N & 60580 E		6990.0	SUBGRADE
2	V.5+7, 73370 N & 60670 E		6990.0	SUBGRADE
3	V+7, 73400 N & 60650 E		6989.0	SUBGRADE
4	V+4, 73640 N & 60810 E		6989.2	SUBGRADE
5	STA. V+5, 73550 N & 60770 E		6988.0	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
19	31450122	SANDY LEAN CLAY	SB 23+00	11.0	114.3	D698-A
25	31450145	SILTY CLAY	T + 3.5, 73780N&60710E, 6983.8	16.4	114.2	D698-A
23	31450145	SANDY LEAN CLAY, RAC	U + 4, 73690N&60710E, 6984.8	13.9	114.0	D698-A

Comments: **CB**
* DATUM Elevation of Test = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

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REVIEWED BY

A. Neely

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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **11-15-95**
Job No. **3145JB031** Page 1 of 2
Event/Invoice No. **31450185-4**
Authorized By **E. MORALES** Date **07-11-95**
Tested By **H. KUEBLER/WT** Date **07-11-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**

Calibrated Volume of Sand Cone Apparatus **0.0383** cu. ft. Bulk Unit Weight of Sand **94.8** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0400	14.3	111.1	0.0	20	114.6	12.4	97	12.4 TO 14.4	95	YES
2	0.0086	13.6	479.9	0.0	20	114.6	12.4	100 +	12.4 TO 14.4	95	YES
3	0.0407	14.1	114.1	0.0	20	114.6	12.4	100	12.4 TO 14.4	95	YES
4	0.0354	16.4	108.9	0.0	25	114.2	16.4	95	16.4 TO 18.4	95	YES
5	0.0413	16.2	106.4	0.0	35	111.4	14.5	96	14.5 TO 16.5	95	YES
6	0.0394	15.8	106.8	0.0	35	111.4	14.5	96	14.5 TO 16.5	95	YES
7	0.0433	15.6	107.4	0.0	27	112.0	14.3	96	14.3 TO 16.3	95	YES
8	0.0425	16.1	106.2	0.0	35	111.4	14.5	95	14.5 TO 16.5	95	YES
9	0.0300	14.6	106.0	0.0	27	112.0	14.3	95	14.3 TO 16.3	95	YES
10	0.0350	14.9	113.8	0.0	27	112.0	14.3	100 +	14.3 TO 16.3	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	S.5 + 5, 73700 N & 60580 E		6983.5	SUBGRADE
2	S.5 + 3, 73860 N & 60310 E		6983.4	SUBGRADE
3	S.5 + 3.5, 73810 N & 60680 E		6983.3	SUBGRADE
4	T + 3.5, 73780 N & 60710 E		6983.8	SUBGRADE
5	T.5 + 4.5, 73680 N & 60700 E		6984.3	SUBGRADE
6	T + 4.5, 73730 N & 60720 E		6983.7	SUBGRADE
7	U + 6.0, 73540 N & 60630 E		6985.6	SUBGRADE
8	T.5 + 6.5, 73520 N & 60570 E		6985.0	SUBGRADE
9	R.5 + 1, 74080 N & 60740 E		6982.5	SUBGRADE
10	S + 2, 73960 N & 60740 E		6983.5	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
20	31450122	SANDY LEAN CLAY	SB 27 + 00	12.4	114.6	D698-A
25	31450145	SILTY CLAY	T + 3.5, 73780N & 60710E 6983.8	16.4	114.2	D698-A
35	31450185	SILTY CLAY	S + 8, 73500N & 60360E, 6985.0	14.5	111.4	D698-A

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTEE OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY _____ **A. Neely** _____
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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **10-17-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450185-5**
Authorized By **E. MORALES** Date **07-12-95**
Tested By **H. KUEBLER/WT** Date **07-12-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**

Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0338	18.4	109.4	0.0	24	114.3	17.0	96	17.0 TO 19.0	95	YES
2	0.0350	16.6	111.7	0.0	25	114.2	16.4	98	16.4 TO 18.4	95	YES
3	0.0333	15.0	115.6	0.0	23	114.0	13.9	100+	13.9 TO 15.9	95	YES
4	0.0370	15.7	110.0	0.0	23	114.0	13.9	96	13.9 TO 15.9	95	YES
5	0.0325	16.7	113.2	0.0	25	114.2	16.4	99	16.4 TO 18.4	95	YES
6	0.0329	17.4	112.4	0.0	25	114.2	16.4	98	16.4 TO 18.4	95	YES
7	0.0333	15.7	114.7	0.0	23	114.0	13.9	100+	13.9 TO 15.9	95	YES
8	0.0312	17.8	111.5	0.0	24	114.3	17.0	98	17.0 TO 19.0	95	YES
9	0.0349	14.7	111.7	0.0	23	114.0	13.9	98	13.9 TO 15.9	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	RETEST OF #1 (06/28/95)		6983.5	SUBGRADE
2	STA. U.5+5, 73580 N & 60680 E		6985.5	SUBGRADE
3	RETEST OF #3 (07/07/95)		6989.4	SUBGRADE
4	RETEST OF #3 (06/28/95)		6985.2	SUBGRADE
5	RETEST OF #5 (07/06/95)		6984.4	SUBGRADE
6	U+3, 73770 N & 60820 E		6986.6	SUBGRADE
7	STA. T+1.5, 73940 N & 60840 E		6987.1	SUBGRADE
8	STA. T.5+2.5, 73830 N & 60810 E		6984.2	SUBGRADE
9	RETEST OF #4 (06/28/95)		6984.8	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
24	31450145	SANDY SILTY CLAY, RAC	S+1,74040N&60800E, 6983.5	17.0	114.3	D698-A
25	31450145	SILTY CLAY	T+3.5,73780N&60710E6983.8	16.4	114.2	D698-A
23	31450145	SANDY LEAN CLAY, RAC	U+4,73690N&60710E,6984.8	13.9	114.0	D698-A

Comments: **CB**

* DATUM Elevation of Test = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

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A. McHany

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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **08-28-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450185-12**
Authorized By **E. MORALES** Date **07-18-95**
Tested By **C. PADILLA/WT** Date **07-18-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**
Test Locations Designated By **SPECIFICATIONS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**
Calibrated Volume of Sand Cone Apparatus **0.0383** cu. ft. Bulk Unit Weight of Sand **94.8** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0394	16.2	112.4	0.0	31	111.4	14.5	100+	14.5 TO 16.5	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	R.8 + 4.2, 73820 N & 60600 E		6983.0	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
31	31450185	SANDY CLAY	R + 5,73780N&60470E, 6981.2	14.5	111.4	D698-A

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE APPROPRIATE STANDARD OF CARE, INCLUDING THE SKILL AND JUDGMENT THAT IS REASONABLY EXPECTED FROM SIMILARLY SITUATED PROFESSIONALS. NO OTHER WARRANTY, GUARANTY, OR REPRESENTATION, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY A. McHaney



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Farmington, New Mexico 87401
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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **11-15-95**
Job No. **3145JB031** Page 1 of 2
Event/Invoice No. **31450185-15**
Authorized By **E. MORALES** Date **07-27-95**
Tested By **C. PADILLA/WT** Date **07-27-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**
Test Locations Designated By **SPECS**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**
Calibrated Volume of Sand Cone Apparatus **0.0383** cu. ft. Bulk Unit Weight of Sand **94.8** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0306	15.0	107.7	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
2	0.0359	15.6	109.0	0.0	31	111.4	14.5	98	14.5 TO 16.5	95	YES
3	0.0338	15.3	106.3	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES
4	0.0331	15.7	107.3	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
5	0.0390	16.1	106.8	0.0	31	111.4	14.5	96	14.5 TO 16.5	95	YES
6	0.0404	16.0	106.0	0.0	31	111.4	14.5	95	14.5 TO 16.5	95	YES
7	0.0382	15.4	111.4	0.0	31	111.4	14.5	100	14.5 TO 16.5	95	YES
8	0.0329	15.8	107.3	0.0	31	111.4	14.5	96	14.5 TO 16.5	95	YES
9	0.0327	14.8	107.8	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
10	0.0365	15.6	106.6	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL		TEST LOCATION, VERTICAL		MATERIAL TESTED
			Approximate Fill Depth, ft.	Elevation *	
1	R + 8.8, 73480 N & 60220 E			6986.0	SUBGRADE
2	S + 8.7, 73490 N & 60310 E			6986.3	SUBGRADE
3	S.5 + 8.7, 73430 N & 60370 E			6986.3	SUBGRADE
4	T + 8.5, 73400 N & 60400 E			6986.7	SUBGRADE
5	R + 8, 73560 N & 60280 E			6990.0	SUBGRADE
6	R.7 + 8.2, 73500 N & 60330 E			6983.2	SUBGRADE
7	S.5 + 8, 73460 N & 60400 E			6986.0	SUBGRADE
8	R + 7, 73630 N & 60350 E			6983.0	SUBGRADE
9	S + 7, 73570 N & 60410 E			6983.4	SUBGRADE
10	S.5 + 7, 73530 N & 60460 E			6983.7	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS

LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
26	31450185	SANDY CLAY	S.5 + 5,73700N&60580E6983.5	14.5	110.6	D698-A
31	31450185	SANDY CLAY	R + 5,73780N&60470E, 6981.2	14.5	111.4	D698-A

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

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REVIEWED BY A. Neely



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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
CONTINUATION SHEET**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **10-17-95**
Job No. **3145JB031** Page 2 of 2
Event/Invoice No. **31450185-15**
Authorized By **E. MORALES** Date **07-27-95**
Tested By **C. PADILLA/WT** Date **07-27-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
11	0.0376	15.7	107.7	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
12	0.0393	15.8	107.1	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
13	0.0383	15.0	107.4	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
14	0.0385	15.9	107.7	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
15	0.0418	14.7	103.9	0.0	26	110.6	14.5	94	14.5 TO 16.5	95	NO
16	0.0413	15.4	105.6	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
17	0.0438	16.4	106.9	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
18	0.0343	16.4	108.7	0.0	26	110.6	14.5	98	14.5 TO 16.5	95	YES
19	0.0337	15.1	107.1	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
20	0.0332	15.3	105.5	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
21	0.0362	16.1	105.9	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES
22	0.0390	15.9	105.5	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
23	0.0419	14.6	103.7	0.0	26	110.6	14.5	94	14.5 TO 16.5	95	NO

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
11	R + 6, 73700 N & 60420 E		6983.8	SUBGRADE
12	S + 6, 73640 N & 60480 E		6983.0	SUBGRADE
13	S.5 + 6, 73620 N & 60510 E		6983.2	SUBGRADE
14	R + 5, 73780 N & 60470 E		6981.2	SUBGRADE
15	R.5 + 5, 73750 N & 60500 E		6982.4	SUBGRADE
16	S + 5, 73710 N & 60550 E		6982.4	SUBGRADE
17	R + 4, 73860 N & 60530 E		6982.0	SUBGRADE
18	R.5 + 4, 73830 N & 60580 E		6982.2	SUBGRADE
19	R.8 + 3.8, 73810 N & 60610 E		6982.6	SUBGRADE
20	R.8 + 3.2, 73910 N & 60650 E		6982.1	SUBGRADE
21	R.5 + 3, 73920 N & 60630 E		6982.2	SUBGRADE
22	R + 3, 73950 N & 60600 E		6982.0	SUBGRADE
23	R.5 + 1.5, 74030 N & 60720 E		6983.0	SUBGRADE

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

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REVIEWED BY _____ **A. McHaney**



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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
CONTINUATION SHEET**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **11-15-95**
Job No. **3145JB031** Page 2 of 2
Event/Invoice No. **31450185-15**
Authorized By **E. MORALES** Date **07-27-95**
Tested By **C. PADILLA/WT** Date **07-27-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
11	0.0376	15.7	107.7	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
12	0.0393	15.8	107.1	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
13	0.0383	15.0	107.4	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
14	0.0385	15.9	107.7	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
15	0.0418	14.7	103.9	0.0	26	110.6	14.5	94	14.5 TO 16.5	95	NO
16	0.0413	15.4	105.6	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
17	0.0438	16.4	106.9	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
18	0.0343	16.4	108.7	0.0	26	110.6	14.5	98	14.5 TO 16.5	95	YES
19	0.0337	15.1	107.1	0.0	26	110.6	14.5	97	14.5 TO 16.5	95	YES
20	0.0332	15.3	105.5	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
21	0.0362	16.1	105.9	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES
22	0.0390	15.9	105.5	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
23	0.0419	14.6	103.7	0.0	26	110.6	14.5	94	14.5 TO 16.5	95	NO

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
11	R + 6, 73700 N & 60420 E		6983.8	SUBGRADE
12	S + 6, 73640 N & 60480 E		6983.0	SUBGRADE
13	S.5 + 6, 73620 N & 60510 E		6983.2	SUBGRADE
14	R + 5, 73780 N & 60470 E		6981.2	SUBGRADE
15	R.5 + 5, 73750 N & 60500 E		6982.4	SUBGRADE
16	S + 5, 73710 N & 60550 E		6982.4	SUBGRADE
17	R + 4, 73860 N & 60530 E		6982.0	SUBGRADE
18	R.5 + 4, 73830 N & 60580 E		6982.2	SUBGRADE
19	R.8 + 3.8, 73810 N & 60610 E		6982.6	SUBGRADE
20	R.8 + 3.2, 73910 N & 60650 E		6982.1	SUBGRADE
21	R.5 + 3, 73920 N & 60630 E		6982.2	SUBGRADE
22	R + 3, 73950 N & 60600 E		6982.0	SUBGRADE
23	R.5 + 1.5, 74030 N & 60720 E		6983.0	SUBGRADE

Comments: **CB**
* DATUM Test Elevation = Top of RAC

Distribution : **CLIENT - (3)**
FIELD FILE & BILLING (2)

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REVIEWED BY A. Neely



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**SOIL / AGGREGATE
FIELD UNIT WEIGHT TESTS
(FIELD DENSITY)**

Client **UNC MINING AND MILLING**
POST OFFICE BOX 3077
GALLUP, NM 87305

Date of Report **10-17-95**
Job No. **3145JB031** Page 1 of 1
Event/Invoice No. **31450185-16**
Authorized By **E. MORALES** Date **07-28-95**
Tested By **H. KUEBLER/WT** Date **07-28-95**

Client **UNC MINING AND MILLING**
Project **1995 RECLAMATION**
Location **CHURCH ROCK, NM**
Test Locations Designated By **SPEC**

Test Procedures In-Place Unit Weight : **ASTM D1556** Moisture Content : **ASTM D4944**
Calibrated Volume of Sand Cone Apparatus **0.0387** cu. ft. Bulk Unit Weight of Sand **94.6** lbf/cu. ft.

TEST NO.	IN-PLACE CHARACTERISTICS				LAB CHARACTERISTICS			COMPACTION	REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %	ID	Maximum Dry Unit Weight lbf / cu. ft.	Optimum Moisture %	% of Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
1	0.0336	15.6	105.5	0.0	26	110.6	14.5	95	14.5 TO 16.5	95	YES
2	0.0293	14.8	106.2	0.0	26	110.6	14.5	96	14.5 TO 16.5	95	YES

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	RETEST OF #23 (07/27/95)		6983.0	SUBGRADE
2	RETEST OF #15 (07/27/95)		6982.4	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
26	31450185	SANDY CLAY	S.5 + 5,73700N&60580E6983.5	14.5	110.6	D698-A

Comments: **CB**
* DATUM Elevation of Test = Top of RAC

Distribution : CLIENT - (3)
FIELD FILE & BILLING (2)

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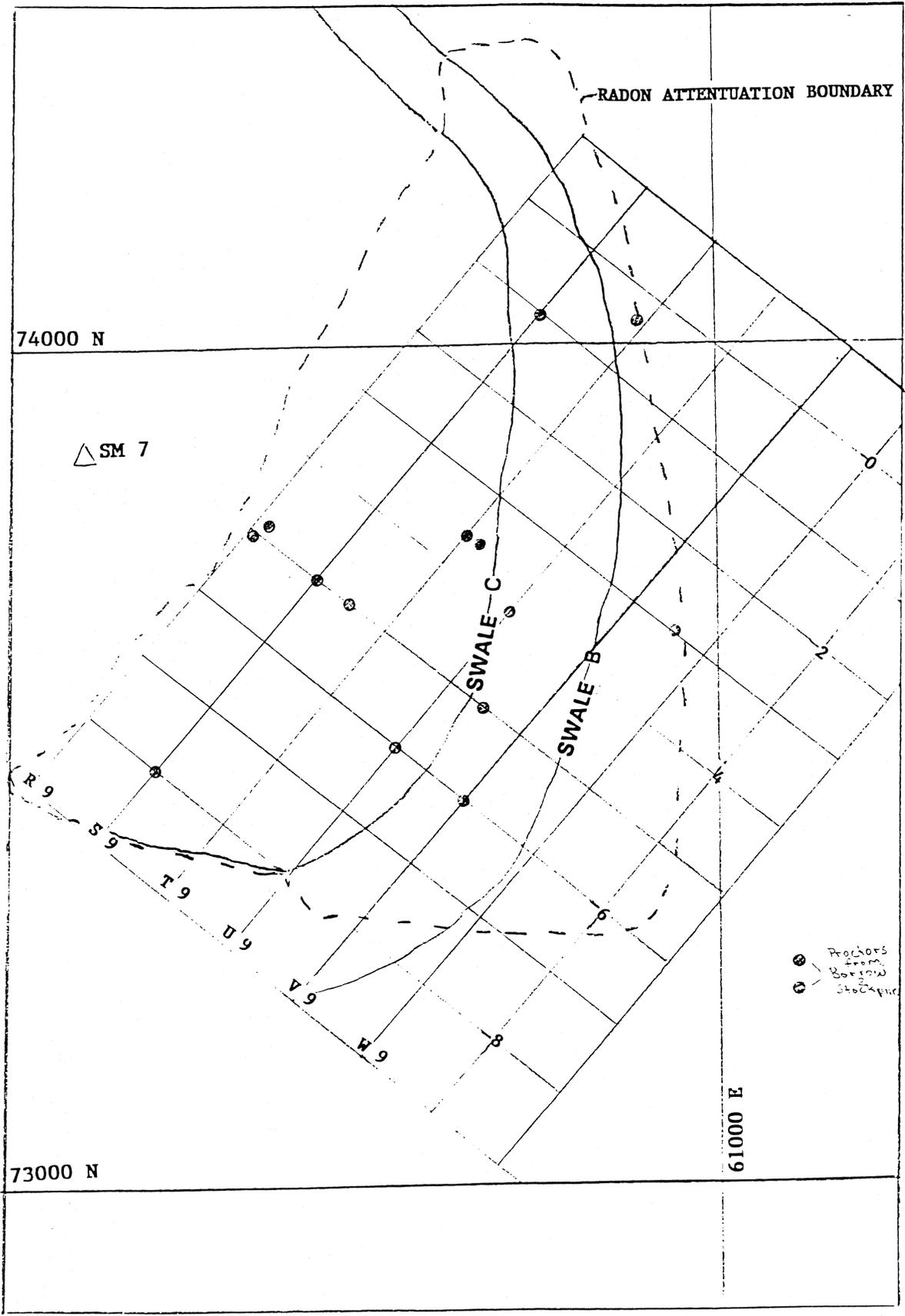
REVIEWED BY A. McHaney
(SIGNED COPY ON FILE)

**APPENDIX
E**



APPENDIX E

PROCTOR TESTS, RADON ATTENUATION COVER



PROCTOR LOCATION BORROW PIT #2

UNITED NUCLEAR CORPORATION 1995 RECLAMATION

WT JOB NO. 3145JB03

TEST SUMMARY FOR BORROW PIT #2

DATE OF REPORT 12/06/95

DATE	TYPE OF TEST	GRID	NORTHING	EASTING	ELEV.	MATERIAL TYPE	DENSITY, PCF	MOISTURE, %	RELATIVE COMPACTION	USCS SOIL CLASS	WITHIN SPECS. ?
05/15/95	Proctor	Borrow Pit #2				RAC	104.5	15.0		CL	Yes
05/16/95	Proctor	Borrow Pit #2				RAC	110.4	14.0		CL	Yes
06/07/95	Proctor	SB23+00				RAC	114.3	11.0		CL	Yes
06/07/95	Proctor	SB27+00				RAC	114.6	12.4		CL	Yes
06/26/95	Proctor	U+4	73690.0	60710.0	6984.8	RAC	114.0	13.9		CL	Yes
06/26/95	Proctor	S+1	74040.0	60800.0	6983.5	RAC	114.3	17.0		CL	Yes
06/29/95	Proctor	T+3.5	73780.0	60710.0	6983.8	RAC	114.2	16.4		CL	Yes
06/29/95	Proctor	U.5+5.0	73580.0	60720.0	6985.5	RAC	112.0	14.3		CL	Yes
07/06/95	Proctor Point	T+3.5	73780.0	60710.0	6983.8	RAC	114.2	16.4		CL	Yes
07/06/95	Proctor	S.5+5	73700.0	60580.0	6983.5	RAC	110.6	14.5		CL	Yes
07/07/95	Proctor Point	S+5	73710.0	60550.0	6982.4	RAC	110.6	14.5		CL	Yes
07/10/95	Proctor Point	V+6	73450.0	60710.0	6988.0	RAC	114.0	13.9		CL	Yes

RAC = Radon Attenuation Cover

cb/UNC.031/17

Dist: Client (3) Field File (1) Billing (1)

Job No. 3145JB031

Lab/ Invoice No. 31450122

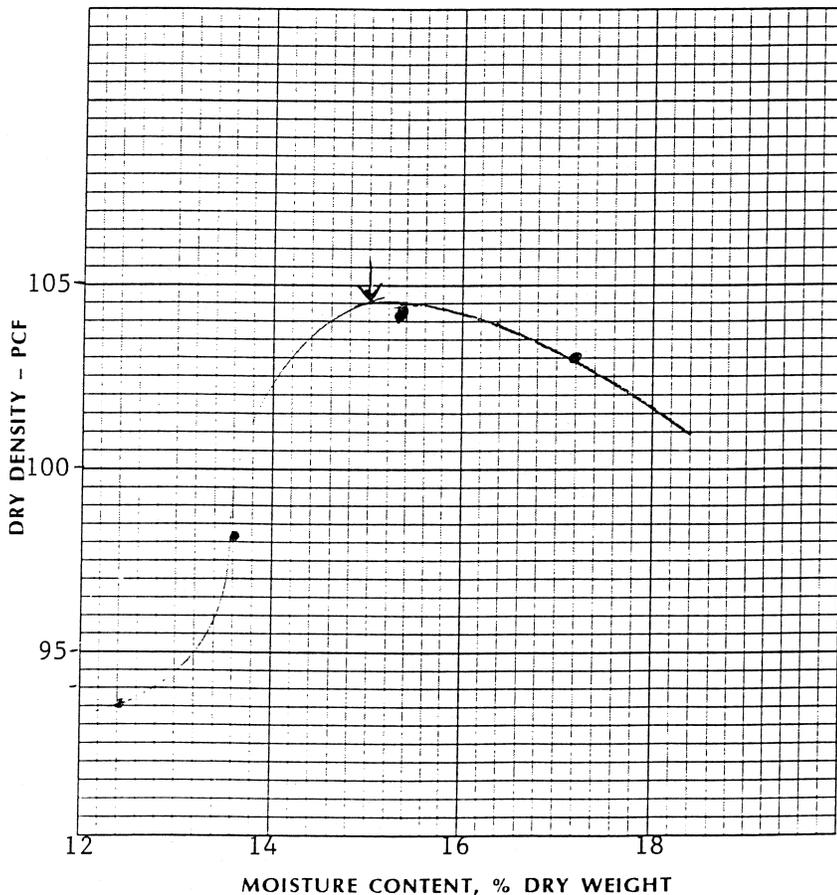
Type of Material Silty Clay Sampled By H. Kuebler/WT Date 05/15/

Source of Material Borrow Stockpile #2 Submitted By H. Kuebler/WT Date 05/15/

Tested/Calc. By H. Kuebler/WT Date 05/15/

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	200	250	300	350			
Sample + Mold Weight, gms	5852.0	5952	6082	6090			
Mold Weight, gms	4263.0	4263.0	4263.0	4263.0			
Wet Sample Weight, gms	1589.0	1689.0	1819.0	1827			
Wet Sample Weight, lbs	3.503	3.724	4.01	4.03			
Wet Density, pcf	105.1	111.7	120.3	120.9			
Moisture Sample Wet, gms	200	200	200	200			
Moisture Sample Dry, gms	178.0	176.0	173.4	170.6			
Weight of Water, gms	22.0	24.0	26.6	29.4			
Moisture, %	12.4	13.6	15.3	17.2			
Dry Density, pcf	93.5	98.3	104.3	103.2			



Maximum Dry Density, pcf 104.5

Optimum Moisture Content, % 15.0

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab / Invoice No. 31450122

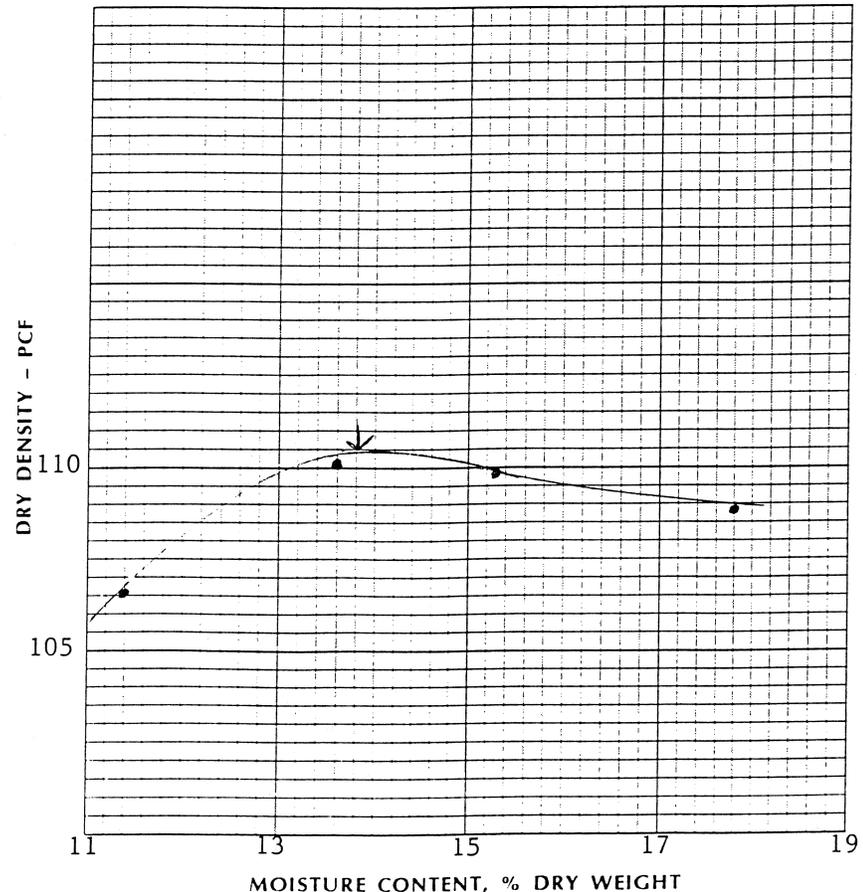
Type of Material Silty Sand Sampled By H. Kuebler/WT Date 05/16/9

Source of Material Borrow Stockpile Submitted By H. Kuebler/WT Date 05/16/9

Tested / Calc. By H. Kuebler/WT Date 05/16/9

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	150	200	250	100			
Sample + Mold Weight, gms	6154	6178	6198	6058			
Mold Weight, gms	4263.0	4263.0	4263.0	4263.0			
Wet Sample Weight, gms	1891	1915	1935	1795.0			
Wet Sample Weight, lbs	4.169	4.222	4.266	3.957			
Wet Density, pcf	125.1	126.7	128.0	118.7			
Moisture Sample Wet, gms	200.0	200.0	200.0	200.0			
Moisture Sample Dry, gms	176.0	173.5	169.8	179.5			
Weight of Water, gms	24.0	26.5	30.2	20.5			
Moisture, %	13.6	15.3	17.8	11.4			
Dry Density, pcf	110.1	109.9	108.7	106.6			



Maximum Dry Density, pcf 110.4

Optimum Moisture Content, % 14.0

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

SOIL / AGGREGATE - MOISTURE DENSITY RELATIONS

Job No. 3145JB031

Lab/Invoice No. 31450145

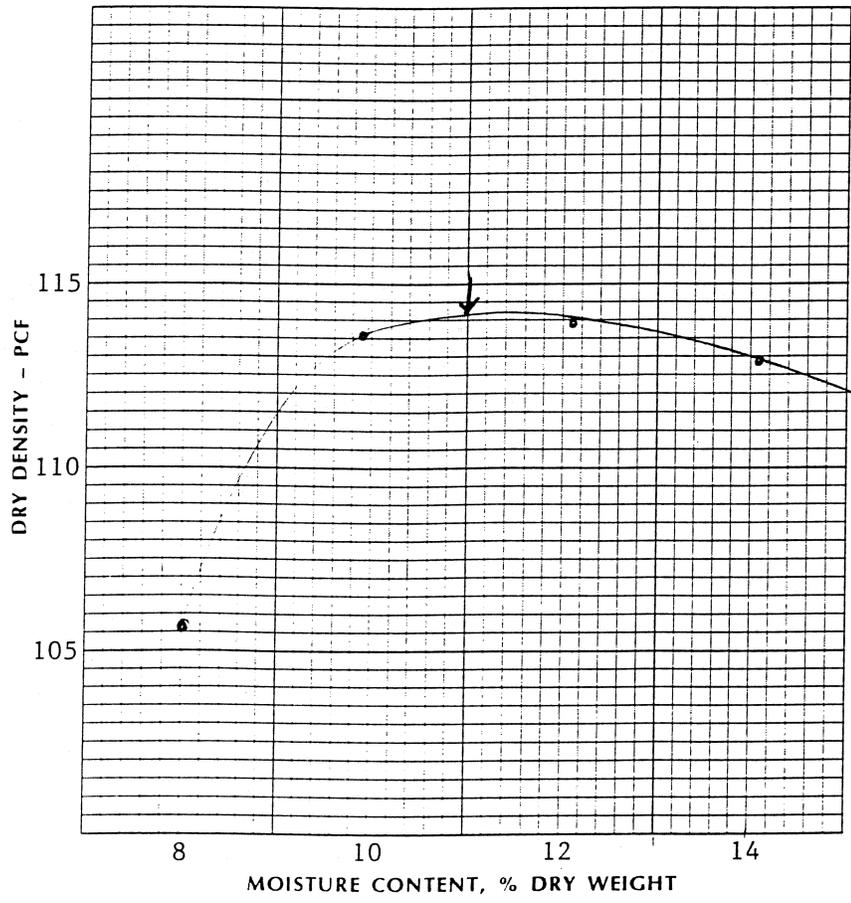
Type of Material Sandy Lean Clay Sampled By H. Kuebler/WT Date 06/07/9

Source of Material SB 23+00 Submitted By H. Kuebler/WT Date 06/07/9

Tested/Calc. By H. Dickson/WT Date 06/08/9

Test Procedure ASTM D698A Reviewed By *[Signature]* Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	50	100	150	200			
Sample + Mold Weight, gms	6362.2	6528.0	6568.9	6585.6			
Mold Weight, gms	4638.3	4638.3	4638.3	4638.3			
Wet Sample Weight, gms	1723.9	1889.7	1930.6	1947.3			
Wet Sample Weight, lbs	3.8	4.17	4.26	4.29			
Wet Density, pcf	114.0	125.0	127.7	128.8			
Moisture Sample Wet, gms	402.5	404.8	420.1	405.0			
Moisture Sample Dry, gms	372.8	368.4	374.8	354.8			
Weight of Water, gms	29.7	36.4	45.3	50.2			
Moisture, %	8.0	9.9	12.1	14.1			
Dry Density, pcf	105.6	113.7	113.9	112.9			



Maximum Dry Density, pcf 114.3

Optimum Moisture Content, % 11.0

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

SOIL / AGGREGATE - MOISTURE DENSITY RELATION

Job No. 3145JB031

Lab/Invoice No. 31450145

Type of Material Sandy Lean Clay

Sampled By H. Kuebler/WT Date 06/07/

Source of Material SB 27+00

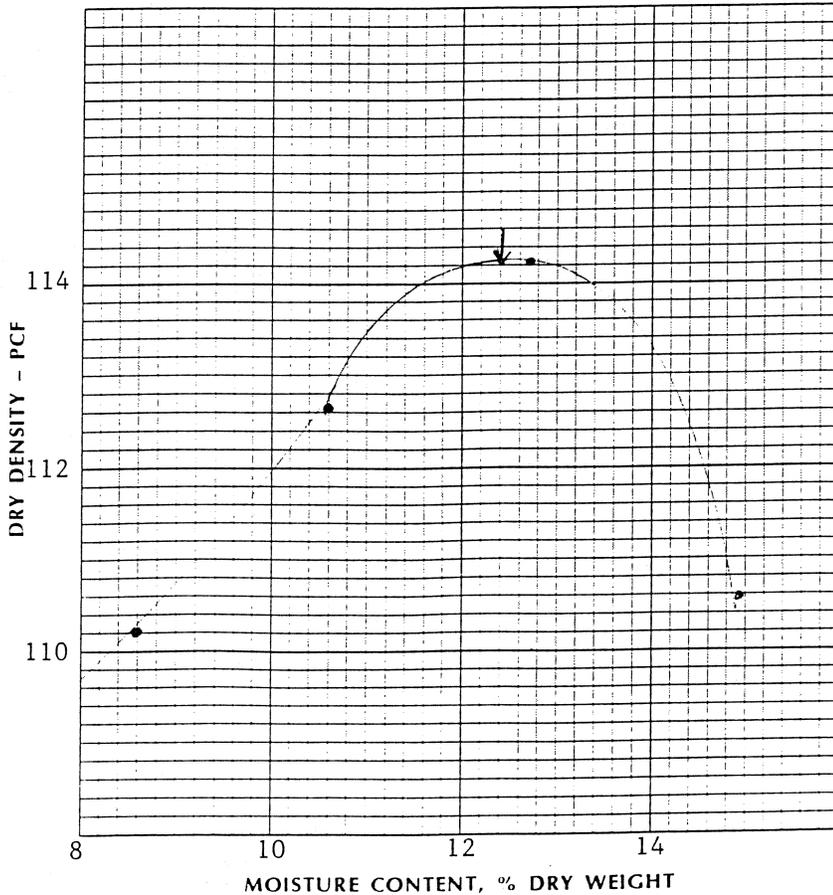
Submitted By H. Kuebler/WT Date 06/07/

Tested/Calc. By H. Dickson/WT Date 06/08/

Test Procedure ASTM D698A

Reviewed By *[Signature]* Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	100	150	200	250			
Sample + Mold Weight, gms	6414.6	6498.4	6552.2	6535.7			
Mold Weight, gms	4599.8	4599.8	4599.8	4599.8			
Wet Sample Weight, gms	1814.8	1898.6	1952.4	1935.9			
Wet Sample Weight, lbs	4.0	4.19	4.3	4.27			
Wet Density, pcf	120.0	125.6	129.1	128.0			
Moisture Sample Wet, gms	403.1	405.5	409.3	411.8			
Moisture Sample Dry, gms	371.2	366.6	363.1	358.3			
Weight of Water, gms	31.9	38.9	46.2	53.5			
Moisture, %	8.6	10.6	12.7	14.9			
Dry Density, pcf	110.5	113.6	114.6	111.4			



Maximum Dry Density, pcf 114.6

Optimum Moisture Content, % 12.4

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab/Invoice No. 31450145

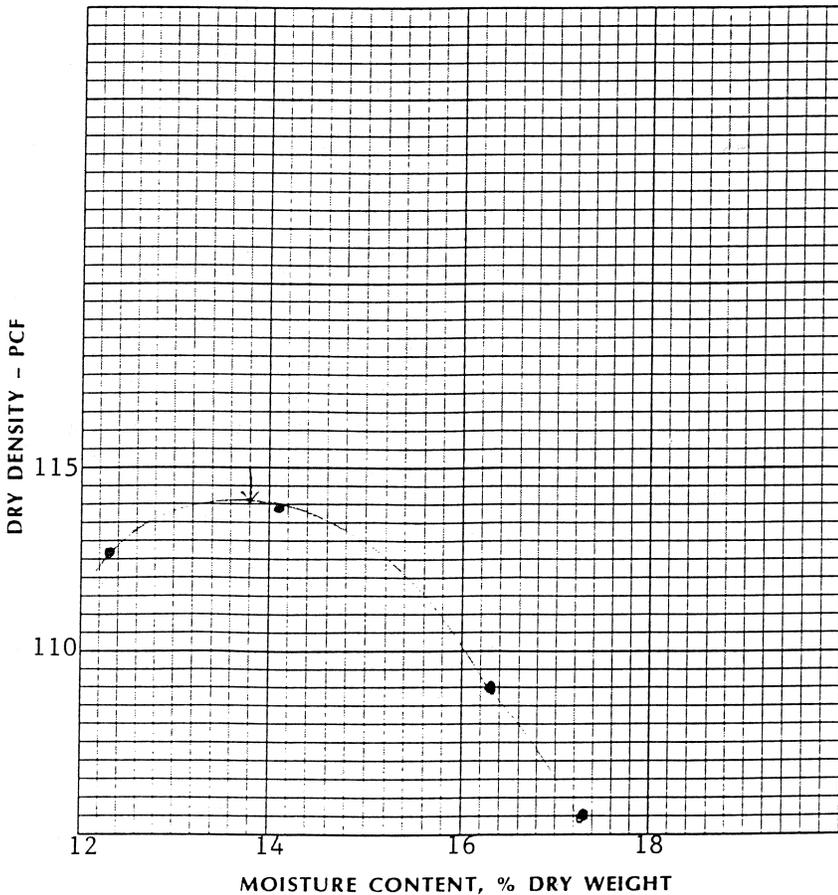
Type of Material Sandy Lean Clay (RAC) Sampled By H. Kuebler/WT Date 06/26/

Source of Material U + 4 (73690N & 60710E) Elev 6984.8 Submitted By H. Kuebler/WT Date 06/26/

Tested/Calc. By H. Kuebler/WT Date 06/26/

Test Procedure ASTM D698A Reviewed By [Signature] Date

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	100	150	200	250			
Sample + Mold Weight, gms	6178	6226	6198	6137.3			
Mold Weight, gms	4264	4264	4264	4264			
Wet Sample Weight, gms	1914	1962	1934	1873.3			
Wet Sample Weight, lbs	4.22	4.33	4.26	4.13			
Wet Density, pcf	126.6	129.9	127.8	123.8			
Moisture Sample Wet, gms	392.9	462.4	473.2	312.6			
Moisture Sample Dry, gms	350.0	405.3	406.9	266.5			
Weight of Water, gms	42.9	57.1	66.3	46.1			
Moisture, %	12.3	14.1	16.3	17.3			
Dry Density, pcf	112.7	113.9	109.0	105.5			



Maximum Dry Density, pcf 114.0

Optimum Moisture Content, % 13.9

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab / Invoice No. 31450145

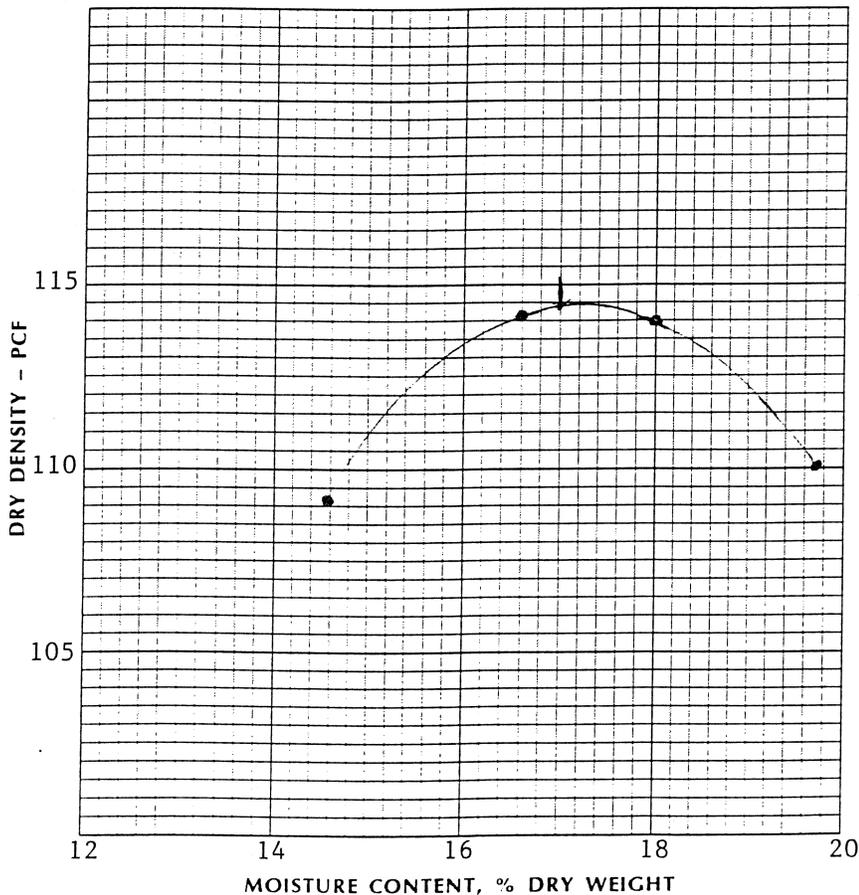
Type of Material Sandy Silty Clay Sampled By H. Kuebler/WT Date 06/26/9

Source of Material S + 1 (74040N & 60800E) Elev 6983.5 Submitted By H. Kuebler/WT Date 06/26/9

Tested / Calc. By H. Kuebler/WT Date 06/26/9

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	200	100	50	150			
Sample + Mold Weight, gms	6256	6278	6156	6296			
Mold Weight, gms	4264	4264	4264	4264			
Wet Sample Weight, gms	1992	2014	1892	2032			
Wet Sample Weight, lbs	4.39	4.44	4.17	4.48			
Wet Density, pcf	131.7	133.2	125.1	134.5			
Moisture Sample Wet, gms	424.4	392.4	392.7	368.1			
Moisture Sample Dry, gms	354.5	336.5	342.7	311.9			
Weight of Water, gms	69.9	55.9	50.0	56.2			
Moisture, %	19.7	16.6	14.6	18.0			
Dry Density, pcf	110.0	114.2	109.2	114.0			



Maximum Dry Density, pcf 114.3

Optimum Moisture Content, % 17.0

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab/Invoice No. 31450145

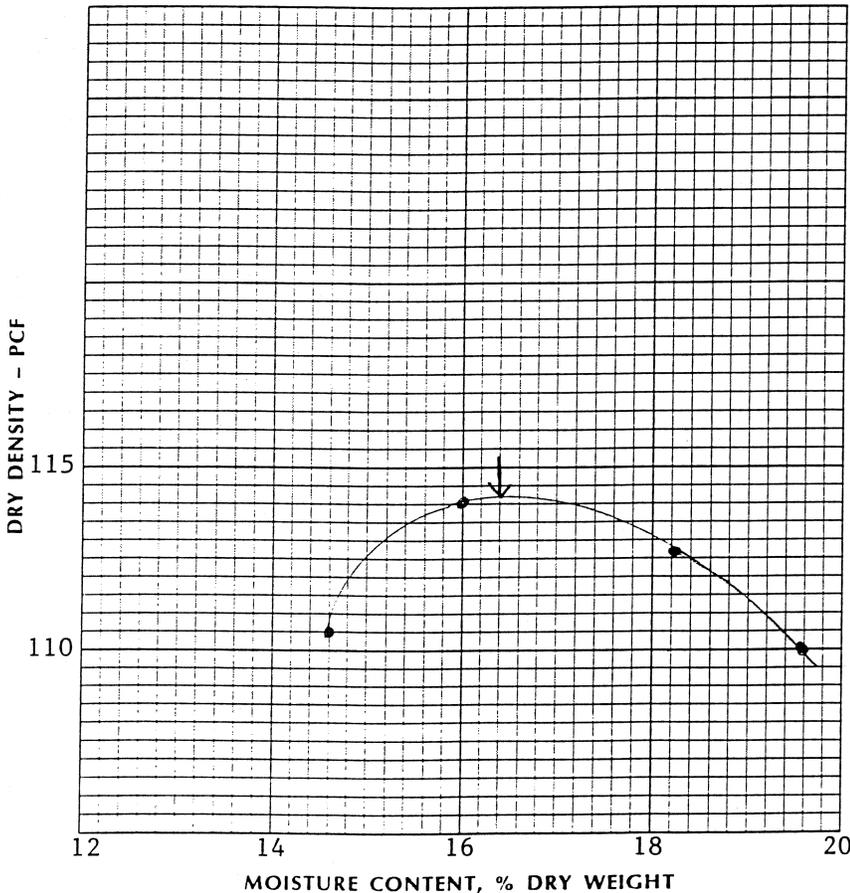
Type of Material Silty Clay Sampled By H. Kuebler/WT Date 06/29/9

Source of Material T + 3.5 (73780N & 60710E) Elev 6983.8 Submitted By H. Kuebler/WT Date 06/29/9

Tested/Calc. By H. Kuebler/WT Date 06/29/9

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	0	-50	+50	100			
Sample + Mold Weight, gms	6260	6173	6273	6252			
Mold Weight, gms	4261	4261	4261	4261			
Wet Sample Weight, gms	1999	1912	2012	1991.3			
Wet Sample Weight, lbs	4.407	4.22	4.44	4.39			
Wet Density, pcf	132.2	126.6	133.2	131.6			
Moisture Sample Wet, gms	269.6	317.1	326.1	378.3			
Moisture Sample Dry, gms	232.4	276.7	275.9	316.3			
Weight of Water, gms	37.2	40.4	50.2	62.0			
Moisture, %	16.0	14.6	18.2	19.6			
Dry Density, pcf	114.0	110.5	112.7	110.0			



Maximum Dry Density, pcf 114.2

Optimum Moisture Content, % 16.4

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab/Invoice No. 31450185

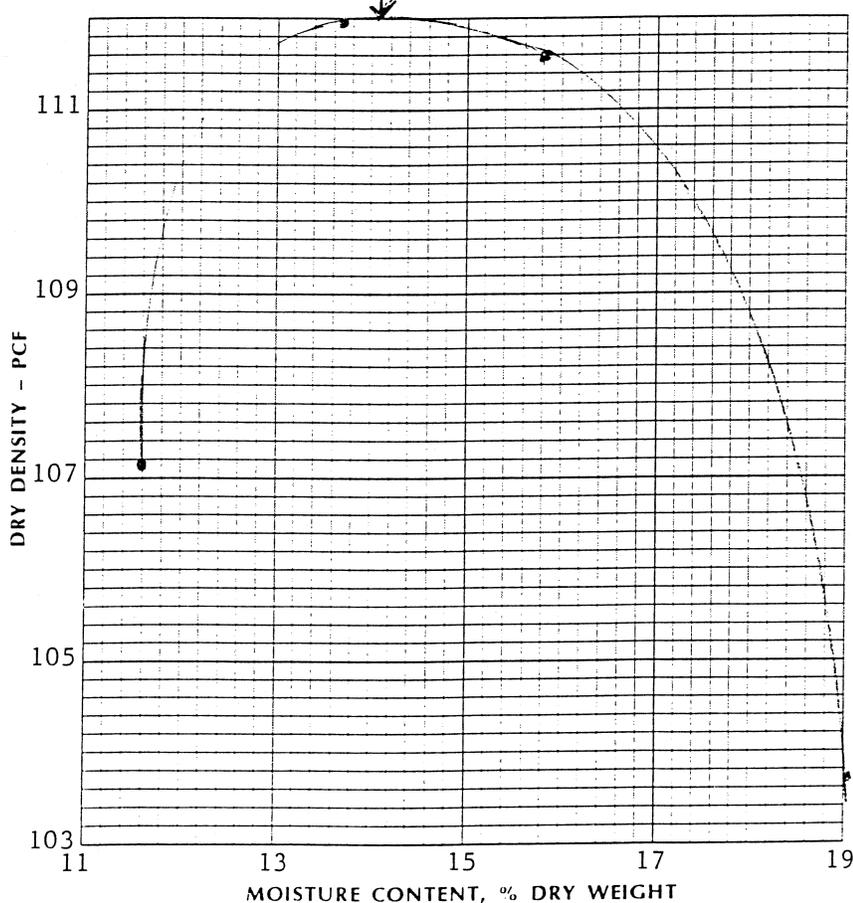
Type of Material Sandy Lean Clay Sampled By C. Padilla/WT Date 07/06/

Source of Material U.5 + 5.0 (73580N & 60720E) Elev 6985.5 Submitted By C. Padilla/WT Date 07/06/

Tested/Calc. By C. Padilla/WT Date 07/06/

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	250	300	350	200			
Sample + Mold Weight, gms	6186.0	6215.0	6129.0	6075.0			
Mold Weight, gms	4267.0	4267.0	4267.0	4267.0			
Wet Sample Weight, gms	1924.0	1953.0	1867.0	1813.0			
Wet Sample Weight, lbs	4.242	4.306	4.116	3.997			
Wet Density, pcf	127.2	129.2	123.5	119.9			
Moisture Sample Wet, gms	285.4	286.6	302.9	246.3			
Moisture Sample Dry, gms	251.1	247.5	254.3	220.7			
Weight of Water, gms	34.3	39.1	48.6	25.6			
Moisture, %	13.7	15.8	19.1	11.6			
Dry Density, pcf	111.9	111.6	103.7	107.4			



Maximum Dry Density, pcf 112.0

Optimum Moisture Content, % 14.3

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. _____

Lab / Invoice No. _____

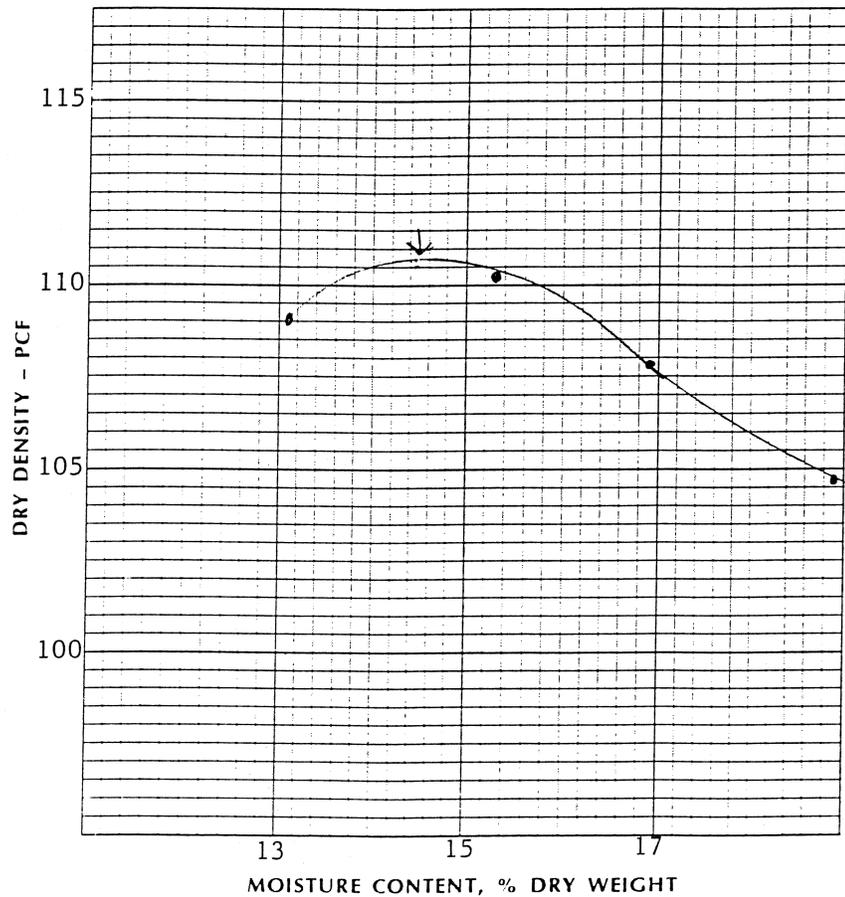
Type of Material Sandy Clay Sampled By C. Padilla/WT Date 07/06/9

Source of Material S.5+5 (73700N & 60580E) Submitted By C. Padilla/WT Date 07/06/9

Elev. 6983.5 Tested / Calc. By C. Padilla/WT Date 07/06/9

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	200	250	300	350			
Sample + Mold Weight, gms	6235.2	6294.6	6275.1	6254.7			
Mold Weight, gms	4370.4	4370.4	4370.4	4370.4			
Wet Sample Weight, gms	1864.8	1924.2	1904.7	1884.3			
Wet Sample Weight, lbs	4.11	4.24	4.20	4.15			
Wet Density, pcf	123.3	127.2	126.0	124.5			
Moisture Sample Wet, gms	394.0	460.4	790.2	439.0			
Moisture Sample Dry, gms	348.3	399.2	675.9	369.2			
Weight of Water, gms	45.7	61.2	114.3	69.8			
Moisture, %	13.1	15.3	16.9	18.9			
Dry Density, pcf	109.0	110.3	107.8	104.7			



Maximum Dry Density, pcf 110.6

Optimum Moisture Content, % 14.5

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab/Invoice No. 31450185

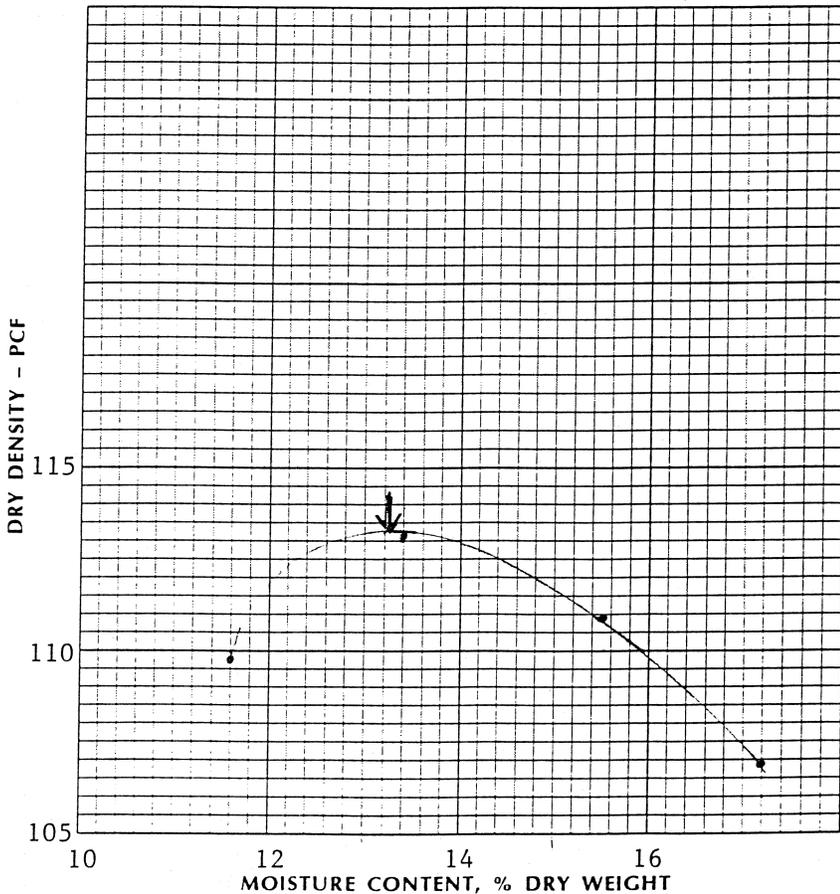
Type of Material Sandy Clay Sampled By H. Kuebler/WT Date 07/10/

Source of Material U + 6 (73540N & 60630E) Elev 6985.6 Submitted By H. Kuebler/WT Date 07/10/

Tested/Calc. By H. Kuebler/WT Date 07/10/

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	350	450	300	500			
Sample + Mold Weight, gms	6200	6196	6110	6152.5			
Mold Weight, gms	4261	4261	4261	4261			
Wet Sample Weight, gms	1939	1935	1849	1891			
Wet Sample Weight, lbs	4.28	4.27	4.08	4.17			
Wet Density, pcf	128.4	128.1	122.4	125.2			
Moisture Sample Wet, gms	537.1	564.2	489.7	461.9			
Moisture Sample Dry, gms	473.8	488.5	438.8	394.1			
Weight of Water, gms	63.3	75.7	50.9	67.8			
Moisture, %	13.4	15.5	11.6	17.2			
Dry Density, pcf	113.2	110.9	109.7	106.8			



Maximum Dry Density, pcf 113.3

Optimum Moisture Content, % 13.3

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

Job No. 3145JB031

Lab/Invoice No. 31450185

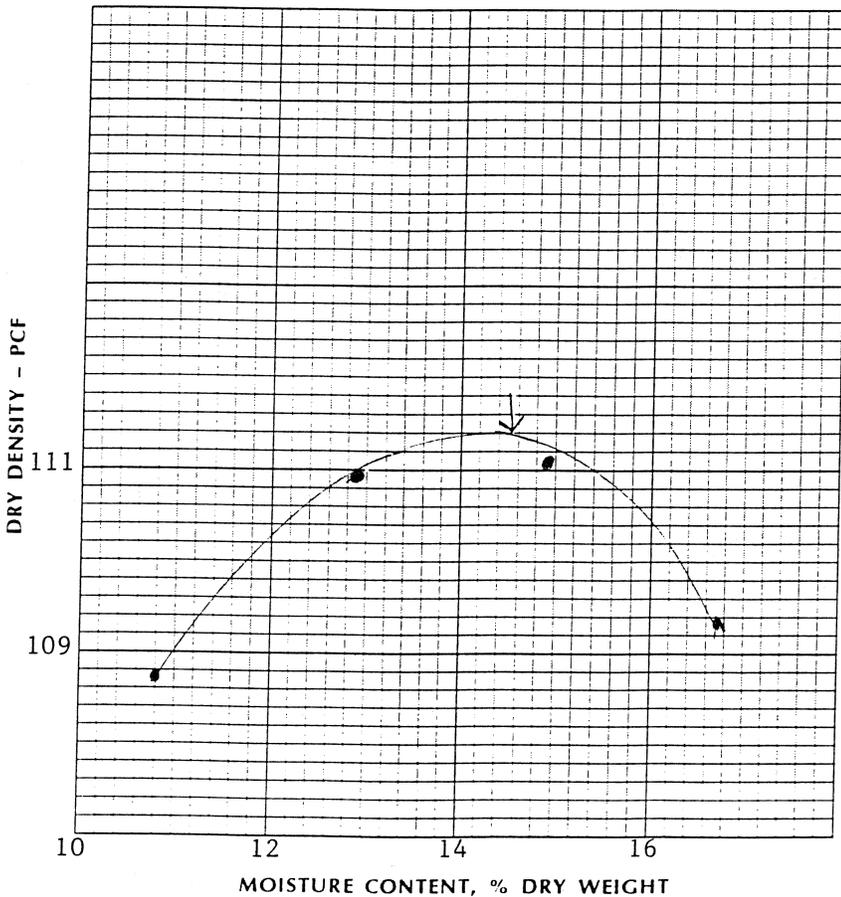
Type of Material Sandy Clay Sampled By C. Padilla/WT Date 07/10/

Source of Material R+5 (73780N & 60470E) Elev. 6981.2 Submitted By C. Padilla/WT Date 07/10/

Tested/Calc. By C. Padilla/WT Date 07/13/

Test Procedure ASTM D698A Reviewed By [Signature] Date _____

Trial No.	1	2	3	4	5	6	7
Water, Estimated %							
Water, cc	200	250	300	150			
Sample + Mold Weight, gms	6153.0	6196.0	6200.0	6078.0			
Mold Weight, gms	4262.0	4262.0	4262.0	4262.0			
Wet Sample Weight, gms	1891.0	1934.0	1938.0	1816.0			
Wet Sample Weight, lbs	4.169	4.264	4.272	4.004			
Wet Density, pcf	125.1	127.9	128.2	120.1			
Moisture Sample Wet, gms	271.5	297.1	320.0	333.6			
Moisture Sample Dry, gms	240.5	258.5	274.2	301.2			
Weight of Water, gms	31.0	38.6	45.8	32.4			
Moisture, %	12.9	14.9	16.7	10.8			
Dry Density, pcf	110.8	111.3	109.9	108.4			



Maximum Dry Density, pcf 111.4

Optimum Moisture Content, % 14.5

Diameter of Mold, in. 4"

Height of Mold, in. 4.584

No. of Layers 3

Blows Per Layer 25

Weight of Hammer, lbs 5.5

Height of Drop 12"

Material Used -#4

