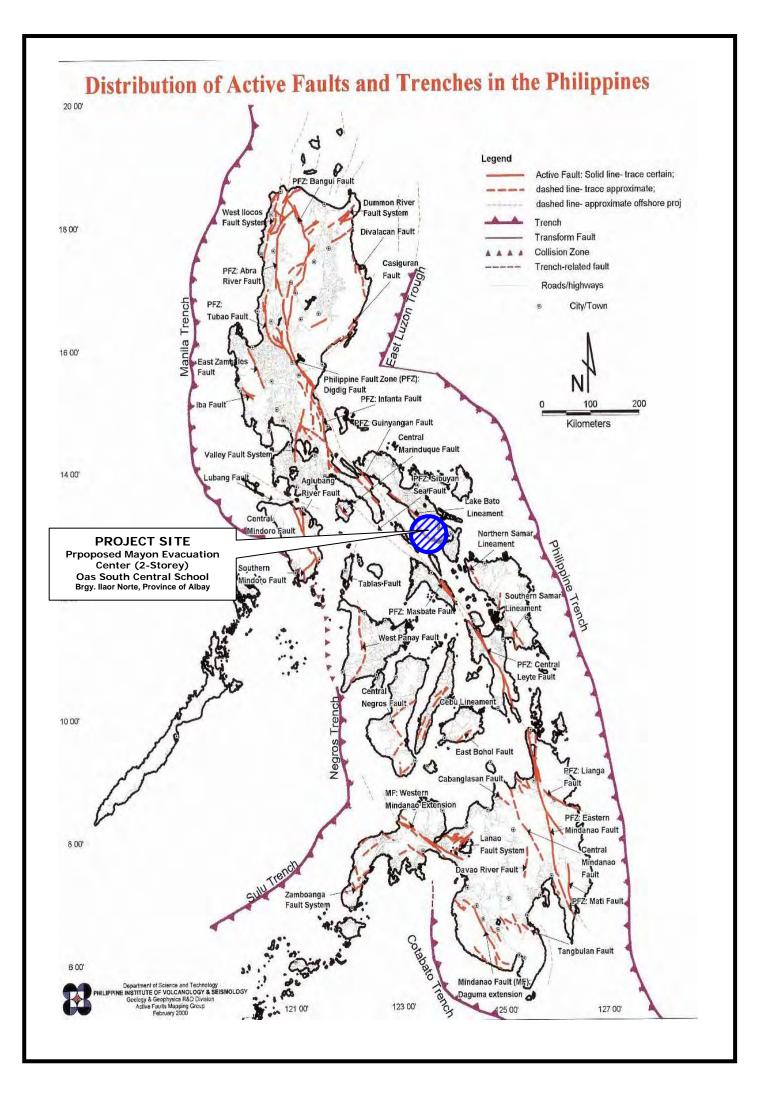
# **APPENDICES**









Proposed Mayon Evacuation Center (Oas Central School)
Brgy, Ilaor Norte, Province of Albay

308 NO. 2209-10.R1 SHEET NO. 1/1

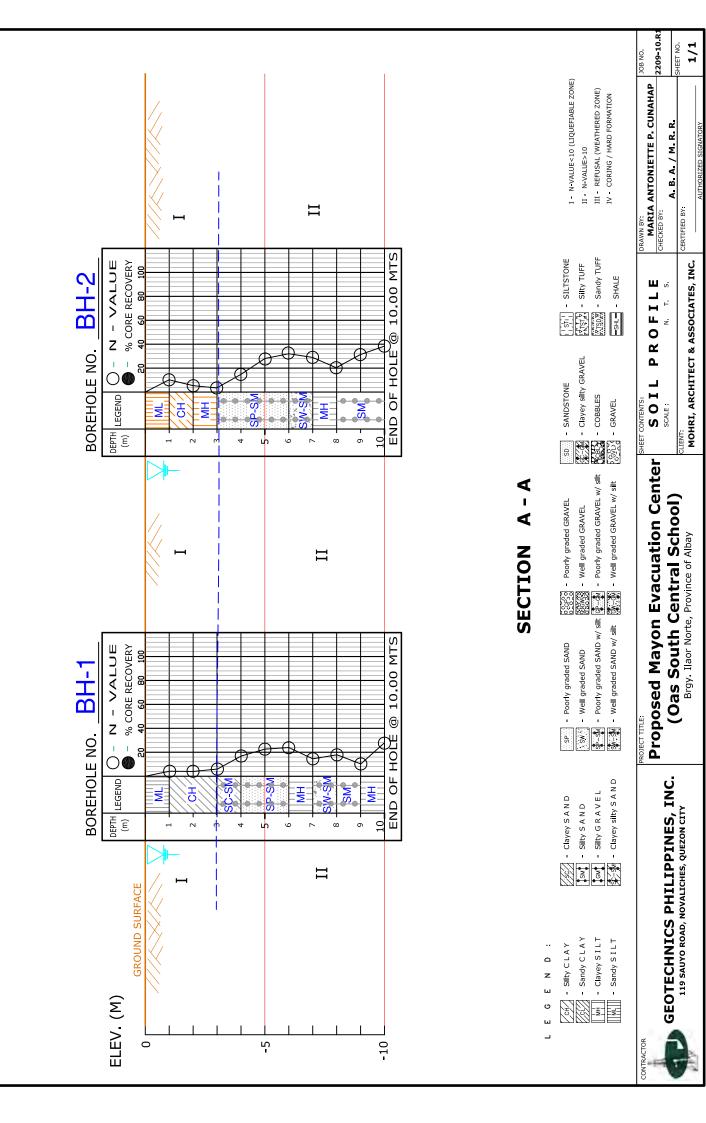
MOHRI, ARCHITECT & ASSOCIATES, INC.

**LOCATION PLAN/VICINITY MAP** 

SCALE NTS

GEOTECHNICS PHILIPPINES, INC. 119 SAUYO ROAD, NOVALICHES, QUEZON CITY

0





## GEOTECHNICS PHILIPPINES, INCORPORATED SOILS AND MATERIALS TESTING LABORATORY 119 SAUVO ROAD, NOVALICHES, QUEZON CITY



Symbol   Number   SAMPLING   CPD   (PG)   Pg   Pg   Pg   Pg   Pg   Pg   Pg   P	CT Proposed Mayon Evacuation Center (Oas South Central Sch			BOREHOLE NO. DI 4	
Proj.   Total   Province of Albay	Proposed Mayori Evacuation Center (Oas South Central Sch			DII- I	
Continue	Brgy. Ilaor Norte, Province of Albay			2209-10.R1-1 BL	-01
N. FULL   Section   Sect			R. POLIDAN	SHEET 1 of 1	
DATE CONVAINT   DATE CONVAIN	KSK SMALL				
## ADDITION OF PARTIES   SOLUTION OF PARTIES	Hammer Weight 63.50 Kg.		Oct. 18, 2010	- 111.	
FINAL BORING LOS    STATE   SOIL   SAMPLE   TYPE OF   REC			Oct. 18, 2010	0.75 111.	
SOL   SAMPLE   TYPE OF   REC   ROD   PL   AND   LL   PL   CONSISTENCY   THE OF   SAMPLING (M)   M   THE OF	WASH BORING	NORTHING	-	EASTING _	
STHEP   STHEW   SAMPLING   CIP)   CONSISTENCY   STORE RECOVERY   SOLD DESCRIPTION   CIP)   CONSISTENCY   CONSISTENCY   CONSISTENCY   CIP)   CONSISTENCY   CONSISTENCY   CONSISTENCY   CONSISTENCY   CIP)   CONSISTENCY   CONSIST	FINAL BO	RING LOG			
S-1	DI CONSISTEN			OIL DESCRIPTION	OTH TES
S-1   SPT   45   SPT	) SYMBOL NUMBER SAMPLING (Cm) (%) 20 40 60 80 100	0 20 40 60 8			DA
S-2   SPT   45   -	S-1 SPT 45 - 11	4	gray, moist	ILT with traces of gravel, dark	
S-3 SPT 45 -			graý, very mo	. 3	
S-4   SPT   45   -	2.00		11111 ` '	w sand	
S-5   SPT   45   NP   NP   24   STIFF   15   SINDAMO   SPRENTIAGE   SAND with silt, dark gray, moist NB: (8)(10)(13)   (SW-SM)   NB: (8)(10)(13)   (SW-SM)   NB: (8)(10)(13)   (SW-SM)   NB: (9)(11)(13)   (SW-SM)   NB: (9)(11)	3.00		moist	ey silty SAND, dark gray, very	
Section   Sect	4.00 MEDIUM DE	NSE	gray, moist		
S-7 SPT 45 - 20 STIFF 15 STIFF 28 SPT 45 - NP MEDIUM DENSE (SW-SM) Well graded SAND with silt and traces of gravel, dark gray, moist NB: (3)(5)(10)  S-8 SPT 45 - NP MEDIUM DENSE (SW-SM) Well graded SAND with silt and traces of gravel, dark gray, moist NB: (8)(9)(9)  S-9 SPT 40 - NP MEDIUM DENSE (SM) Silty SAND, fine to coarse grained with traces of gravel, dark gray, very moist NB: (9)(10)(18)  S-9 SPT 40 - VERY STIFF 28 SILT With little amount of sand and traces of gravel, dark gray, very moist NB: (9)(10)(18)  S-10 SPT 40 - VERY STIFF 28 CONSISTENCY (SM) SILTSTONE (SM	5.00 ND			3)	
S-8 SPT 45 - NP MEDIUM DENSE  8.00  S-8 SPT 45 - NP MEDIUM DENSE  8.00  S-9 SPT 40 - NP MEDIUM DENSE  8.00  S-9 SPT 40 - NP MEDIUM DENSE  10 SPT 40 - NP MEDIUM D	6.00		gray, very moi	ist	
S-9 SPT 40 - NP 10		18	traces of grave		
STANDARD PREFETATION TEST (SPT)  UNDISTURBED SAMPLING (CRG)  STAND AND  CORNING CORING (CRG)  SILT SAND  SILTSTONE  RESE Rec = Recovery in Centimeters  NB = No. of Blows HW = Hammer Weight  REST (SPT)  NB (MH) Elastic SILT with little amount of sand and traces of gravel, dark gray, very moist NB: (9)(10)(18)  END OF BORING AT 10.00 METERS  MOISTURE PERCENTAGE  COHESIVE SOILS  N-VALUE CONSISTENCY  N-VALUE CONSISTENCY  O - 2 - VERY SOFT  2 - 4 - SOFT  4 - 10 - LOOSE  10 - 30 - MOIST  11 - 25 - LITTLE  26 - 35 - SOME  36 - 45 - WITH  REFERENCE JOINT SAND  SILTSTONE  REFERENCE JOINT SAND  SILTSTONE  REFERENCE JOINT SAND  N-VALUE CONSISTENCY  N-VALUE CONSISTENCY  N-VALUE CONSISTENCY  10 - 30 - MEDIUM DENSE  30 - 70 - 100 - WET  26 - 35 - SOME  36 - 45 - WITH  Prepared by: R. T. LUSTRE  Checked by: A.B.A. / M.R.R.	S-9 SPT 40 -		traces of grave	, ,	
of Sampling  Type of Soil  CONSISTENCY  MOISTURE  PERCENTAGE  COHESIVE SOILS  Sity CLAY SITY Clayey SILT Clayey SILT Clayey SAND SITY SAND SO - 4 - VERY LOOSE 10 - 30 - MOIST RANGES VALUES  O - 10 - DRY O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 5 - TRACES O - 10 - DRY O - 10 - DRY O - 10 - DR	40	F 28	and traces of g	gravel, dark gray, very moist 8)	
SITANDARD PENETRATION TEST (SPT)  UNDISTURBED (UDS)  COHESIVE SOILS  N-VALUE  CONSISTENCY  UNDISTURBED (UDS)  SILY SAND  COHENSIONLESS SOILS  N-VALUE  CONSISTENCY  O - 2 - VERY SOFT  4 - 8 - FIRM  10 - 30 - MEDIUM DENSE  SILY SAND  CLayey silty SAND  CLayey silty SAND  SAND  SAND  SAND  SAND  SAND  SILTSTONE  A - 8 - FIRM  10 - 30 - MEDIUM DENSE  8 - 15 - STIFF  30 - 50 - DENSE  70 - 100 - WET  26 - 35 - SOME  15 - 30 - VERY STIFF  30 - VERY DENSE  70 - 100 - SATURATED  A - 45 - WITH  SAND  SAND  RKS: Rec = Recovery in Centimeters  NB = No. of Blows  HW = Hammer Weight  Prepared by: R. T. LUSTRE  Checked by: A.B.A. / M.R.R.	10.00			MOISTURE PERCENT	AGE
RKS: Rec = Recovery in Centimeters NB = No. of Blows HW = Hammer Weight  Reference Joint Spacing: #1 >30cm. 10 cm. >#3>3cm. #5 <1cm. Checked by: A.B.A. / M.R.R.	STANDARD PENETRATION TEST (SPT) UNDISTURBED SAMPLING (UDS)  Clayey SILT Clayey SAND Silty SAND Silty SAND Silty SAND CORING (CRG) Clayey silty SAND Silty GRAVEL Well graded GRAVEL Well graded GRAVEL 2 - 4 - SOF SILTSTONE 4 - 8 - FIRM 8 - 15 - STIF Clayey silty SAND TUFF 15 - 30 - VER'	COHENSIC   STENCY   N-VALUE     SOFT   0 - 4 - 4 - 10 - 10 - 30 - 50 - 50 - 51     STIFF   > 50 - 50 - 50 - 50 - 50 - 50 - 50 - 50	NULESS SOILS	War   War	GRA\ ALUES ACES V TLE ME
Reference Joint Spacing: #1 >30cm. 10 cm. >#3>3cm. #5 <1cm. Checked by A.B.A. / M.R.R.	SAND V.Y.Y. Tuffeceous SILTSTONE > 3U — HAR	,			
Reference Joint Spacing: #1 >30cm. 10 cm. >#3>3cm. #5 <1cm. Checked by: A.B.A. / M.R.R.	Rec = Recovery in Centimeters NB = No. of Blows H	V = Hammer We	eight	Prepared by : R. T. LUSTRE	
20 cm > #2> 10 cm 2 cm > #4> 1 cm Certified by :		cm. #5 <1c	cm.		i
30 CHI. > #2>10CHI. 3 CHI. > #4>1CHI.	30 cm.>#2>10cm. 3 cm. >#4>1	cm.		Certified by :	
RQD = Rock Quality Designation SCR = Solid Core Recovery Authorized Signatory				ALITHODIZED CICNA	
ription of Strata is according to Unified Soil Classification System  Date Issued:		/			UKI



## GEOTECHNICS PHILIPPINES, INCORPORATED SOILS AND MATERIALS TESTING LABORATORY



The content of the	IEN		M	OHR	I, ARC	HITECT 8	& ASS	OCI	ATE	S, 1	NC.												BOREHOLE NO.	BH- 2	
NSK SHALL	OJE		Pr	opos	sed Ma	yon Evac	cuatio	n Ce	ente	er (C	Das	Sou	uth C	entral Schoo									<sup>JOB NO.</sup> 22	09-10 R1-F	BL-02
Part		ION	Br	gy	Ilaor N	orte, Pro	vince	e of A	۹lba	ıy									R	. P	OLIDAN		SHEET	1 of 1	
### ##################################	3		KS	SK S	MALL										LOGGE	D			R	. P	OLIDAN			0 to 10.00 met	ers
NOXTHERE   SOLD   SAMPLE   STYLE OF   REC.   SQS   SLL   NMC   LL   FI   CONSISTENCY   SAMPLE   SAMP			Hai	mmei	r We <b>i</b> ght	63.50 Kg.									DATE S	STAF	RTE	)	0	ct.	. 19, 201	0	GROUND LEVEL	- m.	
STATE   SOLI   SAMPLE   TYPE OF   REC   SQD   PL   NNC   LL   DOL   DO			Fal	l Heig	ht 76.20	cm.									DATE	СОМ	IPLE	TED	0	ct.	. 19, 201	0	WATER LEVEL	0.71 m.	
Solid   SAMPLE   Type of   REC   RQQ   Rt   NMC   LL   Pt   CONSISTENCY   Solid   SECREPTION   SECREPTION   SECREPTION   SECREPTION   SOLID   SECREPTION   SECREPTION   SOLID   SECREPTION   SECREPTION   SECREPTION   SECREPTION   SECREPTION	THO	OD	W	ASH	BORIN	NG									NORTH	IING	3		-				EASTING	-	
S-1   SPT   45   12   STIFF   10   (ML) Sandy SILT with traces of gravel, grayish brown, moist   NB: (3)(4)(6)   (ML) Sandy SILT with few sand, grayish brown, very moist   NB: (2)(2)(3)   (ML) Sandy SILT with few sand, grayish brown, very moist   NB: (2)(2)(3)   (ML) Sandy SILT with few sand, grayish brown, very moist   NB: (2)(2)(3)   (ML) Sandy SILT with some sand, grayish brown, very moist   NB: (3)(3)(1)   (SP-SM) Poorly graded SAND with silt and traces of gravel, dark gray, moist   NB: (5)(6)(3)   (SP-SM) Poorly graded SAND with silt and traces of gravel, dark gray, moist   NB: (11)(13)(15)   (SP-SM)   NB: (11)(13)(15)   (SP-SM)   NB: (11)(13)(15)   (SP-SM)   NB: (11)(13)(15)   (SP-SM)   NB: (11)(14)(15)   (SP-SM)   NB: (11)													FI	NAL BOF	RINC	; L	_O	G							
SYMPOL NUMBER   SAMPLING (CM)   No.   No	DEP	ТН	S	OIL	SAMPLE	TYPE OF	REC	RQD	PL	. N	MC	LL	l nr	CONSISTENCY	. 0-	N -	- V A	A L U	J E			sc.	NI DESCRIPTION		ОТ
1.00	(m	1)	SYN	ивоL	NUMBER	SAMPLING	(cm)	(%)	20				1	CONSISTENCI	•					_ ^ I		30	DESCRIPTION		D/
2.00	-	-			C 1	CDT	45		$\setminus$				12	CTIEE	10	$\setminus$					grayish	brown,		of gravel,	
2.00		- - -																			very mo	oist	with few sand,	grayish brov	vn,
S-4 SPT 32 - NP MEDIUM DENSE 15 SPT 45 - NP MEDIUM DENSE 29 S-5 SPT 45 - NP MEDIUM DENSE 29 SPT 37 - NP MEDIUM DENSE 29 SPT 30 - NP MEDIUM DENSE 29 SPT 30 - NP DENSE 31 SPT 30 S		- - -						-			<b>*</b>										brown, v	very mo		and, grayish	
S-5 SPT 45 - NP DENSE 32 (SP-SM)moist NB: (12)(15)(17)  S-6 SPT 37 - NP DENSE 32 (SW-SM) Well graded SAND with silt and traces of gravel, dark gray, moist NB: (10)(14)(15)  S-7 SPT 40 - NP MEDIUM DENSE 29 (ML) Sandy SILT with traces of gravel, dark gray, moist NB: (10)(14)(15)  S-8 SPT 30 - NP DENSE 31 (SM) SIRT with traces of gravel, dark gray, wery moist NB: (7)(10)(10)  S-9 SPT 39 - NP DENSE 31 (SM) SIRT SAND, fine to coarse grained, dark gray, moist NB: (10)(14)(17)  (SM) SIRTY SAND, fine to coarse grained, dark gray, moist NB: (10)(14)(17)  (SM) NB: (17)(18)(20)  FINE AND OF BORING AT 10.00 METERS  COMSISTENCY MOISTURE PERCENTAL  COMESIVE SOILS N-VALUE CONSISTENCY MOISTURE PERCENTAL  CHAPT SIRTY	-	- - -			S-4	SPT	32	-					NP	MEDIUM DEN	15						traces o	f grave			
S-6 SPT 37 - NP DENSE 32	-	- - -	8 8 8 8	•	S-5	SPT	45	_					NP	IMEDION DEN		\ 							5)		
S-7 SPT 40 - NP MEDIUM DENSE 29 (ML) Sandy SILT with traces of gravel, dark gray, moist NB: (10)(14)(15)  S-8 SPT 30 - 17 VERY STIFF 20 (ML) Sandy SILT with traces of gravel, dark gray, very moist NB: (7)(10)(10)  S-8 SPT 30 - NP DENSE 31 (SM) Silty SAND, fine to coarse grained, dark gray, moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 (SM) NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 (SM) NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 (SM) NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 (SM) NB: (10)(14)(17)  S-10 SPT 41 - NP DEN	-	- 6.00 -	•		S-6	SPT	37	-					NP	DENSE	32						, ,				
S-8 SPT 30 - 17 VERY STIFF 20 (ML) Sandy SILT with traces of gravel, dark gray, very moist NB: (7)(10)(10)  S-8 SPT 30 - 17 VERY STIFF 20 (SM) Silty SAND, fine to coarse grained, dark gray, moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 39 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 41 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-9 SPT 41 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-10 SPT 41 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-10 SPT 41 - NP DENSE 31 SILT with traces of gravel, dark gray, very moist NB: (10)(14)(17)  S-10 SPT 41 - NP DENSE 31 SILT WITH GRAY BROWN NB: (10)(14)(17)  SILT WILL GRAY BROWN NB: (10)(14)(14)(17)  SILT WILL GR	-	- - - 7.00 -	4 0 0	0 0	S-7	SPT	40						NP	MEDIUM DEN:	SE 29						traces o	f grave	l, dark gray, m		
S-9 SPT 39 - NP DENSE 31 (SM) Silty SAND, fine to coarse grained, dark gray, moist NB: (10)(14)(17)  (SM) NB: (17)(18)(20)  S-10 SPT 41 - NP 38 END OF BORING AT 10.00 METERS  OF Sampling Type of Soil  SILTSTONE SILTSTONE  (SM) NB: (17)(18)(20)  END OF BORING AT 10.00 METERS  MOISTURE PERCENTAGE  RANGES VALUES  O - 10 - DRY  O - 5 - TRACE  O - 2 - VERY SOFT  O - 4 - VERY LOOSE  SILTSTONE  SILTSTONE  SILTSTONE  SILTSTONE  SILTSTONE  SILTSTONE  SILTSTONE  SILTSTONE  O - 10 - DRY  O - 10 - D	-	- - -			S-8	SPT	30	_					17	VERY STIFF	20						gray, ve	ry mois	st	f gravel, dar	k
STANDARD PENETRATION TEST (SPT)	-	- - -	•		S-9	SPT	39	-					NP	DENSE	31						gray, m	oist	•	e grained, da	ark
STANDARD PENETRATION TEST (SPT)  UNDISTURBED SAMPLING (UDS)  SIRty SAND  SIRty SAND  SIRty SAND  SIRty GRAVEL  SIN	-			•																	NB: (17)			O METERS	
SILTSTONE  Silty CLAY  Silty GRAVEL  Silty GRAVEL  COHESIVE SOILS  COHENSIONLESS SOILS  COHENSIONLESS SOILS  MOISTURE CONTENT  RANGES  VALUE  CONSISTENCY  RANGES  VALUES  RAN		of San	nnlin	•	2-10		_		Щ	ДЦ	Ш	Ш	INP		_	Ш эт	<u> </u>	Ϋ́	Ш	Ш					
CORING   MM   Clayey silty SAND   V V V   TUFF   15 - 30 - VERY STIFF   > 50 - VERY DENSE   > 100 - SATURATED   36 - 45 - WITH	Pe	ST. PEI TE UN SA (UI	ANDAI NETRA ST (SE IDISTU MPLIN DS)	RD ATION PT) JRBED	• • •	Silty CLAY Clayey SILT Clayey SAND Silty SAND		0000	Well g with s GRAV SILTS	raded ilt EL	GRAV	EL	0 2 4 8	COHESIVE SOI ALUE	LS STENCY SOFT	<u>CO</u> <u>N</u>	OHEI -VA 0 - 4 - 10 -	NSI LUE 4 10 30 50	_ <u>C(</u> _ V _ L _ M _ D	ONS /ERY .00S /IEDI	SISTENCY LOOSE SE IUM DENSE SE	MOIST RANGES 0 - 10 10 - 30 30 - 70 70 - 100	URE CONTENT  S VALUES  - DRY - MOIST - VERY MOIST D - WET	% of SAND a  RANGES  0 - 5 - 6 - 10 - 11 - 25 - 26 - 35 -	VALUE TRACES FEW LITTLE SOME
(CRG) SAND SAND Tuffeceous SILTSTONE > 30 - HARD	мач	(CI	RG)		De -	SAND	,	V V V V V V V V V V V V	Tuffed				>	30 — HARD									Donas and house		
Rec = Recovery in equalification (in a line) in a manner weight										N	в =	Νo											N.		
Reference sound spacing, #1 > sound.		кете	ren	ice J	oint Sp					1.0						7	# <b>5</b>	< T	crn				^	.в.а. / М.R	.к.
30 cm.>#2>10cm. 3 cm.>#4>1cm. Certified by:  RQD = Rock Quality Designation SCR = Solid Core Recovery					- ·																	———————————————————————————————————————	secured by .		



CLIENT MOHRI, ARCHITECT & ASSOCIATES, INC.	JOB NUMBER 2209-10.R1-SUM-1
PROJECT Proposed Mayon Evacuation Center (Oas South Central School)	DATE OF RECIEPT October 27, 2010
LOCATIONBrgy. Ilaor Norte, Province of Albay	DATE OF TEST Oct. 27-Nov. 2, 2010

#### **SUMMARY OF LABORATORY TESTS**

SAMPLE	DEPTH	NMC	ATTER	RBERG (%)	LIMIT,	USCS		SI	EVE AN	ALYSIS	(% FIN	IER) PAS	SSING S	SIEVE N	10.		Remarks
NUMBER	(m)	(%)	LL	PL	PI	Class.	1	3/4	3/8	4	10	20	40	60	140	200	
BH-1																	
1	0.55 - 1.00	28	44	33	11	ML			100	98	96	88	76	68	53	50	_
2	1.55 - 2.00	57	68	33	35	СН						100	99	98	96	95	-
3	2.55 - 3.00	55	65	32	33	СН				100	99	98	96	95	92	91	_
4	3.55 - 4.00	35	38	33	5	SC-SM				100	98	89	72	57	41	39	-
5	4.55 - 5.00	29	-	NP	-	SW-SM				100	95	77	51	31	12	10	_
6	5.55 - 6.00	27	-	NP	-	SW-SM				100	96	82	56	36	15	12	
7	6.55 - 7.00	47	52	32	20	MH				100	99	96	90	83	69	64	-
8	7.55 - 8.00	28	-	NP	-	SW-SM			100	99	93	65	34	23	14	12	_
9	8.55 - 9.00	32	-	NP	-	SM			100	96	87	67	45	32	20	17	-
10	9.55 - 10.00	48	59	32	27	MH	***************************************		100	97	95	93	92	89	85	82	_
BH-2																	
1	0.55 - 1.00	28	45	33	12	ML			100	98	94	85	73	64	52	50	-
2	1.55 - 2.00	56	65	32	33	СН					100	99	98	97	95	92	
3	2.55 - 3.00	49	54	32	22	MH				100	97	92	84	80	75	72	_
4	3.55 - 4.00	28	-	NP	-	SP-SM			100	96	89	76	54	30	12	10	-
5	4.55 - 5.00	23	-	NP	-	SP-SM			100	96	88	74	50	27	10	8	-
6	5.55 - 6.00	22	-	NP	-	SP-SM			100	99	92	77	52	26	8	6	-
7	6.55 - 7.00	24	-	NP	-	SW-SM		100	98	95	83	63	40	21	10	8	-
8	7.55 - 8.00	46	49	32	17	ML			100	95	89	82	73	65	56	54	-
9	8.55 - 9.00	29	-	NP	-	SM				100	99	89	65	45	25	21	_
10	9.55 - 10.00	29	-	NP	-	SM				100	99	86	60	36	19	16	_

													•				
										•							
MITTED BY																	
Clients	▼ (	GPI Fiel	ld Oper	ator							REMA	ARKS:		* wit	n hydr	omete	r
٧																	
IA ANTON	<u>IETTE F</u>	P. CUN	IAHAP										***************************************				
			e								CERTIF	IED BY:					ICNATODY
d														,	AU I HUI	VIZED 3	IONATURT
	PRINT-OUT  IA ANTON  E  by:	PRINT-OUT  IA ANTONIETTE I  Encoder  by: ABA / M	PRINT-OUT  IA ANTONIETTE P. CUM  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by:  ABA / MRR	Clients	Clients	Clients	Clients GPI Field Operator  REMARKS: * with  PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by: ABA / MRR  Cuality Assurance	Clients GPI Field Operator  REMARKS: * with hydr  PRINT-OUT  IA ANTONIETTE P. CUNAHAP  Encoder  by: ABA / MRR  Cuality Assurance	Clients







Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-NMC-01-1
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test October 27-28, 2010

## TEST REPORT FOR LABORATORY DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL & ROCK BY MASS ASTM D 2216 - 05

Test Method ☑ A ☐ B

BOREHOLE NO...BH-1

SAMPLE NUMBER	DEPTH (m)	WET SOIL DISH (g)	DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL (g)	WATER CONTENT (%)	REMARKS
				1	NATURAL M	OISTURE C	ONTENT	
1	0.55-1.00	99.00	79.40	19.60	9.67	69.73	28	
2	1.55-2.00	92.00	62.19	29.81	9.77	52.42	57	
3	2.55-3.00	113.54	76.74	36.80	9.79	66.95	55	
4	3.55-4.00	116.15	88.45	27.70	9.48	78.97	35	
5	4.55-5.00	96.80	77.09	19.71	9.64	67.45	29	
6	5.55-6.00	98.30	79.41	18.89	9.65	69.76	27	

## TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM Designation : D 4318 - 05, Method B

SAMPLE	DEPTH (m)	BLOWS	WET SOIL	DRY SOIL	WATER	DISH	DRY SOIL	% Retained	ATTERBE	RG LIMIT	REMARKS
NUMBER	DEFIN (III)	BLOWS	DISH (g)	DISH (g)	(g)	MASS (g)	(g)	on 0.425 mm	LL	PL	KLIWAKKS
					LIC	QUID LIMIT	-				
4	3.55-4.00	20	38.10	30.41	7.69	10.67	19.74		38		38
4	3.33-4.00	20	38.24	30.44	7.80	10.36	20.08		38		30
				,	PLA	STIC LIMIT	Γ				
4	3.55-4.00	Р	22.70	19.42	3.28	9.56	9.86			33	33
7	3.33-4.00	Р	22.74	19.48	3.26	9.55	9.93			33	33

Uncertainty Results:	Water Content (%) = $\pm$	0.0419 Liquid Limit =	± 0.0947 Plastic Lii	$mit = \pm 0.2042$
Note: The reported expande	ed uncertainty is based on a o	combined uncertainty by a cove	rage factor of k=2, providing	ng a level of confidence of
approximately 95%.				LAB.FILE NO.:NMC-10-504
SAMPLE SUBMITTED BY :		REMARKS:		
☐ Walk-in Clients ✓	GPI Field Operator	_		
R. POLIDAN		-		
COMPUTER PRINT-OUT		-		
By: MARIA ANTONIE	TTE P. CUNAHAP			
End	coder	TESTED BY :	ARTURO	Q. AQUINO
Data Checked by:	ABA/MRR		LABORATO	RY TECHNICIAN
	Quality Assurance			
	<b>y</b>	CERTIFIED BY :		
Date Issued:		-	AUTHORIZ	ED SIGNATORY

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LABORATO PNS ISO/IEC 17 LA-2006-0	7025:2005					LS TESTINO raliches, Qu		ORY		DPWH-E	BRS Accredited
Client	MOHRI, ARCH	ITECT &	ASSOCIA	TES. INC	_			Job Numbe	er	.2209-10.1	R1-NMC-01-2
	Proposed May					entral Sc	hool)			October 2	
_	Brgy. Ilaor Norte			(			,		•		27-28, 2010
	PORT FOR LAB		Y DETERN			-	ISTURE)	I.			<u>-</u>
				ASTM D		_					
BOREHOLE	E NOBH-1		Test	Method	✓ A	∐ В					
SAMPLE NUMBER	DEPTH (m)	WET SOIL DISH (g)	DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL (g)		CONTENT %)		REMARK	(S
				N	ΙΔΤΙΙΡΔΙ Μ	I Moisture (	ONTENT				
7	6.55-7.00	96.15	68.54	27.61	9.65	58.89	1	17			
8	7.55-8.00	106.10	85.25	20.85	9.59	75.66		28			
9	8.55-9.00	114.70	89.43	25.27	9.56	79.87		32			
10	9.55-10.00	89.02	63.15	25.87	9.49	53.66		18			
10	7.33-10.00	69.02	03.13	25.67	9.49	55.00		10			
	TEST REPOR	T FOR L		-					INDEX	OF SOIL	S
			ASTM	Designat	tion : D 4	318 - 05	, Method	В			
SAMPLE	DEPTH (m)	BLOWS		DRY SOIL	WATER	DISH	DRY SOIL	% Retained	ATTERBE	RG LIMIT	REMARKS
NUMBER	DEF III (III)	BLOWS	DISH (g)	DISH (g)	(g)	MASS (g)	(g)	on 0.425 mm	LL	PL	KLWAKKS
					LIC	QUID LIMIT	-				
					PL <i>F</i>	ASTIC LIMIT	Γ			1	
Uncertainty I	Results:	Water Con	tent (%) =	$\pm~0.0395$	Liq	juid Limit =		Plas	stic Limit =		
Note: The re	eported expanded ι	uncertainty	is based on	a combine	d uncertain	ity by a cov	erage facto	r of k=2, p	roviding a l	evel of conf	idence of
approximate	ly 95%.									LAB.FILE NO	O.:NMC-10-504
SAMPLE SUB	BMITTED BY :					REMARKS:					
☐ Walk-in (		PI Field Op	erator								
R. POLIDAN	_	•									
	DDINT OUT			-							
COMPUTER I	PRINT-OUT MARIA ANTONIETT	E P. CUNAH	AP								

Encoder

Data Checked by:
ABA/MRR
Quality Assurance

Date Issued: \_\_\_\_

TESTED BY : ARTURO Q. AQUINO

LABORATORY TECHNICIAN

AUTHORIZED SIGNATORY

CERTIFIED BY :







LABORATI PNS ISO/IEC 17 LA-2006-0	ORY 7025:2005					LS TESTINO valiches, Qu		ORY		DPWH-F	BRS Accredited
	MOHRI, ARCI	HITECT &	ASSOCIA	TES INC	:			Ioh Numbe	or		R1-NMC-02-1
	Proposed Ma					entral Sc	hool)			October 2	
1 -	.Brgy. Ilaor Nor	•		(			,		•		27-28, 2010
	PORT FOR LAI	BORATOR		MINATIO ASTM D Method	2216 - 0	-	ISTURE)	CONTEN	T OF SOI	L & ROCI	K BY MASS
SAMPLE NUMBER	DEPTH (m)	WET SOIL DISH (g)	DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL (g)		CONTENT %)		REMARK	<b>(</b> S
	II.			ſ	NATURAL M	MOISTURE C	CONTENT				
1	0.55-1.00	124.50	99.58	24.92	9.47	90.11	2	28			
2	1.55-2.00	99.08	66.99	32.09	9.63	57.36	Ę	56			
3	2.55-3.00	110.10	77.16	32.94	10.16	67.00	4	19			
4	3.55-4.00	101.60	81.62	19.98	9.63	71.99	2	28			
5	4.55-5.00	101.50	84.16	17.34	9.81	74.35	2	23			
6	5.55-6.00	108.60	91.03	17.57	9.94	81.09	2	22			
SAMPLE NUMBER	DEPTH (m)	BLOWS		DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL	% Retained on 0.425	ATTERBE LL	ERG LIMIT	REMARKS
								mm	LL	PL	
					LIC	QUID LIMIT	-				
	1		ı	T	PL <i>F</i>	ASTIC LIMIT	Γ	ı	T	1	
approximate	eported expanded ely 95%. BMITTED BY :					uid Limit = nty by a cov REMARKS:	erage facto		_	evel of conf	fidence of O.:NMC-10-50
R. POLIDAN				-			-				
COMPUTER	PRINT-OUT										

By: MARIA ANTONIETTE P. CUNAHAP Encoder

Data Checked by:
ABA/MRR
Quality Assurance

Date Issued:

TESTED BY : ARTURO Q. AQUINO

CERTIFIED BY :

LABORATORY TECHNICIAN

AUTHORIZED SIGNATORY







LABORATO PNS ISO/IEC 17 LA-2006-0	025:2005					LS TESTINO aliches, Qu		ORY		DPWH-E	BRS Accredited
Client	MOHRI, ARCH	ITFCT &	ASSOCIA	TES. INC				Job Numbe		2209-10 I	R1-NMC-02-2
	Proposed May					entral Sc	hool)			October 2	
_	Brgy. Ilaor Norte						,		•		7-28, 2010
		.,									0, _0
TEST RE	PORT FOR LAB	ORATOR	Y DETERI	OITANIN	N OF WA	TER (MO	ISTURE)	CONTEN	T OF SOI	L & ROCI	C BY MASS
				ASTM D		_					
BOREHOLE	NOBH-2		Test	t Method	✓ A	∐ В	ı		I		
SAMPLE		WET SOIL	DRY SOIL	WATER	DISH	DRY SOIL	WATER (	CONTENT		5511151	-
NUMBER	DEPTH (m)	DISH (g)	DISH (g)	(g)	MASS (g)	(g)		%)		REMARK	.S
-	/ FF 7.00	11110	02.05	1		OA 11	1				
7	6.55-7.00	114.10	93.85	20.25	9.74	84.11		24			
8	7.55-8.00	94.10	67.59	26.51	9.65	57.94		16			
9	8.55-9.00	114.60	91.14	23.46	9.75	81.39		29			
10	9.55-10.00	117.30	93.25	24.05	9.72	83.53	2	29			
	TEST REPOR	T EOD I	IOHIDI	IMIT DI	ASTIC	I INALT A		STICITY	INDEV	OE SOU	c
	IESI KEPUK	TOKL		Designat					INDEX	OF SOIL	3
			ASTIVI	Designa	tion : D 4	3 18 - 05	, wethou	Б			
								%	ATTERRE	DC LIMIT	
SAMPLE	DEPTH (m)	BLOWS		DRY SOIL	WATER	DISH	DRY SOIL	Retained	ATTERBE	ERG LIMIT	REMARKS
NUMBER	DEI 111 (III)	BLOWS	DISH (g)	DISH (g)	(g)	MASS (g)	(g)	on 0.425	LL	PL	TLEND HATO
					1.14		-	mm			
					LIC	QUID LIMIT					
	T	T	T	T	PLA	ASTIC LIMIT	Γ	I	I	T	
Uncertainty I	Results:	Water Con	tent (%) =	+ 0.0363	Lin	uid Limit =		Plas	stic Limit =		
	ported expanded i										idence of
approximate		y	20000 011			,, u 00v	490 14010	2, p			D.:NMC-10-50
						DEMARKS				LAD.FILE N	JINIVIC-1U-5U
	BMITTED BY :	יחו ביסוד כיי	orotor			REMARKS:					
Walk-in	CHELLIZ 🔽 G	iPI Field Op	erator								
R. POLIDAN				-							
COMPUTER I	PRINT-OUT IARIA ANTONIETT	E P. CUNAH	AP								

Encoder

Data Checked by:
ABA/MRR
Quality Assurance

Date Issued: \_\_\_\_

TESTED BY : ARTURO Q. AQUINO

LABORATORY TECHNICIAN

AUTHORIZED SIGNATORY

CERTIFIED BY :





ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-AL-01-1
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	October 29-30, 2010

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	0.55-1.00			SOIL DESCRIPTION				
SAMPLE NO	S-1	USCS CLASS ML						Sandy SILT				
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		48 <sub>T</sub>					$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	~	47 -					
DISH NUMBER	A33	A8	A80	B30	B76	%	46 -	\				
WET SOIL + DISH (g)	32.70	35.42	38.22	22.67	22.70	Content	45 -		\_			
DRY SOIL + DISH (g)	25.87	27.44	29.07	19.44	19.46	Con			🔨			
WATER (g)	6.83	7.98	9.15	3.23	3.24	nre	44 -		\			
DISH MASS (g)	9.60	9.70	9.80	9.57	9.58	Moist	43 -		\			
DRY SOIL (g)	16.27	17.74	19.27	9.87	9.88	Š	42 -					
MOISTURE CONTENT	41.98	44.98	47.48	32.73	32.79		41					Щ
NUMBER OF BLOWS	31	22	15	3	3		1	0	No.	of Blows		100
% RETAINED ON 0.425	5mm				23.85		LL =	44	PL =	33	PI =	11

BOREHOLE NO	BH-1		DEPTH (m)1.55-2.00				S	OIL DESC	CRIPTION		
SAMPLE NO	S-2		USCS CLASS CH				Fa	at CLAY			
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		73 <sub>T</sub>				$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	(	72 -	<b>\</b>	•		
DISH NUMBER	B62	В7	B86	C5	C97	t (%)	71 -				
WET SOIL + DISH (g)	32.47	35.22	38.49	22.64	22.66	iten	70 -				
DRY SOIL + DISH (g)	23.38	24.79	26.46	19.34	19.35	Con	69 -				
WATER (g)	9.09	10.43	12.03	3.30	3.31	ture	68 -		🗙		
DISH MASS (g)	9.62	9.68	9.76	9.31	9.32	Moist	67 -				
DRY SOIL (g)	13.76	15.11	16.70	10.03	10.03	2	66 -				
MOISTURE CONTENT	66.06	69.03	72.04	32.90	33.00		65 +				
NUMBER OF BLOWS	32	22	16	3	3		10	)	No. of Blows		100
% RETAINED ON 0.425	5mm				0.95		LL =	68	PL = 33	PI =	35

Uncertainty Results: I	Liquid Limit = $\pm$ 0.1222	Plastic Limit = $\pm 0.2037$
II	Liquid Limit = $\pm$ 0.1445	Plastic Limit = $\pm 0.2005$
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-653
SAMPLE SUBMITTED BY :	REMARKS:	
<b>☐</b> Walk-in Clients		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Data Checked by: ABA / MRR  Quality Assurance		
edulity 755drunos	CERTIFIED BY :	
Date Issued:		AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-AL-01-2
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test October 29-30, 2010

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	2.55-3.00		5	SOIL DESCR	RIPTION			
SAMPLE NO	S-3		USCS CLASS ML				5	Sandy SILT				
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		69 <sub>—</sub>					$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	~	68 -	•				
DISH NUMBER	A100	A90	A12	B2	B51	%	67 -	`				
WET SOIL + DISH (g)	32.28	35.18	37.94	22.69	22.72	Content	66 -					
DRY SOIL + DISH (g)	23.51	25.05	26.52	19.50	19.50	Con						
WATER (g)	8.77	10.13	11.42	3.19	3.22	nre	65 -		X			
DISH MASS (g)	9.60	9.71	9.85	9.49	9.51	Moist	64 -					
DRY SOIL (g)	13.91	15.34	16.67	10.01	9.99	Š	63 -					
MOISTURE CONTENT	63.05	66.04	68.51	31.87	32.23		62					Ш
NUMBER OF BLOWS	31	22	15	3	2		10	)	No. o	of Blows		100
% RETAINED ON 0.425	5mm				4.20		LL =	65	PL =	32	PI =	33

BOREHOLE NO	BH-1		DEPTH (m) 6.55-7.00				S	OIL DES	CRIPTION		
SAMPLE NO	S-7		USCS CLASS MH				El	lastic SIL	Т		
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		56 <sub>T</sub>				
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	55 -	``			
DISH NUMBER	A29	A16	A21	C54	C92	t (%)	54 -	,			
WET SOIL + DISH (g)	32.67	35.38	38.24	22.69	22.73	ntent	53				
DRY SOIL + DISH (g)	25.00	26.55	28.16	19.51	19.53	S	52 -		•		
WATER (g)	7.67	8.83	10.08	3.18	3.20	ture			🗙		
DISH MASS (g)	9.65	9.75	9.85	9.52	9.56	Moist	51 -				
DRY SOIL (g)	15.35	16.80	18.31	9.99	9.97	2	50 -				
MOISTURE CONTENT	49.97	52.56	55.05	31.83	32.10		49 +				
NUMBER OF BLOWS	31	22	15	3	2		10	)	No. of Blo	ows	100
% RETAINED ON 0.425	5mm				10.44		LL =	52	PL = 32	PI =	= 20

Uncertainty Results: I	Liquid Limit = $\pm 0.1424$	Plastic Limit = $\pm 0.2003$
II	Liquid Limit = $\pm$ 0.1293	Plastic Limit = $\pm$ 0.2007
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-654
SAMPLE SUBMITTED BY :	REMARKS:	
<b>Walk-in Clients GPI Field Operator GPI Field Operator</b>		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Data Checked by: ABA / MRR  Quality Assurance		
Zudiny 753aranoo	CERTIFIED BY :	
Date Issued:	_	AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-AL-01-3
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test October 29-30, 2010

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	9.55-10.00		S	SOIL DESCR	IPTION		
SAMPLE NO	S-10		USCS CLASS MH				E	Elastic SILT			
MOISTURE CONTENT		IQUID LIMI		PLASTI			63 <sub>T</sub>				$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	<u></u>	62	_			
DISH NUMBER	B100	B66	B39	D68	D41	t (%)	61 -		$\setminus$		
WET SOIL + DISH (g)	32.46	35.24	37.98	22.78	22.69	ontent	60 -				
DRY SOIL + DISH (g)	24.17	25.65	27.14	19.62	19.50	Con					
WATER (g)	8.29	9.59	10.84	3.16	3.19	ure	59 -		🗙		
DISH MASS (g)	9.62	9.68	9.81	9.64	9.55	Moist	58 -				
DRY SOIL (g)	14.55	15.97	17.33	9.98	9.95	Š	57 -		•		
MOISTURE CONTENT	56.98	60.05	62.55	31.66	32.06		56				Щ
NUMBER OF BLOWS	31	21	16	3	2		10		No. of Blows		100
% RETAINED ON 0.425	5mm				8.50		LL =	59	PL = 32	PI =	27

BOREHOLE NO		DEPTH (m)				SOIL DESCRIE	PTION		
SAMPLE NO		USCS CLA	SS						
MOISTURE CONTENT	LIQUID LII	MIT	PLASTI	C LIMIT	2				
<u>DETERMINATION</u>	TRIAL 1 TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	~				
DISH NUMBER					(%)				
WET SOIL + DISH (g)					Content 1				
DRY SOIL + DISH (g)					ල් 1	-			
WATER (g)					ture				
DISH MASS (g)					Moistu				
DRY SOIL (g)					2				
MOISTURE CONTENT					0	10			<del></del>
NUMBER OF BLOWS						10	No. of Blows	i	100
% RETAINED ON 0.425	5mm				LL :	=	PL =	PI =	

Liquid Limit = + 0.1363	Plastic Limit = ± 0.2008
Liquid Limit =	Plastic Limit =
d on a combined uncertainty by a coverage	factor of k=2, providing a level of confidence
	LAB.FILE NO.:AL-10-654
REMARKS:	
TESTED BY :	ARTURO Q. AQUINO
	LABORATORY TECHNICIAN
CERTIFIED BY :	
	AUTHORIZED SIGNATORY
	REMARKS: TESTED BY :

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Final Report Form - 2 Rev.5/ Dec.2009





Rev.5/ Dec.2009

Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-AL-02-1
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test Oct. 30-Nov. 2, 2010

## TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

Method : A ☑ Wet Preparation ☐ Dry Preparation

BOREHOLE NO	BH-2		DEPTH (m)	)	0.55-1.00		(	SOIL DESCRIF	TION			
SAMPLE NO	S-1		USCS CLAS	S	ML			Sandy SILT				
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		49 <sub>T</sub>					$\overline{}$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	48 -	•				
DISH NUMBER	C55	C26	C99	D49	D33	%	47 -					
WET SOIL + DISH (g)	32.77	35.44	38.28	22.69	22.70	Content	46 -	`	\_			
DRY SOIL + DISH (g)	25.81	27.32	29.04	19.44	19.42	Con						
WATER (g)	6.96	8.12	9.24	3.25	3.28	ure	45 -		<b>X</b>			
DISH MASS (g)	9.63	9.68	9.80	9.49	9.46	Moistu	44 -		\			
DRY SOIL (g)	16.18	17.64	19.24	9.95	9.96	Š	43 -					
MOISTURE CONTENT	43.02	46.03	48.02	32.66	32.93		42					Ш
NUMBER OF BLOWS	31	22	15	3	3		10	)	No.	of Blows		100
% RETAINED ON 0.425	5mm				27.01		LL =	45	PL =	33	PI =	12

BOREHOLE NO <b>BH-2</b> DEPTH (m)							S	OIL DESC	CRIPTION		
SAMPLE NO S-2 USCS CLASS							Fa	at CLAY			
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		69 <sub>T</sub>				$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	68 -				
DISH NUMBER	D52	D31	D37	C95	C69	t (%)	67				
WET SOIL + DISH (g)	32.49	35.27	38.19	22.64	22.66	ntent	66		<b>\</b>		
DRY SOIL + DISH (g)	23.65	25.12	26.66	19.45	19.46	S	65 -				
WATER (g)	8.84	10.15	11.53	3.19	3.20	ture			*		
DISH MASS (g)	9.62	9.74	9.84	9.42	9.45	Moistu	64 -				
DRY SOIL (g)	14.03	15.38	16.82	10.03	10.01	2	63 -				
MOISTURE CONTENT	63.01	65.99	68.55	31.80	31.97		62 +				
NUMBER OF BLOWS	31	22	15	3	2		10	)	No. of Blows		100
% RETAINED ON 0.425	5mm				1.67		LL =	65	PL = 32	PI =	33

Uncertainty Results: I	Liquid Limit = $\pm$ 0.1229	Plastic Limit = $\pm 0.2020$
II	Liquid Limit = $\pm$ 0.1412	Plastic Limit = $\pm$ 0.1999
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-655
SAMPLE SUBMITTED BY :	REMARKS:	
☐ Walk-in Clients ☐ GPI Field Operator		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR	_	LABORATORY TECHNICIAN
Data Checked by: ABA / MRR  Quality Assurance	_	
Taamy 7 lood and	CERTIFIED BY :	
Date Issued:	_	AUTHORIZED SIGNATORY

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Client MOHRI & PA ASSOCIATES, INC.	Job Number2209-10-AL-02-2
Project Proposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test Oct. 30-Nov. 2, 2010

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BOREHOLE NO <b>BH-2</b> DEPTH (m)							SOIL DESC	RIPTION			
SAMPLE NO	S-3		USCS CLAS	S	MH		E	Elastic SIL	Γ			
MOISTURE CONTENT	L	IQUID LIMI	T	PLASTI	C LIMIT		58 <sub>+</sub>					$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	•	57 -	•				
DISH NUMBER	C33	C71	C38	D5	D38	t (%)	56 -					
WET SOIL + DISH (g)	33.10	35.48	38.28	22.67	22.70	tent	55 -					
DRY SOIL + DISH (g)	25.08	26.34	27.92	19.43	19.47	Cont						
WATER (g)	8.02	9.14	10.36	3.24	3.23	ure	54 -		*			
DISH MASS (g)	9.65	9.72	9.90	9.45	9.47	Moistu	53 -		\	$\langle \   \ $		
DRY SOIL (g)	15.43	16.62	18.02	9.98	10.00	Ž	52 -					
MOISTURE CONTENT	51.98	54.99	57.49	32.46	32.30		51 -					Щ
NUMBER OF BLOWS	31	22	15	3	2		10	)	No.	of Blows	i	100
% RETAINED ON 0.425	īmm				15.64		LL =	54	PL =	32	PI =	22

BOREHOLE NO <b>BH-2</b> DEPTH (m)							S	OIL DESC	RIPTION			
SAMPLE NO S-8 USCS CLASS ML							S	andy SILT	-			
MOISTURE CONTENT	L	IQUID LIMI	T	PLASTI	C LIMIT		53 <sub>T</sub>					$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	52 -	•				
DISH NUMBER	D72	D51	D42	C87	C45	t (%)	51 -					
WET SOIL + DISH (g)	33.08	35.27	37.98	22.71	22.74	ntent	50					
DRY SOIL + DISH (g)	25.57	26.74	28.28	19.53	19.54	S	49 -					
WATER (g)	7.51	8.53	9.70	3.18	3.20	ture			*			
DISH MASS (g)	9.61	9.70	9.80	9.58	9.56	Moist	48 -					
DRY SOIL (g)	15.96	17.04	18.48	9.95	9.98	2	47 -			•		
MOISTURE CONTENT	47.06	50.06	52.49	31.96	32.06		46 +					
NUMBER OF BLOWS	32	21	15	3	2		10	)	No. o	f Blows		100
% RETAINED ON 0.42	5mm				26.65		LL =	49	PL =	32	PI =	17

Uncertainty Results: I	Liquid Limit = ± 0.1287	Plastic Limit = ± 0.2013
II	Liquid Limit = $\pm$ 0.1250	Plastic Limit = $\pm$ 0.2016
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-656
SAMPLE SUBMITTED BY :	REMARKS:	
☐ Walk-in Clients		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance	_	
j	CERTIFIED BY :	
Date Issued:	_	AUTHORIZED SIGNATORY

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Final Report Form - 2 Rev.5/ Dec.2009







ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-GSA-01-1
ProjectProposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	. October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	. October 28, 2010

## TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

			Α	STM D 42	22 - 63 (Re-a	pproved 20	07)			
	PLE NO )		<b>O</b> <u>1</u> 0.55-1.00			□ <u>2</u> 1.55-2.00			<u>∆</u> <u>3</u> 2.55-3.00	
SOIL DESC	CRIPTION		Sandy SILT			Fat CLAY			Fat CLAY	
SIEV	E SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
inches	<u>mm</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0									
3/8	9.5			100						
4	4.75	1.54	2.21	98				0.10	0.15	100
10	2.0	3.08	4.42	96				0.43	0.64	99
20	8.0	8.45	12.12	88	0.12	0.23	100	1.54	2.30	98
40	0.425	16.63	23.85	76	0.50	0.95	99	2.81	4.20	96
60	0.25	22.62	32.44	68	1.02	1.95	98	3.54	5.29	95
140	0.105	32.43	46.51	53	2.08	3.97	96	5.18	7.74	92
200	0.075	34.67	49.72	50	2.80	5.34	95	6.27	9.37	91
OVEN D	RIED MASS	****** *****	69.73 gms	·	F-1125 (1225)	52.42 gms			66.95 gms	
100 +	3" 2 1/2" 2" 1 1/2	3/8	4	#10	#20	#60	HYDROMETER			
100		:  :	P	<del>-</del> 6	<u> </u>		<u> </u>			
90 -	+ + + + + + + + + + + + + + + + + + + +		1	$\rightarrow$		1 1	<del>-     4</del>		++++	
80 -			i i		d					
70										
g g						o l				
Percent Passing	11:11:1:	1 1	+++++++++++++++++++++++++++++++++++++++		<del>                                      </del>					
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30 -										
20										
	11818118									
10 -			<del>                                      </del>		<del>                                      </del>	: : : : : : : : : : : : : : : : : : : :				
ا ٥						:   :  :				
10	COARS	E FINE 10	COARS	SE MED	IUM   1 Particle Siz	FINE re (mm) 0.1		0.01		0.00
COBBLES		GRAVEL			SAND	20 (11111)		FINES (SILT	OR CLAY)	0.00
- with	Hydrometer		·			REMARKS				
AMPLE SU	JBMITTED BY:									
☐ Walk-in	Clients 🔽	GPI Field Oper	ator							
- Polidai		·								
				_		TESTED BY :		ARTURO Q	AOUINO	
	PRINT-OUT	ANIETTE D. CU	NIVITAD			. 20120 01 .		LABORATORY		
By:		ONIETTE P. CU Encoder	IVALIAE					LIBORATORT	LOUINICIAN	
		LITCOUCI				OFDITIES SY				
Data Ched	cked by:	ABA/MRR				CERTIFIED BY	·		CIONATORY	
		Quality Assu	irance	Harris I. I.	D H	0/ 5:	0.0440	AUTHORIZED		004 40 11
				Uncertaint	=	% Finer =			LAB.FILE NO.:	
Date Issu	ed:							n a combined ι	uncertainty by	a covera
					=2, providing a				arioor tairity by	u covoru

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ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	. 2209-10.R1-GSA-01-2
ProjectProposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	October 28, 2010

## TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

	PLE NO		O <u>4</u> 3.55-4.00			□ <u>5</u> 4.55-5.00			<u>∆</u> <u>6</u> 5.55-6.00	
	CRIPTION	Cla	yey silty SAND		Well	graded SAND with si	lt	We	ell graded SAND v	vith silt
SIEV	'E SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Ma		
<u>inches</u>	<u>mm</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (	(g) <u>Retained</u>	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0									
3/8	9.5									
4	4.75			100	0.26	0.39	100	0.27	0.39	100
10	2.0	1.57	1.99	98	3.27	4.85	95	2.56	3.67	96
20	8.0	8.99	11.38	89	15.29	22.67	77	12.67	18.16	82
40	0.425	22.18	28.09	72	33.22	49.25	51	30.65	43.94	56
60	0.25	34.09	43.17	57	46.28	68.61	31	44.94	64.42	36
140	0.105	46.47	58.85	41	59.30	87.92	12	59.15	84.79	15
200	0.075	48.33	61.20	39	60.78	90.11	10	61.72	88.47	12
OVEN D	RIED MASS		78.97 gms	(222)	F0005 F0005	67.45 gms	,		69.76 gms	
100 +	3" 21/2" 2" 11/2	3/8	#	#10	#20	#140	201	HYDRO	METER	1
100 -										
90 -					<b>\</b>	1 1 1				
80 -										
70 -	<del>                                     </del>				H: N 9					
ng co					:					
Percent Passing		1 1				Q :::				
50 -										
Sen					:   : \					
j 40 -	<del>                                     </del>		<del>                                     </del>		<del>  :     :  \</del>	V 940				
						<b>Y</b>				
30 -										
20 -		1 1	1		<del>                                      </del>	<del>:     :</del>				
							.			
10 -		: : :								
0	COARS		COARS	E MED		FINE III				
10 COBBLES	00	10 GRAVEL	0071110		1 Particle Si SAND			0.0 FINES (SI	1 ILT OR CLAY)	0.001
* - with	Hydrometer					REMARKS :	S-5:	Cu = 6	5.00 Cc	= 1.19
SAMPLE SU	JBMITTED BY						S-6:	Cu = 6	5.52 Cc	= 1.24
☐ Walk-ir	n Clients 🔽	GPI Field Operation	ator							
R. POLIDAI	N			_						
COMPUTER	PRINT-OUT					TESTED BY:		ARTUR	O Q. AQUINO	
Ву:	MARIA ANTO	ONIETTE P. CUI Encoder	NAHAP					LABORATO	ORY TECHNICI	AN
Dots Ch.	akad bu					CERTIFIED BY :				
Data Ched	.кеи <i>Dy:</i>	ABA/MRR Quality Assu	rance					AUTHORIZ	ZED SIGNATOF	RY
		eadily Assu	. 31100	Uncertaint	y Results:	% Finer =	± 0.0490		LAB.FILE N	IO.:GSA-10-406
Date Issue	red:					nded uncertainty				by a coverage
				factor of k	=2, providing a	level of confiden	ice of appro	ximately 95%	%.	

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ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-GSA-01-3
ProjectProposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	October 28, 2010

## TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

			A	STM D 42	22 - 63 (Re-a <sub>l</sub>	proved 20	07)			
BH / SAMPLI		<u>BH-1</u>	<u>o</u> <u>7</u>			<u>8</u>			<u> </u>	
DEPTH (m)			6.55-7.00			7.55-8.00			8.55-9.00	
	RIPTION		Elastic SILT		Well gra	aded SAND with s	silt		Silty SAND	
SIEVE	SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
<u>inches</u>	<u>mm</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0						100			100
3/8	9.5			100	0.40	0.53	100 99	2.14	3.96	100 96
4 10	4.75 2.0	0.34	0.58	100 99	0.40 4.94	6.53	99 93	3.16 10.36	3.96 12.97	96 87
20	0.8	2.25	3.82	99 96	26.37	6.53 34.85	93 65	26.31	32.94	67
40	0.425	6.15	10.44	90	50.13	66.26	34	44.29	55.45	45
60	0.425	10.07	17.10	83	58.49	77.31	23	53.95	67.55	32
140	0.105	18.14	30.80	69	64.80	85.65	14	64.26	80.46	20
200	0.075	21.16	35.93	64	66.21	87.51	12	66.56	83.34	17
OVEN DRI			58.89 gms			75.66 gms			79.87 gms	
	3" 2 1/2" 2" 1 1/2	3/4	n m	#10			#200	HYDROM		
100							#			
			<del>                                </del>	Ţ	<u>                                    </u>					
90 +				X						
80										
70 ++	<del>                                      </del>				No.					
ig 60					I I XXI I I I I	:				
ass						:   :  :				
Percent Passing		: : :	+ + + + + + + + + + + + + + + + + + + +							
ē 10										
ĕ 40 ₩										
30 🕌										
20 +										
10 📙						1,44				
0 1	COARSI	ll	COARS	E MED	IUM	INE				
100 COBBLES		10			1 Particle Size	(mm) 0.1		0.01	OD OLAVA	0.001
		GRAVEL			SAND	DEMARKS	C 7	FINES (SILT		0.7
-	ydrometer					REMARKS :	S-7:	Cu = 10.79	Cc =	2.67
	MITTED BY:									
	Clients 🔽	GPI Field Ope	rator							
R. POLIDAN				=						
OMPUTER P	PRINT-OUT				7	ESTED BY :		ARTURO C	. AQUINO	
<i>By:</i> N	MARIA ANTO	NIETTE P. CU	NAHAP					LABORATORY	TECHNICIAN	
	I	Encoder								
D / G/ :		40.00			C	ERTIFIED BY :				
Data Check	ed by:	ABA/MRR Quality Assu						AUTHORIZED	SIGNATORY	
			ironco							

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factor of k=2, providing a level of confidence of approximately 95%.



SIEVE SIZE

<u>mm</u>

62.5

inches

2 1/2

Cumm.Mass

Retained (q)

Cumm.%

Retained





Percent Finer

21200000		DI WII BILO MOGICALO
ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	. 2209-10.R1-GSA-01-4
ProjectProposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	October 28, 2010
TEST REPORT FOR GRAIN SIZE ANA	ALYSIS	
ASTM D 422 - 63 (Re-approved 20)	07)	

Cumm.Mass

Retained (g)

Cumm.%

Retained

Percent

<u>Finer</u>

Cumm.Mass

Retained (q)

Cumm.%

Retained

#### BH / SAMPLE NO..... <u>BH-1</u> <u>010</u>

Δ DEPTH (m)..... 9.55-10.00 SOIL DESCRIPTION..... Elastic SILT

Percent

<u>Finer</u>

2 1/2	02.5												
2	50.0												
1 1/2	37.5												
1	25.0												
3/4	19.0												
3/8	9.5			100									
4	4.75	1.60	2.98	97									
10	2.0	2.65	4.94	95									
20	0.8	3.59	6.69	93									
40	0.425	4.56	8.50	92									
60	0.25	5.83	10.86	89									
140	0.105	7.98	14.87	85									
200	0.075	9.80	18.26	82									
OVEN D	DRIED MASS		53.66 gms										
	72	3/4	3/8	#10	#20	#40		#140					
100	3" 21/2" 2" 11/2		m #	#	兼	# 1		# #	HYD	ROM	E I	E K	
100			Ÿ P	<del></del>									
90	<del>                                     </del>	1 1			<u> </u>					-	$+\!\!+\!\!$	++	 
80	<del>                                      </del>		<del>-::</del>		11:11			:			+	+	
70													
is 60 ·											+	+	 
ass		1 1		1									
Percent Passing	<del>                                     </del>	1 1			<del>-          </del>	+ + +		<del>                                     </del>			+	+	 _
e 40 ·													
ā 40 ·													
30		1 1	-:			- : :					Щ.	$\bot\bot$	
20	<del>                                     </del>	1 1	1 1	+ + +		++++		-			++	++	 _
40													
10		1 : :						: : : : : : : : : : : : : : : : : : : :			$\top$		
0		1 1 1											
	COARS	bE   FI	INE CO	ARSE MED		۱ article Size	INE (mm) (	0.1		0.01			0.0
COBBLE	Š	GRAVEL			SAND		()	]	FINES	(SILT	OR C	LAY)	٥.,

0 —	COARSE	FINE	COARSE	MEDIUM	FINE			
100		10		1	Particle Size (mm)	0.1	0.01	0.001
COBBLES	GRA	VEL		SAI	ND O		FINES ( SILT OR CLAY)	
* - with Hy	drometer				REM	ARKS :		
SAMPLE SUBM								
☐ Walk-in Cl	ients 🔽 GPI	Field Operator				•		
R. POLIDAN						•		
COMPUTER PR	RINT-OUT				TESTED	BY:	ARTURO Q. AQUINO	
<i>By:</i> M	ARIA ANTONIE	TTE P. CUNAHA	Р				LABORATORY TECHNICIAN	
	Enco	der						

CERTIFIED BY : \_\_\_ Data Checked by: ABA/MRR AUTHORIZED SIGNATORY **Quality Assurance** Uncertainty Results: % Finer =  $\pm 0.0466$ LAB.FILE NO.:GSA-10-406 Note: The reported expanded uncertainty is based on a combined uncertainty by a coverage Date Issued: factor of k=2, providing a level of confidence of approximately 95%.

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ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	. 2209-10.R1-GSA-02-1
ProjectProposed Mayon Evacuation Center (Oas South Central School)	Date of Receipt	October 27, 2010
Location Brgy. Ilaor Norte, Province of Albay	Date of Test	October 28, 2010

#### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

EPTH (m)	LE NO ) CRIPTION		O <u>1</u> 0.55-1.00 Sandy SILT			□ <u>2</u> 1.55-2.00 Fat CLAY			∆ <u>3</u> 2.55-3.00 Elastic SILT	
	E SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
<u>inches</u>	<u>mm</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0									
3/8	9.5			100						
4	4.75	1.60	1.78	98				0.10	0.15	100
10	2.0	5.15	5.72	94			100	1.75	2.61	97
20	0.8	13.30	14.76	85	0.47	0.82	99	5.65	8.43	92
40	0.425	24.34	27.01	73	0.96	1.67	98	10.48	15.64	84
60	0.25	32.89	36.50	64	1.80	3.14	97	13.31	19.87	80
140	0.105	43.40	48.16	52	3.10	5.40	95	16.50	24.63	75
200	0.075	45.33	50.31	50	4.60	8.02	92	18.48	27.58	72
	RIED MASS		90.11 gms			57.36 gms			67.00 gms	
100 90 80 70 60 50 30 20 10			1 1 1 1 1 1 1				7002#	HYDROM		
0 10		10	COARSI	,	1 Particle Siz	FINE ze (mm) 0.1		0.01	00.01.00	0.00
COBBLES	 Hydrometer	GRAVEL			SAND	REMARKS :		FINES (SILT	OK CLAY)	

SAMPLE SUBMITTED BY: R. POLIDAN ARTURO Q. AQUINO TESTED BY: COMPUTER PRINT-OUT LABORATORY TECHNICIAN By: MARIA ANTONIETTE P. CUNAHAP Encoder CERTIFIED BY : \_\_ Data Checked by: \_\_\_\_\_ ABA/MRR AUTHORIZED SIGNATORY Quality Assurance LAB.FILE NO.:GSA-10-407 Uncertainty Results: % Finer =  $\pm 0.0430$ Note: The reported expanded uncertainty is based on a combined uncertainty by a coverage Date Issued: \_

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Final Report Form - 3&4 Rev.6 / Dec. 2009

factor of k=2, providing a level of confidence of approximately 95%.



Date Issued:





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	1/2 62.5									
	2 50.0									
1	1/2 37.5									
	1 25.0									
3	/4 19.0									
	/8 9.5			100			100			100
	4 4.75	3.02	4.20	96	3.13	4.21	96	1.02	1.26	99
	10 2.0 20 0.8	7.64 16.96	10.61 23.56	89 76	9.03 19.48	12.15 26.20	88 74	6.20 19.02	7.65 23.46	92 77
	10 0.425	33.32	46.28	76 54	37.44	50.36	50	39.20	48.34	52
	0.425	50.14	69.65	30	54.24	72.95	27	59.90	73.87	26
	40 0.105	63.60	88.35	12	66.95	90.05	10	74.78	92.22	8
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	alk-in Clients	GPI Field Opera	ator				S-6:	Cu = 4.39	Cc =	1.19
R. PO	LIDAN			_						
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Ву:_	MARIA ANT	ONIETTE P. CUI	NAHAP					LABORATORY	TECHNICIAN	I
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Uncertainty Results:

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% Finer =  $\pm 0.0460$ 

factor of k=2, providing a level of confidence of approximately 95%.

Note: The reported expanded uncertainty is based on a combined uncertainty by a coverage

LAB.FILE NO.:GSA-10-407



Date Issued:



#### GEOTECHNICS PHILIPPINES, INC.

SOILS AND MATERIALS TESTING LABORATORY 119 Sauyo Road, Novaliches, Quezon City



### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

			A:	STM D 42	22 - 63 (Re-ap	proved 200	)7)			
BH / SAMPL	E NO	<u>BH-2</u>	<u> </u>			<u>8</u>			<u> </u>	
DEPTH (m).			6.55-7.00			7.55-8.00			8.55-9.00	
SOIL DESCR			aded SAND with	silt		Sandy SILT			Silty SAND	
SIEVE	SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass		Percent
inches	<u>mm</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0			100						
3/8	9.5	1.64	1.95	98			100			
4	4.75	4.42	5.26	95	3.10	5.35	95			100
10	2.0	14.24	16.93	83	6.55	11.30	89	1.10	1.35	99
20	0.8	31.06	36.93	63	10.34	17.85	82	9.20	11.30	89
40	0.425	50.76	60.35	40	15.44	26.65	73	28.76	35.34	65
60	0.25	66.36	78.90	21	20.14	34.76	65	44.80	55.04	45
140	0.105	75.95	90.30	10	25.25	43.58	56	60.85	74.76	25
200	0.075	77.24	91.83	8	26.84	46.32	54	64.02	78.66	21
OVEN DR	IED MASS		84.11 gms			7.94 gms			81.39 gms	
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Note: The reported expanded uncertainty is based on a combined uncertainty by a coverage

factor of k=2, providing a level of confidence of approximately 95%.







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	1)		9.55-10.00					_							_		
	CRIPTION		Silty SAND		1												
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2	50.0																
1 1/2	37.5																
1	25.0																
3/4	19.0																
3/8 4	9.5 4.75			100													
10	2.0	1.18	1.41	99													
20	8.0	11.41	13.66	86													
40	0.425	33.76	40.42	60													
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200	0.075	70.10	83.92	16													
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Final Report Form - 3&4 Rev.6 / Dec. 2009

factor of k=2, providing a level of confidence of approximately 95%.

#### **FINAL REPORT**

# PROPOSED MAYON EVACUATION CENTER (2-STOREY)

MANITO CENTRAL SCHOOL BRGY.MANITO, PROVINCE OF ALBAY

MOHRI, ARCHITECT & ASSOCIATES, INC.

OCTOBER 2010 JOB NO. 2209-10.R1





#### **FINAL REPORT**

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119 Sauyo Road, Novaliches Quezon City, Philippines

Business development Customer Service

9382124/9353730

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#### FINAL REPORT

#### SUB-SURFACE INVESTIGATION FOR THE PROPOSED MAYON EVACUATION CENTER (2-STOREY) LOCATED AT MANITO CENTRAL SCHOOL, BRGY. MANITO, PROVINCE OF ALBAY

#### 1.0 INTRODUCTION

Geotechnics Philippines, Incorporated (GPI) completed the subsurface soil investigation for the proposed Mayon Evacuation Center. The proposed site explored is located at Manito Central School, Brgy. Manito, Province of Albay.

Two (2) boreholes were drilled at the proposed site from October 23 to October 24, 2010. Borings were undertaken down to 8.45m and 8.00 m respectively for both BH-1 and BH-2 below existing natural ground line. Borehole locations are as indicated on the accompanying Boring Plan and Soil Profile Sheets.

The subsurface soil exploration was undertaken upon the request of Mohri, Architect & Associates, Inc. in order to gain information on the subsurface conditions and bearing characteristics of the underlying soils at site.

The undersigned was tasked to evaluate the results of the completed subsurface soil exploration and to recommend a suitable foundation solution for the proposed structure.

This report embodies the undersigned's engineering analysis and recommendations based mainly on the results of the geotechnical soil borings and pertinent laboratory tests performed on extracted samples.

The results of geotechnical soil borings and laboratory tests can be referred to in the Attachments accompanying this report.

#### 2.0 OBJECTIVES

The geotechnical investigation aims to determine the following:

- · Soil Profile
- Engineering properties of the Soil Strata
- Bearing Capacities and Foundation Types
- Settlement conditions of critical areas
- Comment on ground stability and liquefaction potential of the site
- Recommend ground improvement when necessary
- Provide Excavation and Fill Guidelines

In addition to the above mentioned items, matters on implementation and construction shall be given as required.

#### 3.0 FIELD EXPLORATION AND INVESTIGATION

The field exploration implored continuous was boring as the Standard Penetration Test (SPT) was performed at the last 45cm of every change strata or 1.0 meter intervals. The blow counts (N value or NB) were recorded as disturbed samples from the split spoon sampler were retrieved for laboratory testing. The recovered samples were described semi qualitative in terms of extracted length. The extracted soil samples were wrapped in double plastiv bags for moisture and sample protection and were transported to the laboratory for further testing of engineering properties.

Advancing through the hard strata, the same technique was implored. Hard strata are defined over a series of high blow count layers of more than 50 blows or the inability of driving the hammer to penetrate at high blow counts termed as refusal.

#### 3.1 Standard Penetration Test

The Standard Penetration Test (SPT) is a field test used in determining the shear strength of soils from an established correlation. The SPT requires the count of the number of blows that it would take a standard split spoon sampler to penetrate its last 30.5cm (12inches) of the sampler. The standard mass is 63.5 kilograms and the height of the drop is 76.2cm specified as a free drop.

#### 3.2 Hard Strata and Soft Strata Sampling

Hard strata are defined as a consecutive ground resistance of refusal to the standard penetration test of blow counts of 50 with a penetration less than or equal to 25.4mm. This is in accordance to the American Standard for Testing Materials (ASTM) Designated D 1586. Coring techniques were not conducted in the investigation. Sampling of undisturbed samples for soft cohesive soils was not conducted via pressing the sampler.

#### 3.3 Ground Water Table

The ground water table (GWT) elevation was observed at least 4 hours from the completion of the borehole up to demobilization.

#### 4.0 LABORATORY INVESTIGATION

The retrieved samples were brought to the laboratory in Sauyo Road, Novaliches, Quezon City. Various tests were conducted on all extracted samples with test procedures conforming to the American Standards for Testing Materials (ASTM). The following are the laboratory tests conducted on the soil samples.

Type of Test	ASTM Designation	Description of Test
Soil Classification for Engineering Purposes – Unified Soil Classification System	ASTM D 2487-05	Standard in classifying the type of soil based on composition and physical properties     These were classified in accordance to grain size, composition, percentage of size in the distribution

Particle Size Distribution – Sieve Analysis	ASTM D 422-63 (Reapproved 2002)	<ul> <li>The test allows the dried or wet soil to pass through a series of sieves in order to determine the distribution of grain sizes.</li> <li>The distributions of the particles are graphed on a semi log scale</li> <li>This test aids the previous test in classification</li> </ul>
Moisture Content	ASTM D 2216-05	<ul> <li>The test aims to determine the natural content of water in the soil</li> <li>This is taken as the ratio of water to the ratio of the soil particles</li> <li>The test uses a weighing scale measuring the initial weight of the soil and the final weight of the soil after drying it in the oven</li> </ul>
Atterberg Limits Liquid Limit, Plastic Limit and Plasticity Index	ASTM D4318-05	<ul> <li>Tests determining the limits of cohesive soils in behaving as a plastic or a flowing medium by incrementally changing the water content</li> <li>The plastic limit is determined by rolling a clay sample to around 1/8 of an inch or 3mm</li> <li>The liquid limit uses the liquid limit device and determines the number of blows it would take for the slit to close</li> <li>Correlative values can be used for settlement relations</li> </ul>

The results of the laboratory investigation are appended.

#### 5.0 BOREHOLE STATIGRAPHY

Two (2) boreholes were driven to investigate the subsurface. The following are the findings:

#### 5.1 Borehole BH-1

Borehole BH-1 extends 8.45 meters obtaining the following stratification: Very stiff elastic silt with sand at 0-2 meters, very dense clayey silty sand at 2-2.7 meters, very dense gravel to cobbles at 2.7-3.2 meters, dense clayey sand at 3.2-3.65 meters, very stiff elastic silt at 3.65-4.65 meters, very stiff fat clay at 4.65-5.65 meters, medium very dense poorly graded sand at 5.65-6.35 meters, very dense gravel to cobbles at 6.35-8.45 meters, the extent of the borehole.

The ground water was detected at 3.0 meters from the existing grade.

#### 5.2 Borehole BH-2

Borehole BH-2 extends 8 meters obtaining the following subsurface stratification: Hard fat clay with few sand at 0-2 meter, hard elastic silt at 2-7 meters, hard gravel to cobble at 7-8 meters, the extent of the borehole.

The ground water table was detected at 3.0 meters from the existing grade.

#### 6.0 SOIL PROPERTIES

The following are the adapted soil properties for the investigated strata:

Soil Parameters			
Gravels, Sands, Silty S	Sands and Clayey Sand	is (No	n-cohesive)
Sands	c	φ	y (kcf)
Very Loose	0	26	0.085
Loose	0	28	0.100
Medium Dense	0	30	0.110
Dense	.0	32	0.120
Very Dense	0	35	0,130
Silts and Clays	and Clays (Cohesive)	φ	γ (kcf)
Very Soft		0	0.100
Soft		0	0.105
Firm	=(N*10)/2 from	0	0.115
Stiff	Braja Das	0	0.120
	2,352,233	0	0.125
Very Stiff		-24	1117 E.M. Market

#### 7.0 LIQUEFACTION POTENTIAL

The two (2) boreholes showed no potential for liquefaction due to dense and stiff layer underneath.

#### 8.0 BEARING CAPACITY AND FOUNDATION TYPE

Shallow Foundations have good bearing capacities. The following are the allowable net bearing capacities based on Terzaghi's Bearing Capacity Equation:

BH-1

Depth	Bearing Capacity (kPa)
0.5	144
1.0	192

#### BH-2:

Depth	Bearing Capacity (kPa)
0.5	144
1.0	192

The associated settlement on the other hand is within the tolerable engineering settlement of 25mm. Although the soil bearing capacity is competent, the structural tie beam proved to be efficient during major earthquake.

#### 9.0 EXCAVATION AND FILL

Fill for the excavation for footings may utilize the same materials. On the other hand, grade and subgrade materials should be sandy frictional materials.

Fill should be compacted at 95% its maximum dry density. Should the amount of soil be inept, sandy fill may be utilized and should be compacted in the same degree.

#### Borehole Conclusions and Recommendations

The conclusions and recommendations are based on the data of two (2) boreholes and the geologic map. Deviations from these are expected and should be minimal as the boreholes are typical of an alluvial formation. Should there be any major deviation in the substrata be detected during the excavation phase, may the undersigned through Geotechnics Philippines Inc (02-930-6555) be approached immediately for proper reassessment.

DIOSDADO A. UREÑA

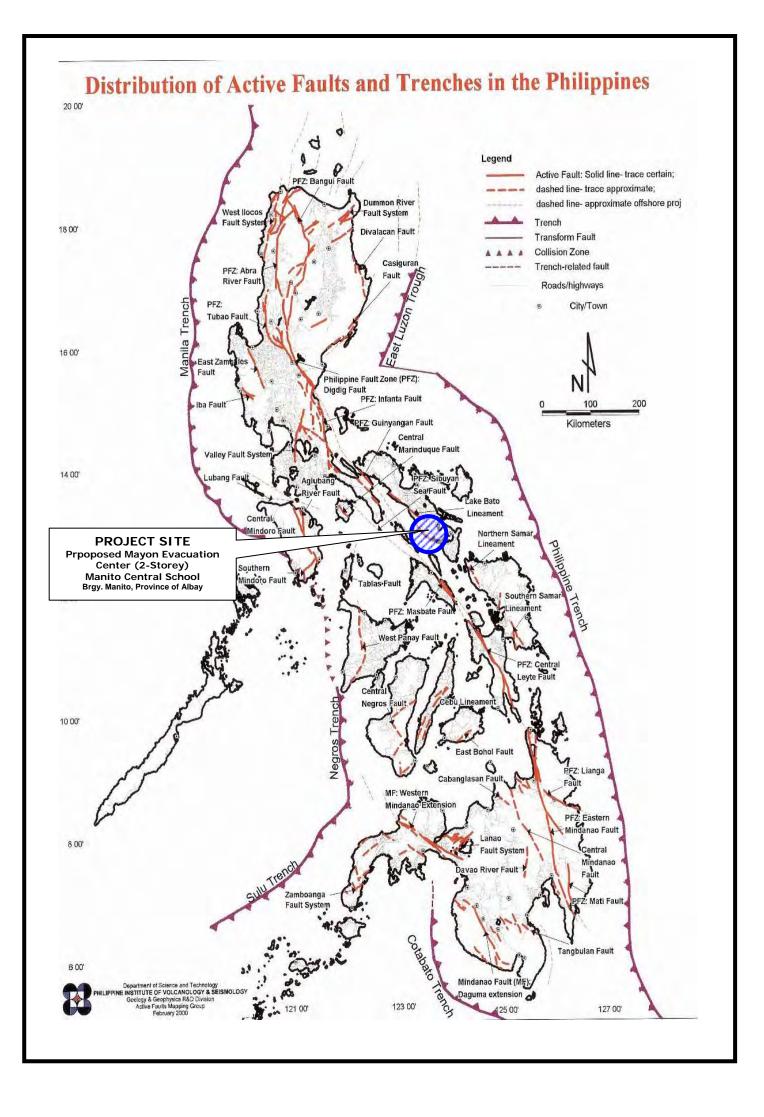
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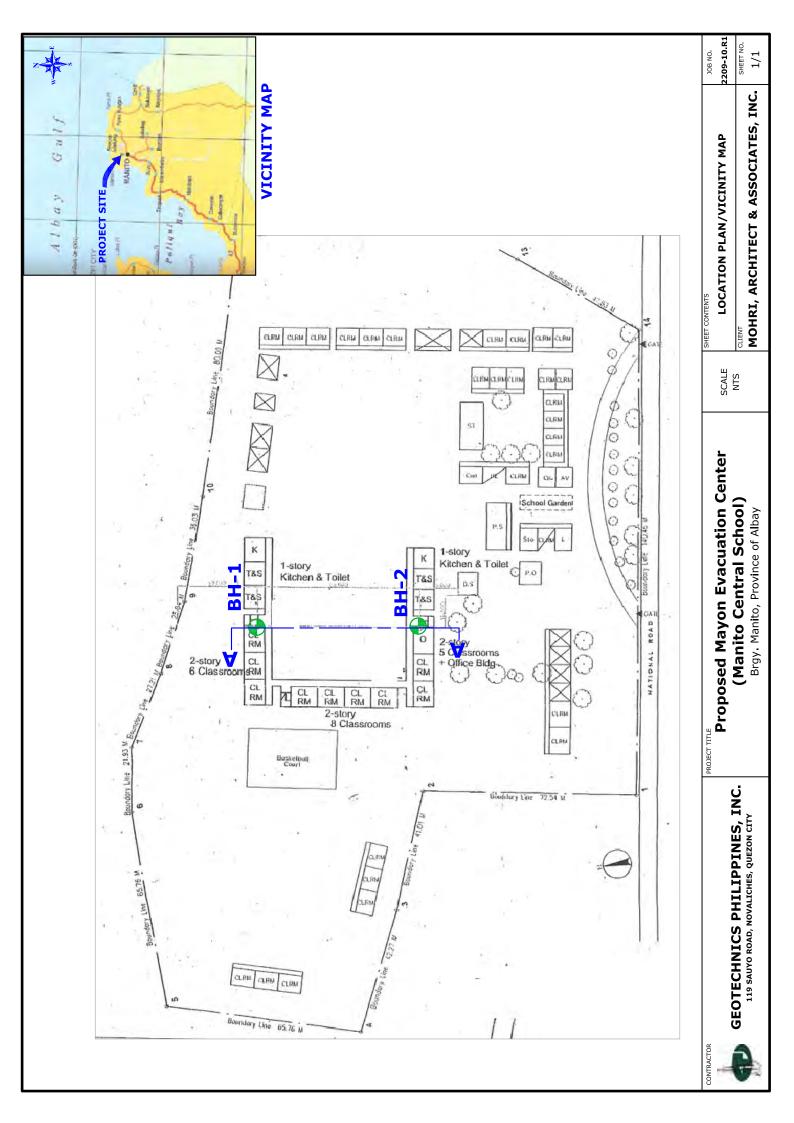
Issued on January 8, 2010

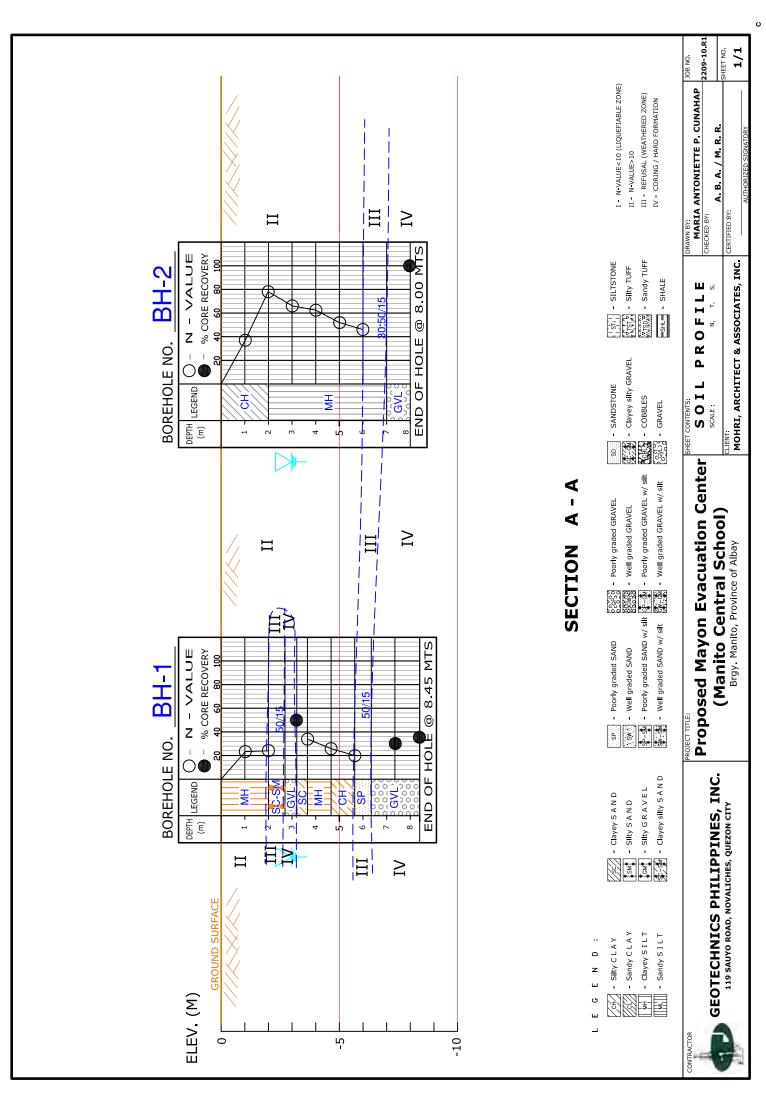
Issued at Quezon City

# **APPENDICES**











## GEOTECHNICS PHILIPPINES, INCORPORATED SOILS AND MATERIALS TESTING LABORATORY 119 SAUVO ROAD, NOVALICHES, QUEZON CITY



					P	II V					119 SAUYO R TEL. NO. 93									DPWH-BR	S Accredited			
CLIENT	MOHR	MOHRI, ARCHITECT & ASSOCIATES, INC.														BOREHOLE NO. BH- 1								
PROJECT	Proposed Mayon Evacuation Center (Manito Central School)																		JOB NO. 2209-10.R1-FBL-01					
LOCATION	brgy. Mariito, Province of Albay										DRILLED R. POLIDAN							SHEET 1 of 1						
RIG	KSK SMALL									LOGGE				ı	R. F	POLIDAN	0.00 to 8.45 meters							
Hammer Weight 63.50 Kg.									DATE S					Oct	. 23, 2010	GROUND LEVEL	- m.							
	Fall Height 76.20 cm.											DATE COMPLETED Oct. 23, 2010							) WATER LEVEL 3.00 m.					
METHOD	ETHOD WASH BORING								NORTH	IING			-	-		-								
										FI	NAL BOR	INC	) L	0.	G									
DEPTH	SOIL SAMPLE TYPE OF REC RQD PL NMC LL PI CC											CY O - N - V A L U E  - % Core Recovery						S		OTHER TEST				
(m)	SYMBOL	NUMBER	SAMPLING	(cm)	(%)	20	40	60 8	100	_			0 20	9 40	60	80	100				DATA			
	- - - - - - - -	S-1	SPT	45	<u>-</u>		•	-		31	VERY STIFF	23						(MH) Elastic S grayish browr NB: (10)(10)( (MH)with fe	13)	nount of sand,				
		S-2	SPT	45	_					26		24						NB: (9)(10)(1						
- 2.00 -		S-3	SPT	15							VERY DENSE			5	50/1	15		Clayey silty Sobrown, moist NB: (50/15)	•					
₹ 3.00 -		C-1	CRG	25	0					_		50			•			fragments, rang						
		S-4	SPT	45	-	Ш	<b>41</b>		$\parallel$	8	DENSE	34		H	$\parallel$	$\parallel$								
- 4.00 -	1																	NB: (12)(15)( (MH) Elastic S	(12)(15)(19) ) Elastic SILT with some sand and traces					
- · · · · · · · · · · · · · · · · · · ·		S-5	SPT	40	-	Ш	╣	•	$\parallel$	24	VERY STIFF	26	$\Box$	$\phi$	$\parallel$			NB: (18)(15)(	of gravel, light brown, very moist NB: (18)(15)(11) (CH) Fat CLAY with few sand, light brown,					
		S-6	SPT	40	_					33		20						very moist NB: (13)(10)(	,					
- 6.00 -		S-7	CRG	15	_		I	•		NP	VERY DENSE				50/:	15		(SP) Poorly gr brown, moist NB: (50/15)	NB: (50/15)  GRAVEL to COBBLES, Ahigh strength, andesitic rock fragments, ranges: 2.3cm-5.0cm with iron exide and silt on rough surfaces, brown to dark					
- 7.00 -		C-2	CRG	30	0		Φ			_		30						rock fragments						
- 8.00 -																		core ranges:						
		C-3	CRG	35	0	Ш				-		35		•	$\parallel$			END OF E						
9.00 -	-																							
Type of Sar	mpling		<u>T</u>	ype of S	Soil_						CC	ONSI	STE	NC	CY			1	MOISTURE	PERCENTA	GE			
STANDARD PENETRATION TEST (SPT) UNDISTURBED SAMPLING Clayey SAND C				N-V 0 2	COHESIVE SOIL ALUE CONSIST - 2 - VERY SO - 4 - SOFT - 8 - FIRM	TENCY N-VALUE CONSIS					VER'	SISTENCY         RANGES         VALUES         RANGE           **LOOSE         0 - 10 - DRY         0 - 10           5E         10 - 30 - MOIST         6 - 1		% of SAND and G RANGES VA 0 - 5 - TRAC 6 - 10 - FEW 11 - 25 - LITTI	<u>LUES</u> CES									
CC	DS) DRING RG)	***	Silty SAND Clayey silty SA	, t	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	SILTS TUFF Tuffed	ceous	SILTS		8 15 >	- 15 — STIFF - 30 — VERY ST 30 — HARD	ΠFF	3	0 -	50	_	DEN	ISE 70 - 1	00 – WET 0 – SATURATED	26 - 35 — SOMI 36 - 45 — WITH	E			
REMARKS:			ery in Ce				N	B =	No.			= Ha				_	_		Charles d been	T. LUSTRE				
Refe	erence I	Joint S <sub>l</sub>	pacing: #	#1 >3 30 cm			100	m.			cm. >#3>3cr cm. >#4>1cr		#	<sup>‡</sup> 5	<1	Lcn	n.		Certified by :	B.A. / M.R.R.				
			Quality I								Core Recove	ry								UTHORIZED SIGNATO	ORY			
Description	of Strata	a is acco	rding to U	nified S	Soil C	assi	fica	tion	Sys	tem									Date Issued :					



# GEOTECHNICS PHILIPPINES, INCORPORATED SOILS AND MATERIALS TESTING LABORATORY 119 SAUYO ROAD, NOVALICHES, QUEZON CITY TEL. NO. 938-2124 \ 456-1140 \ 930-6555



Proposed Mayor Evacuation Center (Manho Central School)							P	Try.					TEL. NO. 93	38-2	124	\ 4	456	-11	.40	) \ 9	930-6555		DPWH-BF	RS Accredite
Project Apply   Province of Allary   Decision   R. POLIDAN   Seet   1 of 1	CLIE		МОН	RI, ARC	HITECT	& ASS	OCI	ATE	S, 1	INC												BOREHOLE NO.	BH- 2	
Section   Sect	PROJ		Prop	osed Ma	yon Eva	cuatio	n Ce	ente	er (l	Man	ito	Cent											09-10.R1-FBL-	02
Part		TION	Brgy	Manito	, Provinc	ce of A	Albay	/												R. I	POLIDAN	SHEET	1 of 1	
SAME CONVERTED ONC. 24, 2010   WATER LEVEL 3,00 m.	IG		KSK	SMALL																R. I	POLIDAN		0 to 8.00 meters	
## NATIONAL SAMPLE TYPE IS NOT THE PROPERTY OF			Hamm	ner Weight	63.50 Kg.															Oct	. 24, 2010		- m.	
FINAL BORING LOS  FINAL BORING			Fall He	eight 76.2	0 cm.													ED	'	Oct	. 24, 2010		3.00 m.	
### SOLD SAMPLE TYPE OF Race   Not   15   15   15   15   15   15   15   1	1ETH	HOD	WAS	H BORI	NG									NOF	RTH:	ING				-		EASTING	-	
Source   S												FI	NAL BOR	lI	١G	L	0	G						
Section   Sect	DE	PTH	SOIL	SAMPLE	TYPE OF	REC	RQD	PL				PI	CONSISTENCY								9	SOIL DESCRIPTION		TES
S-1   SPT   45   -	(1	m)	SYMBO	L NUMBER	SAMPLING	(cm)	(%)	20	40	60 80	100			+	(	20	40	60	80	100				DA
S-2   SPT   45   -		- - - 1.00 –		S-1	SPT	45	-					33		3	37	$\setminus$					moist		brownish gray,	
Consistency   Sept   As	-	- - -		S-2	SPT	45	_					33			78									
S-3   SPT   45   31   HARD   62   (MH)light brown   MB: (20)(23)(39)	-	- 2.00 <del>-</del> - -								+		33			70				7		and traces of moist	gravel, brownish		
Section   Sect		3.00 <b>-</b>		S-3	SPT	45	_			+		28		_6	67				<b>}</b>			,		
S-5 SPT 45 - 24	-	- - 4.00 <del>-</del> -		S-4	SPT	45	-		•	-		31	HARD	6	62									
S-6 SPT 40 - 24 46		- - - 5.00 -		S-5	SPT	45	-			<b>I</b>		24			51									
S-7 SPT 40 -	-	- - - 6.00 -	-	S-6	SPT	40	_		\ •••			24		4	46									
GRAVEL to COBBLE, high strength, andesitic rock fragments, ranges: 2.2cm-20.3cm with iron oxide and silt n rough surfaces, brown to dark gray  END OF BORING AT 8.00 METERS  Silty CLAY SILT Clayey SILT SILTSTONE 8 - 15 - STIFF 15 - 30 - VERY SOFT 4 - 10 - 100SE 10 - 30 - MOIST 11 - 25 - TRACES (OHE) SILTSTONE 8 - 15 - STIFF 30 - DENSE 30 - 50 - VERY MOIST 11 - 25 - SOME 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30 - MOIST 11 - 25 - SOME 30 - 30		- - -		S-7	SPT	40	_		$/\!\!/$			_					30:	50	/1	5				
END OF BORING AT 8.00 METERS  MOISTURE  PERCENTAGE  COHESIVE SOILS  SIRV CAV Clayey SILT Clayey SAND Clayey SAND Clayey SAND Clayey SAND Clayey SAND Clayey SILT Clayey SAND Clayey SILT SAND COHESIVE SOILS  N-VALUE CONSISTENCY 0 - 2 - VERY SOFT 2 - 4 - SOFT 4 - 8 - FIRM 10 - 30 - MEDIUM DENSE 30 - 70 - VERY MOIST 11 - 25 - LITTLE 15 - 30 - VERY SITE  SOME 15 - 30 - VERY SOFT 26 - 30 - SOME 30 - 50 - VERY DENSE 70 - 100 - SATURATED 36 - 45 - WITH  PREPARED  ARKS: Rec = Recovery in Centimeters  NB = No. of Blows  NB = No. of		- 7.00 <del>-</del> - - -	000	) ) ) (-1	CRG	100	0					_		1	00						rock fragment iron oxide and	ts, ranges 2.2cm	-20.3cm with	
Type of Soil  Silty CLAY Silty CLAY Silty GRAVEL Well graded GRAVEL UNDISTURBED SAMPLING (UDS)  ARKS: Rec = Recovery in Centimeters  Reference Joint Spacing: #1 >30 cm. > #2 > 10 cm. > #3 > 3 cm. > #4 > 1 cm.  RODESIVE SOILS COHESIVE SOILS N-VALUE CONSISTENCY O - 4 - VERY LOOSE A - 10 - LOOSE 10 - 30 - MEDIUM DENSE 30 - 50 - VERY DENSE  > 10 - 30 - MEDIUM DENSE 30 - 70 - VERY MOIST  70 - 100 - WET 26 - 35 - SOME 36 - 45 - WITH  PERCENTAGE  **RANGES** **VALUE** **On 1 - DRY 0 - 5 - TRACES 10 - 30 - MEDIUM DENSE 30 - 70 - VERY MOIST 11 - 25 - LITTLE 30 - 50 - DENSE 30 - 50 - VERY DENSE 30 - 50 - VERY DENSE 30 - 70 - 100 - WET 30 - 45 - WITH  **Prepared by: R. T. LUSTRE** **Checked by: A.B.A. / M.R.R.*  **Checked by: A.B.A. / M.R.R.*  **Cortified by: Authorized Signatory** **Authorized S		- - -			6.00										.00						END OF E	BORING AT 8.00	) METERS	-
SILTSTONE  ARKS: Rec = Recovery in Centimeters  NB = No. of Blows  N= No.	/p		npling	+	<u>_</u>	ype of S	L <u>Soil</u>	Ш	Ш	Ш	Ш			LL PNC	SIS	TF.	NC TL	LL Y	Ш	Ш	<del>'                                     </del>	MOISTURF	PERCENTA	L \GF
STANDARD PENETRATION TEST (SPT)  UNDISTURBED SAMPLING (UDS)  Clayey SILT  Clayey SILT  Clayey SILT  Clayey SILT  Clayey SILT  UNDISTURBED SAMPLING (UDS)  SILT SAMPLING (UDS)  Clayey SAND  Clayey SILT  Clayey SILT  Clayey SILT  Well graded GRAVEL  With silt  GRAVEL  2 - 4 - SOFT  4 - 10 - LOOSE  10 - 30 - MEDIUM DENSE  30 - 70 - VERY MOIST  11 - 25 - LITTLE  30 - 50 - DENSE  70 - 100 - WET  26 - 35 - SOME  11 - 25 - LITTLE  26 - 35 - SOME  36 - 45 - WITH  ARKS: Rec = Recovery in Centimeters  Reference Joint Spacing: #1 > 30cm.  RQD = Rock Quality Designation  SCR = Solid Core Recovery  N-VALUE CONSISTENCY  N-VALUE CONSISTENCY  0 - 4 - VERY LOOSE  4 - 10 - LOOSE  10 - 30 - MOIST  10 - 30 - MOIST  10 - 30 - VERY MOIST  70 - 100 - WET  26 - 35 - SOME  36 - 45 - WITH  Prepared by:  R. T. LUSTRE  Checked by:  A.B.A. / M.R.R.  AUTHORIZED SIGNATORY		$\overline{\Box}$		7 7	Silty CLAY	Ī	11	Silty (	GRAVE	L									10	NLE <sup>s</sup>				
Reference Joint Spacing: #1 >30 cm. > #3 > 3 cm. > #4 > 1 cm.  RQD = Rock Quality Designation SCR = Solid Core Recovery SCR = Solid Core Recovery AUTHORIZED SIGNATORY		UN SAI (UI	NETRATION ST (SPT)  IDISTURBE MPLING DS)  ORING		Clayey SAND Silty SAND Clayey silty S.	Ł	0000 0000 0000 0000 0000 0000 0000 0000 0000	Well g with s GRAV SILTS	graded silt 'EL STONE	GRAV		N-V 0 2 4 8 15	ALUE CONSIST  - 2 - VERY SC  - 4 - SOFT  - 8 - FIRM  - 15 - STIFF  - 30 - VERY SC	TEN:	<u>CY</u>	0 4 10 30	VAL ) - 0 - 0 -	4 10 30 50		VER LOO MED DEN	SISTENCY   RANG   Y LOOSE   0 - :   SE   10 - :   DIUM DENSE   30 - :   ISE   70 - 1	VALUES	RANGES VA  0 - 5 - TRAG  6 - 10 - FEW  11 - 25 - LITT  26 - 35 - SOM	CES LE
RQD = Rock Quality Designation SCR = Solid Core Recovery Certified by:  AUTHORIZED SIGNATORY	MA	ARKS:	Rec :	= Recov	ery in Ce	entim	eters	s	N	В =	No	of E	Blows HW	= 1	Hai	nm	ner	W	/ei	ght	<u> </u>	Prepared by : R.	T. LUSTRE	
RQD = Rock Quality Designation SCR = Solid Core Recovery Authorized Signatory		Refe										10 c	:m. >#3>3cr	m.		#	5	<1	cr	n.		Checked by : A	.B.A. / M.R.R.	
The state of the s						30 cm	ı.>#	2>	10c	m.		3 c	m. >#4>1cr	m.								Certified by :		
			RQD	= Rock	Quality	Desig	natio	on	S	CR	= 5	olid	Core Recove	ry								A	UTHORIZED SIGNATO	ORY
cription of Strata is according to Unified Soil Classification System  Date Issued:	sc	ription	of Stra	ita is acco	ording to U	nified S	Soil Cl	assi	ificat	ion	Syst	em										Date Issued :		



CLIENT MOHRI, ARCHITECT & ASSOCIATES, INC.	JOB NUMBER 2209-10.R1-SUM-1
PROJECT Proposed Mayon Evacuation Center (Manito Central School)	DATE OF RECIEPT October 27, 2010
LOCATIONBrgy. Manito, Province of Albay	DATE OF TEST Oct. 27-Nov. 3, 2010

#### **SUMMARY OF LABORATORY TESTS**

SAMPLE	DEPTH	NMC	ATTER	RBERG (%)	LIMIT,	USCS		SI	EVE AN	ALYSIS	(% FIN	IER) PAS	SSING S	SIEVE N	10.		Remarks
NUMBER	(m)	(%)	LL	PL	PI	Class.	1	3/4	3/8	4	10	20	40	60	140	200	
BH-1																	
1	0.55 - 1.00	44	63	32	31	МН					100	98	96	93	89	88	-
2	1.55 - 2.00	32	58	32	26	МН		100	96	92	87	84	81	79	75	74	-
3	2.55 - 2.70	26	INS	UFFIC	IENT S	SAMPLE	100	85	77	71	60	52	46	42	36	35	-
4	3.20 - 3.65	31	41	33	8	SC		100	87	80	72	64	58	53	47	46	-
5	4.20 - 4.65	34	56	32	24	МН			100	95	85	80	76	72	67	65	-
6	5.20 - 5.65	40	65	32	33	СН					100	99	98	95	93	91	-
7	6.20 - 6.35	29	-	NP	-	SP		100	65	59	46	34	18	8	3	2	_
BH-2																	
1	0.55 - 1.00	27	64	31	33	СН				100	99	97	95	93	91	90	-
2	1.55 - 2.00	31	65	32	33	СН					100	98	96	94	92	91	_
3	2.55 - 3.00	35	60	32	28	МН			100	99	96	91	85	82	78	76	-
4	3.55 - 4.00	40	63	32	31	МН			100	99	98	94	88	85	81	80	-
5	4.55 - 5.00	30	56	32	24	МН			100	96	87	81	75	72	68	67	-
6	5.55 - 6.00	30	56	32	24	МН		100	97	93	88	83	79	76	73	72	_
7	6.55 - 7.00	32	INS	UFFIC	IENT S	SAMPLE			100	97	92	84	78	73	64	61	-

AMPLE SUB	MITTED BY :												
Walk-in C	Clients	GPI Field	Operate	or			REMA	ARKS:		* witl	n hydr	omete	r
. POLIDAN	V												
	PRINT-OUT PIA ANTONIETTE I Encoder	P. CUNA	1 <i>HAP</i>										
Data Chkd i	by: ABA / N Quality A			_			CERTIF	FIED BY:	-		AUTHO	RIZED S	IGNATORY
Date Issued	d												







PNS ISO/IEC 17 LA-2006-0				119 Sauyo	Road, Nov	aliches, Qu	ezon City	DPWH-BRS Accredited
Client	MOHRI, ARCH	ITECT &	ASSOCIA	TES, INC	<b>)</b> .		Job Numbe	er 2209-10.R1-NMC-01-1
Project	<b>Proposed May</b>	on Evacu	ation Cer	nter (Ma	nito Cent	tral Schoo	Date of Re	ceipt October 27, 2010
Location	Brgy. Manito, Pr	ovince of a	Albay				Date of Te	st October 27-28, 2010
BOREHOLE		DRATORY			2216 - 0	•	ISTURE) CONTEN	T OF SOIL & ROCK BY MASS
SAMPLE	DEPTH (m)	WET SOIL	DRY SOIL	WATER	DISH	DRY SOIL	WATER CONTENT	REMARKS

SAMPLE NUMBER	DEPTH (m)	WET SOIL DISH (g)	DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL (g)	WATER CONTENT (%)	REMARKS
			\	N	ATURAL M	OISTURE C	ONTENT	
1	0.55-1.00	96.86	70.39	26.47	10.45	59.94	44	
2	1.55-2.00	100.00	77.94	22.06	9.60	68.34	32	
3	2.55-2.70	109.30	88.84	20.46	9.68	79.16	26	
4	3.20-3.65	113.62	89.13	24.49	9.67	79.46	31	
5	4.20-4.65	116.00	88.91	27.09	9.68	79.23	34	
6	5.20-5.65	111.00	82.09	28.91	9.59	72.50	40	
7	6.20-6.35	59.00	48.11	10.89	10.60	37.51	29	

## TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM Designation : D 4318 - 05, Method B

SAMPLE	DEPTH (m)	BLOWS	WET SOIL		WATER	DISH	DRY SOIL		ATTERBE	RG LIMIT	REMARKS
NUMBER	<i>DEI</i> 111 (III)	BEOMO	DISH (g)	DISH (g)	(g)	MASS (g)	(g)	on 0.425 mm	LL	PL	REMINICO
					LIC	UID LIMIT					
					DI A	STIC LIMIT	-				
					FLA	311C LIWITI					
Uncertainty	Results:	Water Con	tent (%) =	± 0.0530	Liq	uid Limit =		Plas	stic Limit =		
Note: The re	ported expanded u	incertainty	is based on	a combine	d uncertair	nty by a cov	erage facto	or of k=2, p	providing a	level of con	fidence of
approximate	_								L	AB.FILE NO	).:NMC-10-508
SAMPLE SUE Walk-in	BMITTED BY :	PI Field Ope	orotor			REMARKS:					
R. POLIDAN	ollents 💌 Gr	ri Field Ope	erator								
COMPUTER	DDINT OUT										
	MARIA ANTONIETTI	E P. CUNAH	HAP								
	Encode	er			TE	STED BY :		AR	TURO Q. A	QUINO	
Data Checi	ked by:AB							LABOR	RATORY TE	CHNICIAN	
	Qua	ality Assura	nce		CERT	IFIED BY :					
Date Issue	d:				OLIVI		<u></u>	AUTH	ORIZED SI	GNATORY	







ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number 2209-10.R1-NMC-02-1
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt October 27, 2010
LocationBrgy. Manito, Province of Albay	Date of Test October 27-28, 2010

#### TEST REPORT FOR LABORATORY DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL & ROCK BY MASS ASTM D 2216 - 05

Test Method ☑ A ☐ B

BOREHOLE	E NOBH-2							
SAMPLE NUMBER	DEPTH (m)	WET SOIL DISH (g)	DRY SOIL DISH (g)	WATER (g)	DISH MASS (g)	DRY SOIL (g)	WATER CONTENT (%)	REMARKS
				N	IATURAL M	OISTURE C	ONTENT	
1	0.55-1.00	81.94	66.46	15.48	9.56	56.90	27	
2	1.55-2.00	84.39	66.71	17.68	9.70	57.01	31	
3	2.55-3.00	95.10	72.88	22.22	9.69	63.19	35	
4	3.55-4.00	89.40	66.63	22.77	10.02	56.61	40	
5	4.55-5.00	103.10	81.45	21.65	9.67	71.78	30	
6	5.55-6.00	98.30	77.66	20.64	9.92	67.74	30	
7	6 55-7 00	92.80	72 68	20.12	9 64	63.04	32	

#### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM Designation: D 4318 - 05, Method B

		BLOWS	WEI SOIL	DRY SOIL	WATER	DISH	DRY SOIL	Retained	ATTENDE	RG LIMIT	REMARKS
NUMBER	PTH (m)	BLOWS	DISH (g)	DISH (g)	(g)	MASS (g)	(g)	on 0.425 mm	LL	PL	REIVIARKS
					LIC	UID LIMIT					
					PLA	STIC LIMIT	-				
Uncertainty Results	:	Water Cont	ent (%) =	± 0.0364	Liq	uid Limit =		Plas	stic Limit =		
Note: The reported	expanded u	incertainty	is based on	a combine	d uncertair	nty by a cov	erage facto	or of k=2, p	providing a	level of con	fidence of
approximately 95%	•								L	AB.FILE NO	).:NMC-10-509
SAMPLE SUBMITTE						REMARKS:					
☐ Walk-in Clients	<b>✓</b> GI	PI Field Ope	erator								
R. POLIDAN											
COMPUTER PRINT- By: MARIA		E D CLINIAL	IAD								
bywater	Encode		<u> </u>		TE	STED BY :		AR	TURO Q. A	QUINO	
Data Checked by:	۸۵	A /MDD							RATORY TE		
Data Checked by.		ality Assura	nce								
Date Issued:					CERT	IFIED BY :					····
Date Issueu.								AUTH	ORIZED SI	GNATORY	





ClientMOHRI, ARCHITECT & ASSOCIATES, IN	VC.
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Project..... Proposed Mayon Evacuation Center (Manito Central School)

Location.... Brgy. Manito, Province of Albay

### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

Method : A ☑ Wet Preparation ☐ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	0.55-1.00			SOIL DESCR	RIPTION				
SAMPLE NO	S-1		USCS CLAS	S	MH			Elastic SILT					
MOISTURE CONTENT	L	IQUID LIMI	IT	PLASTI	C LIMIT		68 <sub>T</sub>						_
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	•	67 -	•					
DISH NUMBER	A33	A4	A12	B5	B82	t (%)	66 -	\					
WET SOIL + DISH (g)	32.40	35.26	38.50	22.69	22.67	tent	65 -						
DRY SOIL + DISH (g)	23.72	25.25	27.00	19.50	19.47	Conte			•				
WATER (g)	8.68	10.01	11.50	3.19	3.20	ure	64 -		\ \x				
DISH MASS (g)	9.60	9.73	9.85	9.51	9.49	Moistu	63 -		'\				
DRY SOIL (g)	14.12	15.52	17.15	9.99	9.98	Ž	62 -			/ /			
MOISTURE CONTENT	61.47	64.50	67.06	31.93	32.06		61			<u> </u>			_
NUMBER OF BLOWS	32	22	15	3	2		10	0	No.	of Blow	s		100
% RETAINED ON 0.425	5mm				4.07		LL =	63	PL =	32	PI	=	31

BOREHOLE NO	BH-1		DEPTH (m)	)	.1.55-2.00	SOIL DESCRIPTION						
SAMPLE NOS-2 USCS CLASSMH						Elastic SILT						
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		63 <sub>T</sub>					
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	$\sim$	62 -	``				
DISH NUMBER	B17	В7	B56	A32	A91	%	61 -	\				
WET SOIL + DISH (g)	32.65	35.41	37.97	22.70	22.68	tent	60 -					
DRY SOIL + DISH (g)	24.39	25.86	27.18	19.49	19.45	Co	59 -		•			
WATER (g)	8.26	9.55	10.79	3.21	3.23	ture	58 -		X			
DISH MASS (g)	9.63	9.68	9.77	9.55	9.50	Moist	57 -		\			
DRY SOIL (g)	14.76	16.18	17.41	9.94	9.95	2	56 -					
MOISTURE CONTENT	55.96	59.02	61.98	32.29	32.46		55 +					<u> </u>
NUMBER OF BLOWS	32	22	15	3	2		10	)	No.	of Blows		100
% RETAINED ON 0.425	5mm				19.07	I	L =	58	PL =	32	PI =	26

Uncertainty Results: I	Liquid Limit = $\pm 0.1409$	Plastic Limit = $\pm 0.2008$
II	Liquid Limit = $\pm$ 0.1349	Plastic Limit = $\pm 0.2020$
Note: The reported expanded uncertainty is based of	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-657
SAMPLE SUBMITTED BY :  ☐ Walk-in Clients  ☐ GPI Field Operator	REMARKS:	
R. POLIDAN	_	
COMPUTER PRINT-OUT  By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR  Quality Assurance		LABORATORY TECHNICIAN
Date Issued:	CERTIFIED BY :	AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-AL-01-2
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	October 27, 2010

Location....Brgy. Manito, Province of Albay

Date of Test..... October 29-30, 2010

#### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	3.20-3.65			SOIL [	DESCRIP	TION				
SAMPLE NO	SAMPLE NO S-4 USCS CLASS SC							Clayey	SAND					
MOISTURE CONTENT	L	IQUID LIMI	T	PLASTI	C LIMIT		46 <sub>T</sub>							$\overline{}$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2		45 -		À					
DISH NUMBER	A62	A59	A80	B51	В7	(%)	44 -							
WET SOIL + DISH (g)	32.84	35.64	38.28	22.75	22.78	tent	43 -		/					
DRY SOIL + DISH (g)	26.20	27.90	29.44	19.49	19.50	Conte				•				
WATER (g)	6.64	7.74	8.84	3.26	3.28	ure	42 -			<b>x</b>				
DISH MASS (g)	9.60	9.70	9.80	9.51	9.49	Moist	41 -			\				
DRY SOIL (g)	16.60	18.20	19.64	9.98	10.01	Ž	40 -				<b>&gt;</b>			
MOISTURE CONTENT	40.00	42.53	45.01	32.67	32.77		39							Ш
NUMBER OF BLOWS	31	22	15	3	3		1	0		No.	of Blows			100
% RETAINED ON 0.425	īmm				41.76		LL =	41		PL =	33	PI	=	8

BOREHOLE NO	BH-1		DEPTH (m)	)	4.20-4.65	5 SOIL DESCRIPTION						
SAMPLE NO	S-5		USCS CLAS	S	МН		El	astic SILT				
MOISTURE CONTENT	L	IQUID LIMI	T	PLASTI	C LIMIT		61 <sub>—</sub>					
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2		60 -	•				
DISH NUMBER	B52	B21	B39	A48	A24	%	59 -		.			
WET SOIL + DISH (g)	32.57	35.22	38.14	22.68	22.70	tent	58 -		$\bigvee$			
DRY SOIL + DISH (g)	24.53	25.95	27.51	19.46	19.47	S	57 -		•			
WATER (g)	8.04	9.27	10.63	3.22	3.23	ture	56 -		X			
DISH MASS (g)	9.63	9.70	9.81	9.48	9.49	Moist	55 -		\			
DRY SOIL (g)	14.90	16.25	17.70	9.98	9.98	2	54 -					
MOISTURE CONTENT	53.96	57.05	60.06	32.26	32.36		53 +					Щ.
NUMBER OF BLOWS	31	22	14	3	2		10		No.	of Blows		100
% RETAINED ON 0.425	5mm				24.47	I	LL =	56	PL =	32	PI =	24

Hannatainta Danulta I	Limited Limite . 0.1100	Diagram Limit 0.0014
Uncertainty Results: I	Liquid Limit = $\pm 0.1198$	Plastic Limit = $\pm$ 0.2014
II	Liquid Limit = $\pm 0.1331$	Plastic Limit = $\pm$ 0.2012
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-658
SAMPLE SUBMITTED BY :	REMARKS:	
Walk-in Clients GPI Field Operator		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance	—	
	CERTIFIED BY :	
Date Issued:	_	AUTHORIZED SIGNATORY





Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-AL-01-3
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test October 29-30, 2010

### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-1		DEPTH (m)	)	5.20-5.65		S	OIL DESCRIE	PTION			
SAMPLE NO	S-6		USCS CLAS	S	СН		F	at CLAY				
MOISTURE CONTENT	L	IQUID LIMI	T	PLASTI	C LIMIT		70 —					
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	69 -	•				
DISH NUMBER	A100	A16	<b>A</b> 5	B32	B55	%	68 -					
WET SOIL + DISH (g)	32.42	35.34	38.29	22.67	22.71	tent	67 -	\	$\backslash$			
DRY SOIL + DISH (g)	23.60	25.16	26.70	19.51	19.53	Con	66 -		•			
NATER (g)	8.82	10.18	11.59	3.16	3.18	re	65 -		×			
DISH MASS (g)	9.60	9.75	9.90	9.53	9.55	Moist	64 -					
ORY SOIL (g)	14.00	15.41	16.80	9.98	9.98	Š	63 -					
MOISTURE CONTENT	63.00	66.06	68.99	31.66	31.86		62					Щ
NUMBER OF BLOWS	31	22	15	3	2		10		No. c	of Blows		100
% RETAINED ON 0.425	5mm				2.36		LL =	65	PL =	32	PI =	33

BOREHOLE NO			DEPTH (m)	)			SOIL DESCRIPTION		
SAMPLE NO			USCS CLAS	SS					
MOISTURE CONTENT <u>DETERMINATION</u>	LI <u>TRIAL 1</u>	QUID LIMI <u>TRIAL 2</u>	TRIAL 3	PLASTI TRIAL 1	C LIMIT TRIAL 2	2 -			
DISH NUMBER						(%) ı			
WET SOIL + DISH (g)						Content			
DRY SOIL + DISH (g)						ان 5 1 -			
WATER (g)						ture			
DISH MASS (g)						Moistu			
DRY SOIL (g)						2			
MOISTURE CONTENT						0 -			
NUMBER OF BLOWS						1	0 No. o	f Blows	100
% RETAINED ON 0.425	5mm					LL =	PL =		PI =

Uncertainty Results: I	Liquid Limit = $\pm 0.1415$	Plastic Limit = $\pm$ 0.2008
II	Liquid Limit =	Plastic Limit =
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-658
SAMPLE SUBMITTED BY :	REMARKS:	
☐ Walk-in Clients		
R. POLIDAN		
COMPUTER PRINT-OUT		
By:MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance	—	
·	CERTIFIED BY :	
Date Issued:		AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-AL-02-1
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test	October 29-30, 2010

### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

**Method**: **A** ✓ Wet Preparation □ Dry Preparation

BOREHOLE NO	BH-2		DEPTH (m)	)	0.55-1.00		(	SOIL DESC	RIPTION			
SAMPLE NO	S-1		USCS CLAS	S	СН		l	Fat CLAY				
MOISTURE CONTENT	L	IQUID LIMI	IT	PLASTI	C LIMIT		68 <sub>T</sub>					
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2		67	•	\			
DISH NUMBER	C28	C11	C37	B30	B76	(%)	66 -					
WET SOIL + DISH (g)	33.06	35.41	38.22	22.70	22.72	tent	65 -					
DRY SOIL + DISH (g)	24.08	25.27	26.74	19.59	19.60	Conte						
WATER (g)	8.98	10.14	11.48	3.11	3.12	ure	64 -		X			
DISH MASS (g)	9.60	9.67	9.75	9.57	9.58	Moist	63 -					
DRY SOIL (g)	14.48	15.60	16.99	10.02	10.02	Š	62 -					
MOISTURE CONTENT	62.02	65.00	67.57	31.04	31.14		61					Щ
NUMBER OF BLOWS	31	22	16	3	1		10	)	No. o	of Blows		100
% RETAINED ON 0.425	5mm				5.10		LL =	64	PL =	31	PI =	33

BOREHOLE NO	BH-2		DEPTH (m)	)	1.55-2.00		S	OIL DESC	RIPTION		
SAMPLE NO	S-2		USCS CLAS	S	СН	Fat CLAY					
MOISTURE CONTENT	L	IQUID LIMI	IT	PLASTI	C LIMIT		69 <sub>T</sub>				
DETERMINATION	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	~	68 -	•			
DISH NUMBER	D64	D1	D42	C23	C73	t (%)	67 -				
WET SOIL + DISH (g)	32.57	35.28	38.16	22.68	22.71	ntent	66 -				
DRY SOIL + DISH (g)	23.70	25.11	26.63	19.50	19.51	So	65 -				
WATER (g)	8.87	10.17	11.53	3.18	3.20	ture			X		
DISH MASS (g)	9.62	9.70	9.80	9.54	9.55	Moist	64 -				
DRY SOIL (g)	14.08	15.41	16.83	9.96	9.96	2	63 -				
MOISTURE CONTENT	63.00	66.00	68.51	31.93	32.13		62 +				
NUMBER OF BLOWS	31	22	15	3	2		10	)	No. of Blows		100
% RETAINED ON 0.42	5mm				4.32		LL =	65	PL = 32	PI =	33

Haracetelata Bassilla	Limital Limita 0.4270	Disable Livetta 0.0005
Uncertainty Results: I	Liquid Limit = $\pm 0.1369$	Plastic Limit = $\pm 0.2005$
II	Liquid Limit = $\pm 0.1407$	Plastic Limit = $\pm 0.2014$
Note: The reported expanded uncertainty is based	on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-659
SAMPLE SUBMITTED BY :	REMARKS:	
<b>Walk-in Clients ✓ GPI Field Operator</b>		
R. POLIDAN		
COMPUTER PRINT-OUT		
By:MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance		
	CERTIFIED BY :	
Date Issued:		AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	. 2209-10.I
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	October 2

Location.... Brgy. Manito, Province of Albay

### TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

**Method**: **A** ✓ Wet Preparation ☐ Dry Preparation

BOREHOLE NO	BH-2		DEPTH (m)	)	2.55-3.00			SOIL DESCI	RIPTION			
SAMPLE NO	S-3		USCS CLAS	S	MH	Elastic SILT						
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		65 <sub>T</sub>					$\neg$
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2		64 -	•				
DISH NUMBER	C55	C91	C31	B49	B98	(%)	63 -					
WET SOIL + DISH (g)	32.49	35.26	38.20	22.67	22.73	tent	62 -					
DRY SOIL + DISH (g)	24.10	25.58	27.12	19.47	19.53	Con	61 -					
WATER (g)	8.39	9.68	11.08	3.20	3.20	nre	60 -		<b>X</b>			
DISH MASS (g)	9.63	9.71	9.82	9.52	9.54	Moist	59 -					
DRY SOIL (g)	14.47	15.87	17.30	9.95	9.99	Š	58 -					
MOISTURE CONTENT	57.98	61.00	64.05	32.16	32.03		57 -					Щ
NUMBER OF BLOWS	31	21	14	3	2		10	0	No.	of Blows		100
% RETAINED ON 0.425	5mm				14.53		LL =	60	PL =	32	PI =	28

BOREHOLE NO	BH-2		DEPTH (m)	)	3.55-4.00	SOIL DESCRIPTION						
SAMPLE NO	S-4		USCS CLAS	S	МН	Elastic SILT						
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		68 <sub>T</sub>					
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	_	67 -	``				
DISH NUMBER	D60	D31	D3	C40	C87	%	66 -	`				
WET SOIL + DISH (g)	32.50	35.39	38.41	22.68	22.72	tent	65 -					
DRY SOIL + DISH (g)	23.83	25.38	26.98	19.52	19.54	S	64 -		•			
WATER (g)	8.67	10.01	11.43	3.16	3.18	ture	63 -		×			
DISH MASS (g)	9.63	9.74	9.92	9.56	9.58	Moist	62 -		\			
DRY SOIL (g)	14.20	15.64	17.06	9.96	9.96	2	61 -					
MOISTURE CONTENT	61.06	64.00	67.00	31.73	31.93		60 +					
NUMBER OF BLOWS	31	22	16	3	2		10	1	No.	of Blows		100
% RETAINED ON 0.42	5mm				11.73	l	L =	63	PL =	32	PI =	31

Uncertainty Results: I	Liquid Limit = ± 0.1370	Plastic Limit = ± 0.2017
П	Liquid Limit = $\pm$ 0.1395	Plastic Limit = $\pm 0.2012$
Note: The reported expanded uncertainty is based	d on a combined uncertainty by a coverag	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-660
SAMPLE SUBMITTED BY :	REMARKS:	
Walk-in Clients		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance		
	CERTIFIED BY :	
Date Issued:		AUTHORIZED SIGNATORY

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Client MOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt

Location.... Brgy. Manito, Province of Albay

## TEST REPORT FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS ASTM D 4318 - 05

Method : A ☑ Wet Preparation ☐ Dry Preparation

BOREHOLE NO	BH-2		DEPTH (m)	)	4.55-5.00		Ç	SOIL DESCR	RIPTION		
SAMPLE NO	S-5		USCS CLAS	S	MH		I	Elastic SILT			
MOISTURE CONTENT	L	IQUID LIMI	Т	PLASTI	C LIMIT		61 <sub>T</sub>				
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2	•	60 -	<b>&gt;</b>			
DISH NUMBER	C68	C52	C77	D18	D30	(%)	59 -				
WET SOIL + DISH (g)	33.10	35.22	38.44	22.67	22.70	tent	58 -				
DRY SOIL + DISH (g)	24.81	25.95	27.70	19.49	19.49	Cont					
WATER (g)	8.29	9.27	10.74	3.18	3.21	are	57 -				
DISH MASS (g)	9.60	9.68	9.80	9.58	9.57	Moist	56 -				
DRY SOIL (g)	15.21	16.27	17.90	9.91	9.92	Š	55 -				
MOISTURE CONTENT	54.50	56.98	60.00	32.09	32.36		54 -				Ш
NUMBER OF BLOWS	32	22	15	3	2		10	)	No. of Blows		100
% RETAINED ON 0.425	5mm				24.52		LL =	56	PL = 32	PI =	24

BOREHOLE NO	BOREHOLE NO <b>BH-2</b> DEPTH (m) 5.55-6							OIL DESC	RIPTION		
SAMPLE NO S-6 USCS CLASS MH					МН	Elastic SILT					
MOISTURE CONTENT	L	IQUID LIMI	IT	PLASTI	C LIMIT		61 <sub>T</sub>				
<u>DETERMINATION</u>	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 1	TRIAL 2		60 -	•			
DISH NUMBER	C68	C52	C77	D18	D30	t (%)	59 -	\			
WET SOIL + DISH (g)	33.10	35.22	38.44	22.67	22.70	ntent	58 -				
DRY SOIL + DISH (g)	24.81	25.95	27.70	19.49	19.49	S	57 -				
WATER (g)	8.29	9.27	10.74	3.18	3.21	ture					
DISH MASS (g)	9.60	9.68	9.80	9.58	9.57	Moistu	56 -				
DRY SOIL (g)	15.21	16.27	17.90	9.91	9.92	2	55 -				
MOISTURE CONTENT	54.50	56.98	60.00	32.09	32.36		54 <del> </del>				
NUMBER OF BLOWS	32	22	15	3	2		10	1	No. of Blows		100
% RETAINED ON 0.425	5mm				20.81		LL =	56	PL = 32	PI =	24

Uncertainty Results: I	Liquid Limit = ± 0.1310	Plastic Limit = ± 0.2025
П	Liquid Limit = $\pm$ 0.1310	Plastic Limit = $\pm$ 0.2025
Note: The reported expanded uncertainty is based	d on a combined uncertainty by a coverage	e factor of k=2, providing a level of confidence
of approximately 95%.		LAB.FILE NO.:AL-10-660
SAMPLE SUBMITTED BY :	REMARKS:	
Walk-in Clients		
R. POLIDAN		
COMPUTER PRINT-OUT		
By: MARIA ANTONIETTE P. CUNAHAP		
Encoder	TESTED BY :	ARTURO Q. AQUINO
Data Checked by: ABA / MRR		LABORATORY TECHNICIAN
Quality Assurance		
	CERTIFIED BY :	
Date Issued:		AUTHORIZED SIGNATORY

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ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-GSA-01-
ProjectProposed Mayon Evacuation Center (Manito Central School)	Date of Receipt October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test October 28, 2010

### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

DEPTH (m)	PLE NO ) CRIPTION	0	O <u>1</u> .55-1.00 lastic SILT			□ <u>2</u> 1.55-2.00 Elastic SILT		$\Delta 3$ 2.55-3.00 Clayey silty SAND			
	E SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	
inches	<u>mm</u>	Retained (g)	Retained	Finer	Retained (q)	Retained	Finer	Retained (g)	Retained	Finer	
2 1/2	62.5	_						_			
2	50.0										
1 1/2	37.5										
1	25.0									100	
3/4	19.0						100	11.60	14.65	85	
3/8	9.5				2.76	4.04	96	18.39	23.23	77	
4	4.75				5.48	8.02	92	22.66	28.63	71	
10	2.0	0.15	0.25	100	8.96	13.11	87	31.34	39.59	60	
20	0.8	0.92	1.53	98	11.00	16.10	84	37.86	47.83	52	
40	0.425	2.44	4.07	96	13.03	19.07	81	42.80	54.07	46	
60	0.25	4.02	6.71	93	14.66	21.45	79	46.30	58.49	42	
140	0.105	6.65	11.09	89	16.90	24.73	75	50.30	63.54	36	
200	0.075	7.34	12.25	88	17.46	25.55	74	51.16	64.63	35	
OVEN DI	RIED MASS	59	9.94 gms			68.34 gms			79.16 gms		
100 +	3" 2 1/2" 2" 1 1/2	3/8	<b>*</b>	#10		ية لاحموط الاحموط	#200	HYDROM	ETER		
				Ĭ							
90 -				<b>-</b>							
80 -						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
70			7				-				
βc		:  :  :									
Percent Passing		<del>                                      </del>	111:11	<del>*</del>	1111111	• • • • • • • • • • • • • • • • • • • •					
e 50											
l sent				I							
₩ 40 +			++:-								
30		: : :				: 77	<u> </u>				
20 -											
10 +		: : :									
0 1	COARS		COARS	E MED	HIM I	FINE					
10	00	10	COARS	·	1 Particle Siz	e (mm) 0.1		0.01		0.001	
COBBLES	_	GRAVEL			SAND			FINES (SILT	OR CLAY)		
	Hydrometer					REMARKS :					
	IBMITTED BY:										
		GPI Field Opera	tor								
R. POLIDAN	V			=							
COMPUTER	PRINT-OUT					TESTED BY :		ARTURO Q	. AQUINO		
Ву:	MARIA ANTO	ONIETTE P. CUN	AHAP					LABORATORY	TECHNICIAN		
		Encoder									
Data Char	akad bu				(	CERTIFIED BY :					
Data Ched	.кеи <i>by:</i>	ABA/MRR Quality Assura	ance					AUTHORIZED	SIGNATORY		
		Zudiity Assult	41.00	Uncertaint	y Results:	% Finer =	± 0.0413		LAB.FILE NO.:	GSA-10-409	
Date Issue	ed:				reported expan				uncertainty by	a coverage	
				factor of k	=2, providing a	evel of confider	nce of appro	ximately 95%.			







ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	. 2209-10.R1-GSA-01-2
ProjectProposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test	October 28, 2010

### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

DEPTH (m)	LE NO ) CRIPTION		O <u>4</u> 3.20-3.65		00 (	□ <u>5</u> 4.20-4.65 Elastic SILT	,		△ <u>6</u> 5.20-5.65 Fat CLAY	
	E SIZE	Cumm.Mass	Clayey SAND Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
inches		Retained (g)		Finer	Retained (q)	Retained	Finer	Retained (q)	Retained	Finer
2 1/2	<u>mm</u> 62.5	retained (g)	retairieu	<u>I IIICI</u>	retained (g)	retained	THE	retained (g)	Retained	<u>l'illel</u>
2 1/2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0			100						
3/8	9.5	10.60	13.34	87			100			
4	4.75	16.23	20.43	80	4.07	5.14	95			100
10	2.0	22.19	27.93	72	11.56	14.59	85	0.30	0.41	100
20	0.8	28.78	36.22	64	15.88	20.04	80	0.80	1.10	99
40	0.425	33.18	41.76	58	19.39	24.47	76	1.71	2.36	98
60	0.25	37.16	46.77	53	22.31	28.16	72	3.27	4.51	95
140	0.105	41.90	52.73	47	26.48	33.42	67	5.23	7.21	93
200	0.075	43.23	54.40	46	27.55	34.77	65	6.40	8.83	91
	RIED MASS	40.20	79.46 gms	40	27.55	79.23 gms		0.40	72.50 gms	,,
	3" 21/2" 2" 11/2	3/4	8/8 #	#10	#20	#60	#200	HYDROM	ETER	
100				<del></del>	1	<u> </u>				
90 +						:				
80 +		1 1		$\rightarrow$	*D	: 1				
70				\d						
70					3					
Percent Passing					19	- 71				
ass										
늘 50 +					<del>                                      </del>	1				
9 40						<u> </u>				
9 40 T										
30 +					<del>                                     </del>					
20 +					<del>                                     </del>					
10 +		1 1								
0										
10	COARS	10	_	SE   MED	1 Particle Si	FINE ze (mm) 0.1	-	0.01		0.001
COBBLES		GRAVEL			SAND			FINES (SILT		
	Hydrometer					REMARKS				
	BMITTED BY:									
Walk-in	Clients 🔽	GPI Field Ope	rator							
R. POLIDAN	J									
OMPUTER	PRINT-OUT					TESTED BY:		ARTURO C	. AQUINO	
By:		ONIETTE P. CU	JNAHAP					LABORATORY	TECHNICIAN	
-		Encoder								
						CERTIFIED BY	:			
Data Chec	ked by:	ABA/MRR						AUTHORIZED	SIGNATORY	
		Quality Ass	urance	Uncertaint	y Results:	% Finer =	± 0.0352		LAB.FILE NO.	:GSA-10-40
Data Icers	nd:				=					
Date Issue	ed:					nded uncertaint level of confide		on a combined oximately 95%.	uncertainty by	a cove







ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-GSA-01-3
ProjectProposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	. October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test	. October 28, 2010

#### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

	LE NO	<u>BH-1</u>	O <u>7</u> 6.20-6.35			(110		1	,	•					4	Δ			
, ,	RIPTION		ly graded SANE	)															
	E SIZE	Cumm.Mass	Cumm.%	Percent	Cumr	n.Mass	(	Cumm.%	F	Perce	nt	Cumm	.Mas	SS	Cı	umm	1.%	Perce	ent
inches	<u>mm</u>	Retained (g)	Retained	<u>Finer</u>		ned (g)	1	Retained		Fine		Retain			R	etair	ned	<u>Fine</u>	<u>er</u>
2 1/2	62.5																		
2	50.0																		
1 1/2	37.5																		
1	25.0																		
3/4	19.0			100															
3/8	9.5	13.15	35.06	65															
4	4.75	15.47	41.24	59															
10	2.0 0.8	20.25 24.78	53.99	46 34															
20 40	0.8	30.62	66.06 81.63	34 18															
60	0.423	34.56	92.14	8															
140	0.105	36.20	96.51	3															
200	0.075	36.62	97.63	2															
	RIED MASS		37.51 gms																
100 +	3" 2 1/2" 2" 1 1/2	3/8	<b>4</b>	#10	#20	#40	09#	#140	#200		ı	HYDI	۲ O	M	ΕT	EF	₹		
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80						- 1	1							Ш	Ш				
00																			
70 +						-				++	+		+	Н	++	+			- 1
guis 60																			
assi		: : :	170						1										
Percent Passing					1	1	-		1					+	+				- 1
40 H				Ψ															
0 40 T					$\frac{1}{\sqrt{2}}$									П					
30 +					+		-		-					Н	++				- 1
00																			
20 +		: : :	1			Ď		:	1					П	П				
10 +			1 1 1				Xo.		1					+	++				- 1
		:  :  :					· ·	<u></u>	اٰ ٰٰ										
0 <sup>1</sup>	COARS	E FINE 10	COARS	SE   MED	IUM 1 De	article Si	FIN	E nm) 0.1					0.01					0.4	001
COBBLES		GRAVEL			SAND	ii licie Si	126 (11	1111) 0.11				FINES			OR (	CLAY	<b>'</b> )	0.	001
* - with I	Hydrometer							REMARKS	:	S-7:		Cu =						0.26	,
SAMPLE SU	BMITTED BY:																		
☐ Walk-in	Clients <	GPI Field Oper	ator						_										
R. POLIDAN	J								_										
				_			TES	TED BY :				AR	ΓURC	o o	. AC	UIN	0		
COMPUTER  By:	MARIA ANTO	ΝΔΗΔΡ						-			LABOR								
<i>Dy.</i>																			
		Encoder					CER	TIFIED BY											
Data Chec	ked by:					OLI	ומ טבו וויי	.—			AUTH	)RI7	FD	SIG	ΤΔΙΛ	ORV			
		Quality Assu	irance	Uncertaint	v Resul	ts·		% Finer =	: + 1	U Ua	16	7.0111	J111Z					:GSA-10	-409
Data Issue	ad·				-		andad	l uncertain				n a com	hino						
Date ISSUE	.u							l of confide							ai iUC	a tail	icy D	y a cove	aye
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ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-GSA-02-1
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test October 30, 2010

#### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

			A	STM D 42	22 - 63 (Re-	approved 20	07)			
BH / SAMPLE NO						□ <u>2</u> 1.55-2.00 Fat CLAY			△ <u>3</u> 2.55-3.00 Elastic SILT	
	E SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
<u>inches</u>	<u>mm</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0									
3/8	9.5									100
4	4.75			100				0.80	1.27	99
10	2.0	0.34	0.60	99	0.28	0.49	100	2.72	4.30	96
20	0.8	1.45	2.55	97	1.36	2.39	98	5.94	9.40	91
40	0.425	2.90	5.10	95	2.46	4.32	96	9.18	14.53	85
60	0.25	3.85	6.77	93	3.21	5.63	94	11.53	18.25	82
140	0.105	5.31	9.33	91	4.30	7.54	92	14.20	22.47	78
200 OVEN DE	0.075 RIED MASS	5.82	10.23 56.90 gms	90	4.85	8.51 57.01 gms	91	14.87	23.53 63.19 gms	76
	3" 21/2" 2" 11/2	1000 1000 FO	4#	#10	#20	#60	#200	HYDROM	ETER	
100 +			<del>*                                      </del>	- <u></u>	+0++-0-					
90 🕂		1 1			*	Y THE	1			
80 +		: : :	:		7	<b>A</b>				
70						70-7	4			
Percent Passing										
50 ±										
Sen										
ਰੱ 40 <del> </del>	<del>                                     </del>				<del>                                      </del>					
30 +										
30 T										
20 +		1 1			++++++	: : : : : : : :				
10 +										
0										
10 COBBLES		FINE 10 GRAVEL			IUM   1 Particle Si SAND	FINE ze (mm) 0.1		0.01 FINES ( SILT (	DD CLAV)	0.00
	 Hydrometer	OKAVLL			371112	REMARKS :		TINES (SIET		
AMPLE SU	BMITTED BY:									
		GPI Field Ope	rator							
POLIDAN	J			_						
OMPUTER	PRINT-OUT					TESTED BY :		ARTURO Q		
Ву:		NIETTE P. CL	INAHAP					LABORATORY	TECHNICIAN	
	I	Encoder								
Data Chec	cked by:	ABA/MRR				CERTIFIED BY :				
-aia once		Quality Assi	urance					AUTHORIZED		
		,		Uncertaint	y Results:	% Finer =	$\pm 0.0434$		LAB.FILE NO.	:GSA-10-41

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#### GEOTECHNICS PHILIPPINES, INC.

SOILS AND MATERIALS TESTING LABORATORY 119 Sauyo Road, Novaliches, Quezon City



ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number2209-10.R1-GSA-02-2
ProjectProposed Mayon Evacuation Center (Manito Central School)	Date of Receipt October 27, 2010
Location Brgy. Manito, Province of Albay	Date of Test October 30, 2010

#### TEST REPORT FOR GRAIN SIZE ANALYSIS ASTM D 422 - 63 (Re-approved 2007)

			Α	STM D 42	22 - 63 (Re-a	approved 20	07)			
BH / SAMPLE NO       BH-2       0 4         DEPTH (m)       3.55-4.00         SOIL DESCRIPTION       Elastic SILT					□ <u>5</u> 4.55-5.00 Elastic SILT					
SIEVE SIZE Cumm.Mass Cumm.%				Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Elastic SILT  Cumm.%	Percent
inches 2 1/2 2 1 1/2	<u>mm</u> 62.5 50.0 37.5	Retained (g)	Retained	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>
1 3/4	25.0 19.0									100
3/8	9.5			100			100	1.71	2.52	97
4	4.75	0.36	0.64	99	2.79	3.89	96	4.89	7.22	93
10	2.0	1.34	2.37	98	9.06	12.62	87	8.46	12.49	88
20	0.8	3.64	6.43	94	13.91	19.38	81	11.26	16.62	83
40	0.425	6.64	11.73	88	17.60	24.52	75	14.10	20.81	79
60	0.25	8.54	15.09	85	20.20	28.14	72	16.17	23.87	76
140	0.105	10.70	18.90	81	23.13	32.22	68	18.14	26.78	73
200	0.075	11.25	19.87	80	23.80	33.16	67	18.94	27.96	72
OVEN D	RIED MASS	56	.61 gms			71.78 gms			67.74 gms	
100 ⊣	3" 21/2" 2" 11/2	3/8	#4	#10	#20	#60	#200	HYDROM	ETER	
90 -					o d					
80 -			:		A	<b>*</b>				
70 -		: : :	1							
			:							
Percent Passing			:							
30 - 20 -										
10 -										
0 10		10	COARS		1 Particle Si	FINE ze (mm) 0.1		0.01	00.01.00	0.001
COBBLES	- 1	GRAVEL			SAND	DEMARKS		FINES (SILT		
	Hydrometer					REMARKS	·			
	JBMITTED BY:	GPI Field Operat	or							
. POLIDAI		dri rielu Operat	Oi							
				_		TECTED DV .		ADTUDO O	AOUINO	
	PRINT-OUT					TESTED BY :		ARTURO Q		
Ву:		<u> DNIETTE P. CUN/</u> Encoder	AHAP					LABORATORY	TECHNICIAN	
		LITCOUCI				CEDTIFIED DV				
Data Ched	cked by:	ABA/MRR				CERTIFIED BY	<u> </u>	AUTHORIZED	CICNIATORY	
		Quality Assura	ince	Ungantalist	y Dooulto	0/ 5:	. 0.0442			.004 10 41
	_				=					
Date Issu	ed:				reported expa			n a combined (	LAB.FILE NO. uncertainty by	



Date Issued:





ClientMOHRI, ARCHITECT & ASSOCIATES, INC.	Job Number	2209-10.R1-GSA-02-3							
Project Proposed Mayon Evacuation Center (Manito Central School)	Date of Receipt	October 27, 2010							
Location Brgy. Manito, Province of Albay	Date of Test	October 30, 2010							
Client									

#### ASTM D 422 - 63 (Re-approved 2007) Δ BH / SAMPLE NO..... <u>BH-2</u> <u>O 7</u>

DEPTH (m)..... 6.55-7.00 SOIL DESCRIPTION..... Elastic SILT

SIE	VE SIZE	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent	Cumm.Mass	Cumm.%	Percent
inches	<u>mm</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	<u>Retained</u>	<u>Finer</u>	Retained (g)	Retained	<u>Finer</u>
2 1/2	62.5									
2	50.0									
1 1/2	37.5									
1	25.0									
3/4	19.0									
3/8	9.5			100						
4	4.75	1.70	2.70	97						
10	2.0	5.07	8.04	92						
20	0.8	9.90	15.70	84						
40	0.425	14.18	22.49	78						
60	0.25	16.95	26.89	73						
140	0.105	22.70	36.01	64						
200	0.075	24.55	38.94	61						
OVEN	DRIED MASS	6	3.04 gms							
	3" 21/2" 2" 11/2	3/4	#4	#10	#20	#60	#200			
100	2 2 2	3/8	45	#	# #	<u>#</u>	#	HYDROM	EIEK	
100			P			:   :				
90	1111111	1 1		<del>-</del>		1 1	1			
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80			1			<u>:</u> :				
70			!			o ·				
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ig 60	<del>                                      </del>	1 1			++++++	1	$\stackrel{\circ}{P}$			
Percent Passing 0 0 09										
te 50										
Š 40							1			
۵										
30	<del>                                      </del>	1 1			<del>                                      </del>	: :	1			
20										
20						:				
10	1111111	: : !	1			1	1			
0	COARS		COARS	E MED	IUM	FINE				
COBBLE	100	10			1 Particle Si SAND	ze (mm) 0.1		0.01		0.001
COBBLE	.s	GRAVEL			SAIND			FINES (SILT	OK CLAY)	

- with Hydrometer REMARKS: SAMPLE SUBMITTED BY: Walk-in Clients 

✓ GPI Field Operator R. POLIDAN ARTURO Q. AQUINO TESTED BY: COMPUTER PRINT-OUT LABORATORY TECHNICIAN By: MARIA ANTONIETTE P. CUNAHAP Encoder CERTIFIED BY : \_\_\_ Data Checked by: \_\_\_ ABA/MRR AUTHORIZED SIGNATORY Quality Assurance Uncertainty Results: LAB.FILE NO.:GSA-10-410

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% Finer =  $\pm 0.0418$ 

factor of k=2, providing a level of confidence of approximately 95%.

Note: The reported expanded uncertainty is based on a combined uncertainty by a coverage