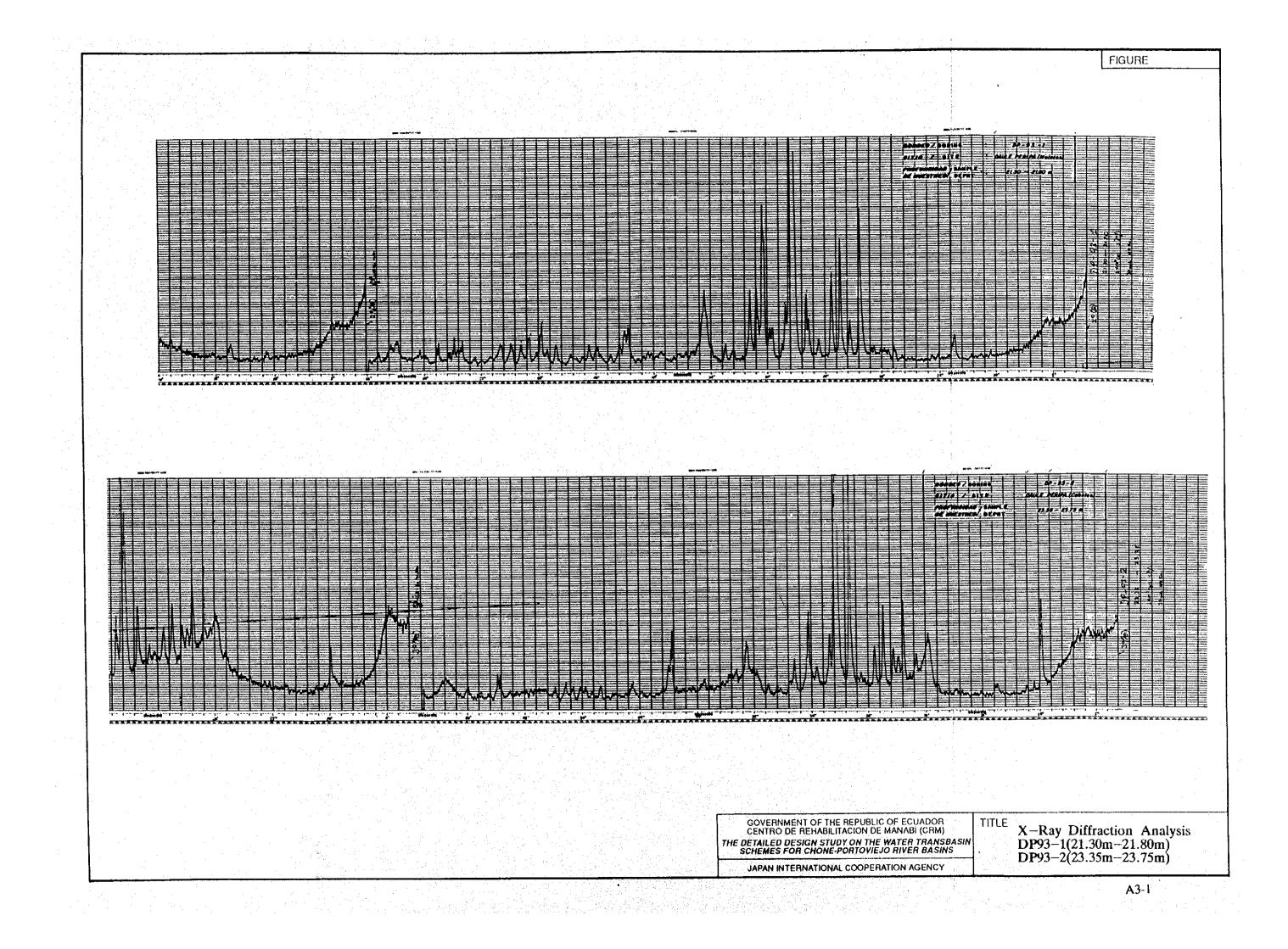
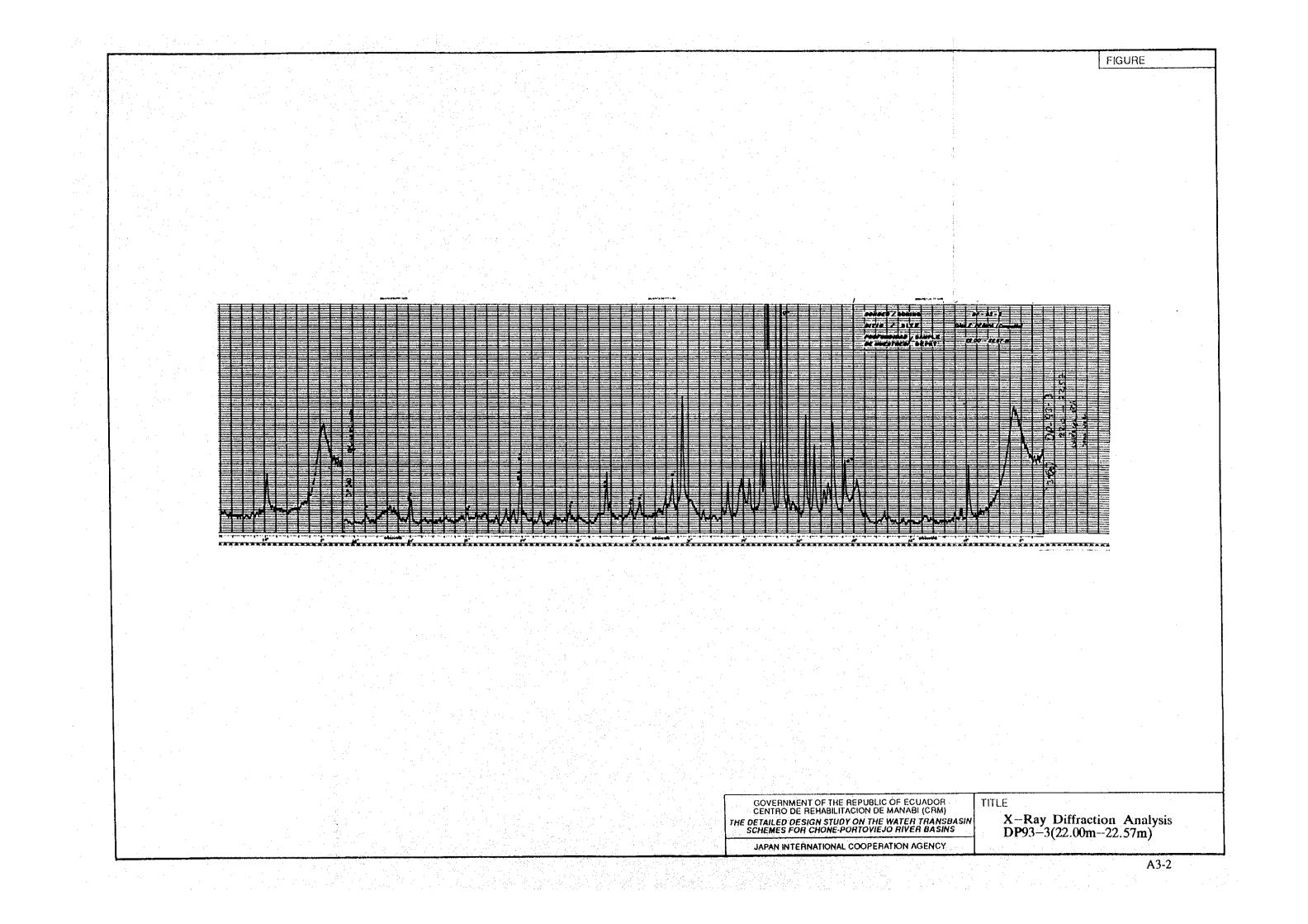
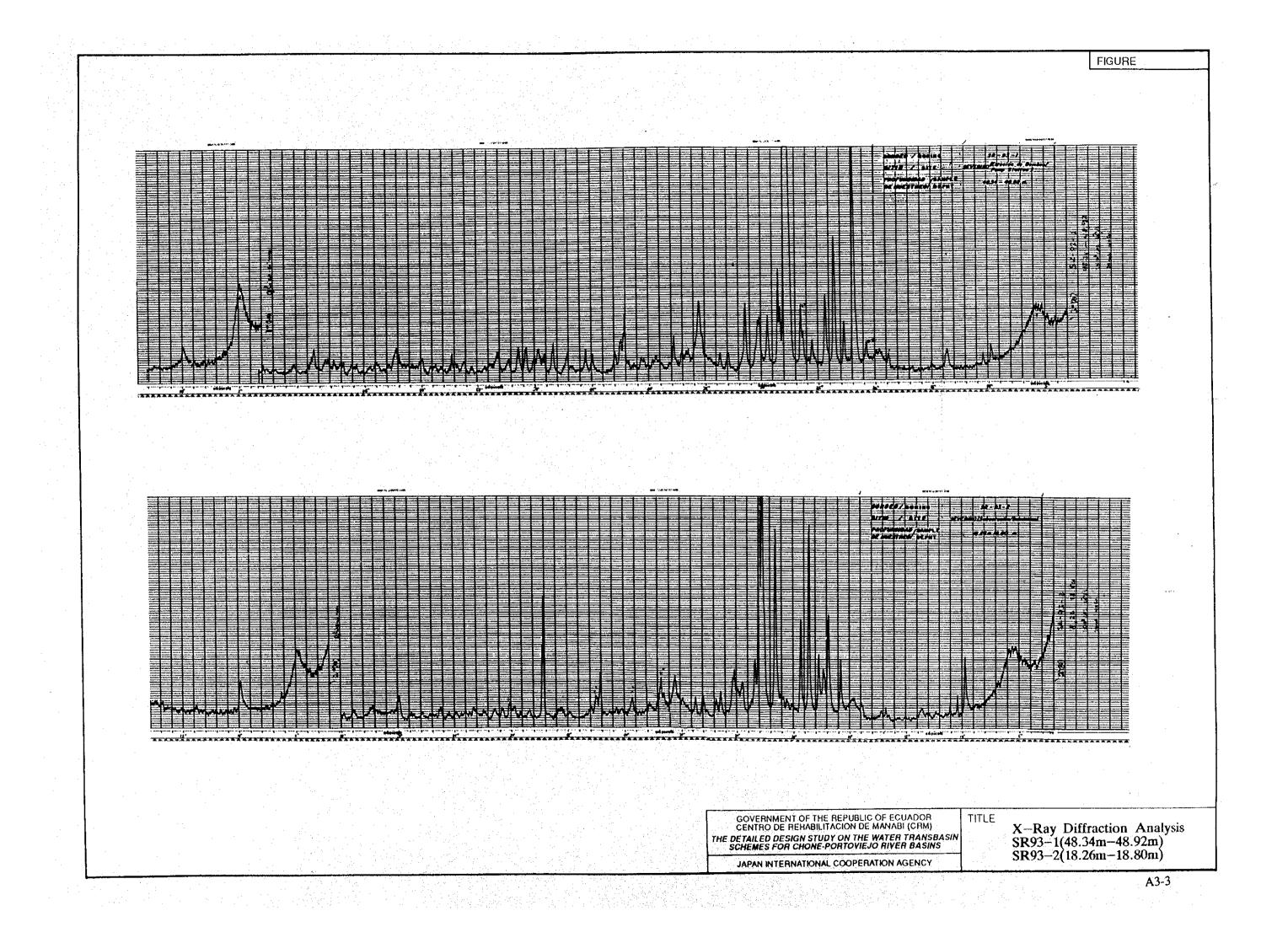
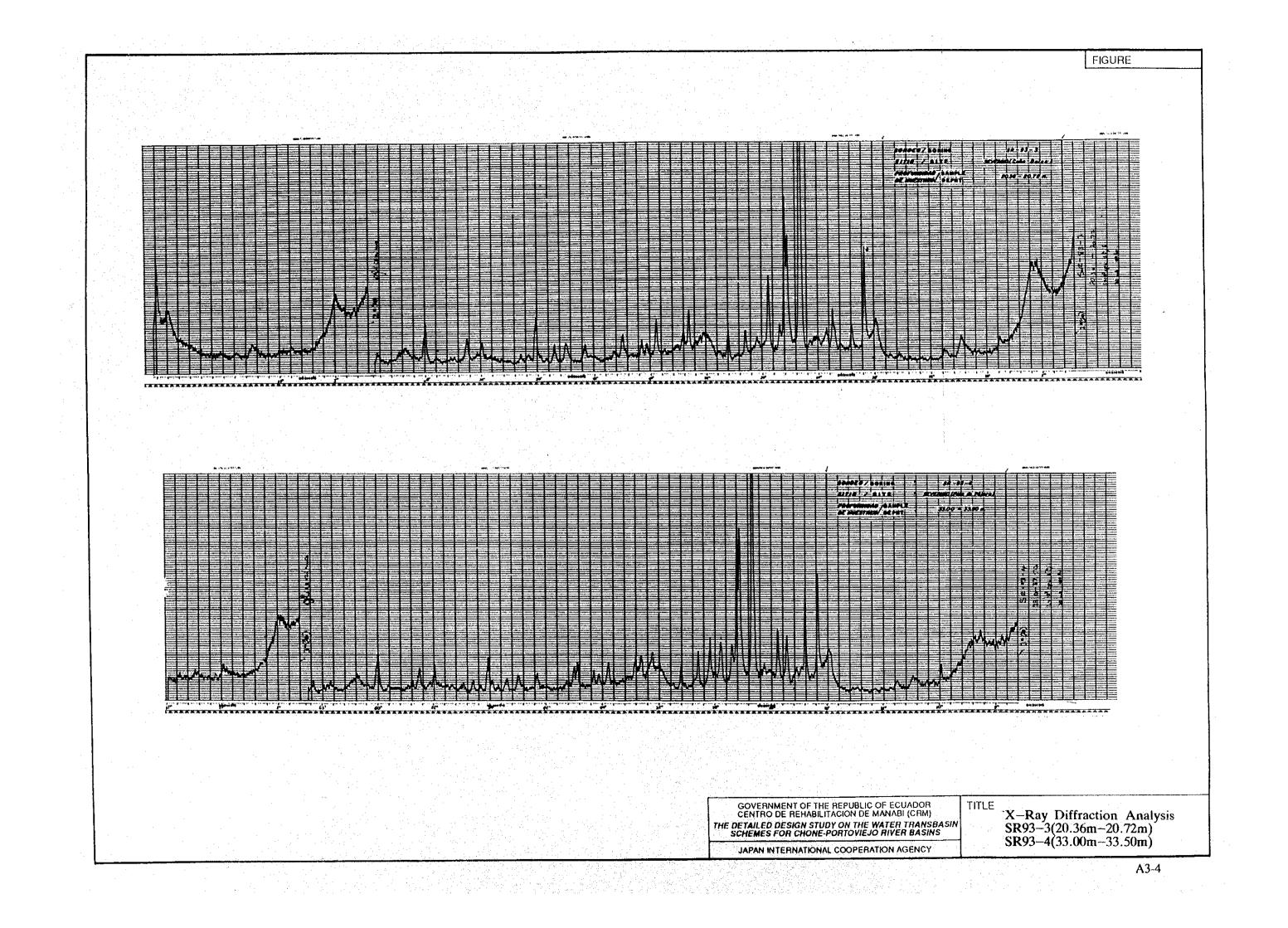
Appendix 3

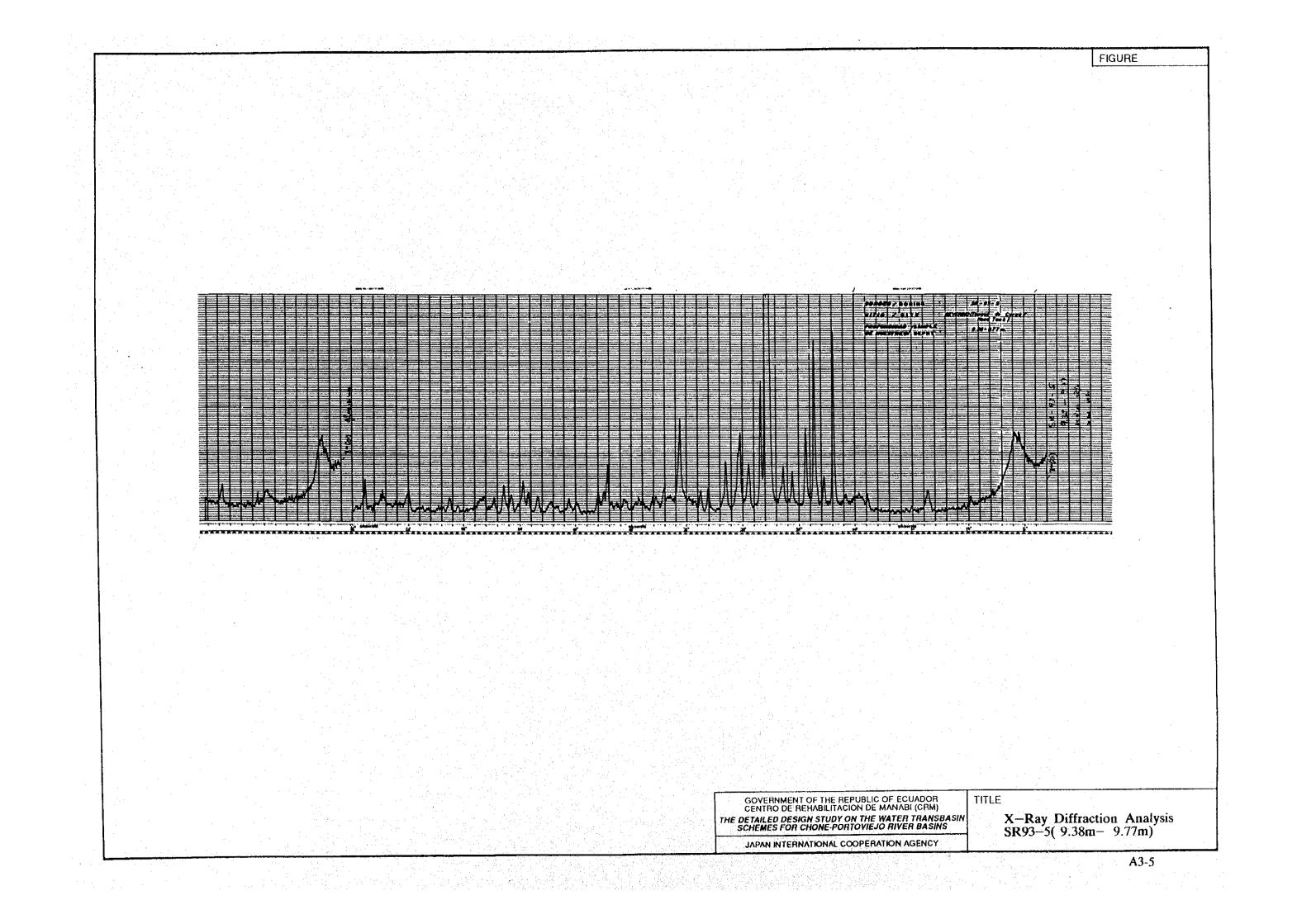
X-RAY DIFFRACTION ANALYSIS

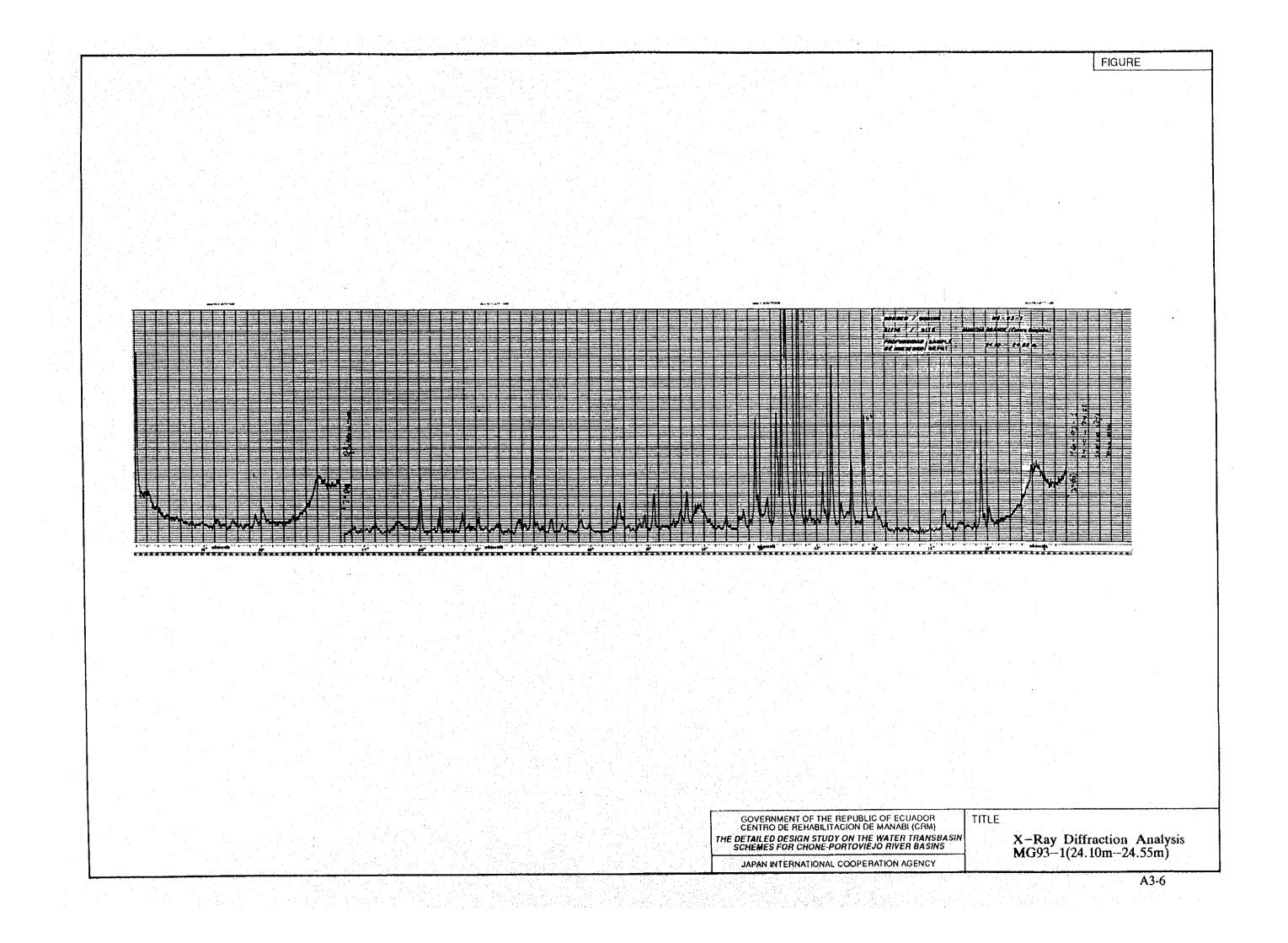


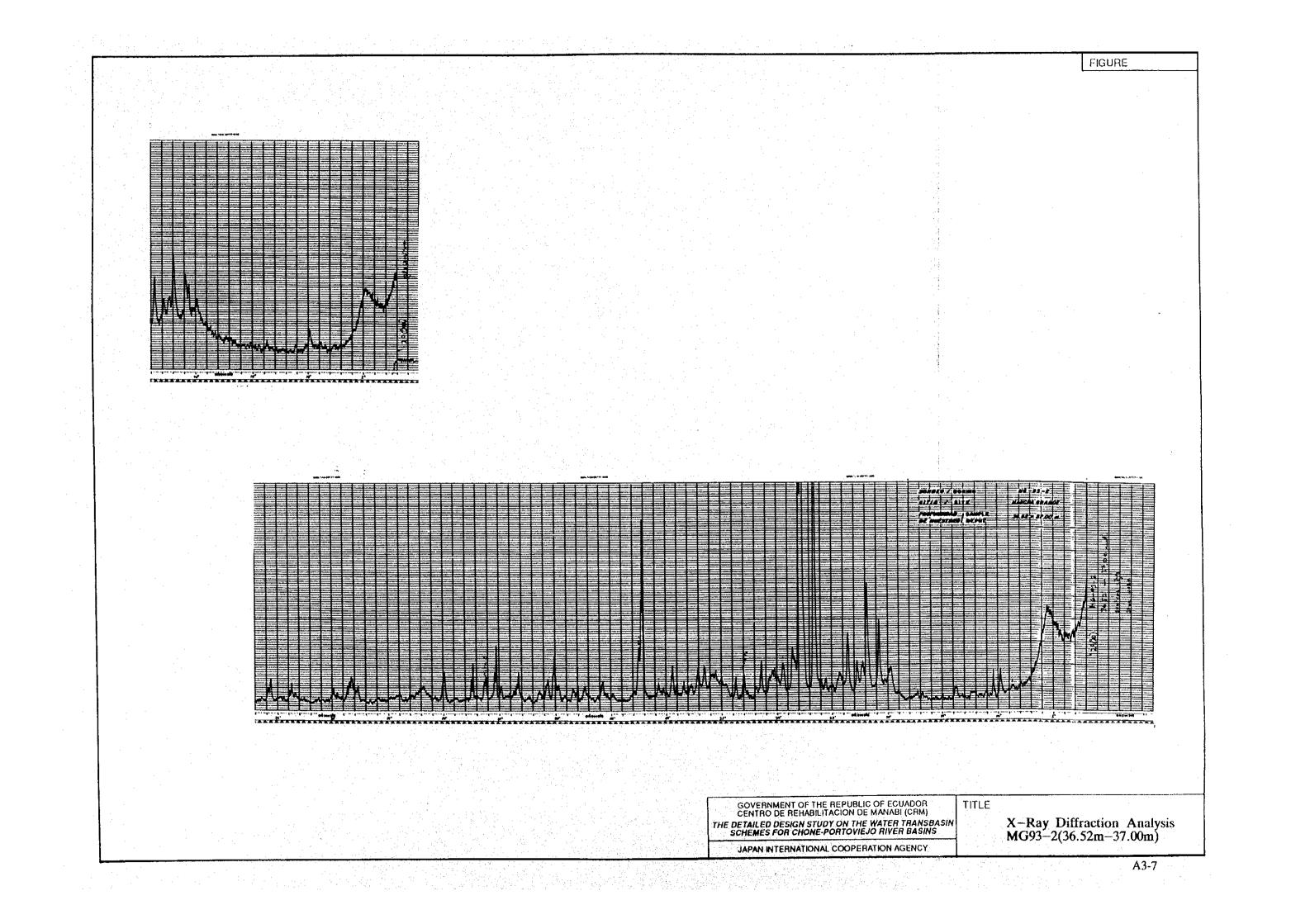


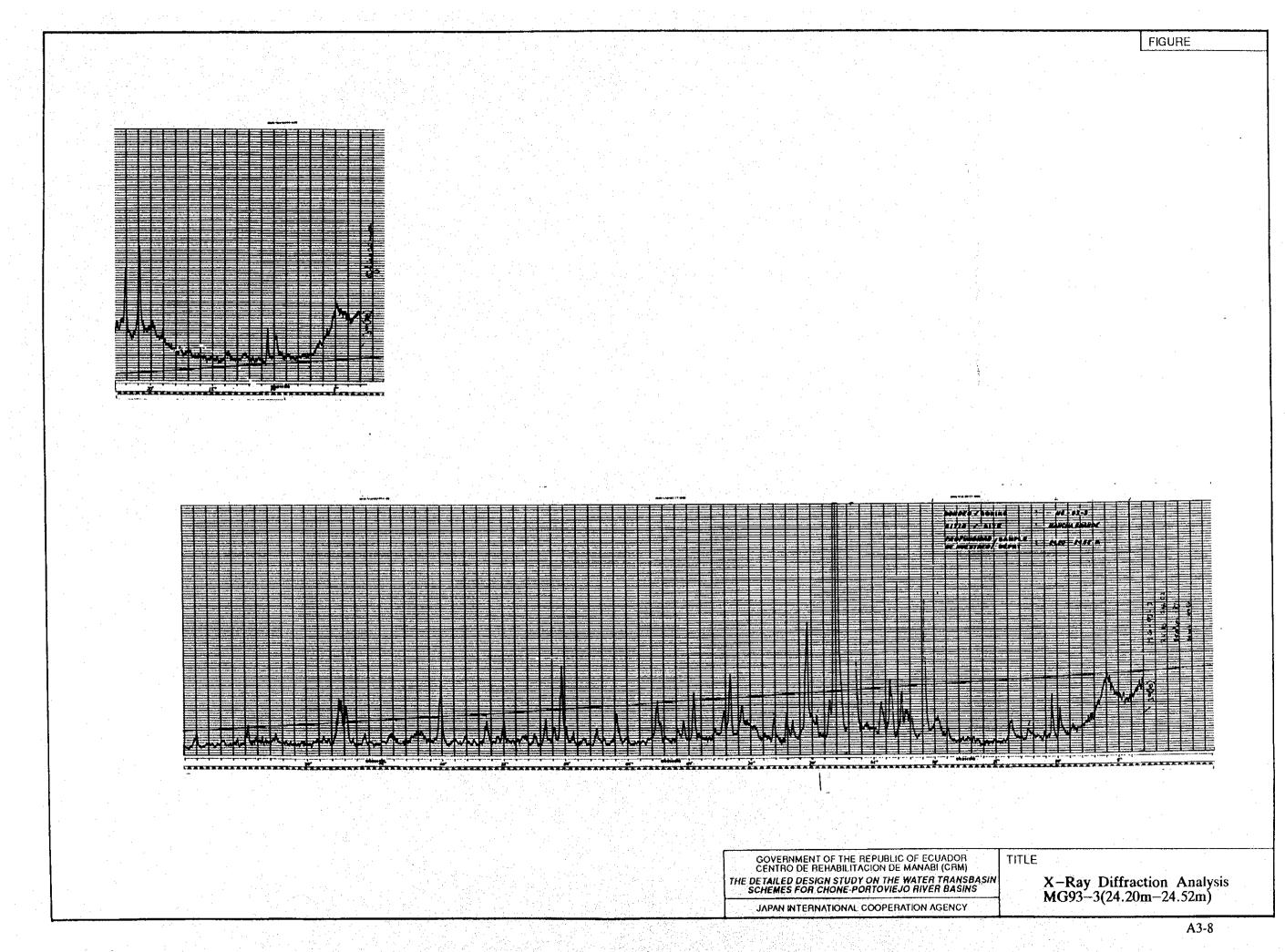








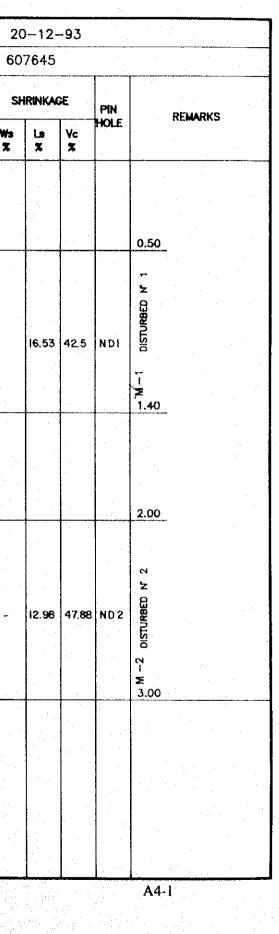




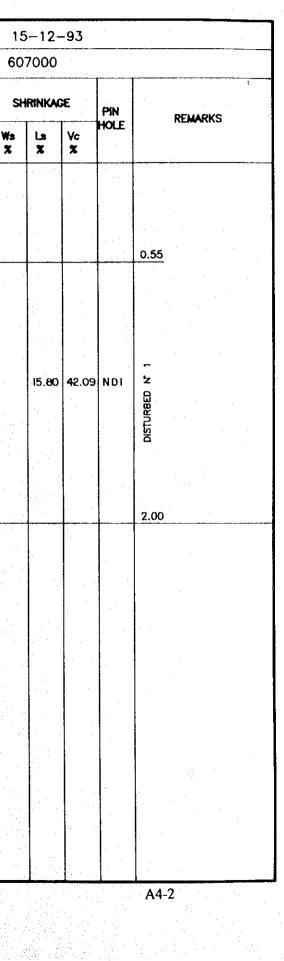
Appendix 4

TEST PIT RECORD

PRO	JECT : THE DETAILED DESIGN ON	TRAN	SEAS	N CH	IONE-	PORT	OVE	D BAS	N				TES	T PIT	N 🕿	C -	10		. 14 J.			<u> </u>	DATE	:
SITE	OPEN CHANNEL												000	RDIN	ATE :		n an an Thuậc điệc Thuậc điệc Thuậc điệc điệc điệc điệc điệc điệc điệc điệ			N 9	8926.	30		Ē
ЕРТН	DESCRIPTION	P R O		S R A V	PAR	ncle s	AZE		imites Terber	G	CLASIF	UN WEIG		¥	TRIA		CON	SOLIDA	TION	COMP	NCTION	SWEL	Tinc	
m		FL	×		#4	#200	2 <i>M</i>	WL.	WP	IP	i i i i i i i i i i i i i i i i i i i	1.1.1	SATUR	¥ vie Kg∕cπ	C'	ge deg	Pp Kg/cm2	Cc	Cv.	Ymax		P Kg/cm ²	V X	W:
	BLACKISH VEGETAL SOIL, HARD														rsyrcan.					giran.	-	rig/citi.		 .
-	DARK GRAY ORGANIC CLAY																							
																						; ;		
	WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH BROWN SILT-CLAY MATRIX, HARD																				· .:			
1.0		4-4																						
_			31.2	2.768	100	96	21	59	37	22	MH	1.59	1.683	1.82	0.90	20	0.55	0.125	4,046	1.07	44.4	0.20	0.00	
	WEATHERED YELLOWISH BROWN MUDSTONE, VERY SOFT ROCK																							
<u>2</u> .0																								
			34.3	2.727	100	98.7	18	55	37	18	MH.	1.538	1997 199 - 1997 1997 1997	-	•	-	-	-	-	-	-	0,40	0.00	-
																							5	
3.0	END : 3.0 m																				.			
																			· · · · · ·					1. 1.
																							Ì	
4.0																								

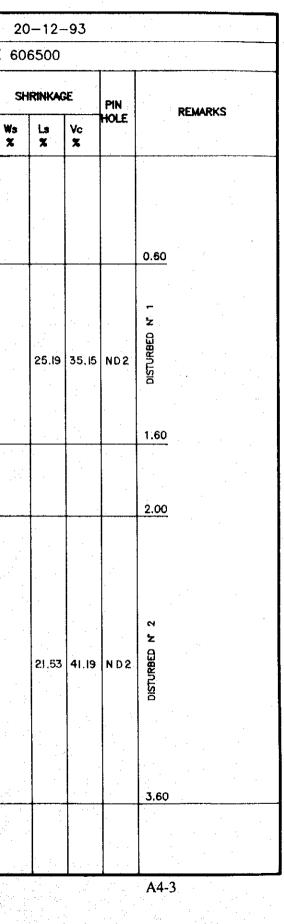


PRO.	JECT : THE DETAILED DESIGN ON	TRAN	SBAS	IN CH	ONE-	- POf	TOV	EJO	BA	SIN				T PIT			11				· · ·		DATE :
SITE	OPEN CHANNEL						n a 1940 - Sal 2014 - Angel						∞	DROIN	ATE :					N 9	8924	40	Ε
EPTH	DESCRIPTION	P R O		SPEC	PAR	ncle s	IZE		MITES TERBER	G	CLASIF	UN WEIG		u K	TRIA	(INL	CONS	SOLIDA	TION	COMP	VCTION	SWEL	LING
m			*	C V I I T T Y Y	# 4	# 200	2/1	WL.		P	UCCS	MOIST	SATUR	Kg/cm ²	C' Kg/cm ²	deg	Pp Kg/cm2	Cc	Cv	Ymax gr/cm ²	OMC X	P Kg/cm ²	×
	BLACKISH VEGETAL SOIL, HARD																						2
	GREVISH BROWN CLAYEY SILT WITH SOME OF WEATHERED CLASTICS, HARD																						
-												*								 	. 	ļ!	
	WEATHERED CLASTICS OF SILTSTONE IN YELLOWISH BROWN CLAYEY-SILT MATRIX, HARD																						
1.0	CLAY WITH CLASTICS																						
			37.7	2.606	100	86.9	20	80	54	26	MH	1.558	1.659	1.70	0.70	16	0.46	0.136	2.62	1.07	45.6	1.25	0.00
_	STIFF																						
						-																	
2.0												an an Ar An Ar An Ar An An An Ar An An											
	END : 2.0 m							-													 		
	END OF PIT BY WATER PRESENCE																						
3.0																							
									t line a s					1.1.1									
4.0																							

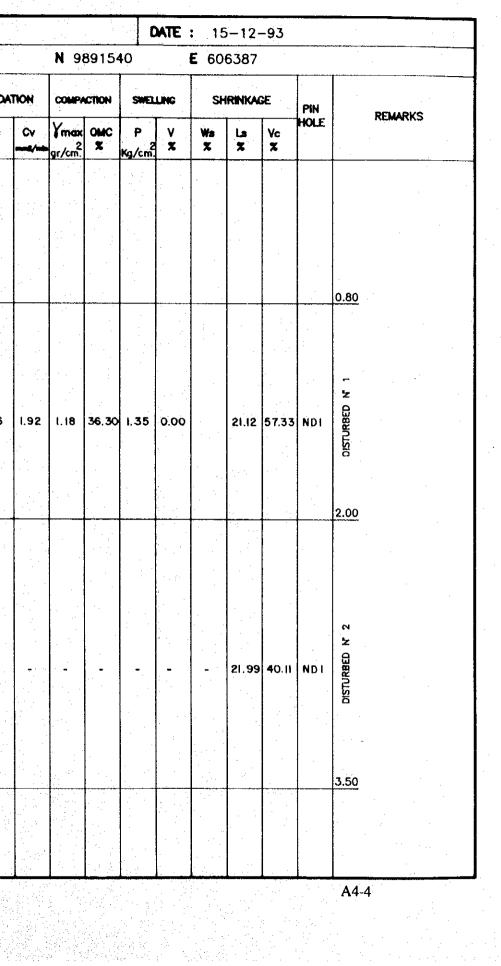


PRO	NECT : THE DETAILED DESIGN O	n tran	ISBAS	an Ch	IONE-	POR	TOVI	EJO	BAS	5 I N	1 / ¹						12			·	 		-
SITE	OPEN CHANNEL												000	RDIN	ATE :	New L				N 9	89244	0	
DEPTH	Description	P R O F		S P E C	PAR	ncle s	SZE		JMITES TERBER	1.11	CLASIF	UN WEK		2 E C O	TRIA	(IAL	CON	SOLIDA	TION	COMP	NCTION	SWE	1
m			*	I I T T Y Y	\$ 4	#200	2/1	₩L	WP	P			SATUR		C' Kg/cm ²	go deg	Pp Kg/cm2	Cc	Cv	Yrnax gr/cm.	OMC X	P Kg/cm	r Z
	BLACKISH VEGETAL SOIL, HARD		-							14 - 1 14 - 1													
	DARK GRAY CLAY WITH TRACES OF OXIDIZED DEBRIS AND ORGANIC MATERIAL, HARD																					 	
			•		· · · · · · · · ·		ļ											ļ	<u> </u>				-
	WEATHERED AND OXIDIZED DEBRIS OF SILT IN YELLOWISH BROWN SILTY-CLAY MATRIX, VERY STIFF																						
<u>1</u> .0				2,679	100	90	14	ଖ	43	18	MH.	1.58	1.708		•	•	- -	-	-	i.l3	41.60	1. 6 0	
-	YELLOWISH BROWN CLAYEY SILT. WITH NUMEROUS WEATHERED AND																						-
2.0	OXIDIZED DEBRIS, VERY STIFF		¶ : :																				-
•																						- -	
•																							
			41.6	2,68	5 100	89	16	71	48	23	MH	1.54		2.18	0.85	20	1.05	0.126	6 4.75	2 1.09	42.60	I. 6 0)
3.0	SULL																						
• •																							
			₹ 1																				-
	WEATHERED BLOCKS OF YELLOWISH BRON SILTSTONE IN SILTY-CLAY MATRIX		<u>Z</u>																				
4.0		$ \omega $							1							1					. ¹		

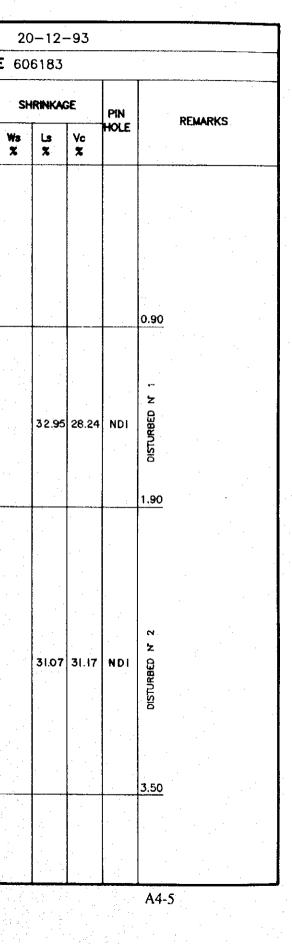
4.0 m



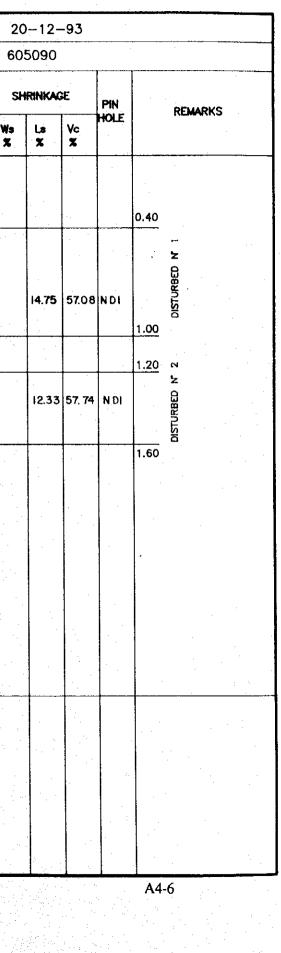
and the second	<u>.</u>				- run		EJO	BA:	511	<u> </u>	<u></u>	ļ	T PIT			13	· · · ·		. 14		i	DATE
OPEN CHANNEL	1	T		<u> </u>			I			1	I		DRDIN	ATE :					N 9	89154	10 1	
DESCRIPTION	ROF	W	S R E A C V	PAR	nicle s	aze				CLASIF	WEX			TRIA	XIAL	CON	SOLIDA		COMP	ACTION	SWE	LLÍNG
ana ang sa sa tang sa	Ē	X	ΙΥ Τ	#4	#200	2/1	WL	WP	P	UCCS	MOIST	SATUR	Ka/cm.	C' Ka/cm ²	yo deg	Pp Ka/om2	Cc	Cv			P Ka/cm	z X
BLACKISH VEGETAL SOIL, HARD																						1
																			e statu			
UARA GRAT GLAT WITH DEBRID, HARD													er te systemetrie Victoria									
WEATHERED DEBRIS IN GRAYISH BROWN SILTY MATRIX, HARD	· - a:																					
	<u>a</u>]					-													.	ļ	_
OF OXIDIZED DEBRIS, HARD		· ·																			-	
	· 																					
WITH SUME UCDINS		1																		:		
		35.7	2.743	100	97	53	92	47	45	MH	1.566	1.750	2.53	1,00	26	0.95	0.16	1.92	l.18	36.30	1.35	0.C
	· · · · ·		· · .																			
																in e. Setter						
	<u> </u>							 													:	
YELLOWISH BROWN CLAY WITH NUMEROUS OXIDIZED DEBRIS, HARD	<u>، ما</u>																					
	2																					4
WEATHERED YELLOWISH BROWN		-																			1.	
VERT SOFT MUUSIUME		33.3	2.622	100	99	8	78	42	36	MH	-	-	_	-	-	-	-	- 4 14	-	-	-	-
	-																					
							- 1.1	1 1 1 1 1		- 1 . *		1	1 1 1 1	1.1.1	194	1.1.1	1 1 1				1	
	Description Blackish vegetal soil, hard Dark gray clay with debris, hard Weathered debris in grayish Brown silty matrix, hard Grayish brown clay with traces of oxidized debris, hard with some debris	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION Image: Second state PARTICLE SIZE AT BLACKISH VEGETAL SOIL, HARD	DESCRIPTION Image: Second system PARTICLE SIZE LIMITES BLACKISH VEGETAL SOIL, HARD	DESIGNATION Image: bold with the state in t	DESCRIPTION Image: Second state state Description Image: Second state	DESCRIPTION Image: second	DESCRIPTION Image: bold state state Image: bold state sta	DESCRIPTION Image: solution of the sol	DESCRIPTION Image: solution of the sol	DESCRIFTION Image: solution of the sol	DESORPTION #	DESCRIPTION # <th< td=""><td>DESCRIPTION Image: Second Second</td><td>DESCRIPTION Image: state s</td><td>DESCRIPTION Image: state s</td><td>DESCRIPTION Image: state s</td></th<>	DESCRIPTION Image: Second	DESCRIPTION Image: state s	DESCRIPTION Image: state s	DESCRIPTION Image: state s



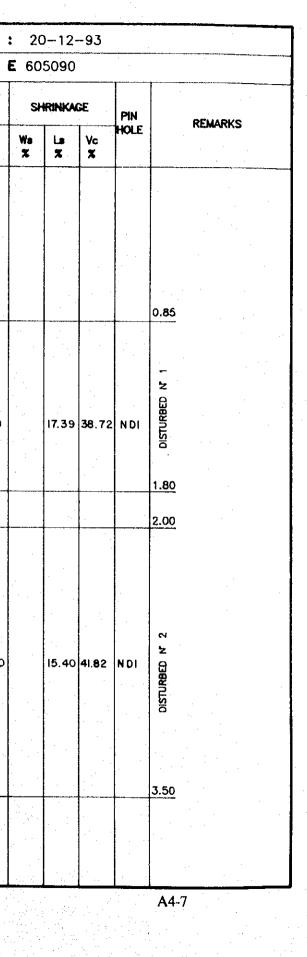
PRO	JECT : THE DETAILED DESIGN ON	TRAN	SBAS	IN CH	IONE-	- POF	TOV	IEJO	BA	SIN			TES	т рп	Nm	C-1	4			: : :			ATE	:
SITE	OPEN CHANNEL												000	DRDIN	ATE :					N 9	8910	45		E
) EPTH	DESCRIPTION	R	W	S R A V	PAR	TICLE :	SZE		LIMITES		CLASIF	UN WEIG		6 11	TRIA	XIAL,	CON	SOLIDA	TION	COMP	CTION	SWEL	LING	
m		L E	*	I I T T Y Y	#4	# 200	2/1	WL	WP	₽	UCCS	a tea a s	SATUR	Kg/cm ²	C' Ka/cm ²	deg	Pp Ka/sm2	Cc	Cv	Ymax gr/cm ²		P Kg/cm ²	V X	Y
	BLACKISH VEGETAL SOIL WITH OXIDIZED DEBRIS, HARD		1.1.1																					
	BLACKISH GRAY CLAY WITH TRACES OF OXIDIZED DEBRIS AND ORGANIC MATERIAL, HARD																							
<u>1</u> .0	YELLOWISH BROWN WEATHERED AND OXIDIZED DEBRIS IN DARK GRAY SILTYCLAY MATRIX, HARD																							
			31.9	2.598	100	76	19	78	43	35	MH	1.518	1.714							1.16	37.8	0.60	0.00	
2.0		<u>₽</u> ₽																				· ·		
	GRAYISH BROWN CLAY WITH NUMEROUS WEATHERED DEBRIS OF MUDSTONE, HARD																							
		-0-																						
			39.7	2.565	100	94	18	78	44	34	MH	1.523	1.708	1.01	1.60	14	0.72	0.145	5.494	1.16	40.2	0.10	0.00	
3.0																								
	BLOCKS OF SILTSTONE																							
	WEATHERED YELLOWISH BROWN MUDSTONE, VERY SOFT ROCK																							
4.0	END : 4.0 m			-																				



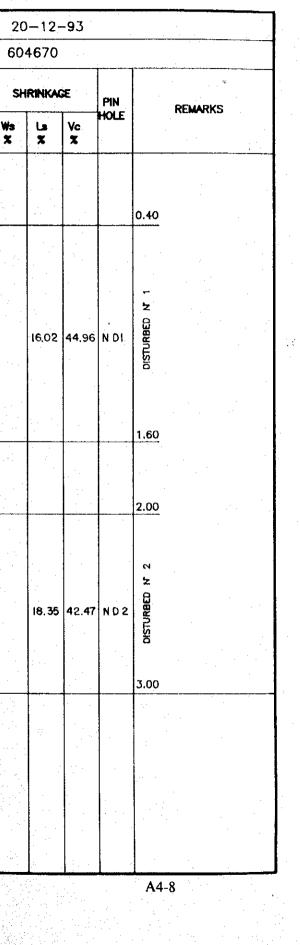
PRO	JECT : THE DETAILED DESIGN ON	TRAN	SBAS	IN CH	IONE-	POR	TOVI	EJO	BAS				TES	T PI	N=	C-1	5		·	· · ·			DATE :
SITE	OPEN CHANNEL												000	RDIN	ATE :					N 9	89044	10	E
	DESCRIPTION	PRO		SPE.	PAR	ncle s	IZE		IMITES TERBER	G	CLASIF	UN WEIG		U	TRIA	(IAL	CON	SOLIDA	NON	COMP	CTION	SWEL	LING
epth m	DEDUTIFICT		×	C V I I T T Y Y	#4	#200	2 <i>M</i>	WL	WP	IP	urces		SATUR	Ka/cm.	C' Kg/cm ²	go deg	Pp Ka/om2	Cc	CV	Yrnax gr/cm ²	OMC X	Р Ка/ст.	×
	BLACKISH VEGETAL SOIL, VERY STIFF																						
			4									* .											
												an De La ser se											Ę.
	YELLOWISH BROWN CLAY WITH SOME OF WEATHERED DEBRIS,																						-
	VERY STIFF	F																					
	LEVEL OF BLACKISH CLAY		27.5	2.658	100	76	48	-91	39	52	СН	1.399	I. 661	1.09	0.70	22	0.80	0.439	1.531	1.06	34.6	1.50	0.00
1.0		Ē																24. 1.542 2.					
<u></u> .	LEVEL OF BLACKISH CLAY	₽ −−− −−−−																	· ·	 			
	WITH NUMEROUS DEBRIS, STIFF	P												· · ·	1912 - 1914 1917 - 1917					 		 	
		P-	32.4	2.698	100	98	18	90	44	46	MH	1.400	-	•	-	-	-		-	-	⊢ .	1.60	0.00
													· .				:						
ж			-						l Turne the							1.1							<u> </u>
2 - E	WEATHERED YELLOWISH BROWN	·	-																			l e e	
	MUDSTONE, VERY SOFT ROCK		-															ан ^с .					
2.0			-						N.J.									1 A A.				· .	
				1.5	1 · · .																		
•			-																				
•			-																				
•			-																				
			-																				
			-																				
3.0			-					+							:								
	END : 3.0 m																						
•																			:				
																						÷.,	
- ·																							
4.0	1				1																	<u> </u>	



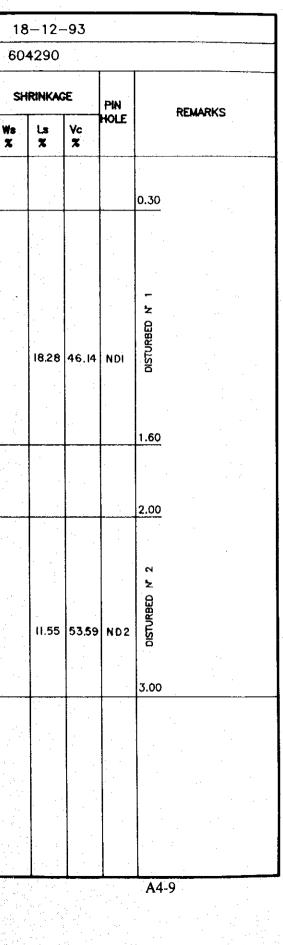
																					1999 - 1999 2010 - 1999 - 1999 - 1999	
PRO	NECT : THE DETAILED DESIGN ON	TRAN	SBAS	IN CI	IONE	-POR	TOVE	jo B/	SIN				TES		' N 🛎	C-1	6		· :			
SITE	OPEN CHANNEL				en en i Recor									RDIN	ATE					N 9	8901	10
DEPTH	DESCRIPTION	PROF	W	S R A V	PAR	TICLE	SIZE		JMITES TERBEI		CLASIF	UN WEX			TRIA	XIAL	CON	ISOLIDA	TION	COMP	ACTION	SWE
m		L E	×		#4	#200	2/4	WL.	WP	P	line		SATUR	P (C' Kg/cmł	go deg	Pp Kg/om2	Cc			COMC	P Kg/cm
	BLACKISH VEGETAL SOIL, HARD				*-************************************										rų/viii.					gran.		Ng/Un
	DARK GRAY CLAY WITH SOME WEATHERED DEBRIS AND TRACES OF ORGANIC																					
	MATERIAL, HARD																					
<u> </u>	GRAINED SANDSTONE IN YELLOWISH BROWN																					
	CLAYSILTY MATRIX, LIGHT PLASTICITY VERY STIFF																					
		 ++ P	30,1	2.636	100	78	28	62	36	26	мн	1.627	1.794	-	-		-	-	-	1.28	32.8	0.75
		P 																				
2.0	GRAYISH BROWN CLAY WITH SOME OF WEATHERED DEBRIS, LIGHT PLASTICITY, VERY STIFF																					
			32.7	2.456	100	95	30	63	34	29	MH	1.642	1.759	1.89	0.70	12	0.75	0. 107	13.91	1.28	31.8	1.65
3.0																						
	WEATHERED YELLOWISH BROWN MUDSTONE, VERY SOFT ROCK																					



	JECT : THE DETAILED DESIGN ON	TRAN	ISBAS	IN CH	IONE-	PORT	OVIEJ	0 84	SIN	<u> </u>			<u> </u>		NA		7					_	ATE :
SITE	: OPEN CHANNEL			1	T					<u> </u>		r	000	DROIN	ATE :		T		· · · · ·	N 9	8896	00	Ε
EPTH	DESCRIPTION	PROF		S G R A C V	PAR	ncle s	ize		IMITES TERBER	G	CLASE	UN WEK		, in the second s	TRIA	(IAL	CON	SOLIDA	TION	COMP	ACTION	SWEL	LINC
m		Ë	×		1 4	#200	2/1		WP .	P	UCCS		SATUR	¥ ¥ Ka∕cπt	C' Kg/crif	deg	Pp Kg/am2	Cc			OMC X	P Kg/cm?	V X
	BLACKISH VEGETAL SOIL, HARD																		1				
			1							te the s		an a											
	YELLOWISH BROWN CLAY WITH SOME DEBRIS, HARD	·													194 197						1		
																						-	
	WEATHERED DEBRIS OF MUDSTONE			a ala se e e constanta													· · · · ·					1.1	
a A	IN YELLOWISH BROWN SILTY-CLAY MATRIX, HARD																						
1.0			23.3	2.623	100	95	30	71	41	30	мн	1.498	1.718	1.66	1.50	11	0.80	0.243	10.58	1.16	32.3	1.15	0.00
		4																					
														en Trajate	· · ·								
		ि ब																		н.,			
			1					e Reference										1			ł	<u> </u>	
																			1.00				
2.0	WEATHERED YELLOWISH BROWN MUDSTONE, VERY SOFT ROCK													an an Arrista An Anna An An							a se a		
=			4 .					1										1			†		<u> </u>
												i della de Gli della											
					eria.																		
			28.6	2.680	100	99	43	73	44	29	MH	1.496				, N						1.10	0.00
			-																				
3.0			-	-												ļ				<u> </u>	 		
	END : 3.0 m																					· ·	
- -																							
																					· · ·		
4.0																							
7.0					<u> </u>		1	<u> </u>			il i an Spirite	<u>1600 m.</u> September	a se si s Referencia	<mark>, policies</mark> Maria	1	1	<u>1</u>	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>

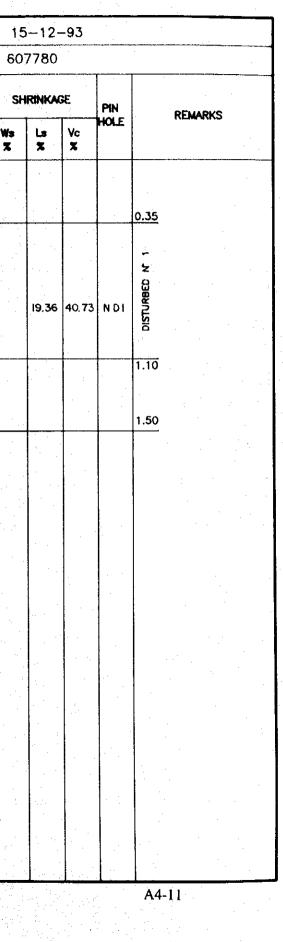


	JECT : THE DETAILED DESIGN (IRAN	SEAS	N CH	IONE-	POR	OVE	O BA	SIN						N#		8			· · · ·			ATE :
SITE	OPEN CHANNEL										eles alt Telesa		000	RON	ATE :				н н Н <u>а</u> на	N 98	3891	55	E
PTH	DESCRIPTION	PROF	W	S R A V	PAR	ncle s	IZE		IMITES TERBER	IG	CLASIF	UN		2000 2000 2000	TRIA	úNL	CONS	SOLIDAT	non	COMPA	CTION	SWEL	LINC
m		Ĺ	×	I I T T Y Y	4	#200	2/1	WL.	WP	IP	1 incore	MOIST	SATUR	č ₽ Kg∕cm	C' Kg/cm ²	deg (Pp Ke/om2	Cc	Cv.	Ymax or/cm ²	OMC X	P Kg/cm ²	V X
	DARK GRAY VEGETAL SOIL, HARD																						
	YELLOWISH BROWN SILTY CLAY WITH WEATHERED DEBRIS OF MUDSTONE, VERY STIFF																						
	WEATHERED WITHISH BROWN	· · · · · · · · · · · · · · · · · · ·																					
<u>1</u> .0	MUDSTONE WITH NUMEROUS SHELLS, VERY SOFT ROCK		21.7	2.726	100	95	24	65	35	30	MH	1.528	1.753	2.40	1.20	22	0.70	0.335	6.224	1.19	34,6	1.30	0.00
<u>2</u> .0	WEATHERED SOFT BROWN MUDSTONE BEDDING — HORIZONTAL																				8 - 1 1		
- - -																							
			25 .5	2.715	100	95	28	64	36	28	MH	1.527	1.707							112	41.6	1.50	0.00
																					71.0		0.00
3.0	END: 3.0 m	 																					
																							: · · .
•																							
4.0																						3 - -	

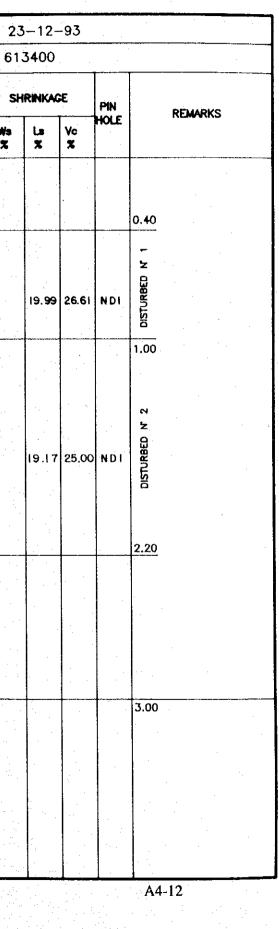


one.			SBASIN	CH	ONE-	PORT	OVIE	io B	SIN	- 1999 - 19 	1			<u></u>	N.ª	<u>.</u>	9		• •			<u>_</u>	ATE	: 15	-12-	-93			
2115:	CANAL ABIERTO OPEN CHAI	NBL						T					000	RDIN	ATE :	 	r	· · · · ·		N 9	88878	30		E 60.	3850		- <u>-</u>	· ·	
DEPTH	DESCRIPTION	P R O F	W	E A	PART	ICLE S	XZE		LIMITES	RG	CLASIF	UN WEIG		U II	TRIA)	GAL	CONS	SOLIDA	NON	COMP	CTION	SWEL	LINC	SH	RINKA	GE	PIN HOLE		REMARKS
m		Ē	*		H	#200	2/4	WL.	WP	IP	uccs	MOIST	SATUR	ĕ ₩ Kg/cn	C" Ka/ciif	go deg	Pp Ke/em2	Cc		Ymax gr/cm ²	ONIC X	P Kg/cm ²	V X	Wa X		Vc X	TOLE		
-	GRAY VEGETAL SOIL, HARD																												
		_ _																					1	- 1 - 1					
	GRAY CLAY WITH SOME OF FINE GRAINED SANDSTONE AND NUMEROUS WEATHERED																										на 1 г. т.		
	DEBRIS OF FINE GRAINED SANDSTONE, HARD																												
															· · ·					· .									
1.0																												1.00	
																							:					-	
	GRAY CLAY, HIGH PLASTICITY	 																										BED N	
		 -	24.3 2	698	100	99	30	45	22	23	CL	1.423	1.831		-	-	-	-	-	1.32	29.6	0.30	0.00	1.1	13.83	3 39.02	2 NDI	STURB	
																									an de			ä	÷ .
		ļ														1							 	· .				1.70	
2.0	GRAY CLAY WITH TRACES OF SAND AND LARGE AMOUNT OF WEATHERED			н. М.			line Ar																						н 1917 - Ал
	DEBRIS OF FINE GRAINED SANDSTONE, HARD											- -																	
																								-					
																												N Z	
			4						r Atta Alta				an tina 12 Ang															DISTURBED	
			23.5 2	2.607	100	58	20	40	21	19	CL	1.423	1.857	2.56	1.65	10	0,65	8 6 0.0	2.443	1.39	30.2	0.30	0.00	-	18.28	8 31.00) N DI	ULISIO	
3.0	STIFF AND VERY STIFF																						-						
		[
																													•
																												3.60	:
							+	+														<u> </u>		1	<u> </u>	+	+		
	WEATHERED YELLOWISH BROWN CLAY, VERY SOFT	·	-1 1	1. A.		- -																							

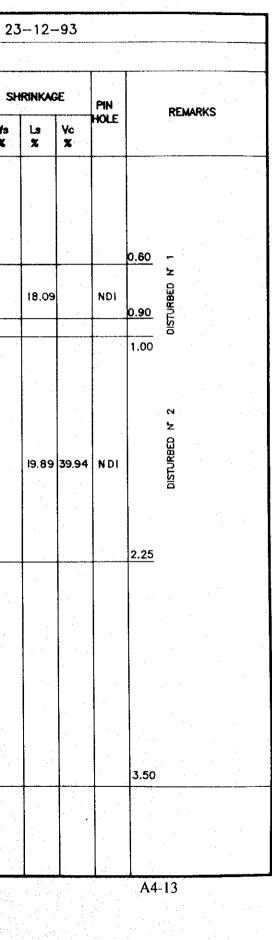
	HECT : THE DETAILED DESIGN ON												· · · · · · · · · · · · · · · · · · ·		ATE :					N o	89266		ATE :	E 60		· · · · · · · · · · · · · · · · · · ·
SIE	TRANSMISSION LINE	<u> </u>	ः ः : राज्य												NE i	<u>1997</u> 1997	1	<u></u>			09200	55				
ертн	DESCRIPTION	ROF	1000 - 1000 1000 - 1000 1000 - 1000	S R A C V	PAR	ncle s	EZE		imites Ierber		CLASIF	UN WEIG			TRIA	GAL	CON	SOLIDA	TION	COMP	ACTION	SWEL	LING	SH	RINKA	GE T
m		L E	*		#	#200	2/1	WL	WP	P	UCCS	MOIST	SATUR	Kg/cm	C' Ka/on?	deg.	Pp Kg/om2	Cc	Cv	Ymax gr/cm?	OMC X	P Kg/cm	. V . X	Wa X	Ls %	Vc X
	BLACKISH VEGETAL SOIL WITH SOME OF WEATHERED DEBRIS, HARD	- <u>-</u> + - + - 	1															and "								
	WEATHERED DEBRIS OF MUDSTONE IN DARK BROWN CLAY MATRIX, HARD	₽_ - ₽ - ₽																								
1.0				2.649	100	80	39	49	31	18	ML	1.54	1.728	3.00	1.80	10	0.75	0.106	7.81	1.17	37.8	0.15	0.00		19.36	40.73
	VERY WEATHERED LIGHT GRAY MUDSTONE WITH OXIDIZED JOINTS, SOFT ROCK																									
																						· •				
· · ·	END : 1.50 m																									
2.0																						· ·				
3.0																										
4.0																										



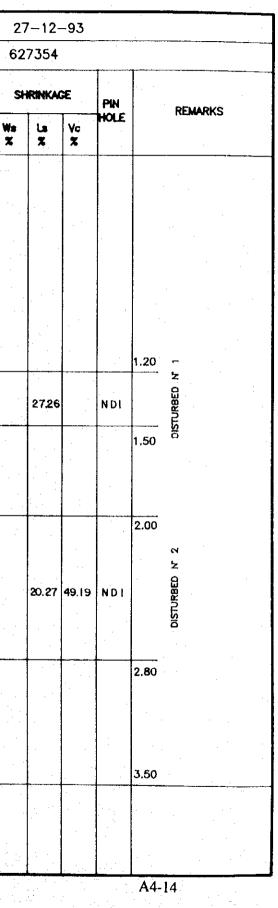
PRO	JECT : THE DETAILED DESIGN ON	TRAN	SBAS	N CH	ONE-	PORT	OME	0 84	SIN				TES	T PIT	N SR	C-2	1				-		X
SITE	TRANSMISSION LINE	<u> </u>											000	RDIN	ATE :					N 98	39240	0	
		P R O		S R A V	PAR	ncle s	IZE		MITES	G		UN WEIG		U	TRIA	GAL	CON	SOLIDA	TION	COMPA	CTION	SWEL	LII
Depth m	DESCRIPTION		×	C V I I T T Y Y		#200	2/1	WL.	WP	₽	UCCS		SATUR	Ka/an	C [.] Kg./cm ²	go deg	Pp Ka/om2	Cc		Ymax gr/cm?	OMC X	P Kg/cm ²	
	DARK BROWN VEGETAL SOIL WITH SOME SAND AND ORGANIC MATERIAL, VERY STIFF																						
	WEATHERED DEBRIS AND BLOCKS OF SILTSTONE AND FINE GRAINED SANDSTONE IN YELLOWISH BROWN SILTY-SANDY MATRIX, VERY STIFF		18.7	2.673	100	50	16	44	28		ML	1.668	1.8 26	0.83	0.40	20	0.74	D.134	6.18	1.32	31.00	1.10	0
<u>1</u> .0		₽- -₽ ₽₽																					
	VERY WEATHERED YELLOWISH BROWN SILTY FINE GRAINED SANDSTONE WITH OXIDIZED JOINTS, VERY SOFT ROCK																						
• • •		1		2.579	100	88	8	40	22	18	CL	1.670										0.26	c
- 2.0																							
	VERY WEATHERED YELLOWISH BROWN SILTY FINE GRAINED SANDSTONE WITH OXIDIZED JOINTS, SOFT ROCK																						
3.0																						· · ·	
	END : 3.0 m																						
4.0																							



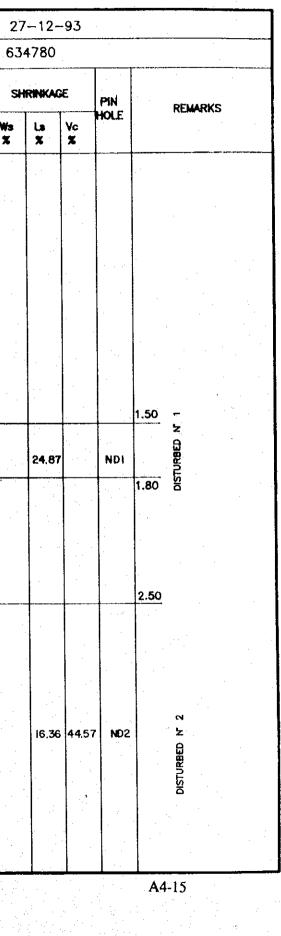
	NECT : THE DETAILED DESIGN ON	·····		n Ch	ONE-	-PORT	OME.	io Ba	SIN							C-2	2		•				ATE
SITE	TRANSMISSION LINE			s G P R	PAR	ncle s	яze		imites Terber			UN	π		ATE :		CON	SOLIDA		COMPA	ACTION	SWEL	LLING
DEPTH m	DESCRIPTION	8 F	W X	E A C V I I T T Y Y	#4	# 200	2/1	WL	WP	P	CLASIF				C' Ka/t-m?	deg (Рр	Cc	Cv	Yrnax gr/cm²	OMC X	P Kg/cm ?	V X
·	BLACKISH VEGETAL SOIL WITH SOME OF FINE GRAINED SAND AND ORGANIC MATERIAL, VERY STIFF		- · · ·																	gi / crit.			
	GRAYISH BROWN SILTY CLAY WITH Some weathered debris																						
			39.64	2.832	00		50	106	58	48	СН	1.673	1.750	13.i8	1.10	26		0.18	2.597	1.16	38.00	2.49	0.
<u>1</u> .0	WEATHERED DEBRIS OF SILTSTONE AND FINE GRAINED SANDSTONE IN BROWN SILTY MATRIX																						
																							and a strain of the strain of
2.0			-27.3	2.658	100	49	15	60	29	31	SC	1.660										1.25	0.0
	WEATHERED BROWN MUDSTONE WITH OXIDIZED ZONE, VERY SOFT ROCK																						
																							A DESCRIPTION OF ADDRESS OF ADDRE
3.0																							an any and a second
-	END : 3.50 m																						and a second second second second



FRU	NECT : THE DETAILED DESIGN ON												163	T PIT		C-2		· · ·					DATE
SITE	TRANSMISSION LINE												000	DRON	ATE :			Na la la Na la la		91	8958	74	
XEPTH	DESCRIPTION	P R O F		SPEC	PAR	TICLE	SIZE		IMITES TERBEI	KG 👘	CLASH	UN WEIG			TRIA	KIAL.	CON	SOLIDA	TION	COMPA	CTION	SWE	LINC
m		Ē	*	I I T T Y Y	#4	#200	2/1	WL	WP	P	incie		SATUR		C" Ka/cm ²	deg	Pp Ka/cm2	Cc	Cv	Ymax gr/cm ²		P Kg./cm ²	V X
	BLACKISH CLAY SILT WITH SOME FINE GRAINED SAND, HARD																						
	GRAYISH BROWN SILTY CLAY, WITH	<u>p_p</u>	1																				
	NUMEROUS WEATHERED DEBRIS OF SILTSTONE, HIGH PLASTICITY, HARD																						
		P-2-											n le Te si										
1.0	GRAYISH BROWN SILTY CLAY,	· · · · · · · · · · · · · · · · · · ·																					
	HIGH PLASTICITY, HARD	· · · · · · · · · · · · · · · · · · ·	44.03	2.873	100		65	114	51	63	СН	1.719	1.757	8.38	2.60	14	0.60	0.18	2.575	1.16	46.00	1 36	à o
	REDISH BROWN SILTY CLAY, VERY STIFF																						
2.0																							
		 		t P															4				
•			37.7	2.733	100	98	50	74	30	44	СН	1.67		•						_		0.75	
-																							
]																				
<u>3.0</u>	GRAYISH BROWN VERY WEATHERED SILTY FINE GRAINED SANDSTONE, SOFT ROCK									n an an an Thursday													
-	END : 3.50 m																						
-																							
4.0												1 I.			and a second								



PRO	JECT : THE DETAILED DESIGN ON	TRAN	SBAS	N CH	ONE-	PORT	OVIEJ	O BA	SIN		14 14 - 1 <u>141 - 1</u>		TES	T PIT	N*	C-2	4			· · ·	· · · ·	D	ATE :	; 7
SITE	TRANSMISSION LINE									ana sa Tanàna			000	RDIN	ATE :				•	98	89709) 0 · · ·		.6
	DESCRIPTION	PROF	W	S G R A	PAR	ICLE S	ŧZE		IMITES	G	CLASIF	UN WEIG		U	TRIAN	(IAL	CONS	SOLIDA	TION	COMPA	CTION	SWEL	LING	
NT93C m	UESUKIPTIUN	L E	*	C V I I T T Y Y	#	#200	2M	WL.	WP	P	LICCO		SATUR	Kg/cnf:	C' Kg/cm ²	deg.	Pp Kg/om2	~	Cv	Ymax gr.cm ²	OMC X	P Ka/cri 7	V X -	₩3 ズ
	BLACKISH VEGETAL SOIL WITH SOME OF SAND, HARD																							
	WEATHERED DEBRIS OF SANDSTONE AND SILTSTONE IN GRAY SILTY-CLAY MATRIX, HARD																							
1.0	GRAYISH BROWN CLAY WITH REDISH ZONE																							
	(OXIDIZED)HIGH PLASTICITY, VERY STIFF																							
			4L 57	2.803	100		53	87	44	43	СН	1.65	51.843	1.97	0.80	14	0.50	0.15	2.404	1.31	36.00	0.51	0. 0 0	
2.0																								
	GRAYISH BROWN SILT WITH SOME OF FINE GRAINED SAND, MEDIUM PLASTICITY, STIFF																							
3.0																								
			57.7	2.681	100	90	33	64	32	32	MH	1.66				-	-	-		-	•	0.76	0.00	
4.0			-																					



Appendix 5

SOUNDING

PRO	OYECTO	: DISENO TE	RASVASES (CHONE-PORTOVIEJO SN ON TRANSBASIN CHONE-POR	TOVIEJO	SONDEO : S SOUNDING No: S	~
COOF	RDENADI RDINATE	S: Ng	892430	£ 607520		FECHA : 11-01-	.94
PROF.	FORMA- CION	TIPO DE SUELO o ROCA	PERFIL	DESCRIPCION	CALIDAD DE SUELO o ROCA	SPT	
ОЕРТН	FORMA-	SOIL OR	COLUMN	DESCRIPTION	SOIL OR		
	now	ROCK TYPE	SECTION		ROCK GRADE) 開
Ë	žž	HUMUS		SUELO VEGETAL			
	VECETAL VECETAL	VEGETAL SOIL		VEGETAL SOIL	о.		
		·			BLANDO SOFT		
		. *		ARCILLA LIMOSA MARRON AMARILLENTO CON ALGO	8		
				DE CLASTOS METEORIZADOS			₿
			I	YELLOWISH BROWN SILTY			
			[]	CLAY WITH WEATHERED DEBRIS			HH H
++11.0							
H				·			日日
		· ·	$ \Delta$	CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ			Ħ
			Δ4	LIMO-ARCILLOSO MARRON AMARILLENTA			
		TOS S			ω		日
		CLASTOS DEBRIS		WEATHERED SILSTONE DEBRIS IN YELLOWISH	CONSISTENTE STIFF		
	COLUVIAL	× S ≺		BROWN CLAYEY SILTY MATRIX	SIL	7	
42.0	5 S S	ARCILLAS Y CLAY AND			8		
		ARC					⋕
						0 9	#
				ARCILLA MARRON GRISACEA CON CLASTOS DE LIMOLITA			井井
				MARRON OSCURA, MUY PLASTICA			日本日
						b 13	
				GRAYISH BROWN CLAY WITH DARK BROWN SILTSTONE			井井
				DEBRIS, HIGH PLASTICITY		-	
HH3.0				LIMOLITA MARRON		X	田子
		K DYS		AMARIILLENTA, COMPLETAMENTE METEORIZADA		N.	Ê
		UMONITAS METEORIZADAS MEATHERED SILTSTONE					
	ONZOLE	Sit C		YELLOWISH BROWN SILTSTONE			花母
H	INO	INS 1					
		MON					Ħ
							田田
	o			· · · · · · · · · · · · · · · · · · ·	<u> </u>		拱
				FIN : 4.05 m			#
				END : 4.05 m			田田
							世間
							∰
				A5-1	1		Ħ

	PRC ORI	DENAD	<u>: The Detai</u> as : n g	ASVASES C LING DESIG 892380	HONE-PORTOVIEJO N ON TRANSBASIN CHONE-POR E 607370	RTOMEJO	SONDEO : 5 - 2 SOUNDING No: 5 - 2 FECHA : 12-01-94
RO	F.	FORMA- CION FORMA- TION	TIPO DE SUELO o ROCA SOIL OR ROCK TYPE	PERFIL COLUMN SECTION	DESCRIPCION DESCRIPTION	CALIDAD DE SUELO o ROCA SOIL OR ROCK GRADE	SPT (N30)
Π		11014			COVERTURA VEGETAL VEGETAL SOIL		
					LIMO ARCILLOSO GRIS BLANQUESINO CON CLASTOS DE LIMOLITA LIGHTGRAY CLAYEY SILT WITH DEBRIS OF SILTSTONE	BLANDO Solt	
	1.0	COLLUNIUM COLUNIAL	COLUMAL	<u> </u>			
		COLL	COLLUMUM		CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ LIMO-ARCILLOSO MARRON AMARILLENTA	TENTE	
					WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH BROWN CLAYEY SILTSTONE MATRIX	CONSISTENTE STIFF	
	2.0				LUTITA MARRON AMARILLENTA COMPLETAMENTE METEORIZADA		X X X Z Z Z Z
			COMPLETAMENTE METEORIZADAS		VERY WEATHERED YELLOWISH BROWN MUDSTONE	ž	
		ONZOLE	OMPLETAMENTE METEORIZAC				
	3.0	56	TA COMPLE				
					FIN : 3.60 m END : 3.60 m		
	4.(5					
	1				A5-2		

きょうちょう	FORMA- CION	TIPO DE SUELO o ROCA		DESCRIPCION	CALIDAD DE SUELO o ROCA		SPT (N30)	
	FORMA- TION	SOIL OR ROCK TYPE	COLUMN SECTION	DESCRIPTION	SOIL OR ROCK GRADE	0 10	20 30	4 0
		VEGETAL VEGETAL		SUELO VEGETAL VEGETAL SOIL				
I			 		8 L			
				ARCILLA GRIS AMARILLENTA CON ALGO DE CLASTOS METEORIZADOS	BLANDO			
				YELLOWISH GRAY CLAY WITH				
				WEATHERED DEBRIS				
₿			∆	CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ				
1.0	2			LIMO-ARCILLOSO MARRON				
	COLLUMIAN	COLUVIAL COLLUVIUM	[<u> </u>	WEATHERED DEBRIS OF	Э			
H	88			SILTSTONE IN YELLOWISH BROWN CLAYEY SILT MATRIX	CONSISTENTE STIFF			
			Δ		STIFF			
			L		U			
Ħ			-64					
$\left \right $			<u> </u>					
2.0								
				LIMOLITA MARRON				
		SA		AMARILLENTA, COMPLETAMENTE METEORIZADA CON PLANOS				
		METEORIZADAS LISTONE		OXIDADOS	N.			
		TE METEORIZ SILTSTONE		VERY WEATHERED YELLOWISH BROWN SILTSTONE	⊻		N.	
		มหี		WITH OXIDIZED JOINTS			¥26	
	ONZOLE	LIMONITA COMPLETAMENT VERY WEATHERED						
3.0	ON2	WEAT						
		VERY VERY					Ň	
		INON						N.
		.						Ň
								N.
				FIN : 3.60 m				
H				END : 3.60 m				
4.0								
	1		I	<u>1</u>			<u></u>	

· · ·

PRC	YECTO	DISENO THE	RASVASES	CHONE-PORTOVIEJO SN ON TRANSBASIN CHONE-POP	TOMEJO	SONDEO : S - 4
COOR	DENADI	S: N 9	892240	E 607100		FECHA : 12-01-94
ROF.		TIPO DE SUELO O ROCA	PERFIL	DESCRIPCION	CALIDAD DE SUELO & ROCA	SPT
PTH	FORMA- TION	SOIL OR ROCK TYPE	COLUMN SECTION	DESCRIPTION	SOIL OR ROCK GRADE	
T		VEGETAL		SUELO VEGETAL		
		VEGETAL		VECETAL SOIL	BLANDO	
		COLUMAL	227	CLASTOS METEORIZADOS		
	TON	COLLIMUM		DE ARENISCA FINA EN MATRIZ LIMO ARCILLOSA	한번 - 111	
	COLLUMUM		2]	MARRON AMARILLA	CONSISTENTE STIFF	
				WEATHERED DEBRIS OF FINE GRAINED SANDSTONE	S77	
-1.0			ZZ	IN CLAYEY SILT MATRIX IN YELLOWISH BROWN COLOR		
.		J.		ARENISCA FINA LIMOSA		
-		SUNDSTONE		AMARILLA, COMPLETAMENTE		X 22
		METEORIZADA UNED SANDST				
	SLE DLE	FINA METEC		VERY WEATHERED YELLOWISH SILTY FINE GRAINED	⊻	
	ONZOLE	A FIN		SANDSTONE		
		ARENISCA FI WEATHERED FINE				2
-2.0		AR				X
		X	a di seconda di second			
				FIN : 2.20 m END : 2.20 m		
H						
 3.0						
\prod	1					
\mathbf{H}						
$\left \right $						
- ₄.	o					
\mathbb{H}						

PRO PRO	YECTO NECT	: DISENO TE	RASVASES	CHONE-PORTOVIEJO	RTOMEJO	SONDEO SOUNDIN	S -	5
COOR	DENADA	S: NO	892210	E 607010		FECHA : DATE :	12-01-94	· · · ·
PROF.	FORMA- CION	TIPO DE SUELO o ROCA	PERFIL	DESCRIPCION	CALIDAD DE SUELO o ROCA		SPT (N30)	. : .
ОЕРТН	TORNA- TION	SOIL OR ROCK TYPE	COLUMN	DESCRIPTION AND ADDRESS	SOIL OR ROCK GRADE	0 10	20 30	40
		VEGETAL		SUELO VEGETAL VEGETAL SOIL				
		VEGEIAL		VEGETAL SOIL	BLANDO			
				ARCILLA MARRON OSCURA				
	VIAL		 	CON ALGO DE CLASTOS DE LIMOLITA				
	COLUVIAL	COLUMAL		DARKBROWN CLAY WITH	ω			
		COLLUMUM		SILTSTONE DEBRIS	CONSISTENTE			
1.0					SILFF			▦
				CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ LIMO- ARCILLOSA MARRON ARCILLOSA	U I			
			Δ	WEATHERED DEBRIS OF				
			7	SILTSTONE IN CLAYEY-SILT MATRIX YELLOWISH BROWN COLOR			2	
				LIMOLITA MARRON COMPLETAMENTE				
		ADAS		METEORIZADA				
		EORIZ N. TSTI		WEATHERED				
2.0		METI		BROWN SILTSTONE			X	
	J.	LIMOLITAS METEORIZADAS WEATHERED SILTSTONE						
	ONZOLE ONZOLE				Σ		A A A A A A A A A A A A A A A A A A A	
	2						h in the second se	
								田田
								È
1								
+3.0								
				FIN : 3.15 m				▦
				END : 3.15 m	ана 1911 г. – 1911 г. – 1			
T.								
4.0								
H								
	X							
								▦
\square								∰
	(Kird) (K			<u> </u>				Щ

P	ROI	ECTO	: DISENO TE	RASVASES	CHONE-PORTOVIEJO GN ON TRANSBASIN CHONE-PO	RTOMEJO	SONDEO : S - 6
COC	RÖ	ENAD	AS: N 9	892180	E 607030		FECHA : 12-01-94
PROF		ORMA-	TIPO DE SUELO o ROCA		DESCRIPCION	CALIDAD DE SUELO o ROCA	SPT
DEPT	H	forma- Tion	SOIL OR ROCK TYPE	COLUMN SECTION	DESCRIPTION	SOIL OR ROCK GRADE	0 10 20 30 40 5
			VEGETAL VEGETAL		SUELO VEGETAL VEGETAL SOIL		
		COLUMINA	COLUMAL COLUMUM		ARCILLA MARRON OSCURA CON ALCO DE CLASTOS METEORIZADOS DARKBROWN CLAY WITH WEATHERED DEBRIS	consistente <i>Stiff</i>	
1	0			х 	CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ LIMOSA MARRON AMARILLENTA		
				Δ Δ .Δ Δ	WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH BROWN SILTY MATRIX		
			TEORIZADAS Sil ISTONE		LIMOLITA MARRON AMARILLA COMPLETAMENTE METEORIZADA		i i i i i i i i i i i i i i i i i i i
- 2.	0	ONZOLE	HKOLITAS METEORIZADAS HKATHERED SILISTONE		VERY WEATHERED YELLOWISH BROWN SILTSTONE		
			μ. Πιγι		MUY METEORIZADA VERY WEATHERED	Ĩ	
					FIN : 2.50 m END : 2.50 m		
3.	0						
-+- 4 .	0						

COORDENA COORDINA PROF. FORM CION	TIPO DE SUELO O ROCA	PERFIL	E 606840 DESCRIPCION	CALIDAD DE SUELO o ROCA	FECHA : 13-01-94 (NS0)
DEPTH FORM	- SOIL OR ROCK TYPE	COLUMN SECTION	DESCRIPTION	SOIL OR ROCK GRADE	en e
			SUELO VEGETAL VEGETAL SOIL	00 F	
		► ₹	CLASTOS METEORIZADOS DE LIMOLITA MARRON AMARILLENTA	BLANDO	q 4
			WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH		X
			BROWN SILTY MATRIX		X 10
		►			
					E 12
	COLUVIAL COLLUVIUM	D _ D			
				ω	
		D	ARCILLA GRIS OSCURA MUY PLASTICA	CONSISTENTE STIFF	n 90
			DARK GRAY CLAY WITH HIGH PLASTICITY	Ö	
					10 10
3.0					
					¥18 /
			CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ LIMOSA MARRON AMARILLENTA		
			MARRON AMARILLENTA WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH BROWN SILTY MATRIX		
4,0	5		LIMOLITA MARRON COMPLETAMENTE METEORIZADA		<u>}</u> */
ONZOLE	LIMOLITA METEORIZADA WEATHERED SILISTONE		WEATHERED BROWN SILTSTONE		955
No.	AOUITA M			<u>v</u>	
			FIN 4.95m. <i>END 4.95m.</i> A5-7		

PRO	YECTO	DISENO T	RASVASES	CHONE-PORTOVIEJO GN ON TRANSBASIN CHONE-POR	TOVIEJO	SONDEO SOUNDIN		S - 8	
COORI	DENAD	S: N	9892110	E 606865		FECHA :	1.191.0142	1-94	
ROF.	DINATE	TIPO DE SUELO o ROCI	PERFIL	DESCRIPCION	CALIDAD DE SUELO o ROCA	DATE	SPT		
	CION FORMA- TION	SUELO o ROCI SOIL OR ROCK TYPE	SECTION	DESCRIPTION	SULLO & ROCA SOIL OR ROCK GRADE		(N30) 20	30 4	10 50
T			V	SUELO VEGETAL					
			-vv-	VEGETAL SOIL	8.				
					BLANDO				
				ARCILLA GRIS OSCURA MUY PLASTICA	8				
				DARK GRAY CLAY HIGHT PLASTICITY					
				CLASTOS METEORIZADOS DE LIMOLITA EN MATRIZ					
-1.0			▼ -	LIMOSA MARRON					
			Þ	AMARILLENTA					
				WEATHERED DEBRIS OF SILTSTONE IN YELLOWISH					
				BROWN SILTY MATRIX					
	COLLUVIUM COLUVIAL	COLUVIAL COLLUVIUM	P						
	Z Č Č								
-2.0	S C								
			-7-		NTE E				
			D		CONSISTENTE STIFF				
- 24 1		i se di se	[>		SIO				
			[♥		Ŭ				
			- ▼ -						
			-7						
-3.0				ARCILLA GRIS OSCURA					
IJ	. '		· [CON ALGO DE CLASTOS OXIDADOS, MUY PLASTICA					
				DARK GRAY CLAY WITH					
H^{\pm}				OXIDIZED DEBRIS, HIGHT PLASTICITY					
				CLASTOS METEORIZADOS					
Π				DE LIMOLITA EN MATRIZ LIMO ARCILLOSA MARRON					
				AMARILLENTA					
¹ :				WEATHERED DEBRIS OF					
H4.0			- 7_	SILTSTONE IN YELLOWISH BROWN CLAYEY-SILTY MATRIX					
	ļ		<u> </u>						
₩°,		ZADA		LIMOLITA MARRON GRISACEA			1123		
	L Ш	LIMOLITA METEORIZADA		METEORIZADA					
	ONZOLE	L S		WEATHERED GRANISH BROWN SILTSTONE	<u></u><u></u>				
	N S	LIMOLITA WEATHERE					l N		
		N N N N N N N N N N N N N N N N N N N		FIN 4.95m. END 4.95m.					
	19	1	1	A5-8	L	<u> (</u>			