



Instituto Tecnológico
GeoMinero de España

CAMPAÑA DE GEOFISICA ELECTRICA (S.E.V.)
EN EL RIO PALANCIA (VALENCIA)

INSTITUTO TECNOLOGICO GOMINERO DE ESPAÑA

Noviembre, 1992



MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO

40422

TITULO	CAMPAÑA DE GEOFISICA ELECTRICA (S.E.V.) EN EL RIO PALANCIA (VALENCIA)
CLIENTE	INSTITUTO TECNOLOGICO GEOMINERO DE ESPAÑA
FECHA	Noviembre, 1992

Referencia: A-029

Departamento: Geofísica

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1.- INTRODUCCION

1.1.- PRESENTACION

El presente informe corresponde a una Campaña de Geofísica Eléctrica en su modalidad de Sondeos Eléctricos Verticales (S.E.V.), realizada por la Unidad de Geofísica de la E.N. ADARO para el I.T.G.E. Los trabajos de campo se desarrollaron durante el verano de 1992 en el cauce del río Palancia, entre Algar y Estivella (Valencia) (Plano nº 1).

1.2.- OBJETIVOS Y DESCRIPCION DE LA ZONA DE TRABAJO

El trabajo se realizó en el cauce del río Palancia, tal como se refleja en el plano de situación, teniendo como objetivos la determinación de los recubrimientos del lecho del río y la identificación por medio de sus resistividades de la disposición y naturaleza de los materiales situados bajo dicho recubrimiento. De esta manera, se pretendió localizar las zonas más permeables, impermeables y el grado de compactación a fin de ubicar labores para la recarga de acuíferos en las zonas apropiadas. Para la consecución de estos fines se programaron una serie de S.E.V. a lo largo del cauce del río y a distancias apropiadas para la resolución del problema.

2.- TRABAJOS REALIZADOS

2.1.- METODO Y DISPOSITIVO EMPLEADOS

El método empleado ha sido el Eléctrico de Resistividades en su modalidad de Sondeos Eléctricos Verticales (S.E.V.), con dispositivo Schlumberger simétrico. (Las separaciones entre los electrodos de medición y los valores de resistividad obtenidos quedan reflejados en las Hojas de Campo de los S.E.V., como puede observarse en el Anexo).

2.1.1.- Características del equipo utilizado

En la ejecución de los trabajos de campo se utilizó el equipo y material que se describen a continuación:

Composición de un equipo de Geofísica Eléctrica

- Milivoltímetro electrónico con medidas de voltaje absoluto, marca ADARO, modelo FM-1. (La relación de escalas está controlada por resistencias de 0,01% de precisión. La precisión total del aparato es del 1%).

- Amperímetro con escalas más sensibles de 30 miliamperios, y precisión en las medidas de 0,5%, marca ADARO, modelo FM-2.

- Electrodos impolarizables, de vasija porosa para rellenar con una disolución apropiada, para el circuito MN.

- Electrodos de acero templado para el circuito AB.

- Cables de doble aislamiento y resistencia óhmica de 17 ohmios por Km.

- Teléfonos de línea para comunicación con los operarios.

- Localizador de averías o roturas de cable.

Además, equipos auxiliares de jalones, banquetas, herramientas, mazos, etc.

2.2.- PROGRAMACION

Para la consecución de los objetivos propuestos se programaron 45 S.E.V. (Ver Plano nº 1). En la zona de Algar de Palancia los S.E.V. se situaron a 100 m el uno del otro, mientras que en la de Estivella se programaron a 200 m.

Los AB empleados oscilaron en el orden de los 400 y 500 m.

3.- INTERPRETACION

3.1.- BASES INTERPRETATIVAS E INTERPRETACION

Las curvas de S.E.V., obtenidas de la relación resistividad y apertura de dispositivo, han sido interpretadas por medio del programa RESIX-IP de Interpex Ltd. (Los ficheros generados se adjuntan en disquete y sus formatos en el Anexo).

Una vez interpretadas las curvas de S.E.V., y a partir de estos datos, se elaboraron cortes geoeléctricos que relacionan entre sí los S.E.V. En el Plano nº2 están los 4 cortes efectuados. El primero de ellos agrupa los S.E.V. núms. 1 al 25; el segundo los núms. 26 a 31; el tercero del 32 al 39 y, por último, el cuarto los S.E.V. núms. 40 a 45. En ellos, se indica ocasionalmente con una R aquellos valores de resistividad muy altos, que no se cuantifican, aún cuando pueden ser identificados en las interpretaciones adjuntas.

Igualmente, se indica junto a los contactos una señal de interrogación en aquellos casos en que es dudosa o incierta la interpretación adoptada. Es decir, en los casos de conductores finales la curva muestra un tramo descendente, pero por su poca definición la interpretación que se consigue es sólo indicativa. Lo mismo ocurriría con los tramos ascendentes finales, resistivos: su poca definición lleva a interpretaciones solo semicuantitativas.

Seguidamente se hace un comentario a los Cortes Geoeléctricos.

- Perfil S.E.V. nº 1 a 25

Del S.E.V. nº 1 al 10 se determina el espesor de los materiales que hay sobre el substrato resistivo; éstos, presentan dos horizontes: uno superficial resistivo correspondiente a materiales de gruesa granulometría y un segundo con resistividades típicas de rellenos arenosos, con más o menos proporción de arcillas, y de granulometría más fina. En los núms. 11, 12 y 13, el substrato resistivo se muestra aflorante o semiaflorante, para volver a la misma tónica litológica precedente hasta el S.E.V. nº 18. En el 19 tendríamos un resistivo acuñado entre los materiales de relleno; a partir del 21, con resistivo aflorante, se sigue bien la evolución del relleno hasta el final del perfil.

- Perfil S.E.V. nº 26 a 31

Los S.E.V. nº 26 y 27 detectan bien los materiales arenosos sobre el resistivo. A partir de este último, nos encontramos en presencia de dos horizontes resistivos que se han diferenciado, aún cuando corresponden a una sola litología de substrato. Es decir, los S.E.V. núms. 28, 29 y 30 tienen el substrato resistivo muy somero, con un pequeño recubrimiento arenoso en los dos últimos.

- Perfil S.E.V. nº 32 a 39

Al igual que los precedentes determinan perfectamente el substrato resistivo y los espesores de los rellenos a techo del mismo. El máximo desarrollo de los recubrimientos estaría en el 38, con imprecisión de su potencia, pero con un espesor mayor que en el 35, 36 ó 37.

- Perfil S.E.V. nº 40 a 45

Como puede observarse, hay un buen desarrollo de los materiales de relleno, con mayor importancia en el S.E.V. nº 42. Se siguen observando los dos horizontes en el recubrimiento, como en los otros perfiles.

4.- CONCLUSIONES

Se han determinado bien los espesores de las series detríticas sobre el substrato del lecho del río, identificándose dos horizontes que corresponden a las fracciones de gran granulometría (más resistivas) y superficiales, y las más finas con mayor arcillosidad (menos resistivas).

Los valores de resistividad del substrato que han sido identificados pueden servir de guía a la hora de escoger las zonas apropiadas para la situación de las construcciones para la recarga de acuíferos, por ejemplo.

ANEXO

HOJAS DE CAMPO



Proyecto: Rio Palencia
 Zona: Algar de Palencia - Valencia
 Observador: Juan C. Quintana
 Situación:

COÓRDENADAS

X
Y
Z

mV: Adaro 01
 mA: GE0 328

Rumbo AB

S.E.V. 1

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	13.5	1V	775	1250						+0.50 m. sobre el nivel del canal	21.78			
2	3.73		7.5	300uV	310	1202							42.92			
3	5.18		11.2	"	144	1074							83.51			
4	7.2		5.8	100uV	30	838							182.1			
5	10		4.5	100uV	7.5	522							313.4			
6	13.9		7.7	"	5.0	394							606.2			
7	19.3		10.8	30uV	1.5	162	10	11.5	30uV	2.2	209		1.189	109.2		
8	26.8		11.5	"	0.55	108		10.5	100uV	5.4	112		2.256	217.8		
9	37.3	10	17	100uV	3.1	78							4.370	429.2		
10	51.8		23	"	3.5	89							8.429	836.1		
11	72		48	"	3.1	105							16.290	1.621		
12	100		31	30uV	1.2	121							31.420	3.134		
13	136		48	"	1.22	146							60.700	6.082	1.175	
14	183		52	"	0.70	157								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.630	16.210
19	1.000														82.790	31.340
20	1.360														121.400	60.620
21	1.830														234.000	116.900
22	2.680														461.200	226.800
23	3.730															437.000
24	5.180															842.800
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 26-07-92



Proyecto: Río Palauca
 Zona: Algar de Palauca - Valencia
 Observador: Juan Cu. Cuartinez
 Situación:

COÓRDENADAS

X
Y
Z

m V:
m A:

S.E.V.

2

Rumbo AB

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN					
													1 m	10 m	50 m	100 m		
1	2,88	1	6	300mV	128	465						a 145 m. S. del 1	21,78					
2	3,73		11	"	110	429							42,82					
3	5,18		13,5	100mV	72	445						Sobre el nivel del cauce	83,51					
4	7,2		7	"	19,5	452							182,1					
5	10		7	30mV	10,2	452						Junto a un río caudal	313,4					
6	13,9		6,5	10mV	3,5	326							606,2					
7	19,3		9	30mV	1,8	234	10	9	30mV	21	255		1,189	109,2				
8	26,8		18	"	1,13	142		18	"	12,8	155		2,256	217,8				
9	37,3	10	16	10mV	4	107							4,370	429,2				
10	51,8		20	"	2,3	96							8,429	836,1				
11	72		5,2	30mV	0,32	100							16,290	1,621				
12	100		13	"	0,38	92							31,420	3,134				
13	136		22	"	0,35	96							60,700	6,062	1,175			
14	183		34	"	0,21	102									11,890	2,301		
15	268														22,580	4,474		
16	373														43,700	8,702	4,292	
17	518														84,290	16,820	8,351	
18	720														162,900	32,530	16,210	
19	1.000																62,790	31,340
20	1.360																121,400	60,620
21	1.830																234,000	116,900
22	2.680																461,200	225,600
23	3.730																	437,000
24	5.180																	842,880
25	7.200																	1.628,520
26	10.000																	3.141,510

OBSERVACIONES:

FECHA: 26-05-92



Proyecto: Rio Palauca
 Zona: Algar de Palauca
 Observador: Juan O. Quintana
 Situación:

COÓRDENADAS

X
Y
Z

m V: Sclero-01
 mA: 600 u = 328

Rumbo AB

S.E.V. 3

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN				
													1 m	10 m	50 m	100 m	
1	2,68	1	22	1V	545	540						a 180 u 5 del 4° L	21,78				
2	3,73		15	300uV	175	501						junto a un pozo	42,92				
3	5,18		12,5	100uV	76	508							182,1				
4	7,2		11	"	37	545						+ 1 m. sobre el canal	313,4				
5	10		22	"	38,5	548							606,2				
6	13,9		25	"	19,5	473							1.189	109,2			
7	19,3		9,5	100uV	2,7	332	10	9,5	100uV	31	356		2.256	217,8			
8	26,8		14	300uV	1,0	161		14	300uV	10,5	163		4.370	429,2			
9	37,3	10	16	100uV	3,62	97							8.429	836,1			
10	51,8		30	"	3,05	85							16.290	1.621			
11	72		48	"	2,0	68							31.420	3.134			
12	100		48	300uV	1,45	95							60.700	6.082	1.175		
13	139		78	"	1,4	109									11.890	2.301	
14	193		36	"	0,36	117									22.580	4.474	
15	268														43.700	8.702	4.292
16	373														84.290	16.820	8.351
17	518														162.900	32.530	16.210
18	720															82.790	31.340
19	1.000															121.400	60.620
20	1.390															234.000	116.900
21	1.930															461.200	225.800
22	2.680																437.000
23	3.730																842.880
24	5.180																1.628.520
25	7.200																3.141.510
26	10.000																

OBSERVACIONES:

FECHA: 26-05-92



Proyecto: Rio Palauca
 Zona: Algar de Palauca - Valencia
 Observador: Juan U. Puente
 Situación:

COORDENADAS

X
Y
Z

m V: Actura - 09
 m A: GE 4: 328

Rumbo AB

S.E.V. 4

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	15	15	930	1350						a 15 m W de un lago	21.78			
2	3.73		16	"	420	1127						excavado para sacar arena	42.92			
3	5.18		13	300mV	122	784							83.51			
4	7.2		42	"	155	598						a 105 m S del SED-3	182.1			
5	10		59	100mV	75	398							313.4			
6	13.9		54	"	23	258							606.2			
7	19.3		41	10mV	5.15	147	10	40	100mV	65.5	179		1.189	109.2		
8	26.8		36	"	1.45	91		36	30mV	16.5	100		2.256	217.8		
9	37.3	10	95	"	1.8	81							4.370	429.2		
10	51.8		28	"	2.2	84							8.429	836.1		
11	72		24	3mV	1.44	97							16.290	1.621		
12	100		42	"	1.55	116							31.420	3.134		
13	139		19	"	0.42	134							60.700	6.062	1.175	
14	193		25	"	0.32	150								11.690	2.301	
15	268		45	"	0.335	168								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														451.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 26-05-92



Proyecto: Rio Palauca
 Zona: Aldea de Palauca (Valencia)
 Observador: Juan M. Martínez
 Situación:

COORDENADAS

X
Y
Z

m V: Artes 07
 m A: GEO N° 328

Rumbo AB

S.E.V. 5

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	13	1V	550	921						a 100 m del 4	21,78			
2	3,73		32	"	645	865							42,92			
3	5,18		51	"	545	892						+ 1.50 m sobre cauce del río	83,51			
4	7,2		52	300uV	180	561							182,1			
5	10		38	100uV	335	375							313,4			
6	13,9		41	30uV	13	192							606,2			
7	19,3		15	5uV	1.4	109	10	15	30uV	14.6	106		1.189	109,2		
8	26,8	10	37	10uV	9.7	57							2.256	217,8		
9	37,3		40	"	4,8	52							4.370	429,2		
10	51,8		35	"	2.6	62							8.429	836,1		
11	72		42	"	2.1	81							16.290	1.621		
12	100		59	"	2.05	109							31.420	3.134		
13	139		47	5uV	0.95	123							60.700	6.082	1.175	
14	193		22	"	0.26	138								11.690	2.301	
15	266		35	"	0.22	142								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.690														451.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 26-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia - Palencia
 Observador: Juan M. Martinez
 Situación:

COORDENADAS

X
Y
Z

m V: Selva 1
 m A: 660 N 329

Rumbo AB

S.E.V. 6

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN								
													1 m	10 m	50 m	100 m					
1	2,88	1	15	15	875	1270						a 130 m s del 5	21,78								
2	3,73		16	"	500	1341							42,92								
3	5,18		25	"	305	1099						+ 2 m sobre el nivel del	83,51								
4	7,2		22	300μV	107	788						cauce	162,1								
5	10		33	100μV	45	427							313,4								
6	13,9		15	100μV	5,1	206						Gravera.	606,2								
7	19,3		26	"	2,75	124	10	26	100μV	31	130		1,169	109,2							
8	26,8		22	50μV	0,910	93		22	300μV	10	99		2,256	217,8							
9	37,3	10	28	100μV	5,9	90							4,370	429,2							
10	51,8		31	"	4,0	108							8,429	836,1							
11	72		28	"	2,35	136							16,290	1,621							
12	100		20	50μV	1,1	170							31,420	3,134							
13	139		60	"	2,3	332							60,700	6,062	1,175						
14	193		65	"	1,60	291									11,690	2,301					
15	268														22,560	4,474					
16	373														43,700	8,702	4,292				
17	518														84,290	16,820	8,351				
18	720														162,900	32,530	16,210				
19	1.000																62,790	31,340			
20	1.300																	121,400	60,620		
21	1.930																		234,000	116,900	
22	2.680																			461,200	226,600
23	3.730																				437,000
24	5.180																				842,880
25	7.200																				1.628.520
26	10.000																				3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palauca
 Zona: Alj. de Palauca
 Observador: Juan Gu. Martínez
 Situación:

COORDENADAS

X
Y
Z

m V: Adara 01
 m A: GE0 N° 328

Rumbo AB

S.E.V. 7

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	4.5	1V	375	1815						a 100 m S de P 6	21.78			
2	3.73		6	300mV	165	1180						+ 2 m sobre el nivel del canal	42.92			
3	5.18		14	"	123	734							83.51			
4	7.2		13.5	100mV	33	396							182.1			
5	10		28	"	315	241							313.4			
6	13.9		22	100mV	4.9	135							606.2			
7	19.3		14	300mV	1.2	100	10	14	300mV	15.8	133		1.169	109.2		
8	26.8		15	"	0.465	70		15	100mV	6.4	93		2.256	217.8		
9	37.3	10	40	100mV	6.15	66							4.370	429.2		
10	51.8		44	"	3.0	57							8.429	836.1		
11	72		34	300mV	1.50	72							16.290	1.621		
12	100		60	"	1.56	82							31.420	3.134		
13	139		20	"	0.54	109							60.700	6.062	1.175	
14	193		23	"	0.27	137								11.690	2.301	
15	268		50	"	0.395	178								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.880														461.200	226.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.626.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar. de Palencia
 Observador: Juan M. Martinez
 Situación:

COORDENADAS

X
Y
Z

m V: Idaru 01
m A: 660 328

Rumbo AB

S.E.V. 8

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN				
													1 m	10 m	50 m	100 m	
1	2,88	1	14	1V	495	770						a 100 m. S del F	21,78				
2	3,73		9	300uV	114	544							42,92				
3	5,18		10,5	100uV	48	382						+ 1 m. sobre el nivel del	83,51				
4	7,2		10,5	300uV	17,5	270						cauce.	182,1				
5	10		7,2	100uV	4,3	187							313,4				
6	13,9		18	"	3,9	131							606,2				
7	19,3		64	"	4,85	89	10	68	100uV	62	100		1,169	109,2			
8	26,8		29	300uV	0,85	66		29	300uV	10	75		2,256	217,8			
9	37,3	10-	17	100uV	3,2	81							4,370	429,2			
10	51,8		14	300uV	1,65	98							8,429	836,1			
11	72		16	"	1,25	127							16,290	1,621			
12	100		16	"	0,85	166							31,420	3,134			
13	138		14	"	0,50	216							60,700	6,062	1,175		
14	183		10	1uV	0,240	281									11,690	2,301	
15	266														22,560	4,474	
16	373														43,700	8,702	4,292
17	518														84,290	16,820	8,361
18	720														162,900	32,530	16,210
19	1.000															62,790	31,340
20	1.390															121,400	60,620
21	1.930															234,000	116,900
22	2.690															461,200	226,600
23	3.730																437,000
24	5.180																842,880
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 27-05-90



Proyecto: Rio Palencia
 Zona: Alpar de Palencia
 Observador: Juan A. Quintana Peña
 Situación:

COORDENADAS

X
Y
Z

m V: Aduro 01
 m A: 660 N° 328

Rumbo AB

S.E.V. 9

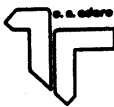
Perfil:

CONSTANTES PARA DISPOSITIVO SCHULBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULBERGER SIMETRICO MN				
													1 m	10 m	50 m	100 m	
1	2.88	1	9	30mV	262	634						a 100 m. S. del 8	21.78				
2	3.73		17	"	195	496							42.92				
3	5.18		10	100mV	51.5	430						Sobre el nivel del cauce.	83.51				
4	7.2		13	"	28	349							162.1				
5	10		22	30mV	19	371							313.4				
6	13.9		13	10mV	4.0	187							608.2				
7	19.2		23	"	2.4	122	10	26	100mV	31	130		1.169	109.2			
8	26.8		18	3mV	0.635	80		18	10mV	7.3	88		2.256	217.8			
9	37.3	10	16	10mV	3.4	91							4.370	429.2			
10	51.8		38	"	5.15	113							8.429	836.1			
11	72		34	"	3.4	162							16.290	1.621			
12	100		34.5	3mV	1.7	217							31.420	3.134			
13	139		57	"	2.65	282							60.700	6.062	1.175		
14	193		60	"	1.45	283									11.890	2.301	
15	268														22.560	4.474	
16	373														43.700	8.702	4.292
17	518														84.290	16.820	8.351
18	720														162.900	32.530	16.210
19	1.000															62.790	31.340
20	1.390															121.400	60.620
21	1.930															234.000	116.900
22	2.690															461.200	225.690
23	3.730																437.000
24	5.180																842.880
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia (Palencia)
 Observador: Juan Cu. Martínez
 Situación:

COORDENADAS
 X
 Y
 Z

m V: Adaro 01
 mA: GEQ N° 323
 S.E.V. 10

Rumbo AB
 Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER
 SIMETRICO
 MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,88	1	7	300 μV	315	638						a 100 m. S. del 9	21,78			
2	3,73		4	100 μV	49	526						Sobre el cauce del rio.	42,82			
3	5,18		7	"	32	382							83,51			
4	7,2		43,5	"	77	287							182,1			
5	10		43	"	30	219							313,4			
6	13,9		30	100 μV	8	162							606,2			
7	19,3		44	"	5,0	133	10	51	100 μV	78	167		1,169	108,2		
8	26,8		36	"	2,1	132		33	"	23,5	155		2,256	217,8		
9	37,3		16	3 μV	0,51	134		16	100 μV	6,2	166		4,370	429,2		
10	51,8		20	100 μV	4,6	192							8,429	836,1		
11	72		20	"	2,5	203							16,290	1,621		
12	100		32	"	2,1	206							31,420	3,134		
13	136		29	3 μV	1,0	209							60,700	6,062	1,175	
14	183		33	"	0,45	159								11,680	2,301	
15	268		40	"	0,215	120								22,580	4,474	
16	373													43,700	8,702	4,292
17	518													84,280	16,820	8,351
18	720													162,900	32,530	16,210
19	1.000														62,790	31,340
20	1.300														121,400	60,620
21	1.830														234,000	116,900
22	2.680														461,200	225,600
23	3.730															437,000
24	5.180															842,880
25	7.200															1.628,520
26	10.000															3.141,510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan A. Cuarteros
 Situación:

COORDENADAS

X
Y
Z

mV: Aduro-01
 mA: CEO 0-328

Rumbo AB

S.E.V. 11

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,80	1	19.5	1V	650	726						Sobre el nivel del cauce	21,78			
2	3,73		12	300mV	182	651							42,82			
3	5,18		8.5	100mV	63.5	624						A 100 m S del 10	83,51			
4	7,2		21	"	77	594							182,1			
5	10		20.5	"	44	673						Afloramientos de caliza a un extremo y otro del cauce.	313,4			
6	13,9		15	"	21	849							606,2			
7	19,3		10.5	10mV	9.2	1024	10	10.5	100mV	58.5	1213		1,189	109,2		
8	26,8		10.5	"	5.7	1225							2,256	217,8		
9	37,3	10.	12	100mV	38	1359							4,370	429,2		
10	51,8		16	"	24	1253							8,429	836,1		
11	72		29	30mV	15	838							16,290	1,821		
12	100		21	10mV	3.3	492							31,420	3,134		
13	139		38	"	2.2	351							60,700	6,062	1,175	
14	193		25	3mV	0.74	346								11,690	2,301	
15	268		40	"	0.61	348								22,560	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,361
18	720													162,900	32,530	16,210
19	1,000														62,780	31,340
20	1,390														121,400	60,620
21	1,930														234,000	116,900
22	2,680														461,200	225,600
23	3,730															437,000
24	5,180															842,880
25	7,200															1,828,520
26	10,000															3,141,510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan Cu. Quintanes
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro . 01
 m A: 660 n° 338

Rumbo AB

S.E.V. 12

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	P (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	P (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,88	1	10	300mV	255	555						Sobre el nivel del cauce	21,78			
2	3,73		10	"	125	537							42,92			
3	5,18		19	"	137	602						a 100 m. S' del 11	83,51			
4	7,2		26	"	115	717							182,1			
5	10		22	100mV	62	883						Aproximacion de cables a un extremo y otro del cauce	313,4			
6	13,9		45	"	75	1010							606,2			
7	19,3		30	"	30	1169							1.189	109,2		
8	26,8		28	300mV	16,5	1329	10	27,5	300mV	135	1069		2.256	217,8		
9	37,3		20	100mV	6,0	1311		20	100mV	49	1051		4.370	429,2		
10	51,8		54	"	8,05	1257		54	"	66	1021		8.429	836,1		
11	72	10	10	"	5,1	827							18.290	1.821		
12	100		21,5	"	4,5	656							31.420	3.134		
13	136		14	300mV	0,81	351							60.700	6.082	1.175	
14	183		10	"	0,125	146								11.880	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.780	31.340
20	1.380														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.828.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 24-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan R. Cuatrecasas
 Situación:

COORDENADAS

X
Y
Z

mV: Adquis 01
 mA: GEO N° 22P
 S.E.V. 13

Rumbo AB

Perfil:

CONSTANTES PARA DISPOSITIVO SCHLUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Es. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Es. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2.88	1	12	300uV	255	463						+ 0.30 m. sobre el nivel de cauce	21.78			
2	3.73		11.5	"	117	437							42.92			
3	5.18		5.5	100uV	30	456						Afloramientos de calizas	83.51			
4	7.2		18.5	"	71	622						a ambos extremos del	182.1			
5	10		10	"	21.5	674						cauce.	313.4			
6	13.9		5.2	100uV	7.0	816	10	13	100uV	84	764		606.2			
7	19.3		11.5	"	8.0	813	10	13	100uV	84	764		1.189	109.2		
8	26.8		19	"	6.3	748		18	"	61.5	744		2.296	217.8		
9	37.3		3.2	"	5.15	703		34	"	54	687		4.370	429.2		
10	51.8	10	14.5	30uV	10.2	587							8.429	836.1		
11	72		9	100uV	2.1	378							16.290	1.621		
12	100		19	"	1.55	256							31.420	3.134		
13	139		16	3uV	0.50	189							60.700	6.062	1.175	
14	193		17	"	0.21	144								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.520
21	1.930														234.000	116.900
22	2.680														461.200	226.600
23	3.730															437.000
24	5.180															842.890
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia (Valencia)
 Observador: Juan M. Quintana
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
m A: GEO 328

Rumbo AB

S.E.V. 14

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	11	1V	525	1040						A 100 m.s. del 13.	21,78			
2	3,73		19	"	370	836							42,92			
3	5,18		14	300mV	124	740							83,51			
4	7,2		10	100mV	46,5	754							162,1			
5	10		3	10mV	7,35	768							313,4			
6	13,9		6,5	"	7,2	671							608,2			
7	19,3		5	"	2,55	596	10	5	100mV	27	590		1.189	109,2		
8	26,8	10	14	100mV	24	373							2.258	217,8		
9	37,3		10	10mV	5,4	232							4.370	429,2		
10	51,8		8,2	300mV	1,65	168							8.429	835,1		
11	72		11,5	"	1,1	155							16.290	1.621		
12	100		36	"	1,8	157							31.420	3.134		
13	139		25	"	0,61	148							60.700	6.062	1.175	
14	193		53	"	0,59	130								11.690	2.301	
15	268													22.580	4.474	
16	373													43.700	8.702	4.292
17	518													84.280	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.890
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan Cu. Cuarteros
 Situación: _____

COORDENADAS

X
Y
Z

mV: Adaro-01
 mA: GEO 328

Rumbo AB

S.E.V. 15

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2.88	1	6	30cmV	120	436						<u>Al 100 m s. del 14</u>	21.78			
2	3.73		13	"	155	512							42.92			
3	5.18		9	10cmV	61	566						<u>+ 0.50 m. sobre el canal.</u>	83.51			
4	7.2		11	"	36.5	538							182.1			
5	10		19	"	28	462							313.4			
6	13.8		17	10cmV	9.7	346							606.2			
7	19.3		11	"	2.05	218	10	11.5	30cmV	22	309		1.189	109.2		
8	26.8		17	3cmV	1.15	153		17	"	10.8	138		2.286	217.8		
9	37.3	10	15	10cmV	3.8	109							4.370	429.2		
10	51.8		21	"	5.65	105							8.429	836.1		
11	72		46	"	3.0	106							16.290	1.621		
12	100		57	"	2.0	120							31.420	3.134		
13	139		33	3cmV	0.64	118							60.700	6.062	1.175	
14	193		42	"	0.46	128								11.690	2.301	
15	268													22.580	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	226.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.620
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 27-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan Cu. Cuartines
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro 01
 m A: GG0 N: 328

Rumbo AB

N-10°-W

S.E.V. 16

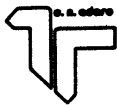
Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,68	1	22	1V	685	678							21,78			
2	3,73		21	"	290	593							42,92			
3	5,18		31	300mV	183	493							83,51			
4	7,2		39	"	102	424							182,1			
5	10		14	100mV	16	358							313,4			
6	13,9		11	10mV	4,7	259							606,2			
7	19,3		7	3mV	1,25	209	10	7	30mV	13,5	210		1,189	109,2		
8	26,8	10	6	10mV	4,15	151							2,256	217,8		
9	37,3		11	"	3,0	117							4,370	429,2		
10	51,8		20	"	2,3	96							8,429	836,1		
11	72		6	3mV	0,375	101							16,290	1,621		
12	100		14	"	0,51	114							31,420	3,134		
13	139		11,5	"	0,25	132							60,700	6,062	1,175	
14	193		13,5	"	0,16	139								11,690	2,301	
15	268													22,580	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,361
18	720													162,900	32,530	16,210
19	1.000														62,790	31,340
20	1.390														121,400	60,620
21	1.930														234,000	116,900
22	2.680														461,200	226,600
23	3.730															437,000
24	5.180															842,890
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 28-V-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia (Valencia)
 Observador: Juan de Guantes
 Situación: _____

COORDENADAS

X
Y
Z

mV: Adaro 01
 mA: 660 N: 328

KUMBO AB

N-10°-W

S.E.V. 17

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	P (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	P (Ωm)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,68	1	4	30mV	145	790						a 100 m S. del 16	21,78			
2	3,73		7,2	"	112	668							42,92			
3	5,18		6	100mV	42	585							83,51			
4	7,2		4,5	30mV	13,2	475							182,1			
5	10		4	10mV	4,25	333							313,4			
6	13,9		7,5	"	2,65	214							606,2			
7	19,3		14,5	30mV	1,5	121	10	14,5	30mV	19,5	147		1,169	109,2		
8	26,8		7,5	"	0,21	63		7,5	10mV	2,95	86		2,256	217,8		
9	37,3		20	"	0,25	55		21	"	3,5	72		4,370	429,2		
10	51,8	10	4,2	10mV	3,8	76							8,429	836,1		
11	72		11,5	30mV	0,64	90							16,290	1,621		
12	100		15	"	0,50	105							31,420	3,134		
13	139		11	"	0,225	124							60,700	6,062	1,175	
14	193		29	"	0,35	141								11,690	2,301	
15	268		52	"	0,375	163								22,580	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,361
18	720													162,900	32,530	16,210
19	1.000														62,790	31,340
20	1.300														121,400	60,620
21	1.930														234,000	116,900
22	2.890														461,200	226,600
23	3.730															437,000
24	5.180															842,880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan de Guzman Peña
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro 01
 m A: 660 N° 328

Rumbo AB
N-10° W

S.E.V. 18

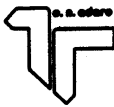
Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	5.5	300mV	220	871						2 100 m S' del 17	21,78			
2	3,73		3.8	100mV	41	629							42,92			
3	5,18		9.2	"	58	526						Sobre el cauce del Rio.	83,51			
4	7,2		7.8	"	31	436							162,1			
5	10		7	100mV	7.9	354							313,4			
6	13,9		20	"	8.5	258							606,2			
7	19,3		10	"	2.2	314	10	12	300mV	19	173		1.169	109,2		
8	26,8		21	"	1.4	150		21	"	11	114		2.256	217,8		
9	37,3		44	"	1.2	119		45	"	9.45	90		4.370	429,2		
10	51,8	10	37	"	21	65							8.429	636,1		
11	72		6.5	3mV	0.31	77							16.290	1.621		
12	100		11	"	0.315	90							31.420	3.134		
13	136		20	"	0.29	88							60.700	6.062	1.175	
14	193		36	"	0.25	81								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.890
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palauia
 Zona: Algar de Palauia (Valencia)
 Observador: Juan A. Quintana
 Situación: _____

COORDENADAS

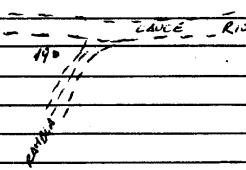
X
Y
Z

mV: Sclerol
 mA: GE0 N° 328
 S.E.V. 19

Rumbo AB
N-10°-W
 Perfil: _____

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2.88	1	8	1V	350	953						+ 2 m. Sobre el cauce del Rio	21.78			
2	3.73		24.5	"	295	517							42.82			
3	5.18		10	100mV	48.5	405 (405)						al E junto al cauce a flanco- militar de caliza	83.51			
4	7.2		18	"	37.5	338							182.1			
5	10		14	30mV	11.5	257							313.4			
6	13.9		15	100mV	5.0	202						A 100 m. S del 18	606.2			
7	19.3		17.5	"	2.2	147	10	18	100mV	35	212		1.189	109.2		
8	26.8		16.5	30mV	0.95	130		16.5	30mV	14	185		2.296	217.8		
9	37.3		98	100mV	2.9	129		103	100mV	41	171		4.370	429.2		
10	51.8	10	14.5	"	3.0	173							8.429	836.1		
11	72		22	"	2.0	147							16.290	1.621		
12	100		23	30mV	1.05	143							31.420	3.134		
13	139		31	"	0.60	173							60.700	6.062	1.175	
14	193		20	"	0.38	222								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	226.800
23	3.730															437.000
24	5.180															842.890
25	7.200															1.628.520
26	10.000															3.141.510



OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palmaria
 Zona: Algar de Palmaria (Palmaria)
 Observador: Juan Cu. Quintana
 Situación:

COORDENADAS

X
Y
Z

mV: Sdew 01
 mA: GEO N° 328

Rumbo AB

N - 20° - W

S.E.V. 20

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,88	1	12.5	300mV	192	335						+ 1 m sobre el nivel del canal	21,78			
2	3,73		25	100mV	60	275							42,92			
3	5,18		17,5	"	58	276						A 100 m s. del 19	83,51			
4	7,2		20	"	38,5	297							182,1			
5	10		29	100mV	25	230							313,4			
6	13,9		18	100mV	3,00	229							606,2			
7	19,3		9,0	"	1,6	208	10	9,0	30mV	20,5	249	Repetición de SEV	1,189	109,2		
8	26,8		15	3mV	9,08	182		15,5	"	13,7	194	por saltarse una señal.	2,256	217,8		
9	37,3		25	3mV	2,35	208		12	10mV	3,7	132		4,370	429,2		
10	51,8	10	29	10mV	3,8	109							8,429	836,1		
11	72		23,5	"	1,6	110							16,290	1,621		
12	100		27	3mV	1,0	116							31,420	3,134		
13	139		20	"	0,37	192							60,700	6,062	1,175	
14	193		13,5	"	0,125	108								11,690	2,301	
15	268															
16	373													43,700	8,702	4,292
17	518															
18	720													84,290	16,820	8,361
19	1.000													162,900	32,530	16,210
20	1.300															
21	1.930															
22	2.680															
23	3.730															
24	5.180															
25	7.200															
26	10.000															

OBSERVACIONES:

FECHA: 28.05.92



Proyecto: Rio Salancia
 Zona: Algar de Rio Salancia
 Observador: Juan Cu. Cuatrecasas
 Situación: _____

COORDENADAS

X
Y
Z

m V: Adaru - 01
 m A: 650 N° 328

Rumbo AB

N-20° W

S.E.V. 21

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	10	300uV	245	534						a 100 cm. S. del 20	21,78			
2	3,73		15	"	155	444							42,92			
3	5,18		21	100uV	87	346						Sobre el nivel del cauce	83,51			
4	7,2		11	"	21	309							182,1			
5	10		7.5	100uV	6.7	280							313,4			
6	13,9		13	"	5.9	275							606,2			
7	19,3		9.5	"	2.2	271	10	9	300uV	21.5	261		1.189	109,2		
8	26,8	10	9.5	30uV	12	275							2.256	217,8		
9	37,3		13	"	9.25	305							4.370	429,2		
10	51,8		10.5	100uV	4	318							8.429	836,1		
11	72		12	"	1.9	257							16.290	1.821		
12	100		17	30uV	1.0	184							31.420	3.134		
13	136		10	"	0.21	127							60.700	6.062	1.175	
14	193		14	"	0.170	142								11.690	2.301	
15	268		30	"	0.215	161								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.300														121.400	60.620
21	1.930														234.000	116.900
22	2.690														451.200	225.600
23	3.730															437.000
24	5.180															842.580
25	7.200															1.628.520
26	10.000															3.141.510

27.5 - 0.34 = 145

OBSERVACIONES:

FECHA: 28-05-98



Proyecto: Rio Palencia
 Zona: Algar de Palencia (Palencia)
 Observador: Juan R. Cuatrecasas
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
 m A: GED N° 328

Rumbo AB

N-20°-W

S.E.V. 22

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MM

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MM			
													1 m	10 m	50 m	100 m
1	2,88	1	8	1 ^v	650	1770						+ 1 m. sobre el canal del rio	21,78			
2	3,73		7,5	"	280	1602						del rio	42,92			
3	5,18		6	100mV	77	1072							83,51			
4	7,2		4,5	"	32	792						A 100 m. S. del 31	182,1			
5	10		5,2	30mV	12	723							313,4			
6	13,9		26,5	100mV	31,5	721							606,2			
7	19,3		23	"	15	762	10	23	300mV	137	650		1.189	109,2		
8	26,8		12	100mV	3,75	705		12	100mV	35	635		2.256	217,8		
9	37,3		22	"	3,9	775		22	"	36	702		4.370	429,2		
10	51,8	10	15	30mV	12,5	696							8.429	836,1		
11	72		26,5	"	10	612							16.290	1.621		
12	100		27	100mV	3,55	412							31.420	3.134		
13	136		25	"	1,45	352							60.700	6.062	1.175	
14	183		29	30mV	0,95	383								11.890	2.301	
15	268		24	"	0,45	423								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	226.800
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palmaria
 Zona: Algar de Palmaria (Jalisco)
 Observador: Juan de Martinez
 Situación: _____

COORDENADAS

X
Y
Z

mV: Adare 01
 mA: 600 323

Numero AB

N-20°-W

S.E.V. 23

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	15	3V	1550	2251						A 100 m. S' del 22	21.78			
2	3.73		21	"	1060	2166							42.92			
3	5.18		12.5	1V	285	1904						+ 4 m. sobre el nivel del cauce.	83.51			
4	7.2		6	100μV	55	1486							182.1			
5	10		7.5	"	25	1045							313.4			
6	13.9		8.2	100μV	8.9	658							606.2			
7	19.3		15.8	100μV	53.5	396	10	158	1V	635	439		1.169	109.2		
8	26.8		150	30μV	16.5	248		150	"	175	254		2.256	217.8		
9	37.3		115	10μV	6.15	234		115	100μV	63	235		4.370	429.2		
10	51.8	10	48	30μV	15.5	270							8.429	836.1		
11	72		9.5	10μV	2.1	358							16.290	1.621		
12	100		17	"	2.4	442							31.420	3.134		
13	139		27	"	1.8	404							60.700	6.062	1.175	
14	193		13.5	30μV	0.95	303								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palencia
 Zona: Algar de Palencia
 Observador: Juan Cu. Cuartines
 Situación: _____

COORDENADAS

X
Y
Z

m V: Servo 01
 m A: 650 N° 328
 S.E.V. 24
 Perfil: N-20'-W

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m	
1	2,88	1	19	15	400	459						Sobre el nivel del cauce	21,78				
2	3,73		37	"	380	441							42,82				
3	5,18		66	"	325	411							83,51				
4	7,2		23	100mV	39	275							182,1				
5	10		45	"	32	223							313,4				
6	13,9		33	100mV	5,5	145							606,2				
7	19,3		Sobre el falo										1,189	109,2			
8	26,8		145	100mV	4,3	67	10	145	100mV	44	66	19 m al eje de la carretera nueva	2,256	217,8			
9	37,3	10	17,5	"	3,0	74							4,370	429,2			
10	51,8		46	"	5,3	96							8,429	836,1			
11	72		59	"	4,6	126							16,290	1.621			
12	100		12	2mV	0,61	159							31,420	3.134			
13	138		20	"	0,60	182							60,700	6.062	1.175		
14	183		18	"	0,35	227								11.690	2.301		
15	268													22.560	4.474		
16	373													43.700	8.702	4.292	
17	518													84.290	16.820	8.361	
18	720													162.900	32.530	16.210	
19	1.000														62.790	31.340	
20	1.390														121.400	60.620	
21	1.930														234.000	116.900	
22	2.680														461.200	225.600	
23	3.730															437.000	
24	5.180																842.880
25	7.200																1.629.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 28-05-92



Proyecto: Rio Palencia
 Zona: Aljar de Palencia (Valencia)
 Observador: Juan Cu. Cuartines
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro 01
 mA: GE0 328

Rumbo AB
N-20°-W

S.E.V. 25

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN				
													1 m	10 m	50 m	100 m	
1	2.88	1	45	31	1900	919						+ 4 m. sobre el nivel del canal	21.78				
2	3.73		17	11	270	680							42.92				
3	5.18		32	30mA	165	431						A 100 m. S. del 24	83.51				
4	7.2		30	100mA	51	276							182.1				
5	10		48	"	31	302							313.4				
6	13.9		22	10mA	5.2	143							606.2				
7	19.3		137	30mA	11.5	98	10	140	30mA	150	117		1.169	109.2			
8	26.8		125	10mA	3.6	67		125	100mA	45	78		2.256	217.8			
9	37.3	10	120	30mA	19	68							4.370	429.2			
10	51.8		45	10mA	4.2	78							8.429	836.1			
11	72		50	"	3.0	97							16.290	1.621			
12	100		76	"	3.1	128							31.420	3.134			
13	139		52	3mA	1.1	128							60.700	6.062	1.175		
14	193		90	"	1.0	129								11.690	2.301		
15	268													22.580	4.474		
16	373													43.700	8.702	4.292	
17	518													84.290	16.820	8.351	
18	720													162.900	32.530	16.210	
19	1.000															62.790	31.340
20	1.390															121.400	60.620
21	1.930															234.000	116.900
22	2.680															451.200	225.600
23	3.730																437.000
24	5.180																842.880
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Red Palencia
 Zona: Estivella - Valencia
 Observador: Juan Cu. Martinez
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
 m A: GEU N= 480
 S.E.V. 26

Rumbo AB N 20° E
 Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN				
													1 m	10 m	50 m	100 m	
1	2,88	1	32	1V	565	559						75 m. sobre el nivel del cauce.	21,78				
2	3,73		27	"	345	548							42,92				
3	5,18		72	"	480	557							83,51				
4	7,2		125	"	350	454							182,1				
5	10		208	"	245	369							313,4				
6	13,9		146	100μV	72	299							606,2				
7	19,3		91	"	16,5	238							1.189	109,2			
8	26,8		100	100μV	7,6	171	10	100	100μV	82	179		2.258	217,8			
9	37,3		150	"	4,3	125		150	"	46	132		4.370	429,2			
10	51,8	10	102	30μV	12,5	102							8.429	836,1			
11	72		45	10μV	2,65	95							16.290	1.821			
12	100		82	"	2,5	96							31.420	3.134			
13	139		79	3μV	1,3	100							60.700	6.082	1.175		
14	193		190	"	1,82	112								11.890	2.301		
15	268														22.580	4.474	
16	373														43.700	8.702	4.292
17	518														84.290	16.820	8.361
18	720														162.900	32.530	16.210
19	1.000															62.790	31.340
20	1.390															121.400	60.620
21	1.930															234.000	116.900
22	2.690															461.200	225.600
23	3.730																437.000
24	5.180																842.890
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Estrella - Talca
 Observador: Juan C. Martínez
 Situación:

COORDENADAS

X
Y
Z

m V: Solera - 01
 mA: 6E0 N° 480

Rumbo AB

N° 20° E

S.E.V.

27

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	8	300mV	265	721						+ 5 m. sobre el nivel del cauce	21.78			
2	3.73		21	1V	325	664							42.92			
3	5.18		34	"	220	497						A 200 m. S del 26	83.51			
4	7.2		89	"	210	382						y 300 m. N° del 28	182.1			
5	10		69	1000mV	67	304							313.4			
6	13.9		77	"	32	252						Sobre borde cauce.	606.2			
7	19.3		139	"	35	210							1.189	109.2		
8	26.8		78	100mV	6.2	179	10	77	100mV	55	156		2.256	217.8		
9	37.3		35	"	1.15	140		35	300mV	10	123		4.370	429.2		
10	51.8	10	65	"	9.0	116							8.429	836.1		
11	72		97	"	7.2	120							16.290	1.821		
12	100		92	"	3.95	135							31.420	3.134		
13	138		152	"	3.6	144							60.700	6.082	1.175	
14	193		107	"	1.55	169								11.890	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														82.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.690														461.200	225.800
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan Cu. Cuarteras
 Situación:

COORDENADAS

X
Y
Z

mV: Adaro 01
 mA: 6E0 N=480

Rumbo AB

N-20'E

S.E.V. 28

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Em. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Em. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,88	1	7.5	1V	350	1016						a 300 m S. del 27	21,78			
2	3,73		6.5	300mV	135	891							42,92			
3	5,18		14.5	"	115	662						+ 2 m. sobre el curso del rio	83,51			
4	7,2		16	100mV	43.5	461							182,1			
5	10		24	"	31	374							313,4			
6	13,8		18	100mV	5.0	168							606,2			
7	19,3		20	"	2.5	146	10	20	100mV	27	147		1,189	109,2		
8	26,8	10	28.5	300mV	18.5	141							2,256	217,8		
9	37,3		22	100mV	7.8	152							4,370	429,2		
10	51,8		35	"	7.0	167							8,429	836,1		
11	72		53	"	6.1	187							16,290	1,621		
12	100		100	"	7.2	226							31,420	3,134		
13	139		102	"	4.5	267							60,700	6,062	1,175	
14	193		59	200mV	1.55	307								11,680	2,301	
15	268													22,560	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,351
18	720													162,900	32,530	16,210
19	1,000														62,790	31,340
20	1,390														121,400	60,620
21	1,930														234,000	116,900
22	2,680														451,200	226,600
23	3,730															437,000
24	5,180															842,880
25	7,200															1,628,520
26	10,000															3,141,510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palanquin
 Zona: Estivella
 Observador: Juan A. Cantones
 Situación:

COORDENADAS

X
Y
Z

m V: Adew 01
 m A: 600 N: 480

Rumbo AB

N-20°-E

S.E.V. 29

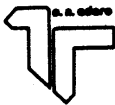
Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN					
													1 m	10 m	50 m	100 m		
1	2,88	1	12	15	940	1706						+ 1.50 m. sobre el nivel del cauce	21,78					
2	3,73		19	"	520	1175							42,92					
3	5,18		40	"	240	501							83,51					
4	7,2		37	100mV	35	210						A 200 m. S. del 28	182,1					
5	10		35	100mV	7	88							313,4					
6	13,8		36	"	4,3	72							606,2					
7	19,2		38	"	2,05	86	10	38	100mV	23	90		1,189	109,2				
8	26,8	10	34	30mV	18	115							2,256	217,8				
9	37,2		31	"	10	138							4,370	429,2				
10	51,8		37	100mV	6,3	142							8,429	836,1				
11	72		37	"	3,85	160							16,290	1,621				
12	100		98	"	6,4	205							31,420	3,134				
13	138		49,5	"	2,05	251							60,700	6,062	1,175			
14	192		42	30mV	0,95	265									11,890	2,301		
15	268														22,560	4,474		
16	373														43,700	8,702	4,292	
17	518														84,290	16,820	8,351	
18	720														162,900	32,530	16,210	
19	1.000																82,790	31,340
20	1.380																121,400	60,620
21	1.930																234,000	116,900
22	2.680																461,200	225,600
23	3.730																	437,000
24	5.180																	842,880
25	7.200																	1.628.520
26	10.000																	3.141.510

OBSERVACIONES:

FECHA: 9-06-92



Proyecto: Rio Salancin
 Zona: Estivella - Salancin
 Observador: Juan de Puente
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
 m A: GE0 N° 680

Rumbo AB

N-20°-E

S.E.V. 30

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO				
													1 m	10 m	50 m	100 m	
1	2,68	1	14	300mV	165	257						+ 0.50 m. sobre el nivel del canal.	21,78				
2	3,73		14	100mV	85	215							42,92				
3	5,18		21	"	44	175						a 200 m N. del 31	83,51				
4	7,2		22	"	20.5	151							182,1				
5	10		34	30mV	10	131							313,4				
6	13,9		31	10mV	6.2	121							608,2				
7	19,3		32	"	2.6	138	10	22	100mV	26.5	132		1.169	109,2			
8	26,8		38	"	2.82	168		38	"	28	160		2.256	217,8			
9	37,3	10	41	30mV	18	188							4.370	429,2			
10	51,8		37	10mV	9	203							8.429	836,1			
11	72		20	"	3.0	243							16.290	1.821			
12	100		95	"	9.0	297							31.420	3.134			
13	136		55	"	2.85	314							60.700	6.062	1.175		
14	193		52.5	mV	1.2	267									11.690	2.301	
15	268		105	"	1.12	220									22.560	4.474	
16	373														43.700	8.702	4.292
17	518														84.290	16.820	8.351
18	720														162.900	32.530	16.210
19	1.000															62.790	31.340
20	1.390															121.400	60.620
21	1.930															234.000	116.900
22	2.680															461.200	226.800
23	3.730																437.000
24	5.180																842.880
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Salasua
 Zona: Estivella - Salasua
 Observador: Juan de Armenteros
 Situación: _____

COORDENADAS

X
Y
Z

m V: Adoro 31
 m A: GED N.º 680

Rumbo AB

N-20°-E

S.E.V. 31

Perfil:

CONSTANTES PARA DISPOSITIVO SCHLUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHLUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,08	1	12	1V	480	871						<u>R 200 m S del 30</u>	21,78			
2	3,73		25	"	305	569							42,92			
3	5,18		27	30mV	115	356							83,51			
4	7,2		31	100mV	48	251							182,1			
5	10		35	"	27	242							313,4			
6	13,2		31	30mV	14,5	284							606,2			
7	19,3		51	"	15,5	355							1.189	109,2		
8	26,8		31	10mV	5,8	422	10	30	100mV	54	392		2.256	217,8		
9	37,3		33	"	4,38	580		33	"	37	481		4.370	429,2		
10	51,8	10	21	30mV	15	596							8.429	836,1		
11	72		42	"	18,5	714							16.290	1.621		
12	100		57	"	13,1	720							31.420	3.134		
13	139		63	10mV	7,1	683							60.700	6.062	1.175	
14	193		77	"	3,45	524								11.690	2.301	
15	268		116	"	2,5	486								22.580	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														82.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Estrella - Palencia
 Observador: Juan Cu. Quintana
 Situación:

COORDENADAS

X
Y
Z

m V: Sclaru 01
m A:

Rumbo AB
N-50°-E

S.E.V. 32

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2.68	1	7.5	1V	390	1133						+ 0.50 cm. sobre el nivel del	21.78			
2	3.73		17	"	320	808							42.92			
3	5.18		20	300mV	107	447							83.51			
4	7.2		25	100mV	44.5	289							182.1			
5	10		32	"	20	196							313.4			
6	13.9		26	10mV	7.0	163							606.2			
7	19.3		28	"	3.3	138	10	28	100mV	35	137		1.169	109.2		
8	26.8	10	24	30mV	14.5	132							2.256	217.8		
9	37.3		23	10mV	7.5	140							4.370	429.2		
10	51.8		40	"	8.3	173							8.429	836.1		
11	72		41.5	"	6.0	234							16.290	1.621		
12	100		81	"	7.4	286							31.420	3.134		
13	139		64	"	2.9	275							60.700	6.062	1.175	
14	193		55	3mV	1.35	287								11.690	2.301	
15	268		65	"	1.0	347								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan Cu. Cuarteros Peña
 Situación:

COORDENADAS

X
Y
Z

m V: Adoro - 01
 m A: GED N° 480

Rumbo AB

N - 50° - E

S.E.V. 33

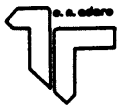
Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m	
1	2,68	1	23	300mV	222	210						+ 0.60 m. sobre el canal	21,78				
2	3,73		33	"	134	174							42,92				
3	5,18		43	100mV	73	142						a 200 m S. del 32	83,51				
4	7,2		53	"	40	122							162,1				
5	10		52	"	18,5	111							313,4				
6	13,9		51	100mV	8	95							606,2				
7	19,3		40	"	3,1	91	10	40	100mV	35	96		1,189	109,2			
8	26,8		106	"	3,95	84		106	"	43,5	89		2,256	217,8			
9	37,3	10-	51	300mV	13	109							4,370	429,2			
10	51,8		42	100mV	7,1	141							8,429	836,1			
11	72		57	"	5,65	161							16,290	1,621			
12	100		79	"	4,1	163							31,420	3,134			
13	139		94	"	2,95	190							60,700	6,062	1,175		
14	193		80	"	1,85	270								11,690	2,301		
15	268		120	"	1,94	365								22,560	4,474		
16	373													43,700	8,702	4,292	
17	518													84,290	16,820	8,361	
18	720													162,900	32,530	16,210	
19	1.000														82,790	31,340	
20	1.390														121,400	60,620	
21	1.930														234,000	116,900	
22	2.680														461,200	225,600	
23	3.730															437,000	
24	5.180															842,880	
25	7.200															1.628.520	
26	10.000															3.141.510	

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palmaria
 Zona: Estivella - Salasua
 Observador: Juan Cu. Cuertines
 Situación:

COORDENADAS

X
Y
Z

mV: Adaro - 01
 mA: GEO N° 480

Rumbo AB

N-72°-E

S.E.V. 34

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ(Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,88	1	20.5	10	460	489						+ 0.60 Sobre el nivel del Cauce	21,78			
2	3,73		19	300μ	140	316							42,92			
3	5,18		20	100μ	50	309						a 200 m. S. del 33	83,51			
4	7,2		50	"	39	126							162,1			
5	10		58	"	24	130							313,4			
6	13,9		67	"	16.5	149							606,2			
7	19,3		49	100μ	8.2	196	10	49	100μ	60	134		1,169	109,2		
8	26,8		71	"	7.6	241		70	"	59	184		2,256	217,8		
9	37,3		46	"	3.2	304		46	"	34	224		4,370	429,2		
10	51,8	10	44	30μ	15	285							8,429	836,1		
11	72		71	"	14	320							16,290	1,621		
12	100		87	"	11.1	400							31,420	3,134		
13	136		102	100μ	7.05	419							60,700	6,062	1,175	
14	183		115	"	4.35	442								11,690	2,301	
15	268													22,560	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,361
18	720													162,900	32,530	16,210
19	1,000														62,790	31,340
20	1,380														121,400	60,620
21	1,930														234,000	116,900
22	2,680														461,200	226,600
23	3,730															437,000
24	5,180															842,880
25	7,200															1,629,520
26	10,000															3,141,510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Estrella - Talencia
 Observador: Juan de Guzman Pena
 Situación:

COORDENADAS
 X
 Y
 Z
 mV: Adwin 01
 mA: 660 N: 480
 S.E.V. 35
 Rumbo AB N-52°-E
 Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER
 SIMETRICO
 MN

Estación	AM/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.88	1	32	1V	565	385						Sobre el nivel del cauce	21,78			
2	3.73		39	"	490	539							42,92			
3	5.18		35	"	340	811						a 270 m. del 34	83,51			
4	7.2		50	"	330	1069							162,1			
5	10		43	30mV	172	1254						Sobre afloramientos de Caleraf.	313,4			
6	13.9		87	"	146	1017							608,2			
7	19.3		130	100mV	68	611							1.199	109,2		
8	26.8		126	"	39	519							2.256	217,8		
9	37.3		67	10mV	6	391	10	66	100mV	53	345		4.370	429,2		
10	51.8		70	"	2.57	340		70	"	22.5	268		8.429	835,1		
11	72	10	47	"	5.5	190							16.290	1.621		
12	100		107	"	4.7	138							31.420	3.134		
13	139		112	"	3.2	173							60.700	6.062	1.175	
14	193		152	"	2.4	185								11.890	2.301	
15	268		160	"	1.42	200								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.300														121.400	60.620
21	1.930														234.000	116.900
22	2.880														451.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 2-06-92



Proyecto: Rio Palencia
 Zona: Extremadura - Palencia
 Observador: Juan Cu. Martinez Peña
 Situación:

COORDENADAS

X
Y
Z

m V: Acara 01
 mA: 660 N° 480

Rumbo AB
N= 52° - E

S.E.V. 36

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esp. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,68	1	15	30mV	215	312						Sobre el nivel del cauce	21,78			
2	3,73		20	"	100	215							42,92			
3	5,18		36	100mV	83	193						afloramiento de calizas	83,51			
4	7,2		25	"	35	227							182,1			
5	10		38	"	36,5	277							313,4			
6	13,9		31	"	20	391							606,2			
7	19,3		23	30mV	10	508							1.169	109,2		
8	26,8		46	"	10,5	515	10	47	300mV	119	551		2.256	217,8		
9	37,3		80	"	9,15	500		80	"	100	537		4.370	429,2		
10	51,8	10	51	100mV	30,5	499							8.429	836,1		
11	72		40	10mV	8,6	349							16.290	1.621		
12	100		50	"	2,3	144							31.420	3.134		
13	139		152	"	2,6	104							60.700	6.062	1.175	
14	193		94	3mV	0,82	102								11.690	2.301	
15	268													22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-93



Proyecto: Rio Salamanca
 Zona: Est. Vella - Salamanca
 Observador: Juan C. Martinez
 Situación:

COORDENADAS

X
Y
Z

m V: Sclara 01
 mA: GEO 480

Rumbo AB

N-50°-E

S.E.V. 37

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m	
1	2,88	1	12	300mV	167	303							21,78				
2	3,73		20	"	107	330							42,92				
3	5,18		30	100mV	64	178							83,51				
4	7,2		26	"	34	150							162,1				
5	10		15	10mV	5,9	123							313,4				
6	13,9		18	"	2,8	94							606,2				
7	19,3		29	"	1,9	77	10	30	30mV	23	84		1,169	109,2			
8	26,8		40	"	1,17	67	40	"	"	13,4	73		2,256	217,8			
9	37,3	10	28	"	4,4	67							4,370	429,2			
10	51,8		48	"	3,8	66							8,429	836,1			
11	72		42	3mV	1,9	73							16,290	1,621			
12	100		36	"	2,55	93							31,420	3,134			
13	139		63	"	1,05	101							60,700	6,062	1,175		
14	193		56	"	0,50	104								11,690	2,301		
15	268													22,560	4,474		
16	373													43,700	8,702	4,292	
17	518													84,290	16,820	8,351	
18	720													162,900	32,530	16,210	
19	1.000														62,790	31,340	
20	1.390														121,400	60,620	
21	1.930														234,000	116,900	
22	2.680														461,200	226,600	
23	3.730															437,000	
24	5.180															842,880	
25	7.200															1.628.520	
26	10.000															3.141.510	

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan de Martinez
 Situación:

COORDENADAS

X
Y
Z

mV: Adaro - 01
 mA: 600 N° 480

Rumbo AB

N - 50° - E

S.E.V. 38

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,68	1	16	1V	605	824						<u>Side of road del cauce</u>	21,78			
2	3,73		21	"	350	715							42,92			
3	5,18		28	300mV	172	513							83,51			
4	7,2		19	100mV	44	375							162,1			
5	10		19	30mV	16,2	267							313,4			
6	13,8		29	"	9,2	192							606,2			
7	19,3		27,5	10mV	3,7	157	10	27	100mV	37	150		1.169	109,2		
8	26,8		32	"	1,8	127		31,5	30mV	16,5	114		2.256	217,8		
9	37,3	10	29	"	5,95	88							4.370	429,2		
10	51,8		35	"	3,2	76							8.429	836,1		
11	72		48	"	2,2	74							16.290	1.621		
12	100		67,5	3mV	1,6	74							31.420	3.134		
13	139		50	"	0,65	79							60.700	6.062	1.175	
14	193		68	"	0,61	105								11.690	2.301	
15	268		74	"	0,42	128								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.351
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan Cu. Cuatrecasas
 Situación:

COORDENADAS

X
Y
Z

m V: Adara-01
 mA: GEO N=480

Rumbo AB

N-50°-E

S.E.V. 39

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m		
1	2,68	1	19	1V	4,25	487						<u>Sobre el nivel del canal.</u>	21,78					
2	3,73		16	100uV	85	228							42,92					
3	5,18		30	"	52	145							83,51					
4	7,2		17	30uV	12,5	119							162,1					
5	10		32	10uV	5,8	83							313,4					
6	13,9		30	"	2,8	57							606,2					
7	19,3		31,5	3uV	1,3	48	10	32	30uV	12,5	43		1,169	109,2				
8	26,8		53	"	1,12	48		53	"	10,5	43		2,256	217,8				
9	37,3	10	26	10uV	3,0	50							4,370	429,2				
10	51,8		52	"	3,4	55							8,429	636,1				
11	72		50	"	1,9	62							16,290	1,621				
12	100		67	3uV	1,5	70							31,420	3,134				
13	136		53	"	0,70	80							60,700	6,062	1,176			
14	193		80	"	0,595	87								11,690	2,301			
15	268													22,580	4,474			
16	373													43,700	8,702	4,292		
17	518													84,290	16,820	8,351		
18	720													162,900	32,530	16,210		
19	1.000														62,790	31,340		
20	1.390														121,400	60,620		
21	1.930														234,000	116,900		
22	2.690														461,200	225,600		
23	3.730															437,000		
24	5.180																842,890	
25	7.200																	1.628.520
26	10.000																	3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palamín
 Zona: Estivella - Valencia
 Observador: Juan C. Cuartero
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
 m A: GEO 480

Rumbo AB
N-16°-E

S.E.V. 40

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2,68	1	15	100mV	80	116						Sobre el nivel del cauce	21,78			
2	3,73		14	"	35	107							42,92			
3	5,18		43	"	47	91							83,51			
4	7,2		60	"	34	92							182,1			
5	10		135	"	41	95							313,4			
6	13,9		140	"	23	100							606,2			
7	19,3		40	10mV	3,6	105	10	40,5	100mV	38	105		1,169	109,2		
8	26,8	10	103	100mV	43,5	92							2,256	217,8		
9	37,3		108	"	21,5	85							4,370	429,2		
10	51,8		57	10mV	4,45	65							8,429	836,1		
11	72		71	"	2,75	63							16,290	1,621		
12	100		110	"	2,4	68							31,420	3,134		
13	139		84	3mV	1,1	79							60,700	6,062	1,175	
14	193		62	"	0,5	94								11,890	2,301	
15	268		100	"	0,485	110								22,560	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,351
18	720													162,900	32,530	16,210
19	1.000														62,790	31,340
20	1.390														121,400	60,620
21	1.930														234,000	116,900
22	2.680														451,200	225,600
23	3.730															437,000
24	5.180															842,880
25	7.200															1.620.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Res. Palencia
 Zona: Estrella - Valencia
 Observador: Juan Cu. Martínez
 Situación:

COORDENADAS

X
Y
Z

m V: Adaro - 01
 m A: 660 480

Rumbo AB

N - 35° - W

S.E.V. A1

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	10	A1	475	1035						+ 0.60 u. sobre el cauce.	21,78			
2	3,73		16	"	245	657							42,92			
3	5,18		18	100uV	60	278							83,51			
4	7,2		30	"	36	195							162,1			
5	10		25	20uV	12,5	157							313,4			
6	13,9		18	10uV	3,9	131							606,2			
7	19,3		33	"	3,45	122	10	34	100uV	36	116		1,169	109,2		
8	26,8		19	3uV	0,90	107		19	10uV	8,1	93		2,256	217,8		
9	37,3	10	15	10uV	3,1	89							4,370	429,2		
10	51,8		25	"	2,3	77							8,429	836,1		
11	72		64	"	2,9	73							16,290	1,621		
12	100		68	3uV	1,8	83							31,420	3,134		
13	139		57	"	0,91	97							60,700	6,062	1,175	
14	193		110		1,1	117								11,690	2,301	
15	268													22,560	4,474	
16	373													43,700	8,702	4,292
17	518													84,290	16,820	8,351
18	720													162,900	32,530	16,210
19	1.000														62,790	31,340
20	1.390														121,400	60,620
21	1.930														234,000	116,900
22	2.680														461,200	225,600
23	3.730															437,000
24	5.180															842,880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palencia
 Zona: Estrella - Talanca
 Observador: Juan M. Martínez Pico
 Situación:

COORDENADAS

X
Y
Z

m V: Adm 01
 m A: GEO N° 180
 S.E.V. 42

Rumbo AB
N-44°-W
 Perfil:

CONSTANTES PARA DISPOSITIVO SCHULMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,88	1	19	1V	890	1020						+ 0.50 m sobre el cauce	21,78			
2	3,73		39	"	590	649							42,92			
3	5,18		30	100mV	89	248							83,51			
4	7,2		26	"	34,5	153							182,1			
5	10		29	30mV	12	130							313,4			
6	13,9		19,5	10mV	4	124							608,2			
7	19,3		35	"	3,4	114	10	34	100mV	36	116		1.189	109,2		
8	26,8	10	26	30mV	13	108							2.256	217,8		
9	37,3		34	10mV	7,8	98							4.370	429,2		
10	51,8		43	"	4,8	93							8.429	836,1		
11	72		63	"	3,2	82							16.290	1.621		
12	100		81	"	2,0	77							31.420	3.134		
13	139		48	3mV	0,65	82							60.700	6.062	1.175	
14	193		94	"	0,80	99								11.690	2.301	
15	268		130	"	0,66	115								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.680														461.200	225.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Salencia
 Observador: Juan Cu. Quintana
 Situación:

COORDENADAS

X
Y
Z

m V: Adato 01
 m A: GEO N° 137
 S.E.V. 43

Rumbo AB
N-44°-W
 Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ωm)	OBSERVACIONES	CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN			
													1 m	10 m	50 m	100 m
1	2.68	1	22	1V	815	807						+ 1 m sobre el cauce	21.78			
2	3.73		20	"	320	687							42.92			
3	5.18		13	100uV	65	418							83.51			
4	7.2		18	"	31	379							182.1			
5	10		59	"	38	302							313.4			
6	13.9		38	30uV	10	160							606.2			
7	19.3		27	10uV	3.1	134	10	27.5	100uV	30	143		1.189	109.2		
8	26.8		71	"	3.5	111		71	"	39.5	121		2.258	217.8		
9	37.3		39.5	3uV	0.90	100		40	30uV	10	107		4.370	429.2		
10	51.8	10	54	30uV	1.3	97						54 - 6.3 = 97	8.429	836.1		
11	72		87	"	5.55	103							18.290	1.621		
12	100		220	"	8.0	114							31.420	3.134		
13	139		330	"	6.3	116							60.700	6.062	1.175	
14	193		120	3uV	1.48	144								11.690	2.301	
15	268		230	"	1.76	172								22.580	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.300														121.400	60.620
21	1.930														234.000	116.900
22	2.890														461.200	226.600
23	3.730															437.000
24	5.180															842.880
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-92



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan de Quintana Pina
 Situación:

COORDENADAS

X
Y
Z

mV: Adaro 01
 mA: 660 328

Rumbo AB N-44°-W

S.E.V. 44

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MN

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	MN	I (mA)	Esc. Volt.	V (mV)	ρ (Ω m)	OBSERVACIONES	1 m	10 m	50 m	100 m
1	2,68	1	27	300uV	207	167						Sobre el nivel del canal	21,78			
2	3,73		40	"	115	183							42,92			
3	5,18		27	100uV	33	102						A 200 m. N del 43	83,51			
4	7,2		27	30uV	17	102							162,1			
5	10		39	"	11	88							313,4			
6	13,9		24	100uV	3,1	78							606,2			
7	19,3		45	"	2,9	75	10	45	100uV	49	120		1.169	109,2		
8	26,8		65	"	1,85	64		65	"	27	97		2.256	217,8		
9	37,3		38	"	0,50	57		36	100uV	7,6	91		4.370	429,2		
10	51,8	10	71	"	7	82							8.429	836,1		
11	72		94	"	5	86							16.290	1.621		
12	100		75	"	2,3	96							31.420	3.134		
13	139		110	"	1,95	107							60.700	6.062	1.175	
14	193		91	30uV	1,0	128								11.690	2.301	
15	268		66	"	0,84	150								22.560	4.474	
16	373													43.700	8.702	4.292
17	518													84.290	16.820	8.361
18	720													162.900	32.530	16.210
19	1.000														62.790	31.340
20	1.390														121.400	60.620
21	1.930														234.000	116.900
22	2.690														461.200	226.800
23	3.730															437.000
24	5.180															842.890
25	7.200															1.628.520
26	10.000															3.141.510

OBSERVACIONES:

FECHA: 1-06-90



Proyecto: Rio Palencia
 Zona: Estivella - Valencia
 Observador: Juan de Arana
 Situación:

COORDENADAS

X
Y
Z

mV: Selaro 01
 mA: GE0 N°

Rumbo AB

N-44°-W

S.E.V. 45

Perfil:

CONSTANTES PARA DISPOSITIVO SCHULUMBERGER SIMETRICO MM

Estación	AB/2	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	MN	I (mA)	Esc. Volt.	V (mV)	$\rho(\Omega m)$	OBSERVACIONES	1 m	10 m	50 m	100 m	
1	2,88	1	62	1V	710	249						+ 0.80 m. sobre el nivel del cauce	21,78				
2	3,73		93	"	525	242							42,92				
3	5,18		107	"	300	234							83,51				
4	7,2		125	300mV	140	182							162,1				
5	10		135	100mV	70	163						a 500 m. S. del 64	313,4				
6	13,9		75	30mV	17	137							606,2				
7	19,3		70	10mV	7,2	120	10	70	100mV	74,5	117		1,169	109,2			
8	26,8	10	54	100mV	26	105							2,256	217,8			
9	37,3		53	30mV	10,5	85							4,370	429,2			
10	51,8		100	"	10	84							8,429	836,1			
11	72		66	10mV	3,7	91							16,290	1,621			
12	100		102	"	3,4	104							31,420	3,134			
13	139		128	"	2,4	114							60,700	6,062	1,175		
14	193		108	3mV	1,25	135								11,690	2,301		
15	268		115	"	1,0	196								22,560	4,474		
16	373													43,700	8,702	4,292	
17	518													84,290	16,820	8,351	
18	720													162,900	32,530	16,210	
19	1.000														62,790	31,340	
20	1.390														121,400	60,620	
21	1.930														234,000	116,900	
22	2.680														461,200	225,600	
23	3.730															437,000	
24	5.180																842,880
25	7.200																1.628.520
26	10.000																3.141.510

OBSERVACIONES:

FECHA: 1-06-92

INTERPRETACION DE LOS S.E.M.

DATA SET: RP1

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 26-05-92
 SOUNDING: RP1
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 4.326 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1456.7		2.55	-2.55	0.00176
2	668.0		5.27	-7.83	0.00790
3	49.81		20.39	-28.23	0.409
4	201.2				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1296.2	1347.4	-3.94
2	3.73	1246.5	1232.5	1.11
3	5.18	1113.7	1056.5	5.13
4	7.20	869.0	837.9	3.57
5	10.00	541.3	608.2	-12.35
6	13.90	408.5	387.5	5.15
7	19.30	209.0	209.9	-0.450
8	26.80	112.0	110.1	1.69
9	37.30	78.00	81.41	-4.38
10	51.80	89.00	87.59	1.58
11	72.00	106.0	103.7	2.16
12	100.0	121.0	122.1	-0.970
13	139.0	141.0	140.6	0.253
14	193.0	157.0	157.3	-0.229

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.79

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ADARO

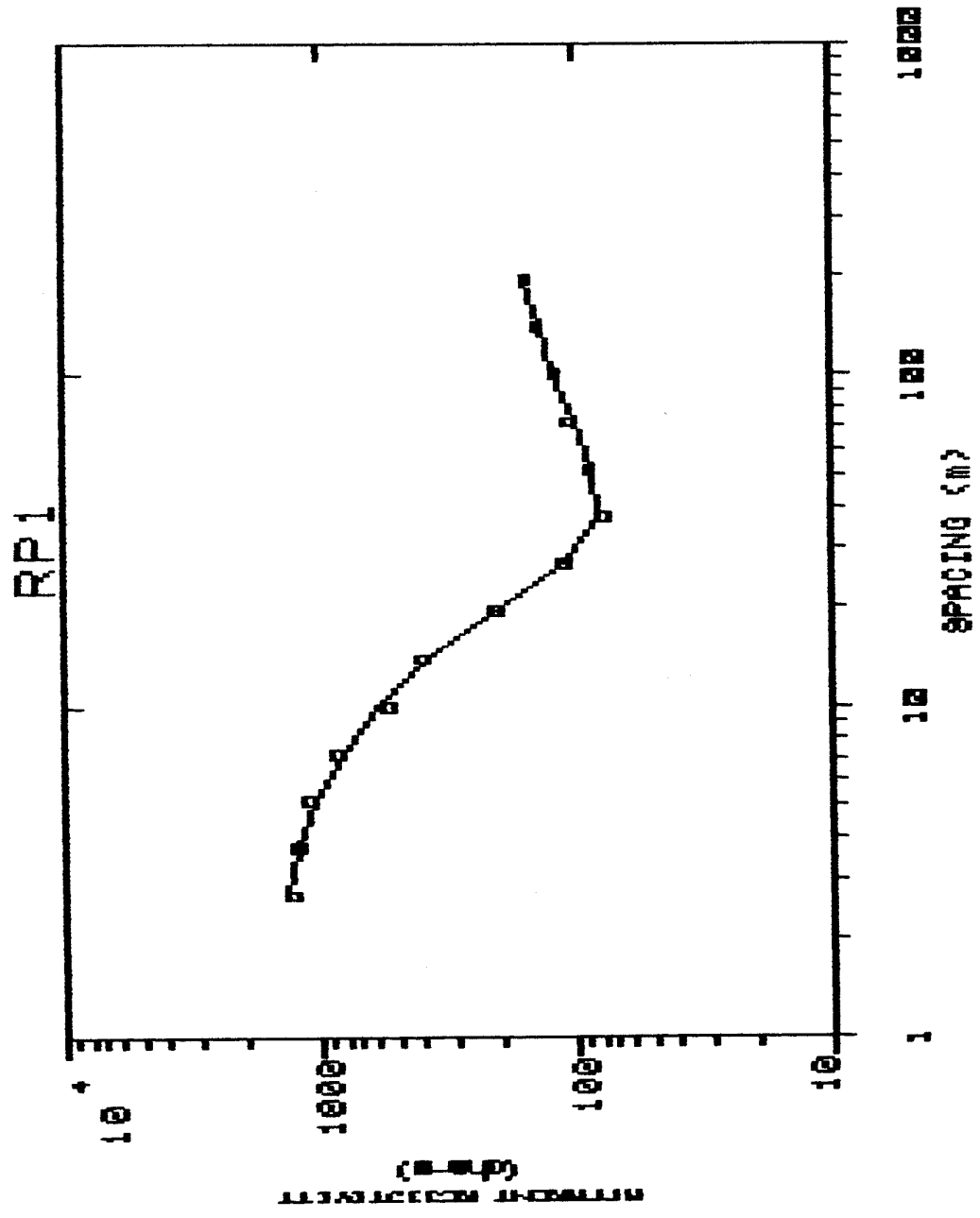
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P 2	0.02	0.43						
P 3	0.00	-0.04	0.54					
P 4	0.00	0.02	0.11	0.54				
T 1	0.15	0.35	0.00	0.00	0.37			
T 2	-0.11	0.18	0.13	-0.06	0.15	0.68		
T 3	-0.01	0.00	-0.35	-0.20	0.01	0.05	0.31	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

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ADARO

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DATA SET: RP2

CLIENT: ITGE DATE: 26-05-92
 LOCATION: ALGAR SOUNDING: RP2
 COUNTY: VALENCIA AZIMUTH: 0.00 Deg NORTH
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 3.989 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	396.3		2.46	0.0 -2.46	0.00622
2	1202.5		2.40	-4.86	0.00200
3	93.25				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	507.5	430.1	15.24
2	3.73	468.2	460.2	1.72
3	5.18	485.7	492.0	-1.29
4	7.20	493.3	499.9	-1.33
5	10.00	498.8	456.3	8.52
6	13.90	354.7	358.6	-1.11
7	19.30	255.0	242.9	4.70
8	26.80	155.0	155.7	-0.495
9	37.30	107.0	113.4	-6.03
10	51.80	96.00	100.0	-4.17
11	72.00	100.0	96.13	3.86
12	100.0	92.00	94.63	-2.86
13	139.0	96.00	93.97	2.10
14	193.0	102.0	93.62	8.21

PARAMETER RESOLUTION MATRIX:

"F" INDICATES FIXED PARAMETER

P 1 0.95

P 2 0.00 0.60

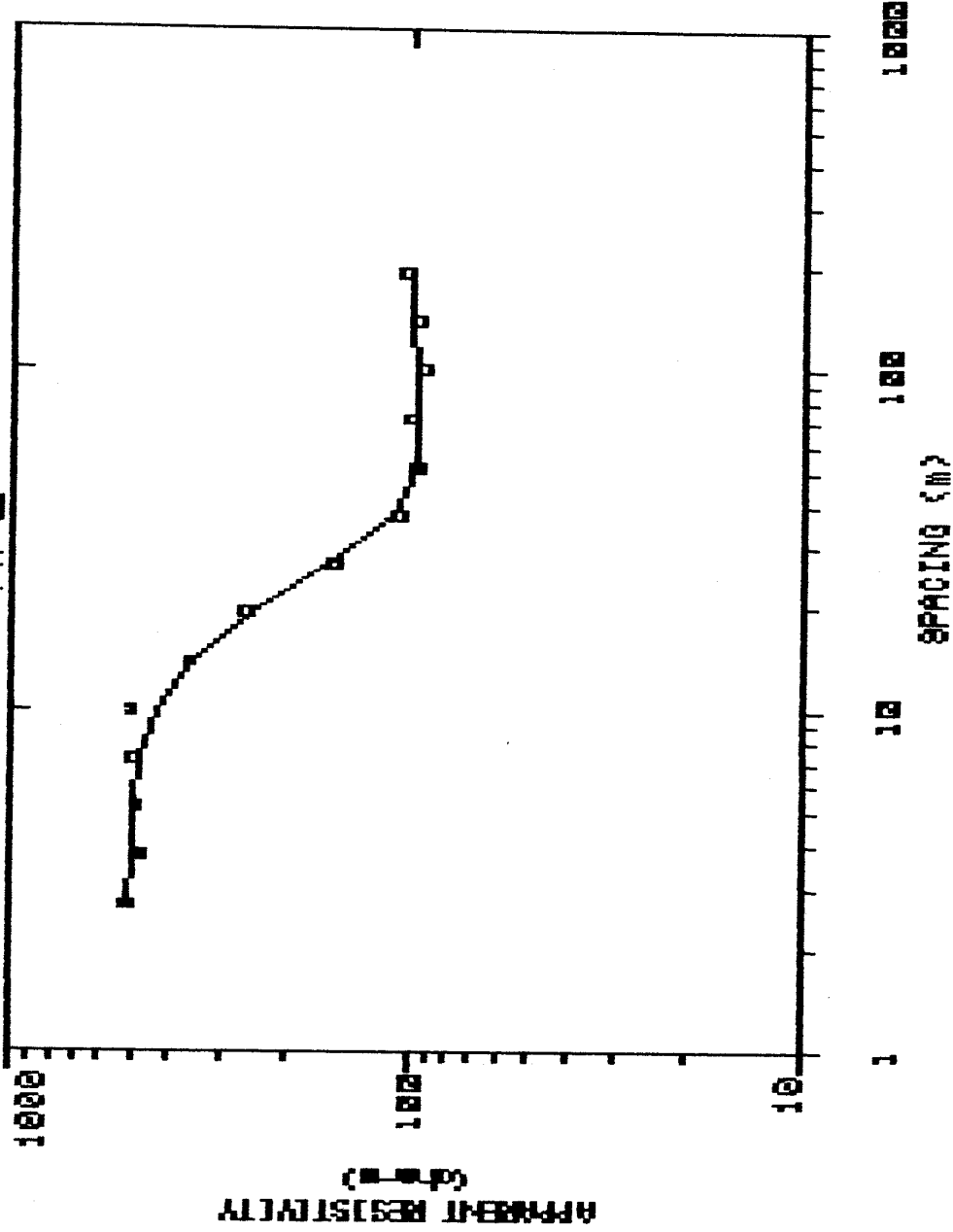
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ADARO

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P 3	0.00	0.00	1.00		
T 1	-0.09	0.12	0.00	0.79	
T 2	0.03	0.45	0.00	0.20	0.48
	P 1	P 2	P 3	T 1	T 2

RP2



DATA SET: RP3

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 26-05-92
 SOUNDING: RP3
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 6.151 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	378.4		1.66	-1.66	0.00440
2	834.6		5.80	-7.47	0.00696
3	51.33		18.09	-25.56	0.352
4	70.10		24.23	-49.80	0.345
5	262.0		56.59	-106.4	0.215
6	83.21				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	546.7	450.1	17.66
2	3.73	507.2	498.9	1.63
3	5.18	514.3	546.9	-6.35
4	7.20	551.7	571.1	-3.52
5	10.00	554.8	545.7	1.62
6	13.90	478.8	454.7	5.04
7	19.30	356.0	315.0	11.49
8	26.80	163.0	181.0	-11.09
9	37.30	97.00	101.6	-4.83
10	51.80	85.00	78.68	7.43
11	72.00	68.00	83.24	-22.42
12	100.0	95.00	96.04	-1.10
13	139.0	109.0	109.6	-0.557
14	193.0	117.0	118.8	-1.56

PARAMETER RESOLUTION MATRIX:

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ADARO

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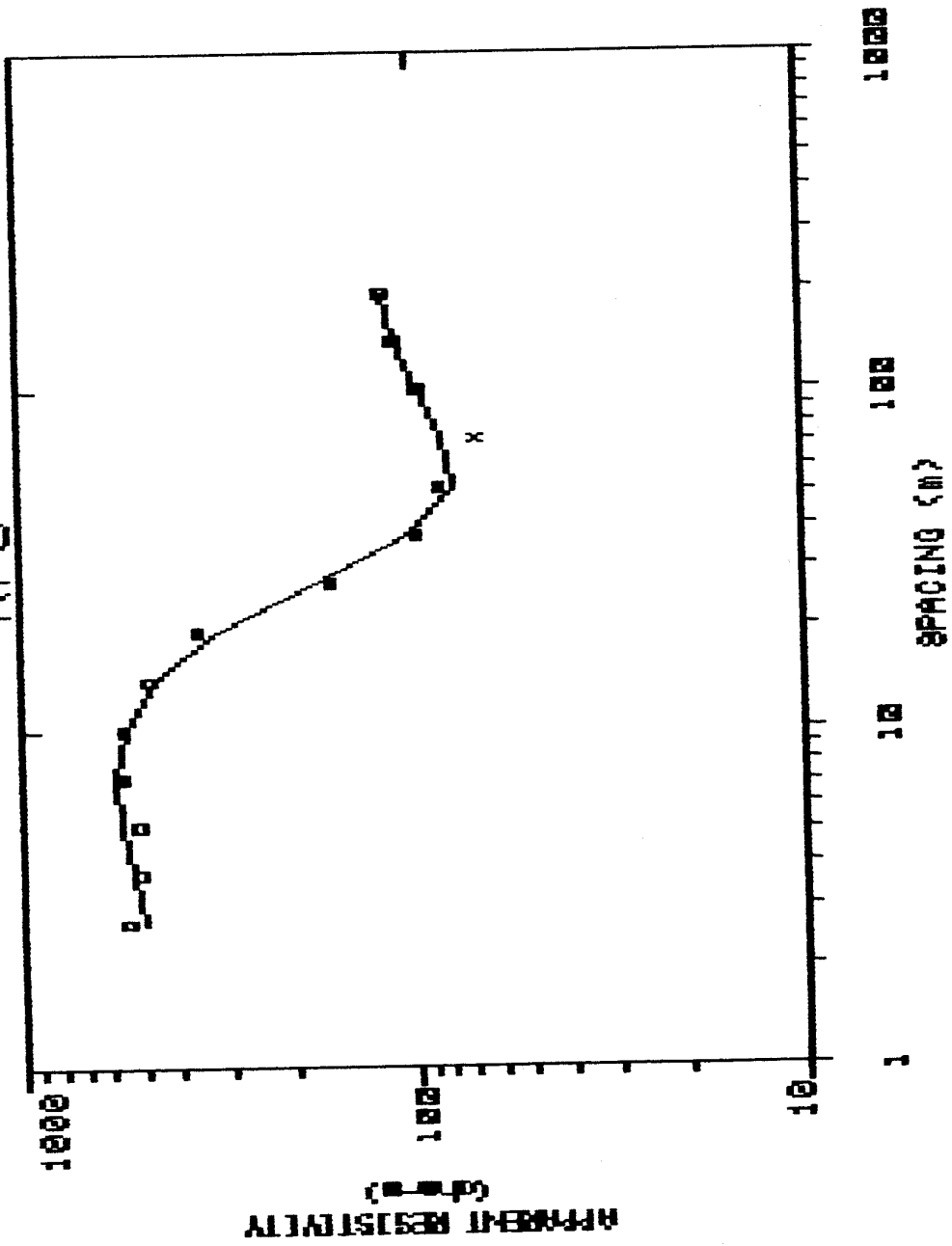
"F" INDICATES FIXED PARAMETER

P 1	0.52													
P 2	0.16	0.64												
P 3	-0.01	-0.02	0.38											
P 4	0.01	-0.01	0.22	0.21										
P 5	0.00	0.01	0.06	0.14	0.21									
P 6	0.00	0.01	0.01	0.04	0.10	0.05								
T 1	-0.32	-0.08	0.05	-0.01	-0.01	0.00	0.25							
T 2	-0.12	0.34	0.14	-0.01	-0.03	-0.01	0.20	0.57						
T 3	0.00	0.01	-0.17	-0.17	-0.12	-0.04	0.00	0.01	0.14					
T 4	0.00	0.00	-0.11	-0.14	-0.12	-0.04	0.01	0.02	0.12	0.11				
T 5	0.00	0.01	0.02	0.06	0.12	0.06	0.00	-0.02	-0.05	-0.05				
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4				

SECOND PART OF RESOLUTION MATRIX:

T 5 0.07
T 5

RP3



DATA SET: RP4

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 26-05-92
 SOUNDING: RP3
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.213 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1920.0		1.87	-1.87	9.759E-04
2	508.6		6.07	-7.94	0.0119
3	56.71		26.66	-34.61	0.470
4	202.4				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1483.5	1517.7	-2.30
2	3.73	1238.4	1219.8	1.49
3	5.18	861.5	896.6	-4.07
4	7.20	657.1	630.6	4.02
5	10.00	437.3	441.3	-0.921
6	13.90	293.5	291.6	-2.86
7	19.30	179.0	172.4	3.64
8	26.80	100.0	102.4	-2.48
9	37.30	81.00	80.19	0.999
10	51.80	84.00	83.86	0.166
11	72.00	97.00	97.58	-0.605
12	100.0	116.0	115.2	0.621
13	139.0	134.0	133.9	0.0192
14	193.0	150.0	151.5	-1.04
15	268.0	168.0	166.8	0.678

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

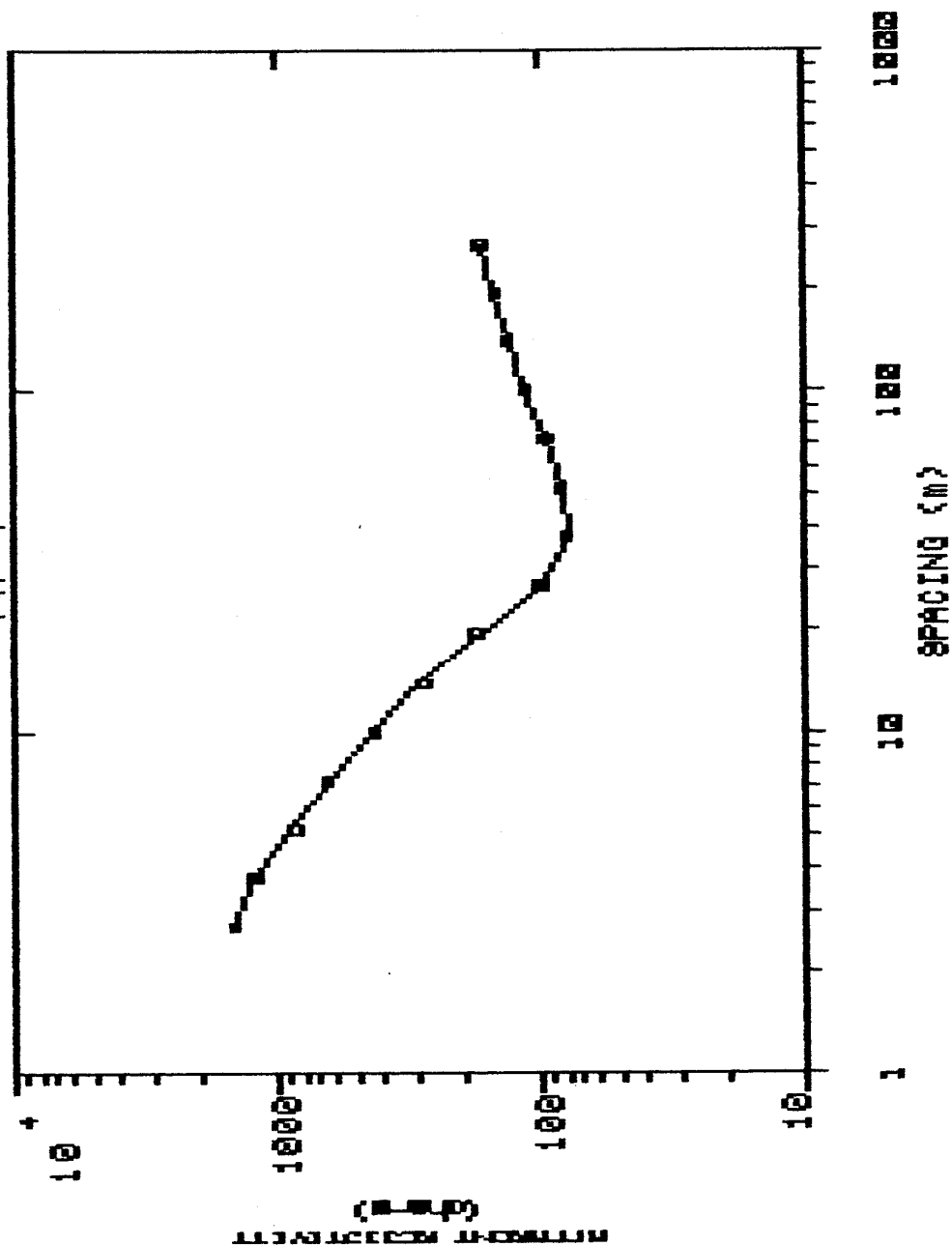
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ADARO

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P 1	1.00							
P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	0.00	1.00				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.00	0.00	0.00	0.00	0.99	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

RP4



DATA SET: RPS

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 26-05-92
 SOUNDING: RP3
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.746 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	810.0		4.33	-4.33	0.00535
2	192.4		3.25	-7.59	0.0169
3	30.99		17.52	-25.11	0.565
4	193.8				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	921.0	783.8	14.89
2	3.73	865.0	746.9	13.64
3	5.18	892.0	671.9	24.67
4	7.20	561.0	543.9	3.03
5	10.00	375.0	374.4	0.146
6	13.90	192.0	209.3	-9.01
7	19.30	109.0	100.5	7.73
8	26.80	57.00	57.87	-1.53
9	37.30	52.00	54.64	-5.09
10	51.80	62.00	65.57	-5.77
11	72.00	81.00	81.11	-0.137
12	100.0	109.0	98.74	9.41
13	139.0	123.0	117.2	4.70
14	193.0	138.0	135.1	2.04
15	268.0	142.0	151.5	-6.69

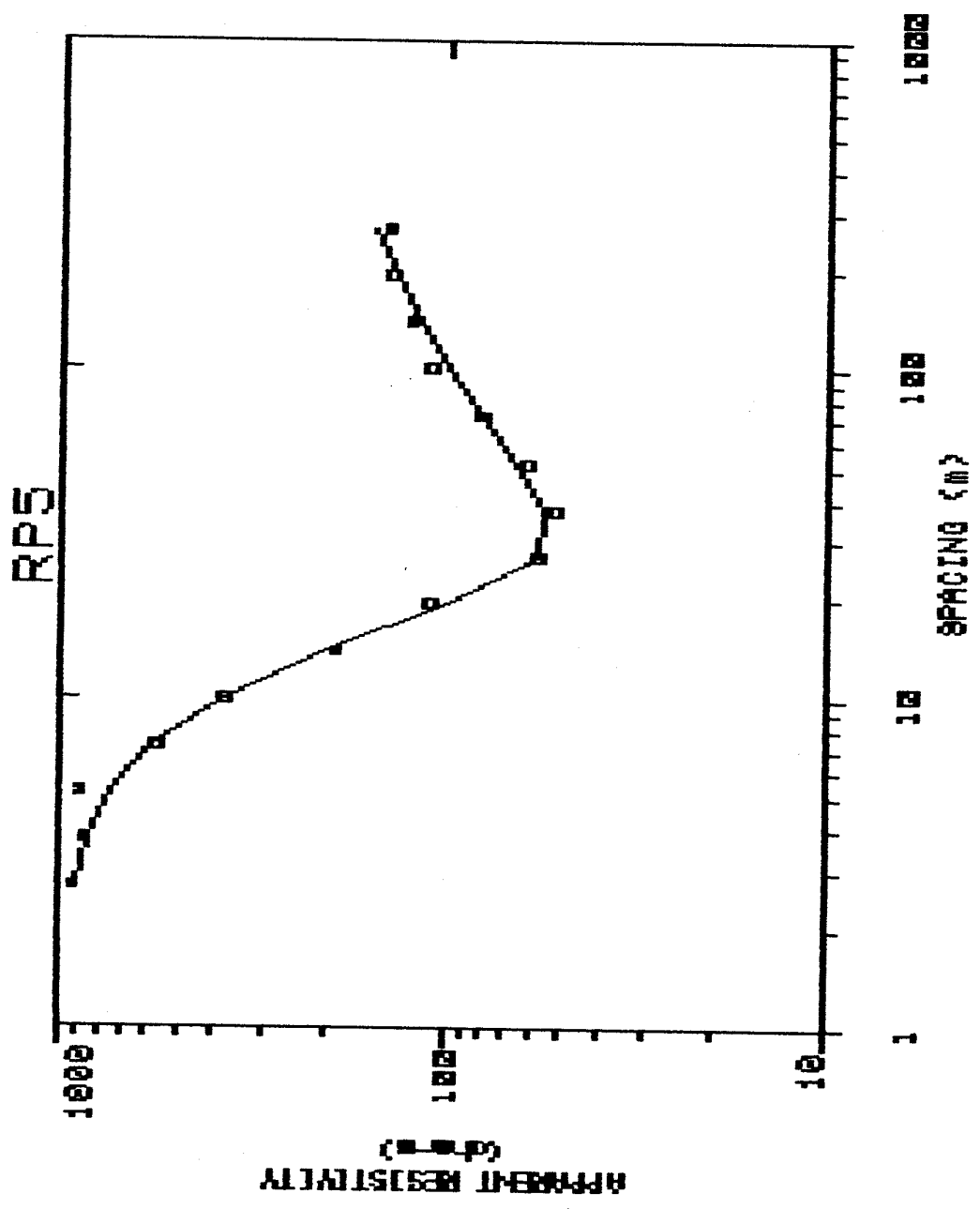
PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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P 1	0.64						
P 2	0.01	0.04					
P 3	-0.07	0.02	0.55				
P 4	0.03	0.00	0.07	0.60			
T 1	0.13	0.17	0.07	-0.02	0.84		
T 2	-0.09	0.04	0.05	-0.03	0.19	0.08	
T 3	-0.03	0.00	-0.38	-0.16	0.04	0.03	0.38
	P 1	P 2	P 3	P 4	T 1	T 2	T 3



RPS

APPARENT RESISTIVITY (ohm-m)

SPACING (m)

DATA SET: RP6

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 26-05-92
 SOUNDING: RP6
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.981 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	848.4		0.764	0.0	
2	2961.3		1.46	-0.764	9.015E-04
3	145.8		6.98	-2.22	4.936E-04
4	65.13		27.86	-9.21	0.0479
5	901.2			-37.07	0.427

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1351.9	1383.7	-2.35
2	3.73	1427.5	1356.7	4.95
3	5.18	1084.7	1149.3	-5.95
4	7.20	838.8	801.7	4.41
5	10.00	454.5	453.0	0.336
6	13.90	219.2	225.9	-3.04
7	19.30	130.0	128.4	1.18
8	26.80	99.00	97.48	1.53
9	37.30	90.00	93.15	-3.50
10	51.80	108.0	106.2	1.65
11	72.00	136.0	134.3	1.19
12	100.0	172.0	175.3	-1.94
13	139.0	232.0	228.1	1.66
14	193.0	291.0	292.1	-0.379

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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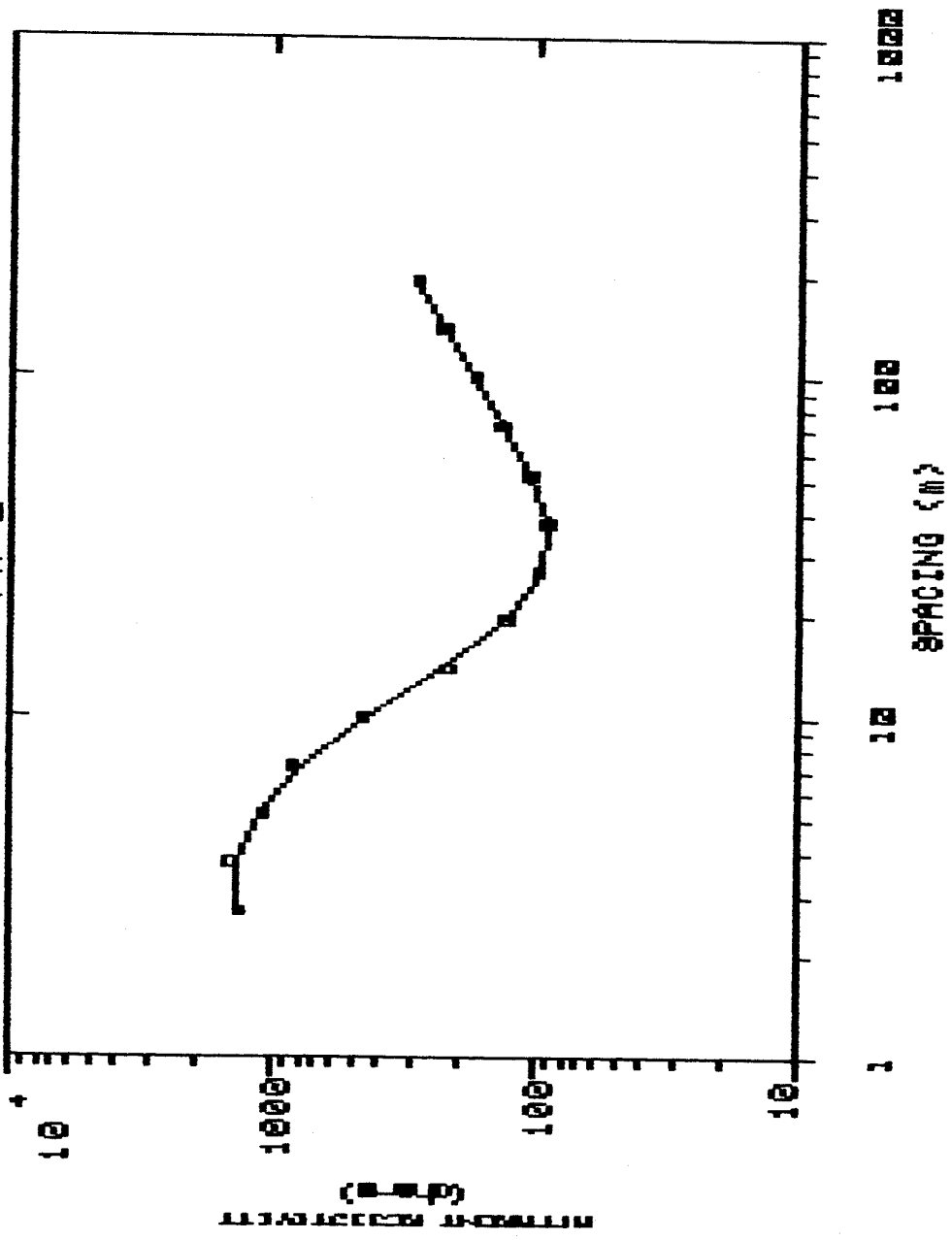
P 1	0.57								
P 2	0.12	0.58							
P 3	0.06	-0.07	0.66						
P 4	-0.01	0.01	-0.04	0.92					
P 5	0.00	0.00	0.01	-0.06	0.63				
T 1	-0.45	-0.06	0.09	-0.01	-0.01	0.41			
T 2	-0.06	0.45	0.11	-0.01	-0.01	0.14	0.49		
T 3	0.02	-0.03	0.28	0.15	0.05	-0.01	-0.01	0.56	
T 4	-0.01	0.01	-0.09	-0.12	-0.15	0.00	0.00	0.23	0.80
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4

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ADARD

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RP6



DATA SET: RP7

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP7
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.324 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	3028.1		2.00	0.0	
2	252.5		7.47	-2.00	6.606E-04
3	49.81		54.97	-9.47	0.0296
4	594.0			-64.45	1.10

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	2411.3	2254.1	6.51
2	3.73	1567.7	1656.2	-5.64
3	5.18	975.1	1009.3	-3.50
4	7.20	526.1	529.4	-0.632
5	10.00	320.1	291.4	8.97
6	13.90	179.3	190.8	-6.42
7	19.30	123.0	129.4	-5.23
8	26.80	93.00	86.52	6.96
9	37.30	66.00	65.74	0.391
10	51.80	57.00	61.57	-8.02
11	72.00	72.00	67.36	6.44
12	100.0	82.00	81.91	0.106
13	139.0	103.0	105.5	-2.43
14	193.0	137.0	137.3	-0.219
15	268.0	178.0	176.7	0.726

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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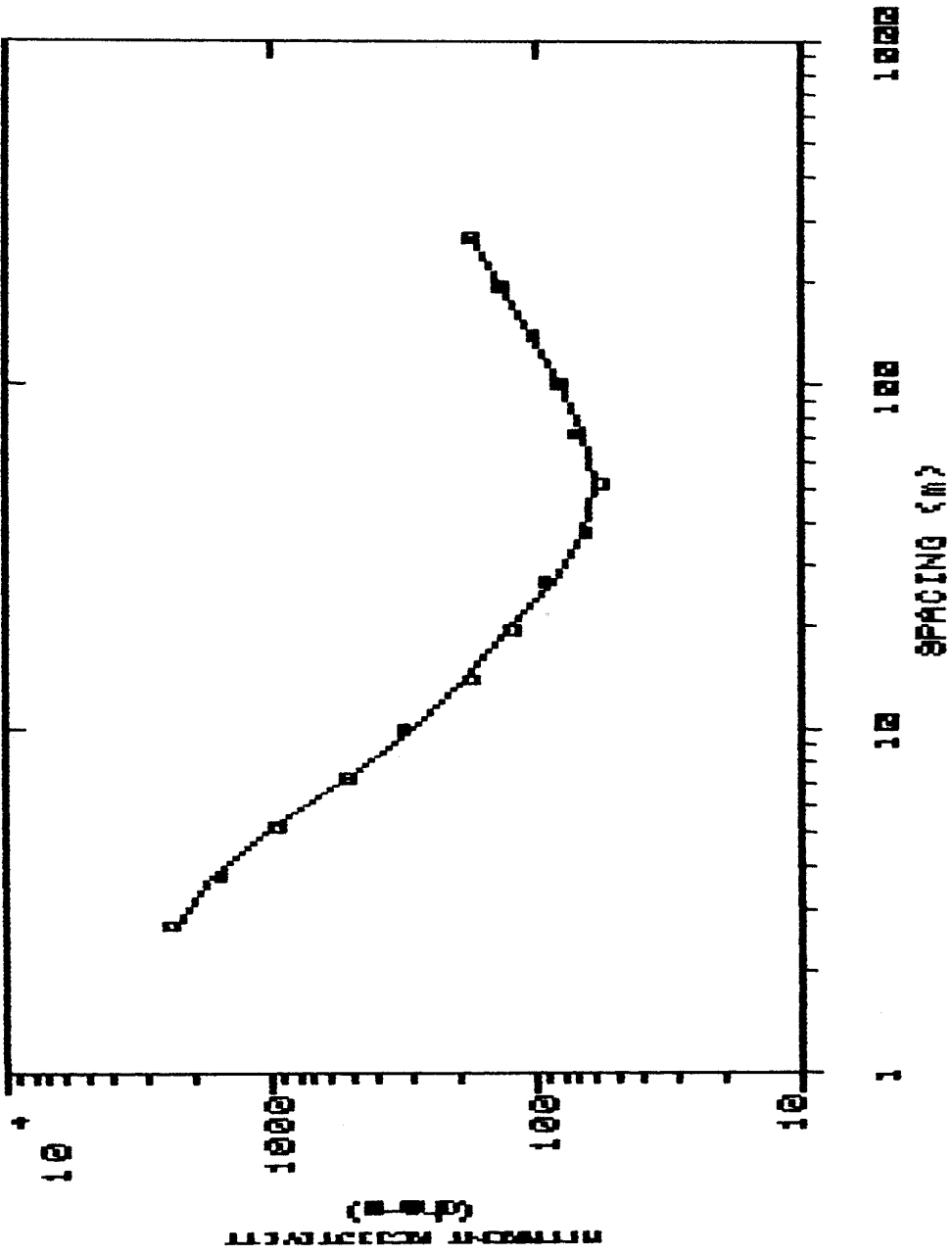
P 1	1.00						
P 2	0.00	1.00					
P 3	0.00	0.00	1.00				
P 4	0.00	0.00	0.00	0.97			
T 1	0.00	0.00	0.00	0.00	1.00		
T 2	0.00	0.00	0.00	0.00	0.00	1.00	
T 3	0.00	0.00	0.00	-0.01	0.00	0.00	1.00
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

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ADARO

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RP7



DATA SET: RP8

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP8
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.234 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1163.6		1.61	-1.61	0.00138
2	277.2		5.57	-7.18	0.0201
3	45.96		21.02	-28.21	0.457
4	754.1				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m)	SYNTHETIC	DIFFERENCE (percent)
1	2.68	875.0	827.3	5.44	
2	3.73	618.1	625.4	-1.17	
3	5.18	434.0	439.3	-1.20	
4	7.20	306.8	307.9	-0.359	
5	10.00	212.5	220.4	-3.75	
6	13.90	148.8	150.9	-1.41	
7	19.30	100.0	99.65	0.343	
8	26.80	75.00	76.28	-1.71	
9	37.30	81.00	78.75	2.77	
10	51.80	98.00	98.05	-0.0515	
11	72.00	127.0	128.6	-1.27	
12	100.0	166.0	168.5	-1.54	
13	139.0	216.0	217.9	-0.881	
14	193.0	281.0	276.2	1.70	

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.98

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ADARO

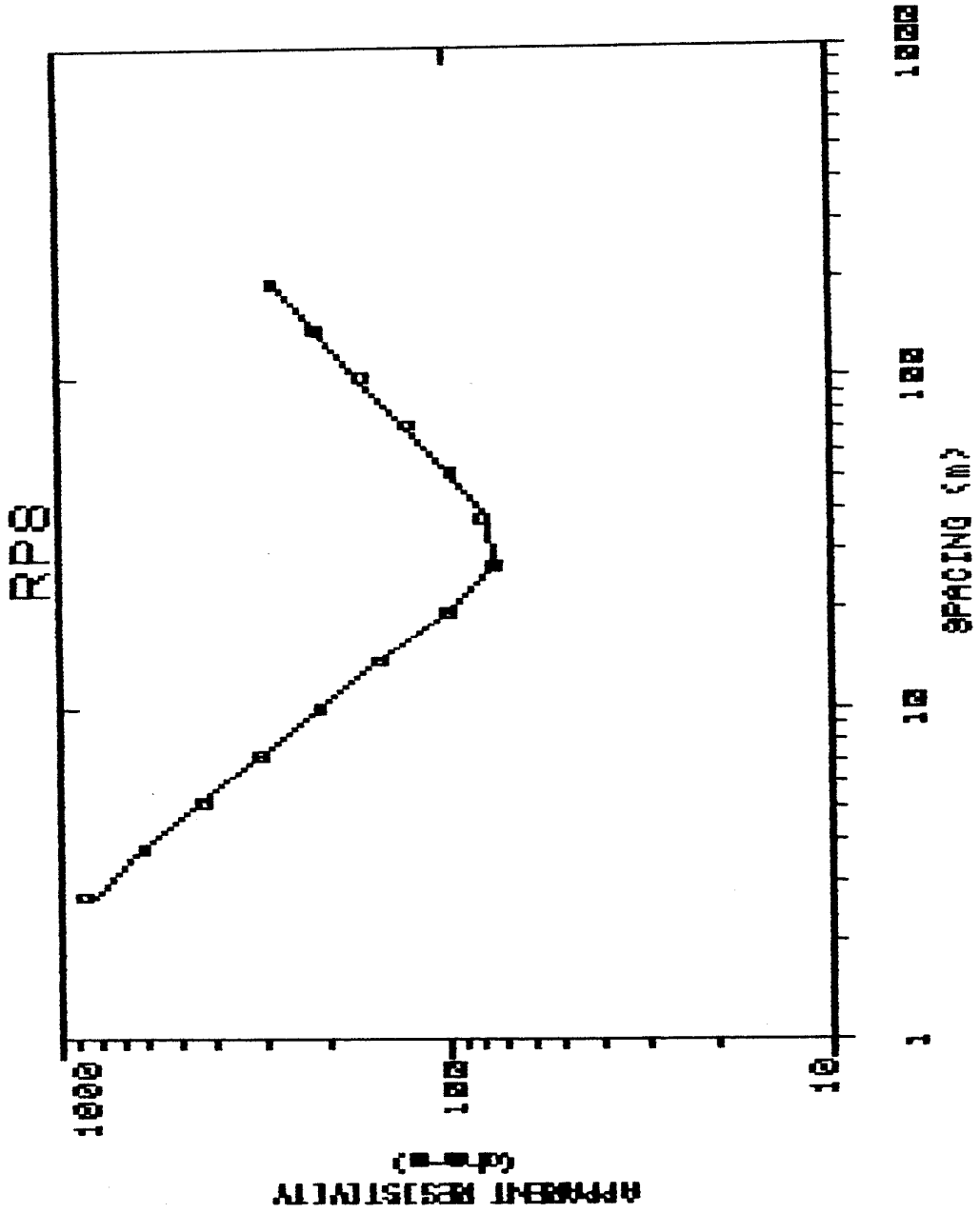
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P 2	-0.03	0.90					
P 3	-0.01	-0.08	0.76				
P 4	0.00	0.00	-0.07	0.82			
T 1	0.03	0.06	0.04	0.00	0.95		
T 2	0.01	0.07	0.13	0.02	-0.04	0.91	
T 3	-0.02	-0.09	-0.28	-0.12	0.04	0.15	0.67
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

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ADARO

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DATA SET: RP9

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP9
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 1.891 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1275.2		0.947	-0.947	7.430E-04
2	436.5		5.94	-6.89	0.0136
3	44.42		18.24	-25.13	0.410
4	2065.1				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	697.3	688.2	1.31
2	3.73	541.2	547.3	-1.13
3	5.18	473.0	456.6	3.46
4	7.20	383.8	385.1	-0.329
5	10.00	298.1	303.0	-1.64
6	13.90	205.7	207.8	-1.02
7	19.30	130.0	127.7	1.69
8	26.80	88.00	88.97	-1.11
9	37.30	91.00	90.50	0.543
10	51.80	113.0	116.5	-3.12
11	72.00	162.0	157.7	2.65
12	100.0	217.0	213.2	1.74
13	139.0	282.0	286.1	-1.45
14	193.0	283.0	379.4	-34.06

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.97

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ADARO

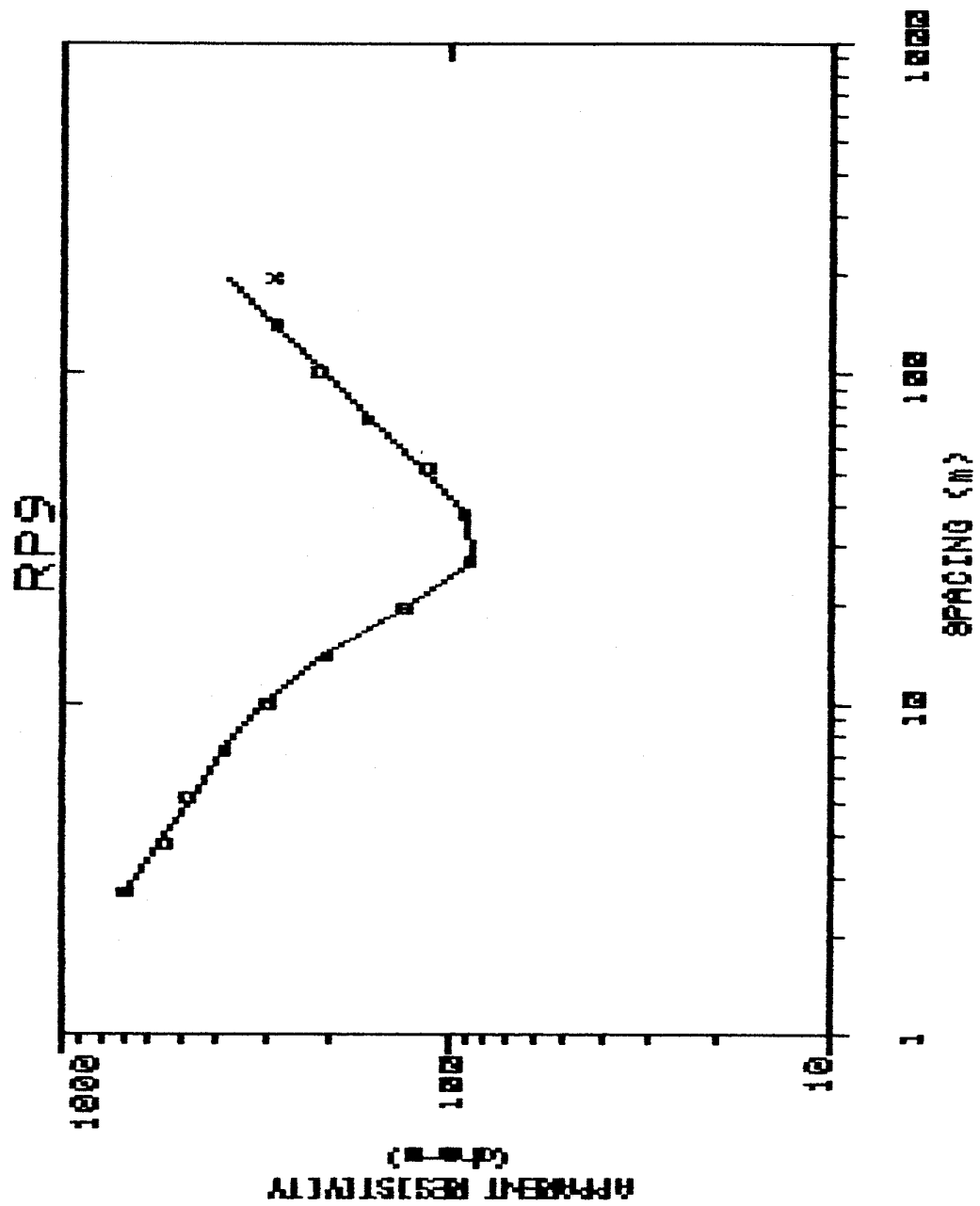
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P 2	0.00	1.00					
P 3	-0.01	0.00	0.99				
P 4	-0.01	0.00	-0.01	0.95			
T 1	0.02	0.00	0.00	0.00	0.99		
T 2	0.00	0.00	0.00	0.00	0.00	1.00	
T 3	-0.01	0.00	-0.01	-0.02	0.01	0.00	0.98
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

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ADARO

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DATA SET: RP10

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP10
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.710 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	963.3		2.01	-2.01	0.00209
2	263.0		6.12	-8.13	0.0232
3	82.02		8.44	-16.58	0.102
4	292.8		26.02	-42.61	0.0888
5	281.6		53.50	-96.12	0.189
6	46.09				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	802.3	791.9	1.29
2	3.73	661.4	654.0	1.12
3	5.18	480.3	494.8	-3.00
4	7.20	360.9	358.7	0.613
5	10.00	275.4	267.2	2.97
6	13.90	203.7	207.6	-1.92
7	19.30	167.0	170.2	-1.96
8	26.80	166.0	158.3	4.59
9	37.30	166.0	169.1	-1.92
10	51.80	192.0	189.1	1.49
11	72.00	203.0	205.8	-1.41
12	100.0	206.0	211.1	-2.47
13	139.0	209.0	198.2	5.16
14	193.0	159.0	165.1	-3.85
15	268.0	120.0	120.6	-0.500

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ADARO

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PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

P 1	0.99													
P 2	-0.02	0.92												
P 3	0.00	-0.02	0.60											
P 4	0.01	0.05	0.06	0.63										
P 5	0.00	-0.02	-0.05	0.28	0.50									
P 6	0.00	0.00	0.03	-0.09	-0.03	0.53								
T 1	0.02	0.06	0.00	-0.03	0.01	0.00	0.96							
T 2	0.01	0.09	0.17	-0.12	0.06	-0.02	-0.05	0.82						
T 3	0.00	-0.01	-0.43	-0.14	0.08	-0.01	0.00	0.13	0.40					
T 4	0.00	-0.01	-0.01	0.11	0.23	0.09	0.00	0.02	0.03	0.13				
T 5	0.00	-0.02	0.02	-0.06	0.24	0.32	0.01	0.02	0.03	0.19				
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4				

SECOND PART OF RESOLUTION MATRIX:

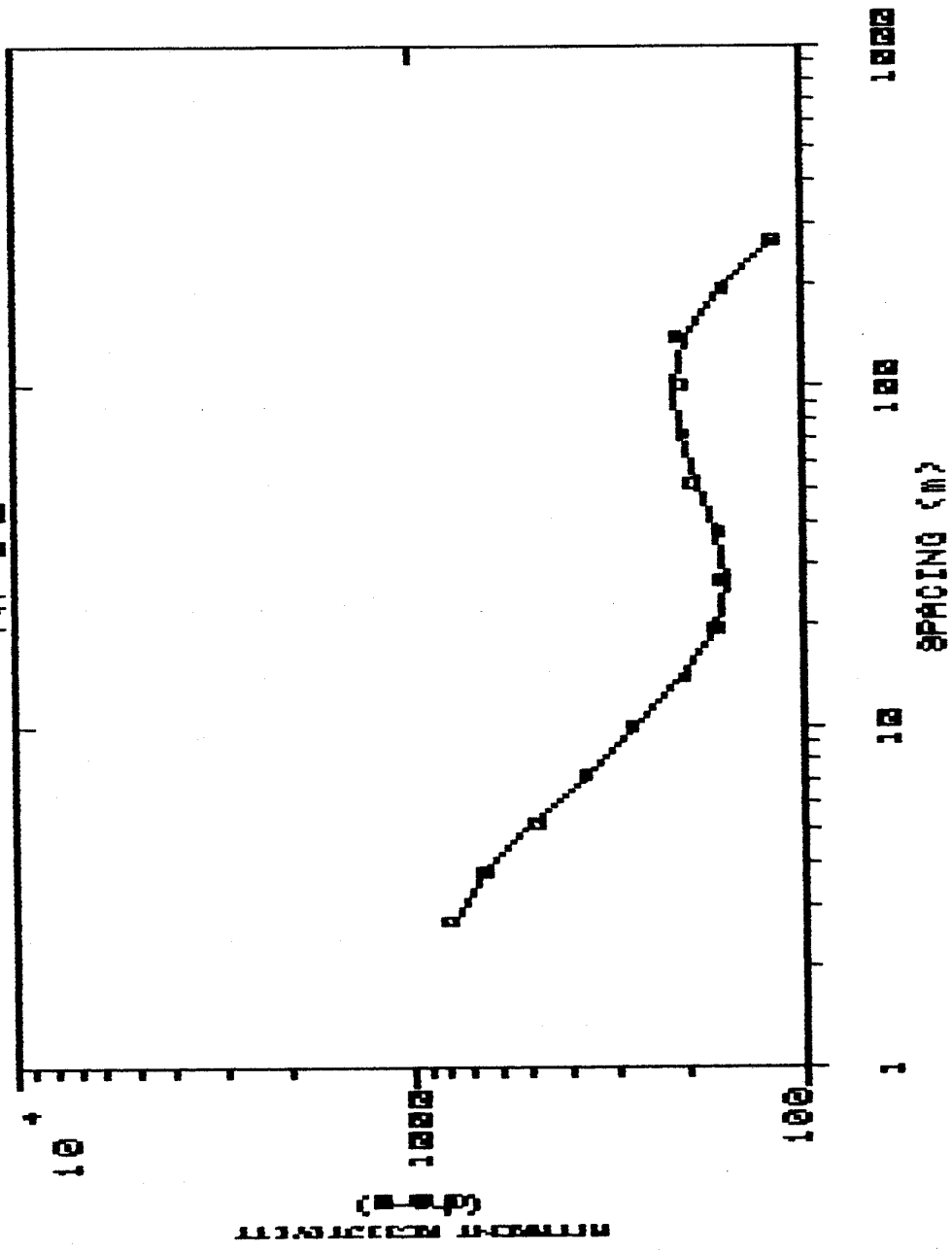
T 5 0.43
 T 5

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ADARO

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RP10



DATA SET: RP11

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP11
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 9.172 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	921.1		1.51	-1.51	0.00165
2	386.3		3.71	-5.23	0.00961
3	3708.6		9.96	-15.19	0.00269
4	295.2				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	726.0	736.1	-1.39
2	3.73	651.0	646.0	0.759
3	5.18	624.0	595.3	4.59
4	7.20	594.0	623.3	-4.94
5	10.00	673.0	735.3	-9.25
6	13.90	849.0	901.3	-6.16
7	19.30	1024.0	1071.5	-4.63
8	26.80	1225.0	1189.5	2.89
9	37.30	1359.0	1197.2	11.90
10	51.80	1253.0	1062.0	15.23
11	72.00	838.0	817.8	2.40
12	100.0	492.0	567.7	-15.39
13	139.0	351.0	402.7	-14.74
14	193.0	346.0	331.9	4.06
15	268.0	344.0	309.3	10.06

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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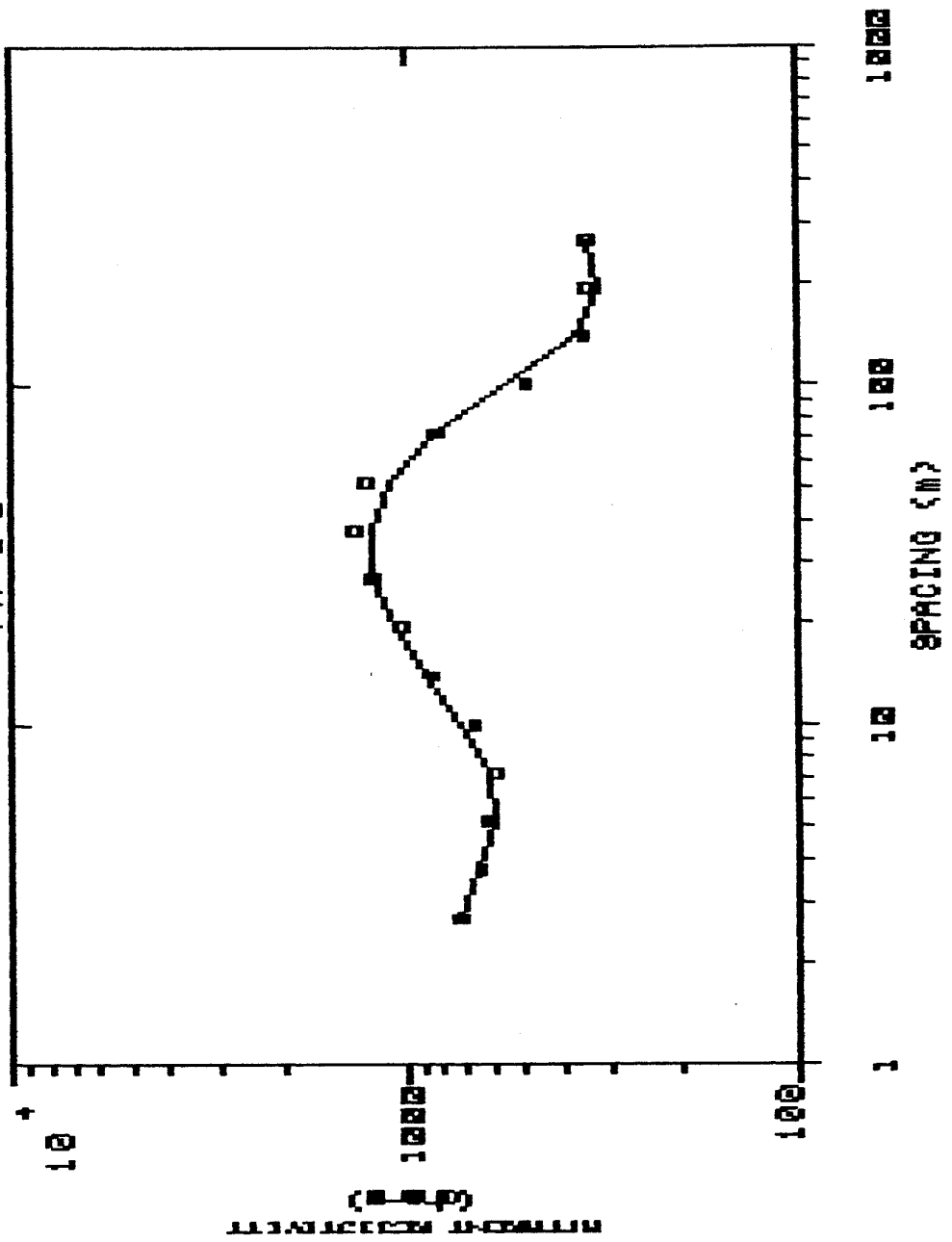
P 1	0.52							
P 2	0.12	0.60						
P 3	0.00	0.03	0.48					
P 4	0.00	0.00	0.03	0.86				
T 1	0.28	0.11	-0.03	0.02	0.38			
T 2	0.01	-0.38	-0.05	0.04	0.17	0.45		
T 3	0.00	-0.02	0.45	0.06	0.02	0.04	0.45	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

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ADARO

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RP11



DATA SET: RP12

CLIENT: ITGE	DATE: 27-05-92
LOCATION: ALGAR	SOUNDING: RP12
COUNTY: VALENCIA	AZIMUTH: 0.00 Deg NORTH
PROJECT: RESISTIVIDADES	EQUIPMENT: ADARO
ELEVATION: 0.00	
SOUNDING COORDINATES: X: 0.0000	Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 2.255 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	642.9		1.05	-1.05	0.00165
2	227.9		1.52	-2.57	0.00668
3	1371.4		22.55	-25.13	0.0164
4	1028.8		22.02	-47.16	0.0214
5	252.6		24.90	-72.06	0.0985
6	20.75				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	444.9	444.3	0.136
2	3.73	430.5	431.5	-0.242
3	5.18	482.6	481.2	0.272
4	7.20	574.8	579.2	-0.765
5	10.00	707.8	699.1	1.22
6	13.90	809.6	824.0	-1.77
7	19.30	937.1	939.4	-0.240
8	26.80	1069.0	1027.7	3.85
9	37.30	1051.0	1064.1	-1.24
10	51.80	1021.0	1018.7	0.218
11	72.00	827.0	870.0	-5.20
12	100.0	656.0	626.8	4.44
13	139.0	351.0	352.9	-0.546
14	193.0	146.0	146.9	-0.660

PARAMETER RESOLUTION MATRIX:

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ADARO

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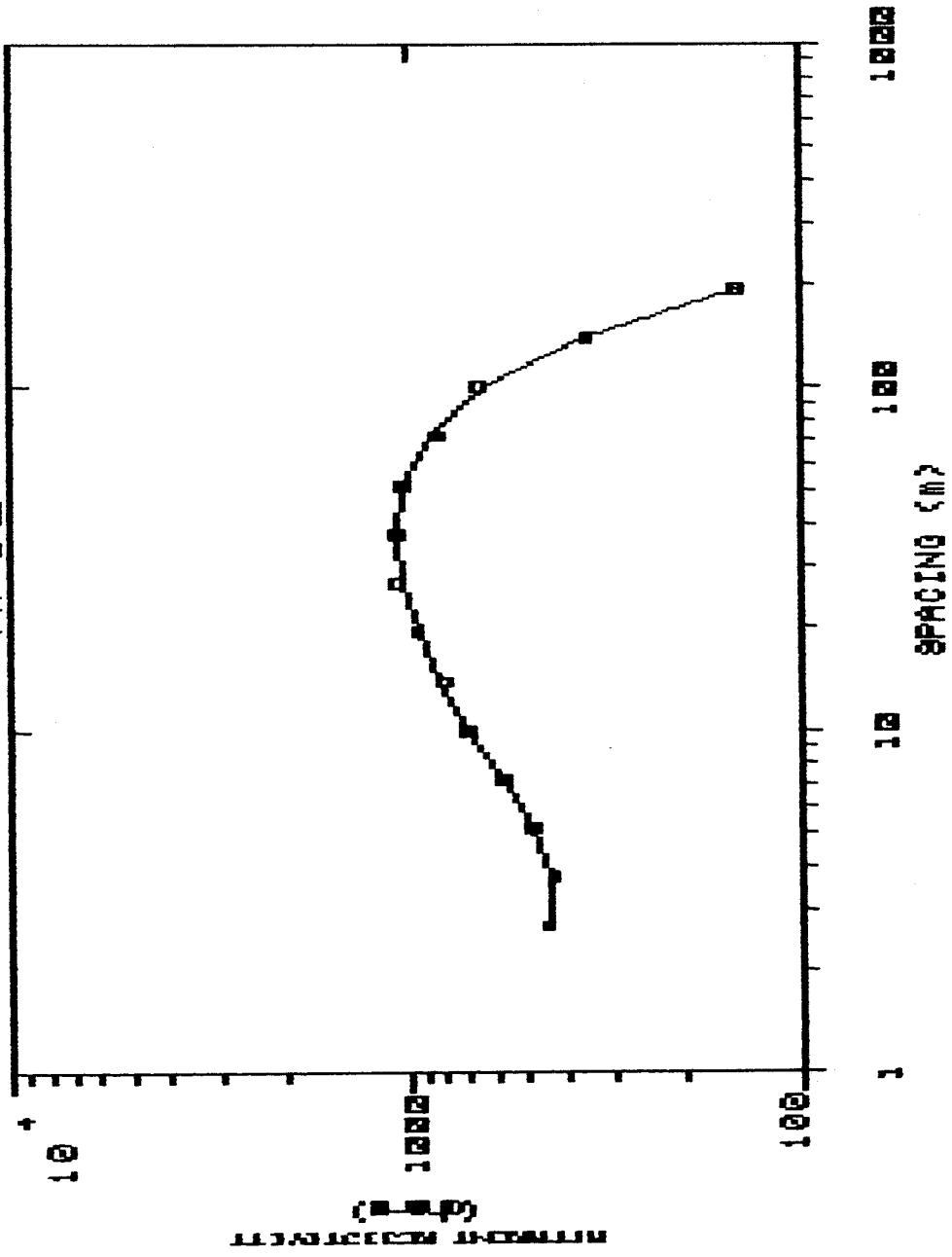
"F" INDICATES FIXED PARAMETER

P 1	0.68												
P 2	0.04	0.63											
P 3	0.02	-0.02	0.98										
P 4	-0.04	0.02	0.05	0.48									
P 5	0.01	0.00	-0.01	-0.01	0.05								
P 6	0.00	0.00	0.00	-0.16	0.06	0.26							
T 1	0.24	0.14	-0.02	0.04	-0.01	0.00	0.72						
T 2	-0.06	-0.42	-0.03	0.04	-0.01	0.00	0.24	0.47					
T 3	-0.02	0.01	0.02	0.31	0.11	0.04	0.01	0.02	0.46				
T 4	0.02	-0.01	-0.04	0.07	0.14	0.11	-0.03	-0.02	0.35	0.39			
T 5	0.01	-0.01	-0.01	-0.13	0.08	0.19	-0.01	-0.01	0.10	0.19			
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4			

SECOND PART OF RESOLUTION MATRIX:

T 5 0.19
 T 5

RP12



DATA SET: RP13

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP13
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 4.780 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	661.8		1.00	-1.00	0.00152
2	258.5		1.71	-2.72	0.00664
3	1311.6		11.29	-14.01	0.00861
4	346.1		33.85	-47.87	0.0977
5	115.4				

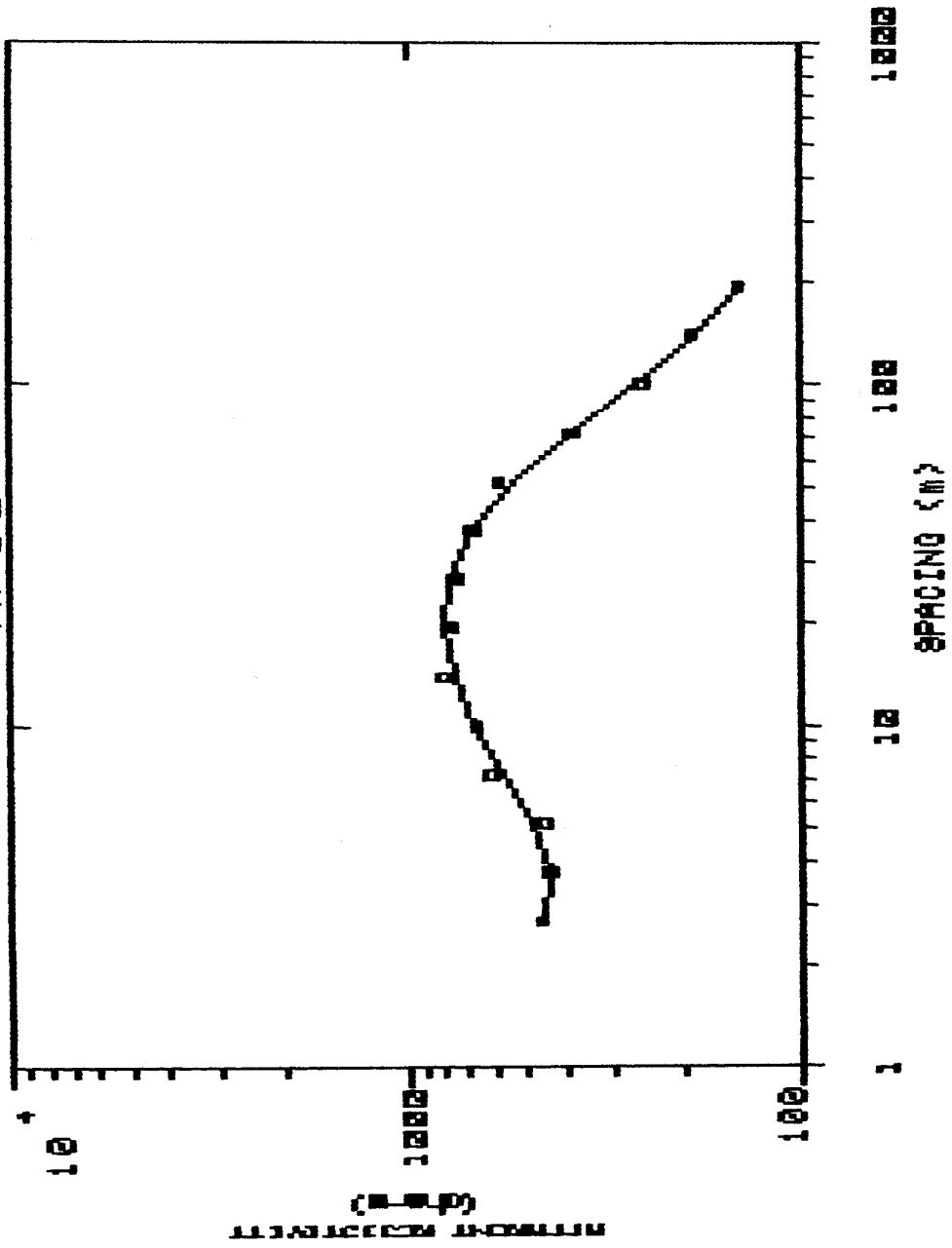
ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	460.5	452.9	1.63
2	3.73	434.6	438.9	-0.985
3	5.18	453.5	484.0	-6.72
4	7.20	618.6	572.6	7.43
5	10.00	670.3	674.8	-0.662
6	13.90	811.6	763.4	5.93
7	19.30	764.0	810.1	-6.04
8	26.80	744.0	788.2	-5.94
9	37.30	687.0	688.3	-0.197
10	51.80	587.0	538.9	8.18
11	72.00	378.0	386.4	-2.23
12	100.0	256.0	265.2	-3.60
13	139.0	189.0	185.5	1.84
14	193.0	144.0	143.8	0.0975

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

P 1	0.24									
P 2	0.19	0.53								
P 3	0.00	0.08	0.63							
P 4	0.00	-0.02	0.09	0.39						
P 5	0.00	0.01	-0.03	0.04	0.66					
T 1	0.26	0.11	-0.09	0.05	-0.01	0.39				
T 2	-0.03	-0.37	-0.13	0.07	-0.01	0.11	0.36			
T 3	0.00	-0.05	0.32	0.27	0.00	0.05	0.09	0.36		
T 4	0.00	0.01	-0.05	0.23	0.28	0.01	0.01	0.06	0.31	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	

RP13



DATA SET: RP14

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X:

DATE: 27-05-92
 SOUNDING: RP14
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO
 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 2.979 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	1974.6		1.03	0.0	
2	546.0		2.67	-1.03	5.220E-04
3	1375.3		4.48	-3.70	0.00490
4	261.6		5.30	-8.19	0.00326
5	99.14		17.11	-13.49	0.0202
6	202.0		73.46	-30.61	0.172
7	52.63			-104.0	0.363

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1040.0	1054.4	-1.39
2	3.73	836.0	835.3	0.0813
3	5.18	740.0	748.8	-1.18
4	7.20	754.0	750.6	0.443
5	10.00	768.0	757.0	1.42
6	13.90	671.0	701.8	-4.60
7	19.30	596.0	566.8	4.88
8	26.80	373.0	391.0	-4.83
9	37.30	232.0	245.4	-5.78
10	51.80	168.0	174.0	-3.61
11	72.00	155.0	157.3	-1.50
12	100.0	157.0	156.0	0.604
13	139.0	148.0	148.2	-0.167
14	193.0	130.0	128.8	0.861

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ADARO

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PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

P 1	0.65											
P 2	-0.10	0.89										
P 3	0.07	0.04	0.77									
P 4	-0.03	0.02	0.04	0.17								
P 5	0.02	0.01	-0.04	0.06	0.78							
P 6	-0.01	0.00	0.01	0.01	0.05	0.85						
P 7	0.00	0.00	-0.01	-0.02	-0.01	0.06	0.19					
T 1	0.26	0.13	-0.07	0.00	-0.02	0.01	0.00	0.76				
T 2	-0.14	-0.19	-0.13	0.15	-0.01	0.01	0.00	0.20	0.42			
T 3	-0.05	-0.01	0.31	0.23	0.02	-0.01	0.00	0.04	0.24	0.44		
T 4	0.01	0.05	-0.11	0.16	0.18	-0.09	0.06	-0.04	0.06	0.15		
T 5	0.01	0.01	-0.03	0.01	-0.28	-0.13	0.12	-0.01	0.01	0.04		
T 6	0.01	0.00	-0.01	-0.02	-0.05	0.23	0.28	-0.01	0.00	0.01		
	P 1	P 2	P 3	P 4	P 5	P 6	P 7	T 1	T 2	T 3		

SECOND PART OF RESOLUTION MATRIX:

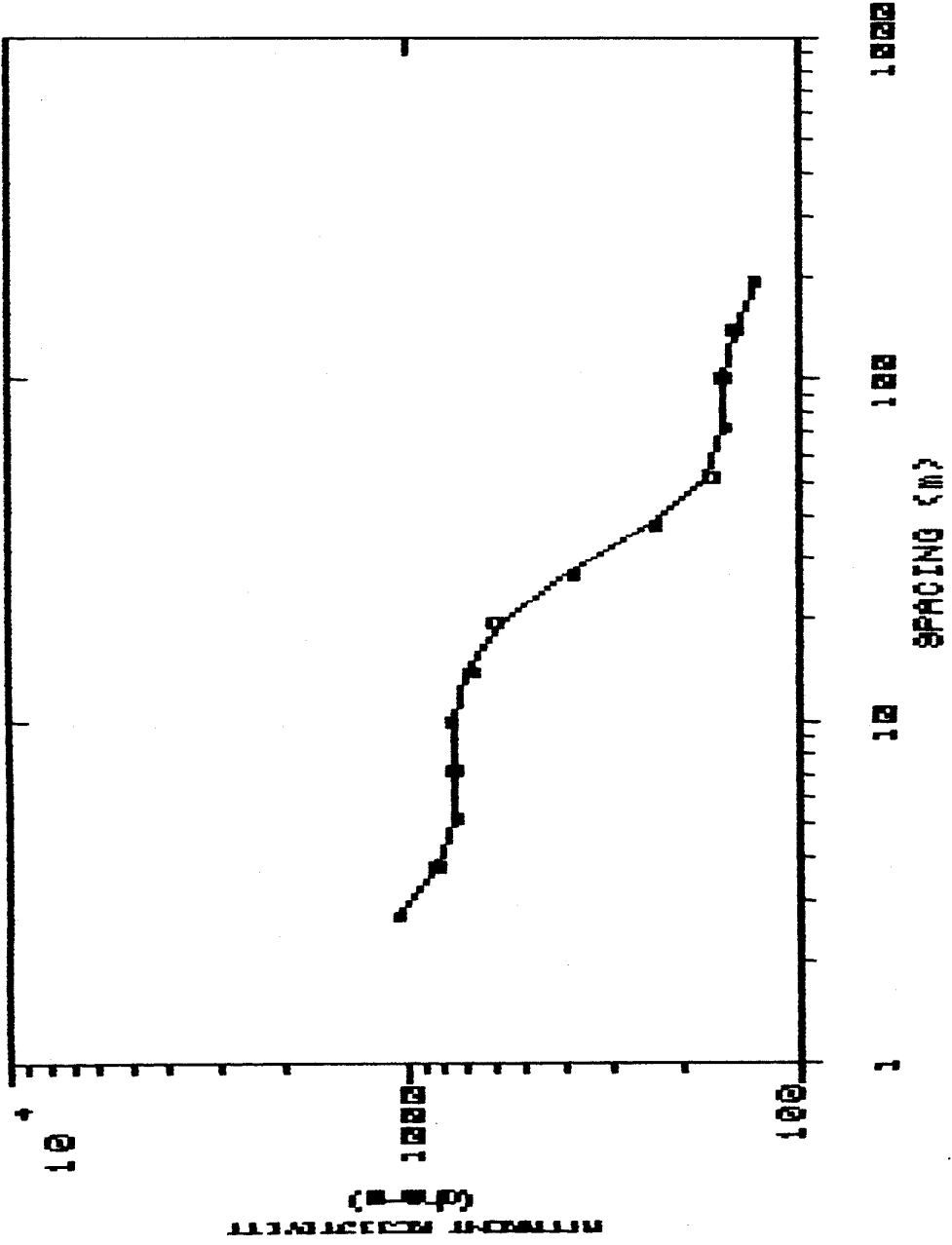
T 4	0.38		
T 5	0.14	0.29	
T 6	0.10	0.20	0.45
	T 4	T 5	T 6

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ADARO

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RP14



DATA SET: RP15

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 27-05-92
 SOUNDING: RP15
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 1.378 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	185.9		0.871	-0.871	0.00469
2	1370.9		1.91	-2.79	0.00140
3	163.9		3.69	-6.49	0.0225
4	94.43		48.58	-55.07	0.514
5	148.8				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	FA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	436.0	438.1	-0.490
2	3.73	512.0	512.7	-0.138
3	5.18	566.0	556.0	1.75
4	7.20	538.0	543.4	-1.00
5	10.00	462.0	464.7	-0.599
6	13.90	346.0	342.1	1.09
7	19.30	218.0	225.5	-3.46
8	26.80	153.0	152.5	0.316
9	19.30	209.0	203.4	2.65
10	26.80	138.0	137.5	0.316
11	37.30	109.0	110.5	-1.42
12	51.80	105.0	103.9	1.00
13	72.00	106.0	105.2	0.740
14	100.0	110.0	110.7	-0.708
15	139.0	118.0	118.8	-0.705
16	193.0	128.0	127.2	0.620

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ADARO

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PARAMETER RESOLUTION MATRIX:
"F" INDICATES FIXED PARAMETER

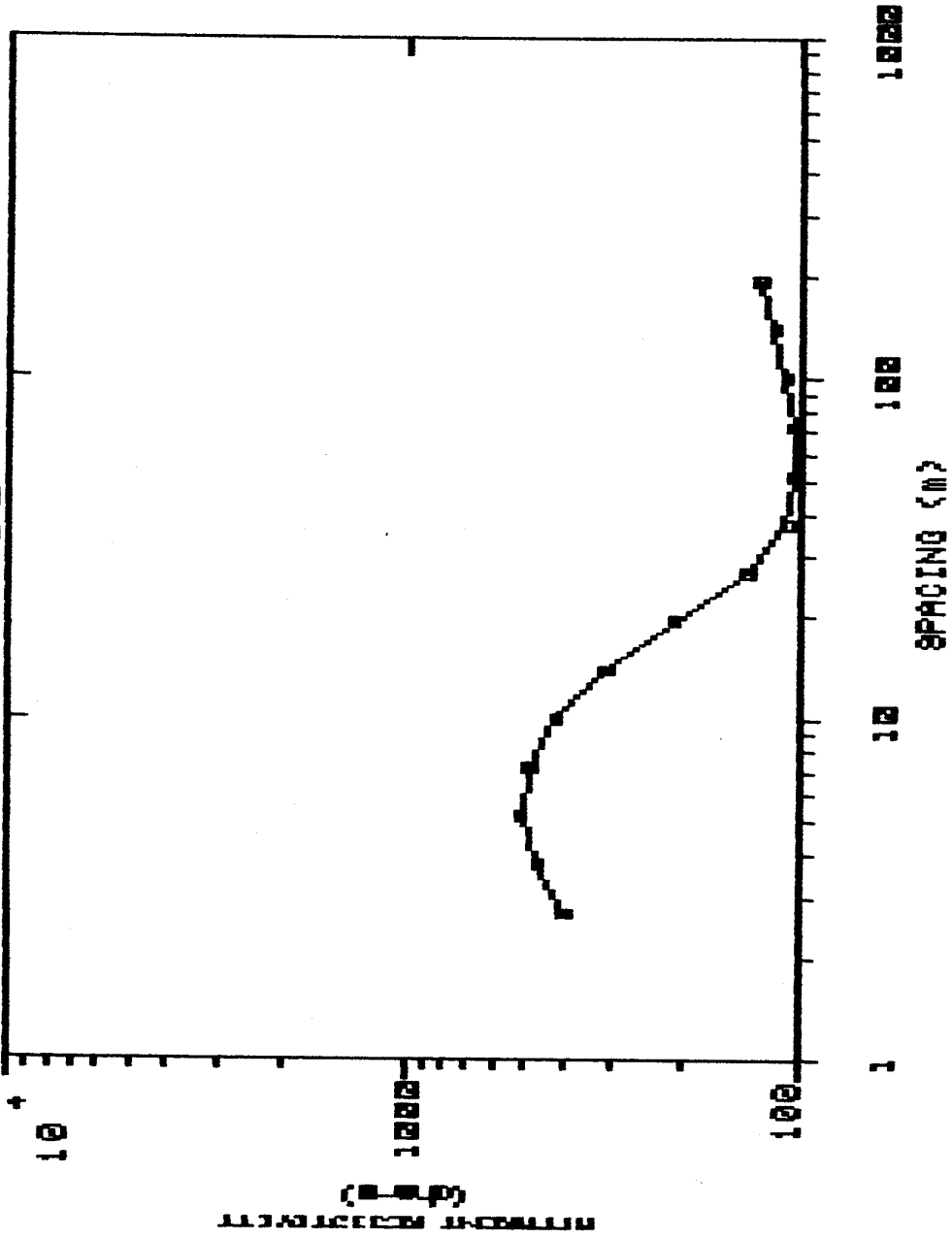
P 1	0.55									
P 2	0.02	0.56								
P 3	0.04	0.03	0.21							
P 4	0.01	-0.01	0.02	0.99						
P 5	0.01	0.00	0.01	-0.01	0.93					
T 1	-0.47	-0.08	0.08	0.01	0.00	0.49				
T 2	-0.02	0.45	0.17	0.00	0.00	0.07	0.48			
T 3	0.07	-0.07	0.21	0.04	0.01	0.08	0.08	0.30		
T 4	0.04	-0.03	0.03	-0.05	-0.16	0.03	0.01	0.17	0.48	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	

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ADARO

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RP15



WITHOUT RESISTANCE

DATA SET: RF16

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RF16
 AZIMUTH: 0.00 Deg NORTH
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.891 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	730.8		2.39	-2.39	0.00328
2	305.9		8.74	-11.13	0.0285
3	73.39		33.43	-44.57	0.455
4	177.6				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m)	DIFFERENCE (percent)
			SYNTHETIC	
1	2.68	678.0	664.6	1.96
2	3.73	593.0	600.3	-1.23
3	5.18	493.0	511.7	-3.81
4	7.20	424.0	417.9	1.43
5	10.00	358.0	338.4	5.46
6	13.90	259.0	272.3	-5.16
7	19.30	209.0	209.5	-0.239
8	26.80	151.0	151.8	-0.562
9	37.30	117.0	112.9	3.43
10	51.80	96.00	98.78	-2.90
11	72.00	101.0	102.0	-1.00
12	100.0	114.0	113.6	0.294
13	139.0	132.0	127.9	3.07
14	193.0	139.0	141.6	-1.87

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

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ADARO

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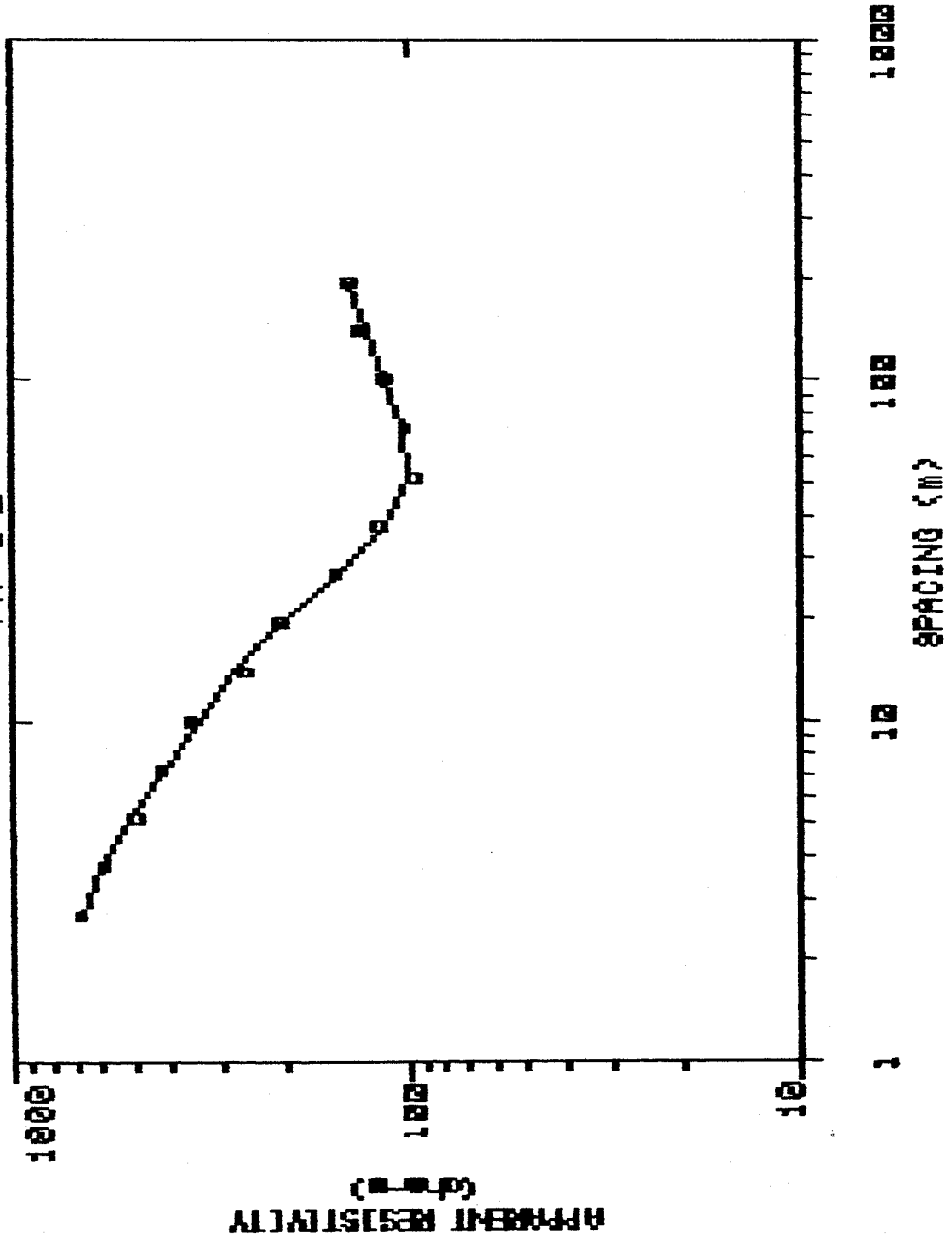
P 2	0.00	1.00					
P 3	0.00	0.00	1.00				
P 4	0.00	0.00	0.00	1.00			
T 1	0.00	0.00	0.00	0.00	1.00		
T 2	0.00	0.00	0.00	0.00	0.00	1.00	
T 3	0.00	0.00	-0.01	0.00	0.00	0.00	0.98
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

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ADARO

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RP16



DATA SET: RP17

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RP17
 AZIMUTH: N-10-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 1.419 PERCENT

RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1482.8		1.07	0.0	
788.2		4.94	-1.07	7.246E-04
57.67		33.35	-6.02	0.00628
207.4			-39.38	0.578

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	1078.4	1073.9	0.410
2	3.73	911.8	923.8	-1.31
3	5.18	798.5	787.8	1.34
4	7.20	648.4	643.6	0.741
5	10.00	454.5	468.8	-3.14
6	13.90	292.1	284.3	2.64
7	19.30	147.0	148.4	-0.992
8	26.80	86.00	85.97	0.0299
9	37.30	72.00	71.91	0.117
10	51.80	76.00	76.42	-0.558
11	72.00	90.00	88.57	1.58
12	100.0	105.0	105.4	-0.427
13	139.0	124.0	124.4	-0.353
14	193.0	141.0	143.3	-1.66
15	268.0	163.0	160.7	1.36

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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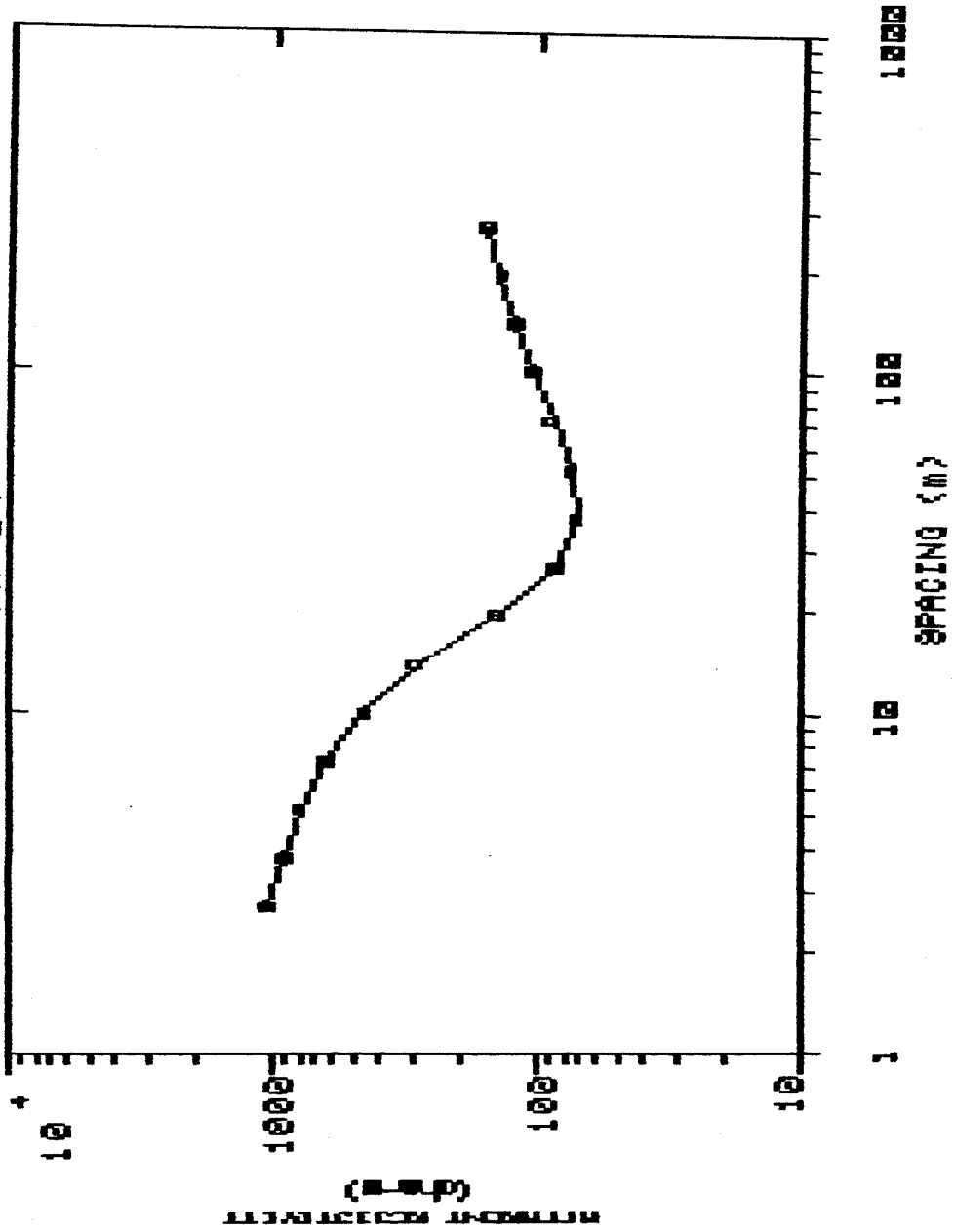
P 1	0.98							
P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	0.00	1.00				
T 1	0.02	0.01	0.00	0.00	0.96			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.00	0.00	0.00	0.00	1.00	
	F 1	P 2	P 3	P 4	T 1	T 2	T 3	

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ADARO

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RP17



DATA SET: RP18

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RP18
 AZIMUTH: N-10-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 4.678 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	837.7		1.62	-1.62	0.00193
2	270.2		8.60	-10.22	0.0318
3	59.15		31.94	-42.16	0.539
4	162.3		48.03	-90.19	0.295
5	43.15				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	661.9	635.7	3.96
2	3.73	478.0	512.2	-7.15
3	5.18	399.7	396.9	0.695
4	7.20	331.3	315.3	4.82
5	10.00	269.0	262.2	2.52
6	13.90	196.0	215.2	-9.76
7	19.30	173.0	163.9	5.24
8	26.80	114.0	116.9	-2.55
9	37.30	90.00	87.60	2.65
10	51.80	65.00	78.40	-20.62
11	72.00	77.00	80.97	-5.16
12	100.0	90.00	86.32	4.07
13	139.0	88.00	87.94	0.0624
14	193.0	81.00	82.61	-1.99

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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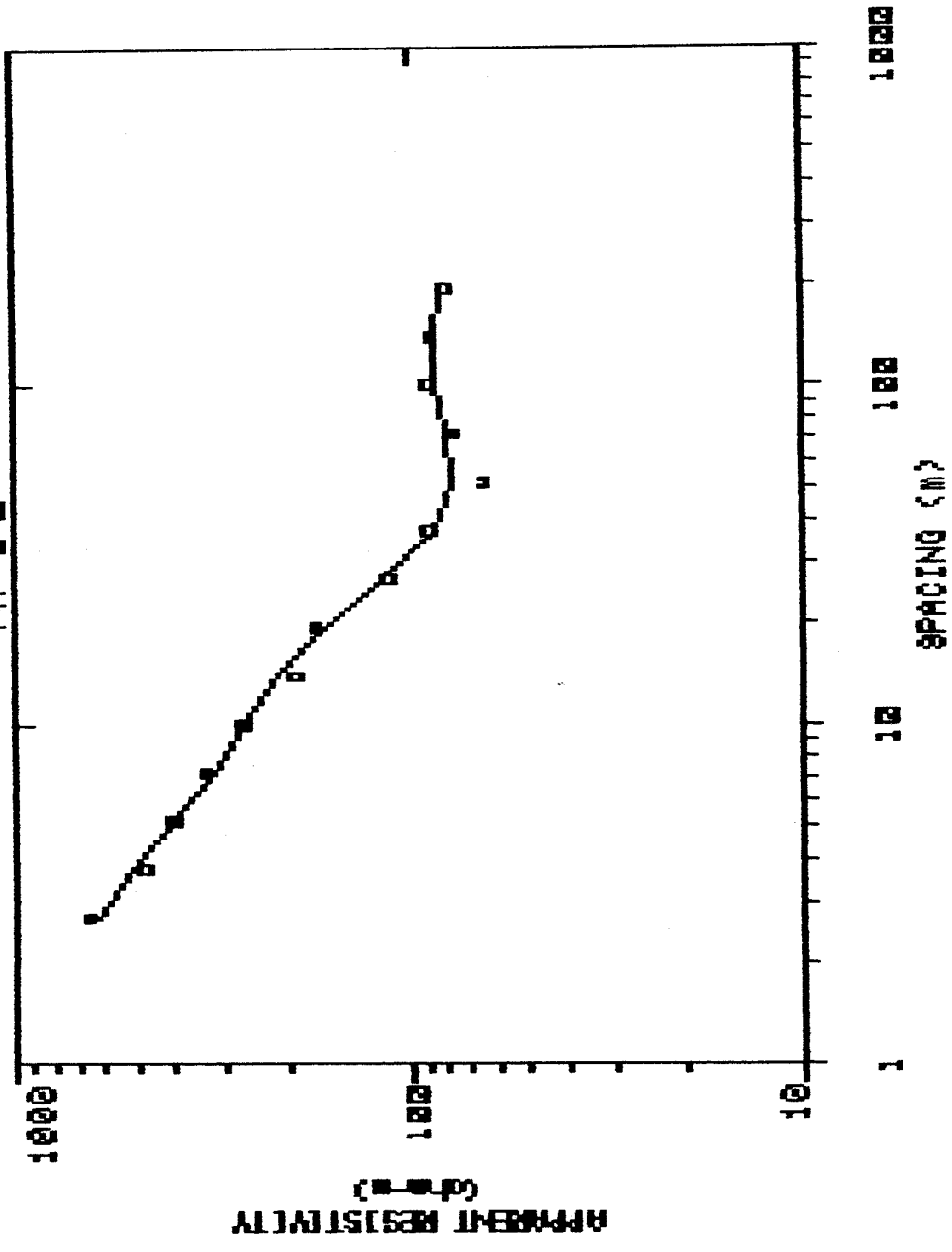
P 1	0.97								
P 2	-0.01	0.98							
P 3	-0.01	-0.03	0.88						
P 4	0.01	0.01	0.01	0.63					
P 5	0.00	0.00	0.01	0.21	0.44				
T 1	0.03	0.03	0.03	-0.01	0.00	0.95			
T 2	0.01	0.02	0.06	-0.02	0.00	-0.02	0.96		
T 3	-0.02	-0.03	-0.19	-0.19	0.19	0.04	0.10	0.53	
T 4	0.00	0.00	-0.02	0.32	0.26	0.00	0.01	0.08	0.25
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4

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ADARO

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RP18



DATA SET: RP19

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RP19
 AZIMUTH: N-10-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.711 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	16695.3		0.629	-0.629	3.771E-05
2	629.9		4.24	-4.87	0.00674
3	176.9		36.69	-41.57	0.207
4	50.33		29.87	-71.44	0.593
5	2263.0				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1356.1	1356.1	0.00374
2	3.73	735.7	736.0	-0.0493
3	5.18	576.3	580.1	-0.653
4	7.20	480.9	478.4	0.538
5	10.00	365.7	370.7	-1.36
6	13.90	287.4	277.3	3.50
7	19.30	212.0	217.8	-2.73
8	26.80	185.0	188.8	-2.07
9	37.30	171.0	173.6	-1.56
10	51.80	173.0	160.6	7.12
11	72.00	147.0	148.9	-1.29
12	100.0	143.0	148.1	-3.62
13	139.0	173.0	170.9	1.20
14	193.0	222.0	220.5	0.634

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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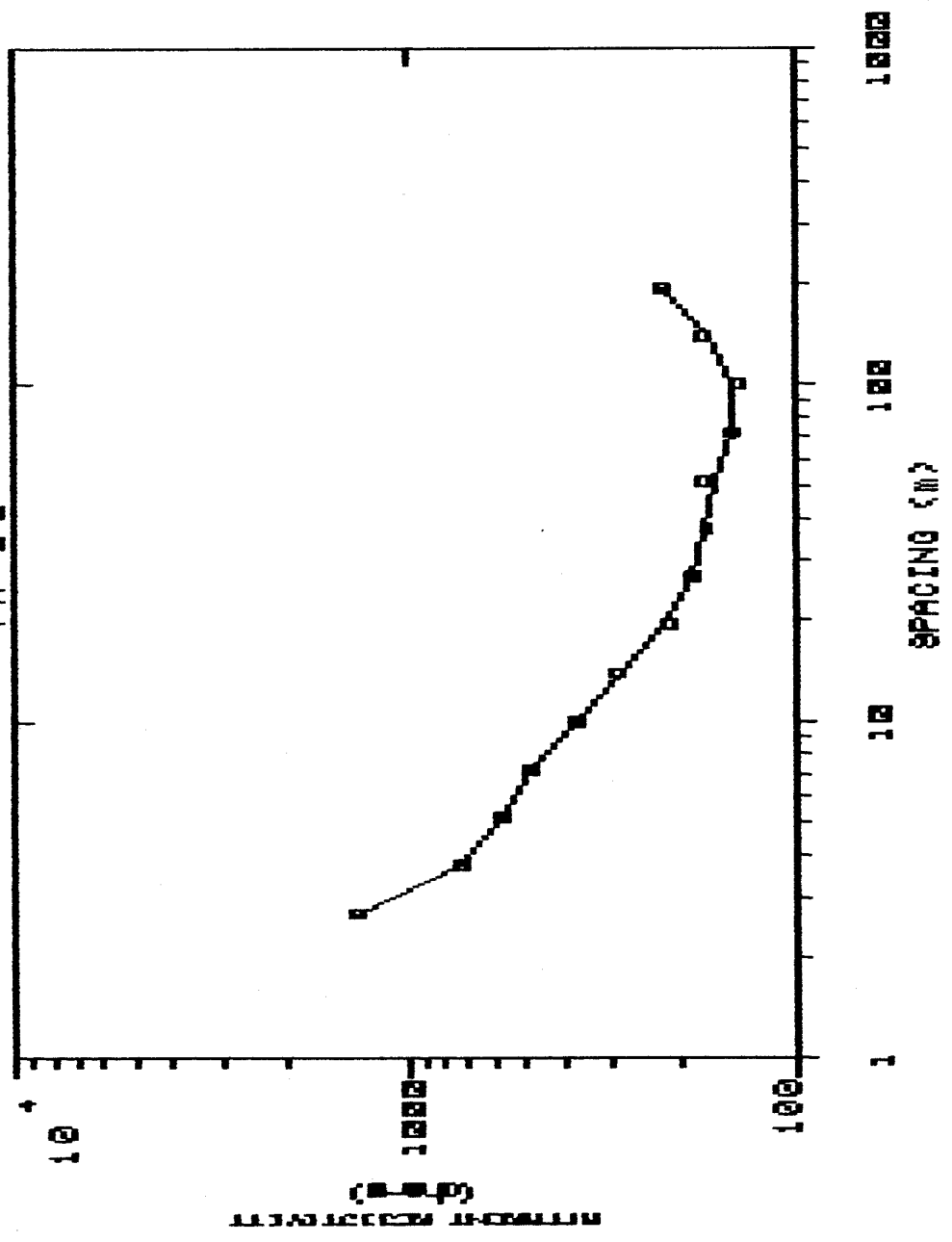
P 1	0.39										
P 2	-0.06	0.98									
P 3	-0.01	-0.01	0.99								
P 4	0.01	0.00	0.00	0.53							
P 5	0.01	0.00	0.01	0.04	0.02						
T 1	0.12	0.01	0.00	0.00	0.00	0.97					
T 2	0.04	0.02	0.01	0.00	-0.01	-0.01	0.97				
T 3	0.03	0.01	0.02	0.09	-0.05	-0.01	-0.02	0.91			
T 4	-0.01	0.00	0.00	-0.48	-0.05	0.00	0.00	0.10	0.48		
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4		

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ADARO

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RP19



DATA SET: RP20

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X:

DATE: 28-05-92
 SOUNDING: RP20
 AZIMUTH: N-20-W
 EQUIPMENT: ADARO

0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 4.611 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	603.5		0.911	-0.911	0.00151
2	227.8		1.89	-2.80	0.00833
3	362.0		7.97	-10.78	0.0220
4	82.05		32.74	-43.52	0.399
5	177.3		50.22	-93.75	0.283
6	70.22				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	FA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	357.0	350.1	1.93
2	3.73	293.1	305.5	-4.24
3	5.18	294.1	292.4	0.592
4	7.20	316.5	295.1	6.77
5	10.00	287.8	294.2	-2.24
6	13.90	249.4	276.2	-10.74
7	19.30	249.0	236.2	5.12
8	26.80	194.0	183.1	5.58
9	37.30	132.0	136.9	-3.77
10	51.80	109.0	112.9	-3.57
11	72.00	110.0	108.3	1.51
12	100.0	116.0	111.8	3.56
13	139.0	112.0	113.5	-1.37
14	193.0	108.0	108.7	-0.724

PARAMETER RESOLUTION MATRIX:

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ADARO

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"F" INDICATES FIXED PARAMETER

P 1	0.20												
P 2	0.12	0.61											
P 3	-0.03	0.15	0.74										
P 4	0.00	-0.02	0.00	0.70									
P 5	0.00	0.01	0.00	0.15	0.42								
P 6	0.00	0.00	0.00	0.00	0.23	0.18							
T 1	0.26	0.23	-0.06	0.03	-0.01	0.00	0.42						
T 2	0.01	-0.20	-0.06	0.05	-0.02	0.00	0.05	0.13					
T 3	0.00	-0.11	0.27	0.17	-0.07	-0.01	0.08	0.16	0.47				
T 4	0.00	-0.01	0.02	-0.22	-0.11	0.01	0.01	0.02	0.06	0.14			
T 5	0.00	0.00	0.00	0.02	0.21	0.15	0.00	-0.01	-0.02	-0.02			
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4			

SECOND PART OF RESOLUTION MATRIX:

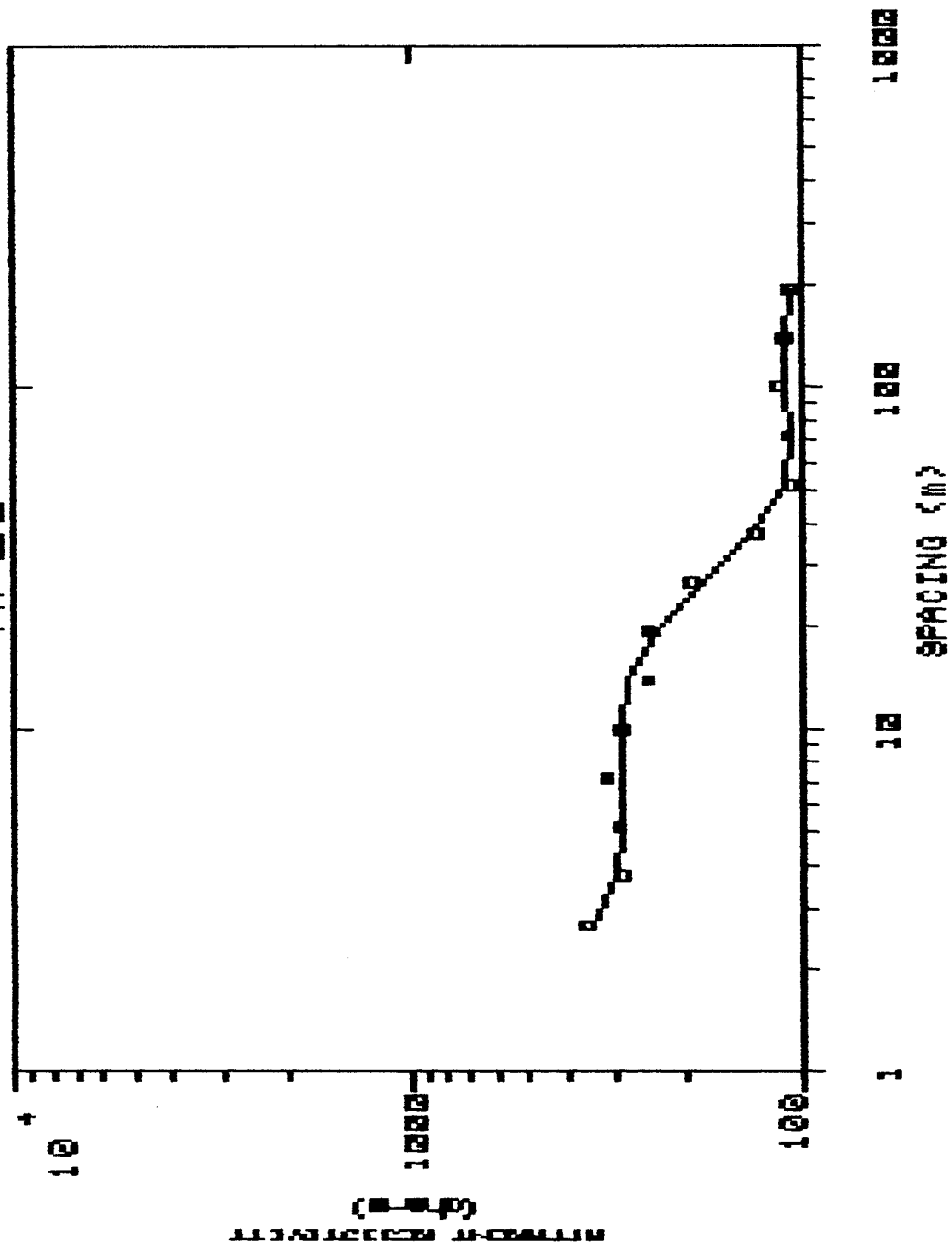
T 5	0.12
	T 5

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ADARD

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RP20



DATA SET: RP21

CLIENT: ITGE DATE: 28-05-92
 LOCATION: ALGAR SOUNDING: RP21
 COUNTY: VALENCIA AZIMUTH: N-20-W
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 5.050 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	665.0		1.72	-1.72	0.00259
2	235.1		3.42	-5.14	0.0145
3	261.3		10.89	-16.04	0.0417
4	612.6		15.87	-31.91	0.0259
5	54.88		59.89	-91.81	1.09
6	392.8				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	534.0	531.0	0.558
2	3.73	444.0	442.7	0.275
3	5.18	346.0	357.4	-3.30
4	7.20	309.0	299.9	2.92
5	10.00	280.0	275.5	1.59
6	13.90	275.0	273.0	0.699
7	19.30	271.0	282.5	-4.25
8	26.80	275.0	297.0	-8.00
9	37.30	305.0	304.9	0.0175
10	51.80	318.0	289.8	8.84
11	72.00	257.0	244.5	4.86
12	100.0	184.0	184.8	-0.441
13	139.0	127.0	142.2	-11.98
14	193.0	142.0	135.7	4.42
15	268.0	161.0	157.3	2.26

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ADARO

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PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

P 1	0.66											
P 2	-0.02	0.54										
P 3	-0.01	0.20	0.67									
P 4	0.01	-0.05	0.14	0.47								
P 5	0.00	0.00	-0.02	0.07	0.45							
P 6	0.00	0.00	0.00	-0.02	0.15	0.08						
T 1	0.26	0.29	-0.08	0.01	0.01	0.00	0.48					
T 2	0.00	-0.04	-0.11	0.02	0.02	-0.01	0.01	0.03				
T 3	-0.02	0.02	-0.20	0.06	0.07	-0.02	0.03	0.06	0.20			
T 4	-0.01	-0.03	0.03	0.41	0.09	-0.03	0.02	0.05	0.14	0.40		
T 5	0.00	0.00	0.01	0.02	-0.39	-0.16	0.00	0.00	0.00	0.02		
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4		

SECOND PART OF RESOLUTION MATRIX:

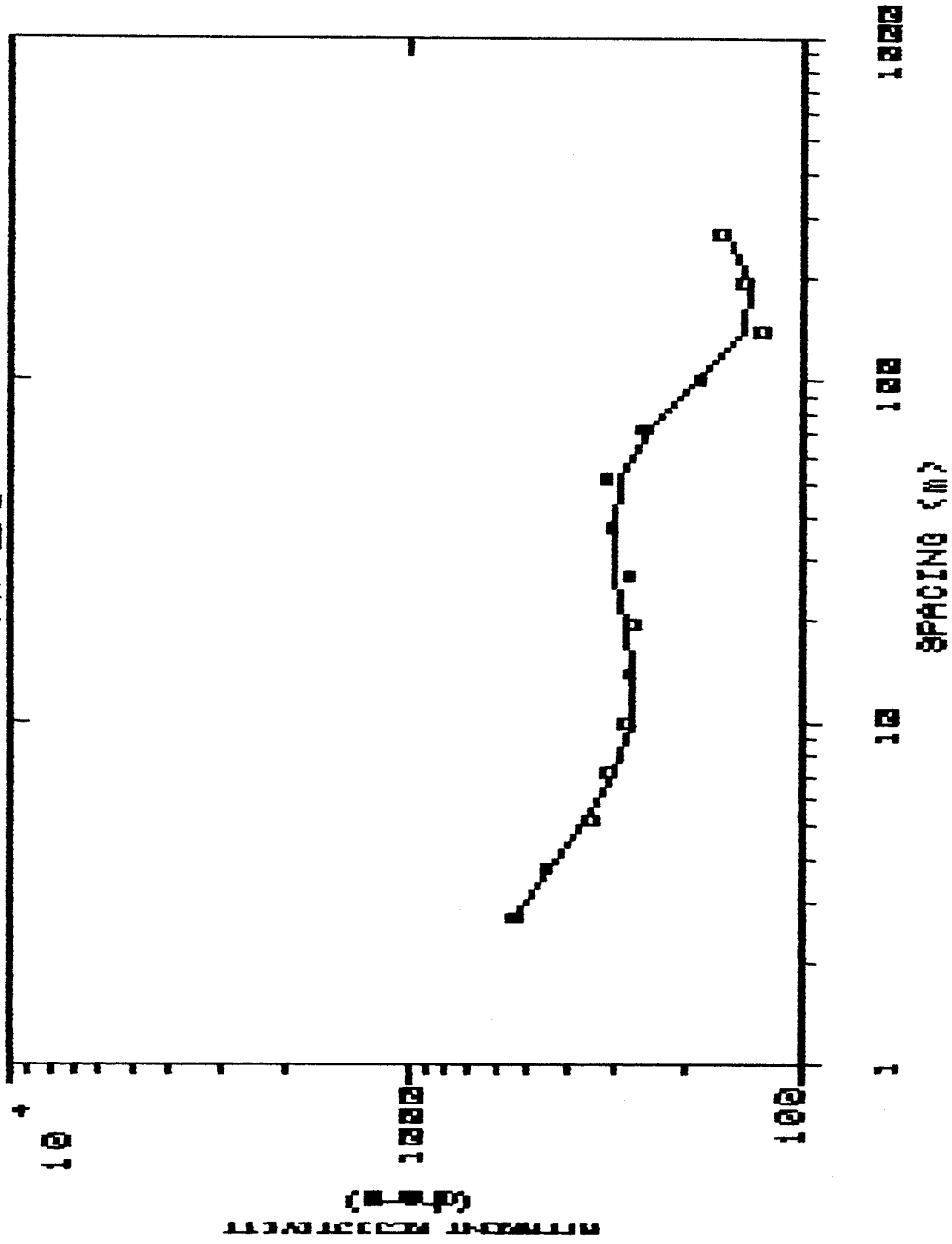
T 5	0.37
	T 5

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ADARO

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RP21



DATA SET: RP22

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RP22
 AZIMUTH: N-20-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.265 PERCENT

#	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	1547.7		0.713	0.0	
2	3282.1		0.795	-0.713	4.611E-04
3	437.5		3.77	-1.50	2.424E-04
4	762.0		39.05	-5.28	0.00864
5	106.9		39.07	-44.34	0.0512
6	1067.6			-83.41	0.365

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1594.2	1649.8	-3.48
2	3.73	1442.9	1348.4	6.54
3	5.18	965.5	992.4	-2.78
4	7.20	713.3	733.4	-2.81
5	10.00	651.2	632.4	2.87
6	13.90	649.4	632.8	2.55
7	19.30	650.0	660.6	-1.63
8	26.80	635.0	679.4	-6.99
9	37.30	702.0	673.1	4.10
10	51.80	596.0	629.3	-5.60
11	72.00	612.0	542.7	11.31
12	100.0	412.0	436.1	-5.86
13	139.0	352.0	363.7	-3.33
14	193.0	383.0	365.6	4.52
15	268.0	423.0	429.6	-1.56

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ADARO

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PARAMETER RESOLUTION MATRIX:

"F" INDICATES FIXED PARAMETER

P 1	0.67											
P 2	0.21	0.55										
P 3	-0.01	0.00	0.83									
P 4	0.00	0.01	-0.01	0.99								
P 5	0.00	0.00	0.00	-0.01	0.50							
P 6	0.00	-0.01	0.00	0.02	0.11	0.37						
T 1	-0.38	0.08	0.07	-0.01	0.00	0.01	0.33					
T 2	-0.02	0.43	0.05	0.00	0.00	0.01	0.22	0.42				
T 3	-0.03	0.01	-0.30	-0.04	-0.02	0.05	0.08	0.07	0.34			
T 4	0.01	-0.01	0.03	0.02	0.09	-0.09	0.01	0.00	0.10	0.94		
T 5	0.00	0.00	0.00	0.00	-0.46	-0.17	0.00	0.00	0.01	0.05		
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4		

SECOND PART OF RESOLUTION MATRIX:

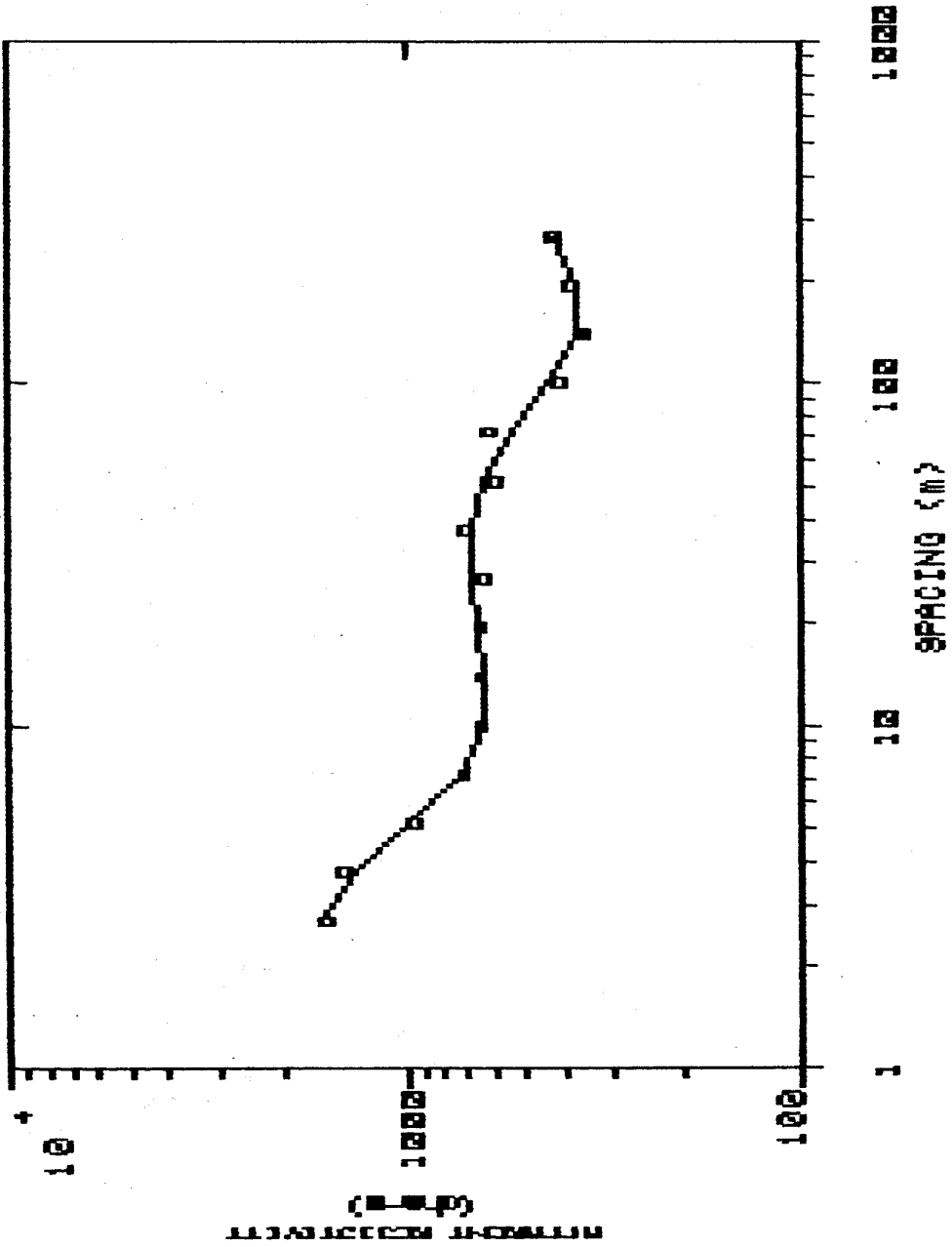
T 5	0.46
	T 5

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ADARO

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RP22



DATA SET: RP23

CLIENT: ITGE
 LOCATION: ALGAR
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 28-05-92
 SOUNDING: RP23
 AZIMUTH: N-20-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.806 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	2878.9		1.37	-1.37	4.781E-04
2	1758.0		4.90	-6.28	0.00279
3	146.7		19.70	-25.98	0.134
4	1401.1		30.71	-56.69	0.0219
5	72.14				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	2305.4	2403.4	-4.25
2	3.73	2218.4	2135.2	3.75
3	5.18	1950.0	1844.2	5.42
4	7.20	1521.9	1520.2	0.109
5	10.00	1070.2	1132.7	-5.83
6	13.90	673.9	717.6	-6.49
7	19.30	439.0	401.1	8.62
8	26.80	254.0	257.3	-1.32
9	37.30	235.0	244.3	-3.97
10	51.80	270.0	285.9	-5.92
11	72.00	358.0	337.3	5.76
12	100.0	442.0	372.7	15.66
13	139.0	404.0	371.5	8.03
14	193.0	303.0	323.3	-6.71

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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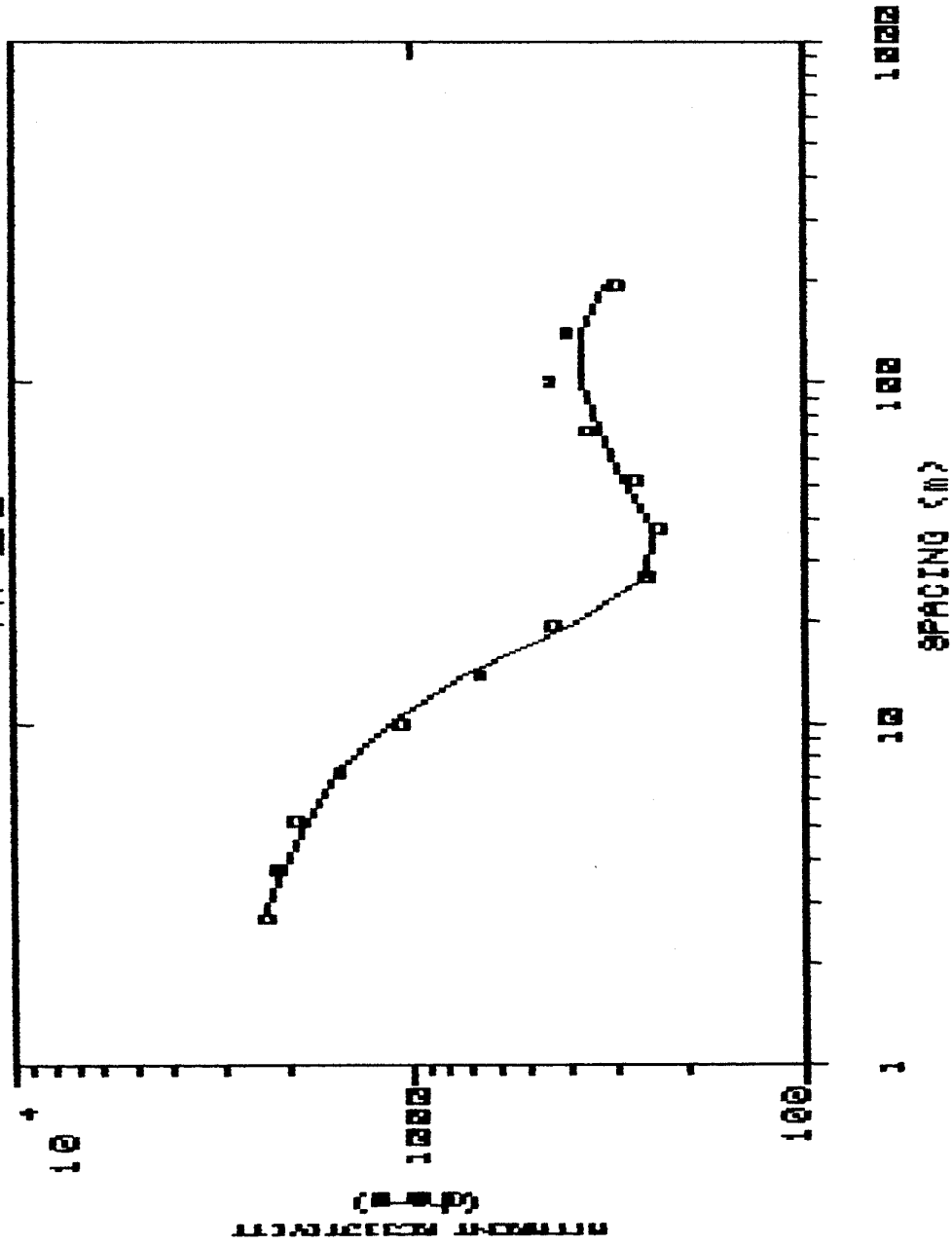
P 1	0.53									
P 2	0.10	0.70								
P 3	0.00	-0.04	0.57							
P 4	0.00	0.01	0.05	0.40						
P 5	0.00	0.00	0.00	0.08	0.02					
T 1	0.17	0.22	0.02	0.00	0.00	0.14				
T 2	-0.15	0.15	0.12	-0.02	0.00	0.11	0.77			
T 3	0.00	-0.01	-0.39	-0.06	0.01	0.01	0.07	0.38		
T 4	0.00	0.00	0.01	0.38	0.08	0.00	-0.01	-0.02	0.37	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	

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ADARD

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RP23



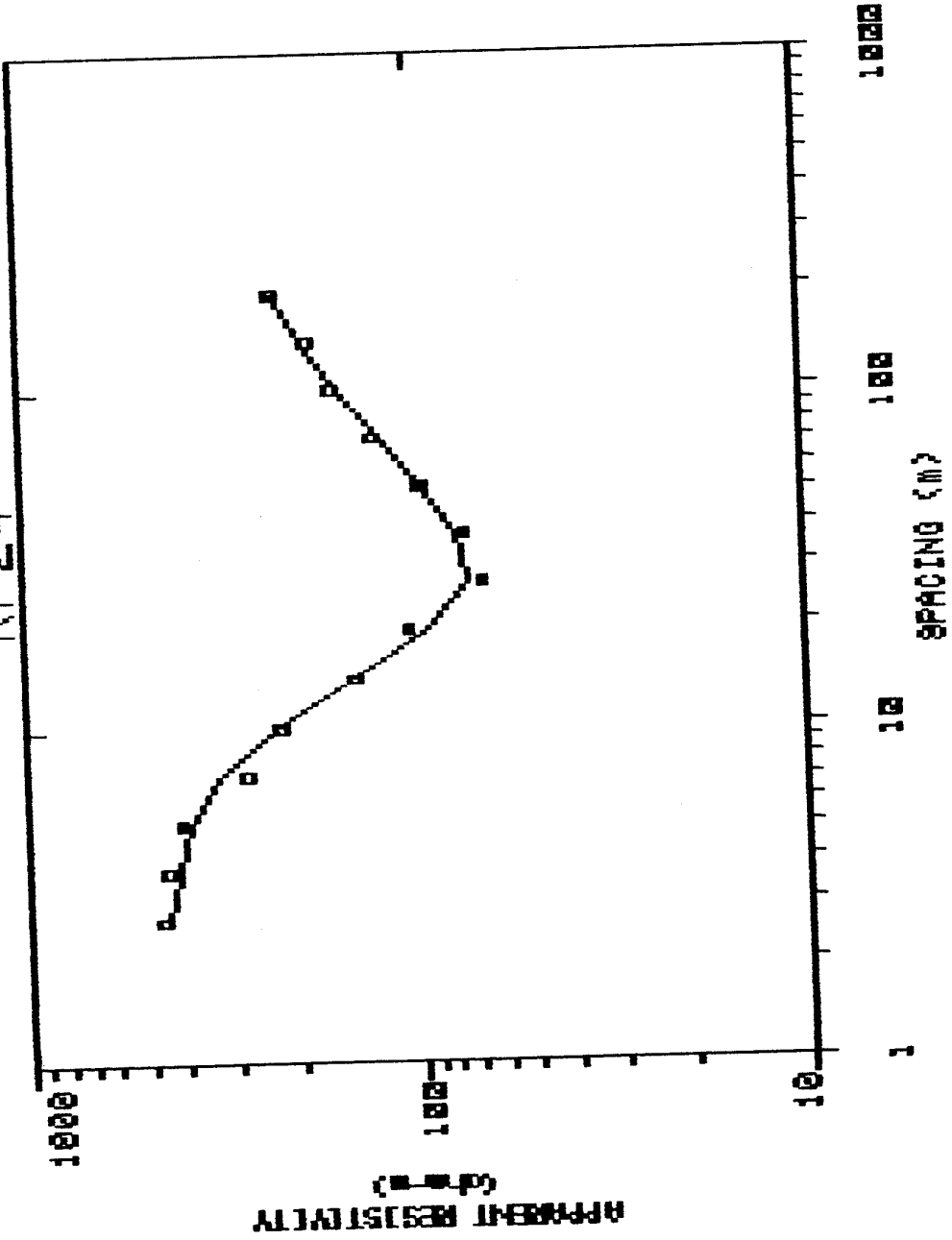
P 3	0.00	0.00	1.00		
T 1	0.00	0.00	0.00	1.00	
T 2	0.00	0.00	0.00	0.00	1.00
	P 1	P 2	P 3	T 1	T 2

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ADARO

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RP24



DATA SET: RP25

CLIENT: ITGE DATE: 1-06-92
 LOCATION: ALGAR SOUNDING: RP25
 COUNTY: VALENCIA AZIMUTH: N-20-W
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 1.228 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1558.5		1.68	-1.68	0.00108
2	248.0		7.25	-8.94	0.0292
3	39.43		22.74	-31.69	0.576
4	472.7				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1069.8	1079.6	-0.915
2	3.73	793.9	780.0	1.75
3	5.18	501.7	504.2	-0.487
4	7.20	321.3	324.9	-1.11
5	10.00	235.1	231.2	1.64
6	13.90	166.4	168.9	-1.50
7	19.30	117.0	115.1	1.56
8	26.80	78.00	78.89	-1.15
9	37.30	68.00	67.96	0.0578
10	51.80	78.00	77.27	0.929
11	72.00	97.00	98.53	-1.58
12	100.0	128.0	127.2	0.557
13	139.0	128.0	162.2	-26.75
14	193.0	129.0	202.3	-56.87

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

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ADARO

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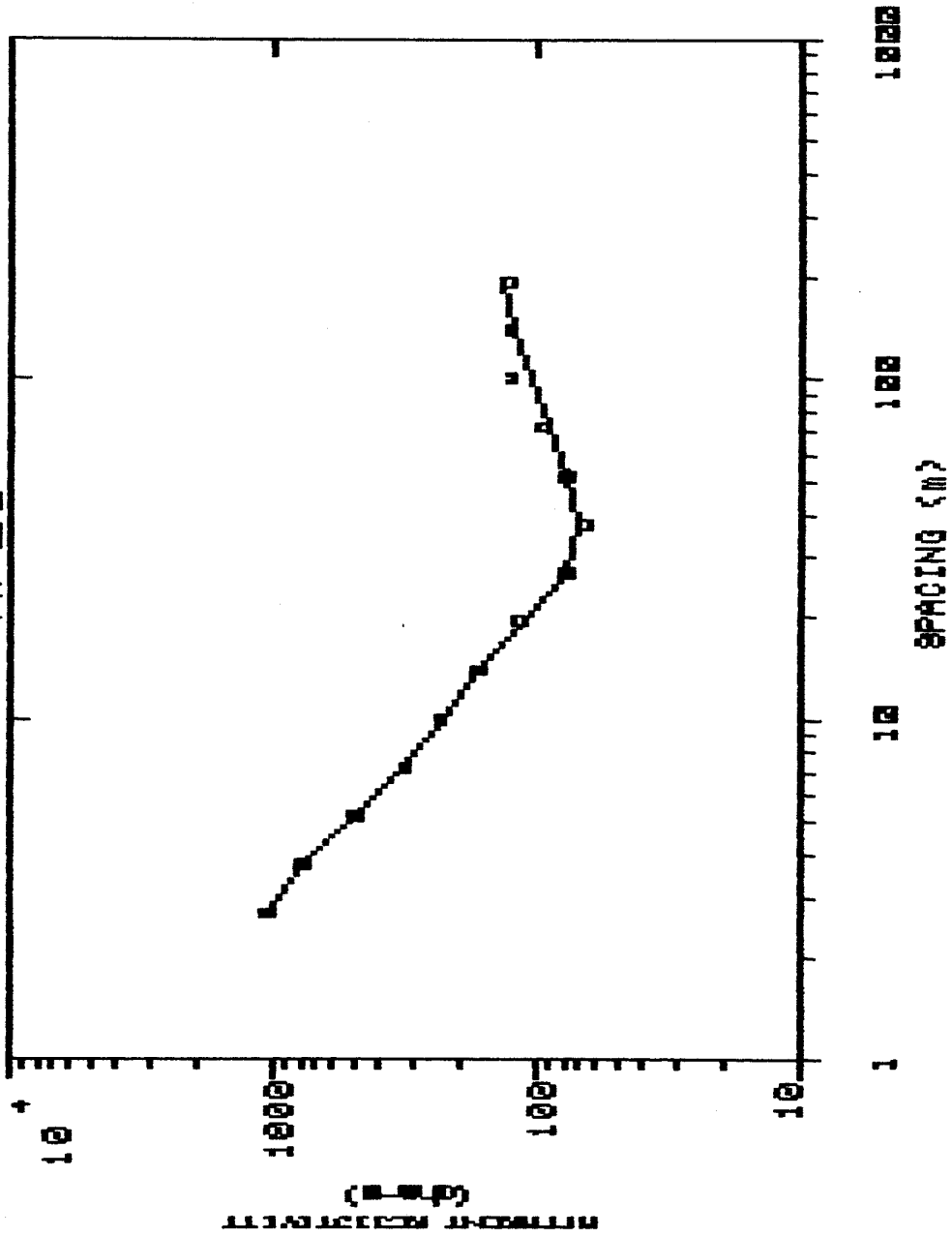
P 2	0.00	1.00						
P 3	0.00	0.00	0.97					
P 4	0.00	0.00	-0.03	0.95				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.01	0.01	0.00	1.00		
T 3	0.00	-0.01	-0.04	-0.04	0.00	0.01	0.95	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

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ADARO

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RP25



DATA SET: RF26

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-6-92
 SOUNDING: RF26
 AZIMUTH: N-20-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 0.908 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	859.1		2.34	-2.34	0.00272
2	350.0		9.36	-11.70	0.0267
3	84.94		90.96	-102.6	1.07
4	186.5				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	590.3	775.1	-31.31
2	3.73	578.6	695.5	-20.19
3	5.18	588.1	588.5	-0.0604
4	7.20	479.4	478.7	0.137
5	10.00	389.6	389.4	0.0520
6	13.90	315.7	317.7	-0.640
7	19.30	251.3	248.6	1.05
8	26.80	179.0	181.2	-1.24
9	37.30	132.0	130.0	1.51
10	51.80	102.0	103.5	-1.54
11	72.00	95.00	94.78	0.231
12	100.0	96.00	94.95	1.09
13	139.0	100.0	100.8	-0.875
14	193.0	112.0	111.7	0.206

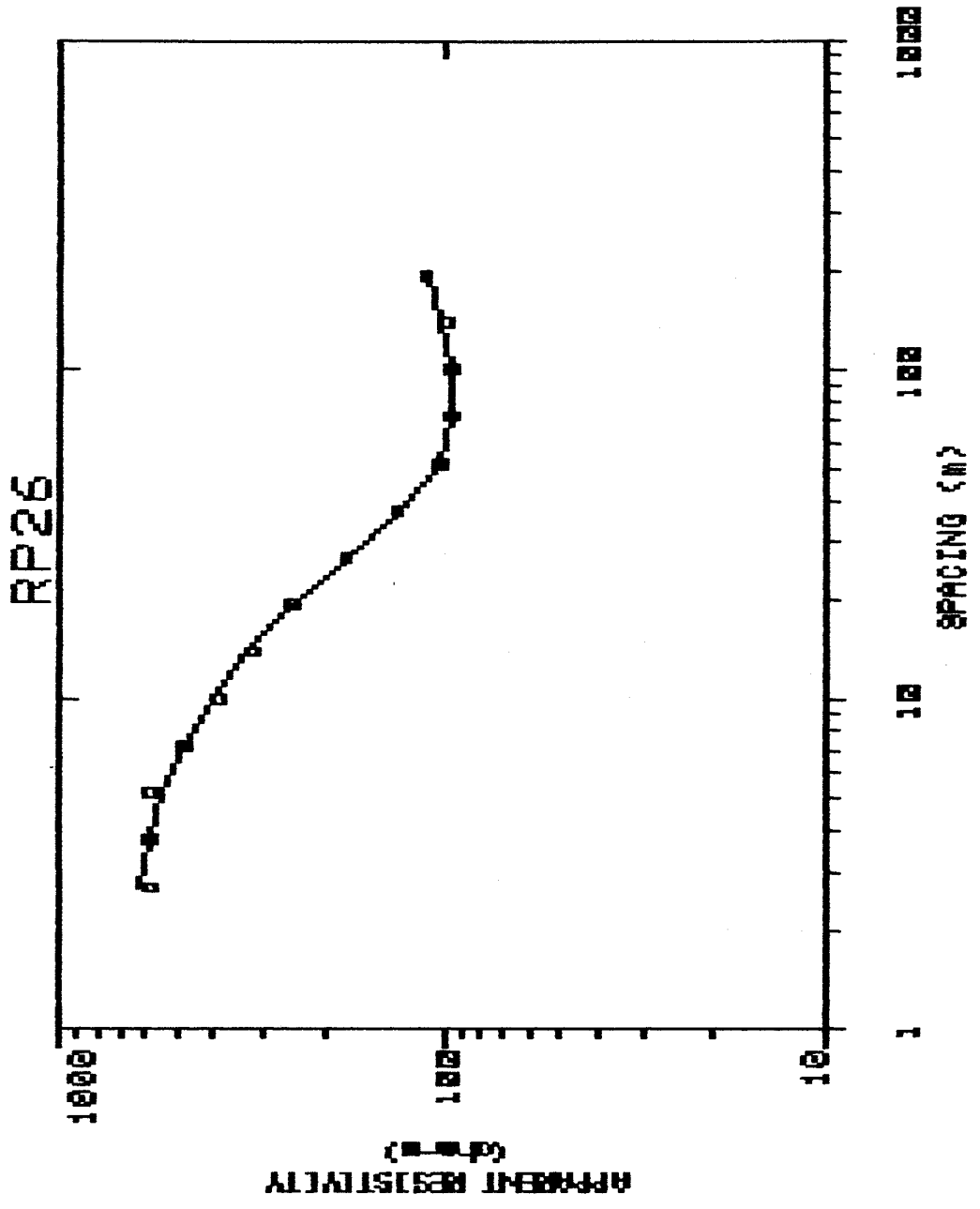
PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

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ADARO

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P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	0.00	0.90				
T 1	0.01	0.00	0.00	0.01	0.99			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.00	-0.08	0.01	0.00	0.92	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	



DATA SET: RP27

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X:

DATE: 2-6-92
 SOUNDING: RP27
 AZIMUTH: N-20-E
 EQUIPMENT: ADARO

0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 2.253 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	727.0		2.25	-2.25	0.00310
2	216.7		10.82	-13.08	0.0499
3	84.84		31.70	-44.78	0.373
4	210.6				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	615.8	630.6	-2.40
2	3.73	567.1	543.3	4.19
3	5.18	424.5	432.3	-1.85
4	7.20	326.2	328.7	-0.739
5	10.00	259.6	257.7	0.729
6	13.90	215.2	215.0	0.0891
7	19.30	179.3	182.4	-1.70
8	26.80	156.0	151.2	3.05
9	37.30	123.0	126.4	-2.79
10	51.80	116.0	115.6	0.332
11	72.00	120.0	119.3	0.572
12	100.0	135.0	132.5	1.81
13	139.0	144.0	149.4	-3.78
14	193.0	169.0	165.9	1.82

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

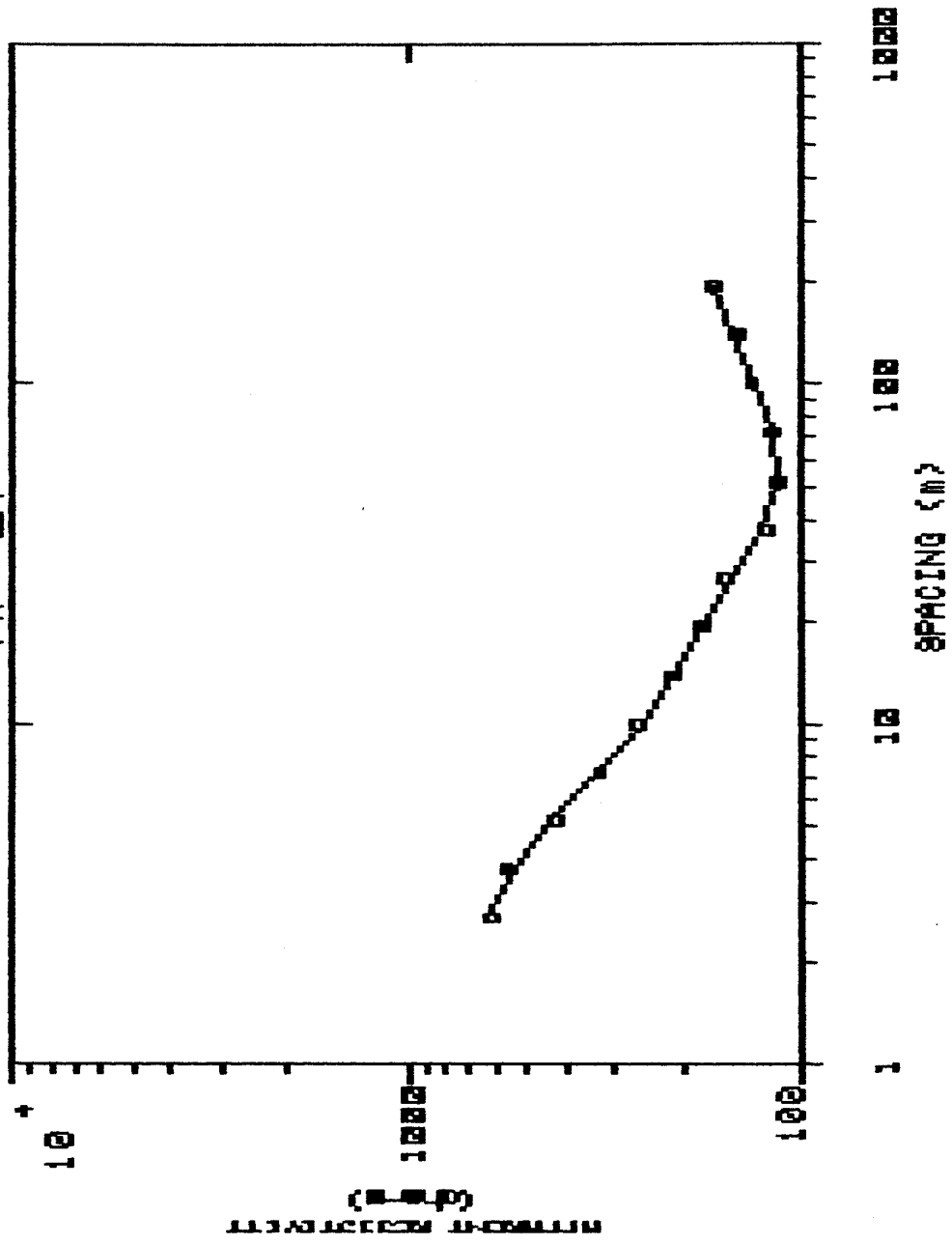
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ADARO

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F 2	0.00	1.00						
F 3	0.00	0.00	0.99					
F 4	0.00	0.00	0.00	1.00				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.01	0.00	0.00	0.99		
T 3	0.00	0.00	-0.01	-0.01	0.00	0.01	0.97	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

RP-27



DATA SET: RP28

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-6-92
 SOUNDING: RP28
 AZIMUTH: N-20-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 1.826 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	1134.7		2.89	0.0 -2.89	0.00255
2	130.1		34.85	-37.74	0.267
3	437.4				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1016.0	1013.8	0.207
2	3.73	891.0	880.8	1.13
3	5.18	662.0	676.9	-2.25
4	7.20	441.0	444.2	-0.735
5	10.00	274.0	263.9	3.65
6	13.90	168.0	173.6	-3.38
7	19.30	146.0	145.9	0.0380
8	26.80	141.0	142.1	-0.850
9	37.30	152.0	148.4	2.36
10	51.80	167.0	164.3	1.57
11	72.00	187.0	191.1	-2.22
12	100.0	226.0	226.6	-0.270
13	139.0	267.0	266.4	0.203
14	193.0	307.0	306.1	0.287

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00
 P 2 0.00 1.00

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ADARO

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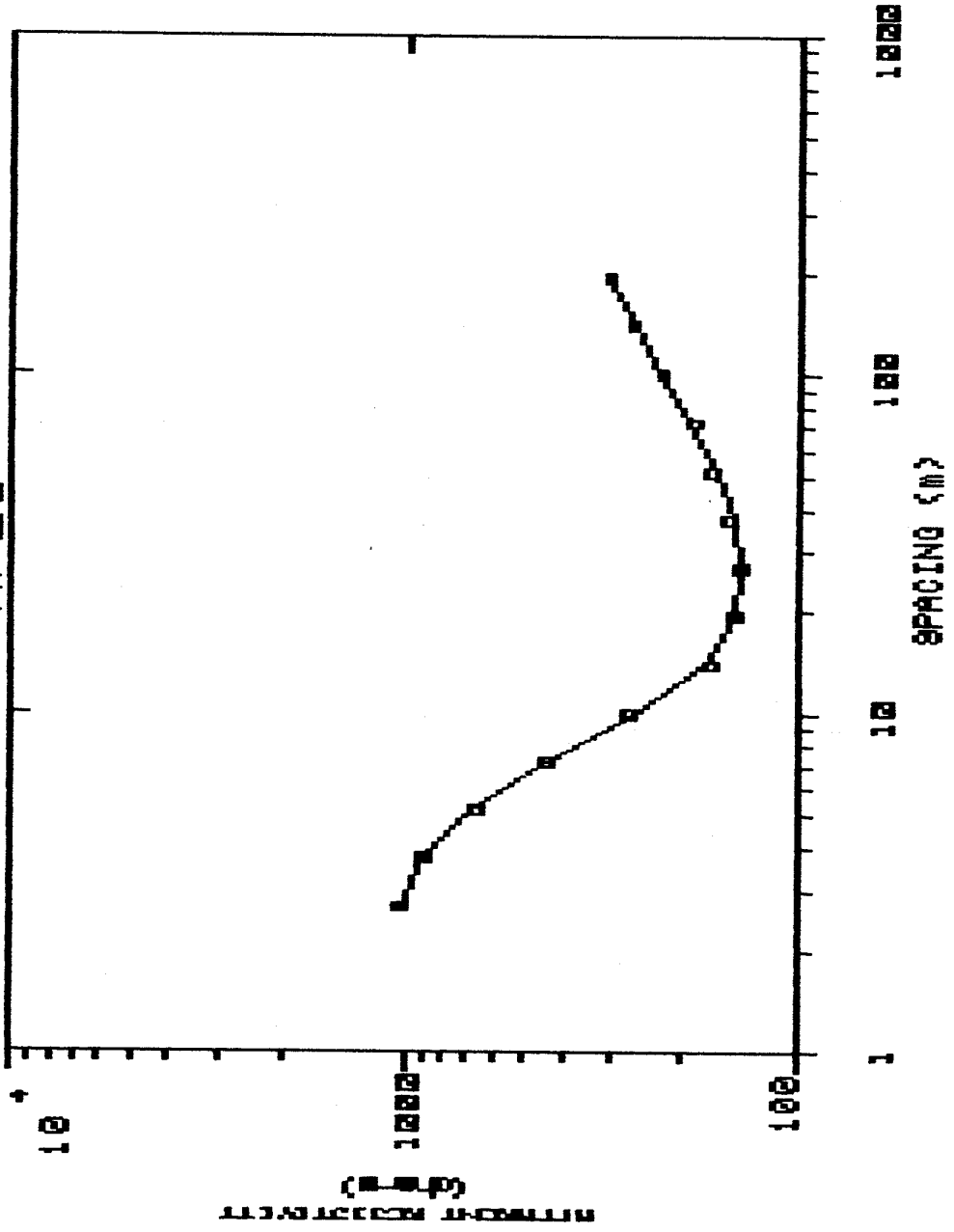
P 3	0.00	0.00	1.00		
T 1	0.00	0.00	0.00	1.00	
T 2	0.00	0.00	0.00	0.00	1.00
	P 1	P 2	P 3	T 1	T 2

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ADARO

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RP28



DATA SET: RP29

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-6-92
 SOUNDING: RP29
 AZIMUTH: N-20-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.590 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	2561.4		1.84	-1.84	7.192E-04
2	43.08		5.99	-7.83	0.139
3	190.8		43.51	-51.34	0.227
4	422.6				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1706.0	1702.0	0.233
2	3.73	1175.0	1113.2	5.25
3	5.18	501.0	549.5	-9.68
4	7.20	210.0	203.0	3.29
5	10.00	88.00	85.89	2.39
6	13.90	72.00	75.65	-5.08
7	19.30	86.00	89.36	-3.90
8	26.80	115.0	107.3	6.60
9	37.30	138.0	127.5	7.55
10	51.80	142.0	148.9	-4.91
11	72.00	160.0	173.2	-8.25
12	100.0	205.0	202.0	1.45
13	139.0	251.0	235.9	5.98
14	193.0	265.0	272.8	-2.94

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

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ADARO

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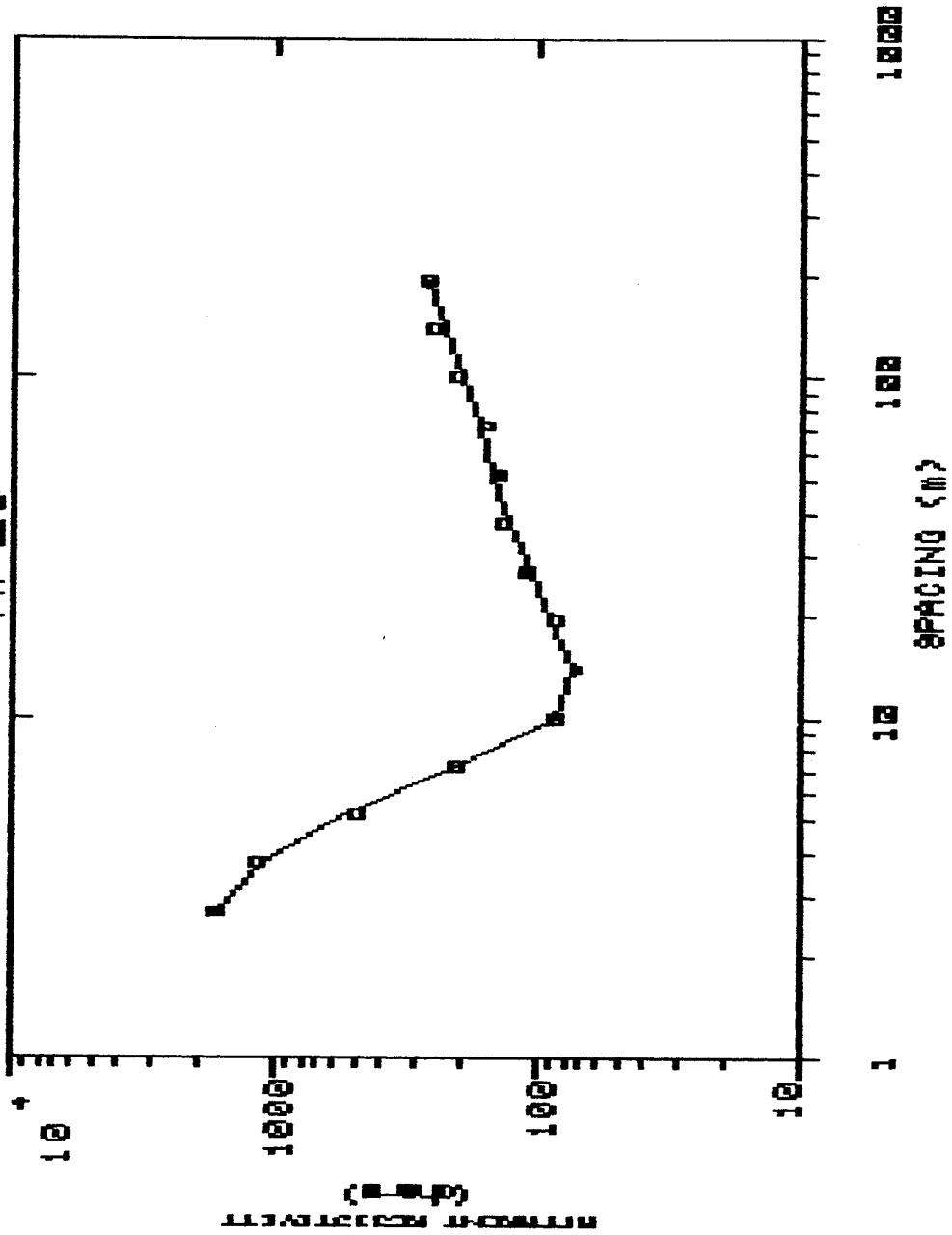
P 2	0.00	0.98						
P 3	0.00	-0.01	0.99					
P 4	0.00	-0.01	-0.01	0.98				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	-0.03	-0.02	-0.01	0.00	0.95		
T 3	0.00	-0.02	-0.03	-0.05	0.00	-0.04	0.89	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

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ADARO

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RP29



DATA SET: RP30

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-6-92
 SOUNDING: RP30
 AZIMUTH: N-20-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 3.591 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	271.7		2.25	-2.25	0.00830
2	91.89		7.95	-10.20	0.0865
3	223.2		25.60	-35.81	0.114
4	1047.4		36.16	-71.98	0.0345
5	44.73				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	244.7	238.7	2.44
2	3.73	204.7	209.1	-2.15
3	5.18	166.6	172.0	-3.23
4	7.20	143.8	139.1	3.22
5	10.00	124.7	121.5	2.57
6	13.90	115.2	120.9	-4.99
7	19.30	132.0	133.3	-1.03
8	26.80	160.0	154.1	3.63
9	37.30	188.0	181.3	3.52
10	51.80	203.0	214.5	-5.69
11	72.00	243.0	252.4	-3.90
12	100.0	297.0	286.1	3.64
13	139.0	314.0	299.5	4.59
14	193.0	267.0	277.7	-4.03
15	268.0	220.0	219.7	0.121

PARAMETER RESOLUTION MATRIX:

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ADARO

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"F" INDICATES FIXED PARAMETER

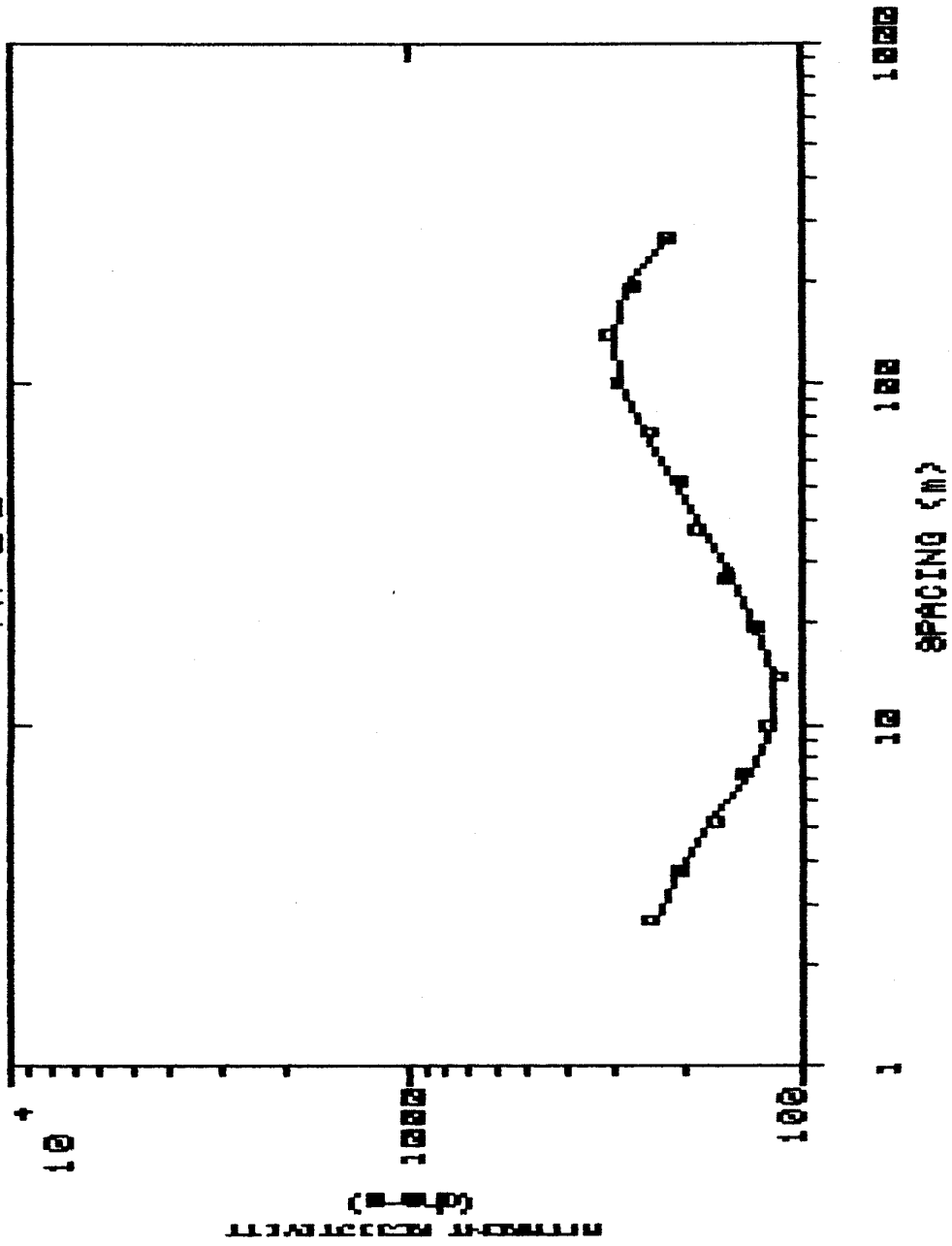
P 1	1.00								
P 2	0.00	0.98							
P 3	0.00	-0.03	0.87						
P 4	0.00	0.00	-0.01	0.55					
P 5	0.00	0.01	0.09	0.00	0.48				
T 1	0.00	0.01	0.02	0.00	-0.01	0.99			
T 2	-0.01	-0.05	-0.15	0.00	0.07	0.04	0.80		
T 3	0.00	-0.01	-0.08	-0.11	0.11	0.00	-0.06	0.91	
T 4	0.00	0.00	0.02	0.47	0.09	0.00	0.02	0.11	0.48
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4

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ADARO

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RP30



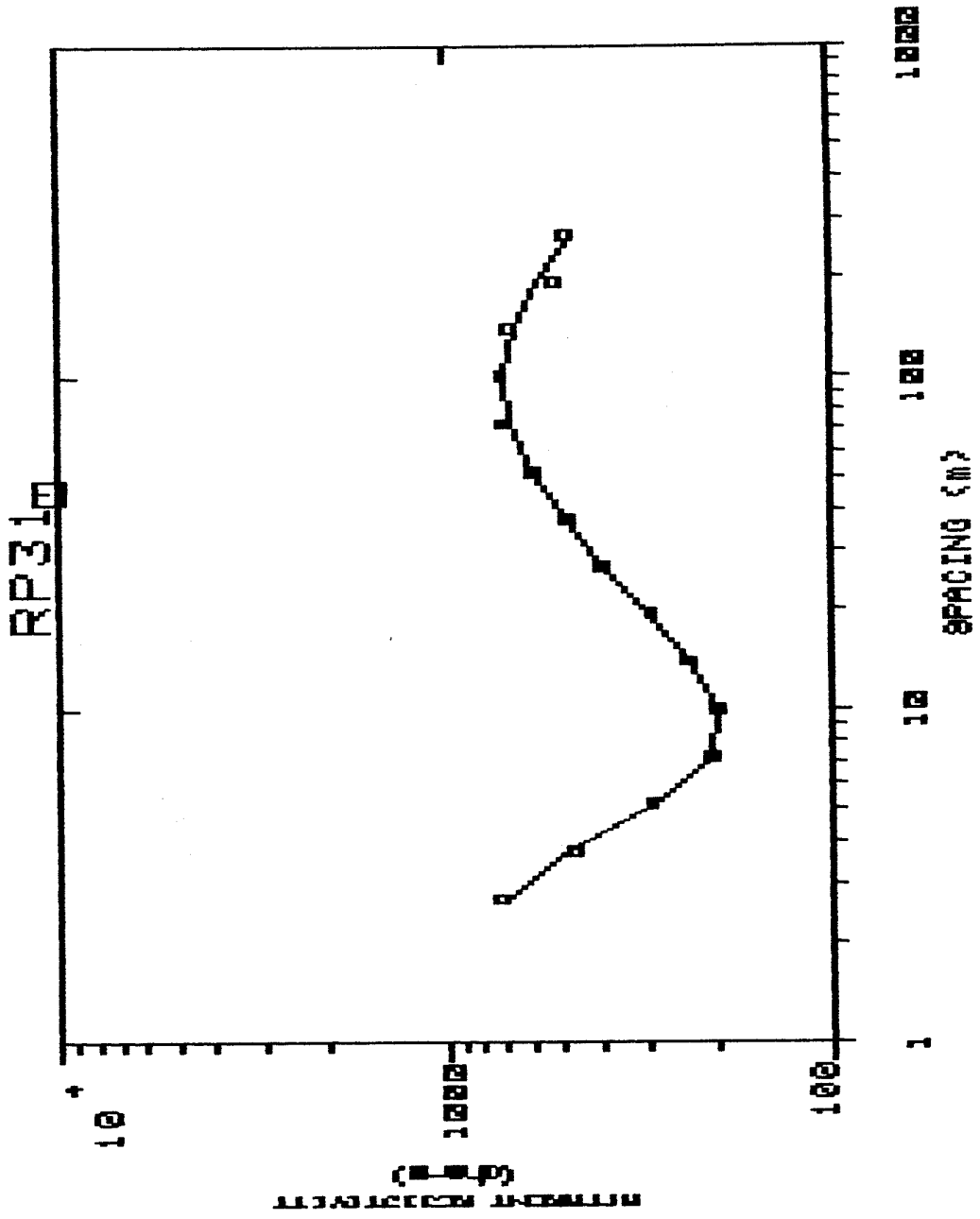
"F" INDICATES FIXED PARAMETER

P 1	0.96									
P 2	-0.03	0.96								
P 3	-0.02	-0.05	0.26							
P 4	-0.01	-0.01	0.27	0.51						
P 5	0.00	0.01	-0.03	0.00	0.92					
T 1	0.03	0.02	0.02	0.01	0.00	0.98				
T 2	-0.03	-0.06	-0.17	0.01	0.01	0.03	0.90			
T 3	0.01	0.01	0.01	0.13	0.06	-0.01	0.04	0.08		
T 4	0.01	0.01	0.11	0.35	0.10	-0.01	0.04	0.15	0.33	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	

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ADARO

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DATA SET: RP32

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-06-92
 SOUNDING: RP32
 AZIMUTH: N-50-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 4.679 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	1761.6		1.63	0.0	
2	200.6		7.32	-1.63	9.300E-04
3	63.08		11.64	-8.96	0.0365
4	985.9		27.52	-20.61	0.184
5	133.0		73.48	-48.14	0.0279
6	1142.7			-121.6	0.552

ALL PARAMETERS ARE FREE

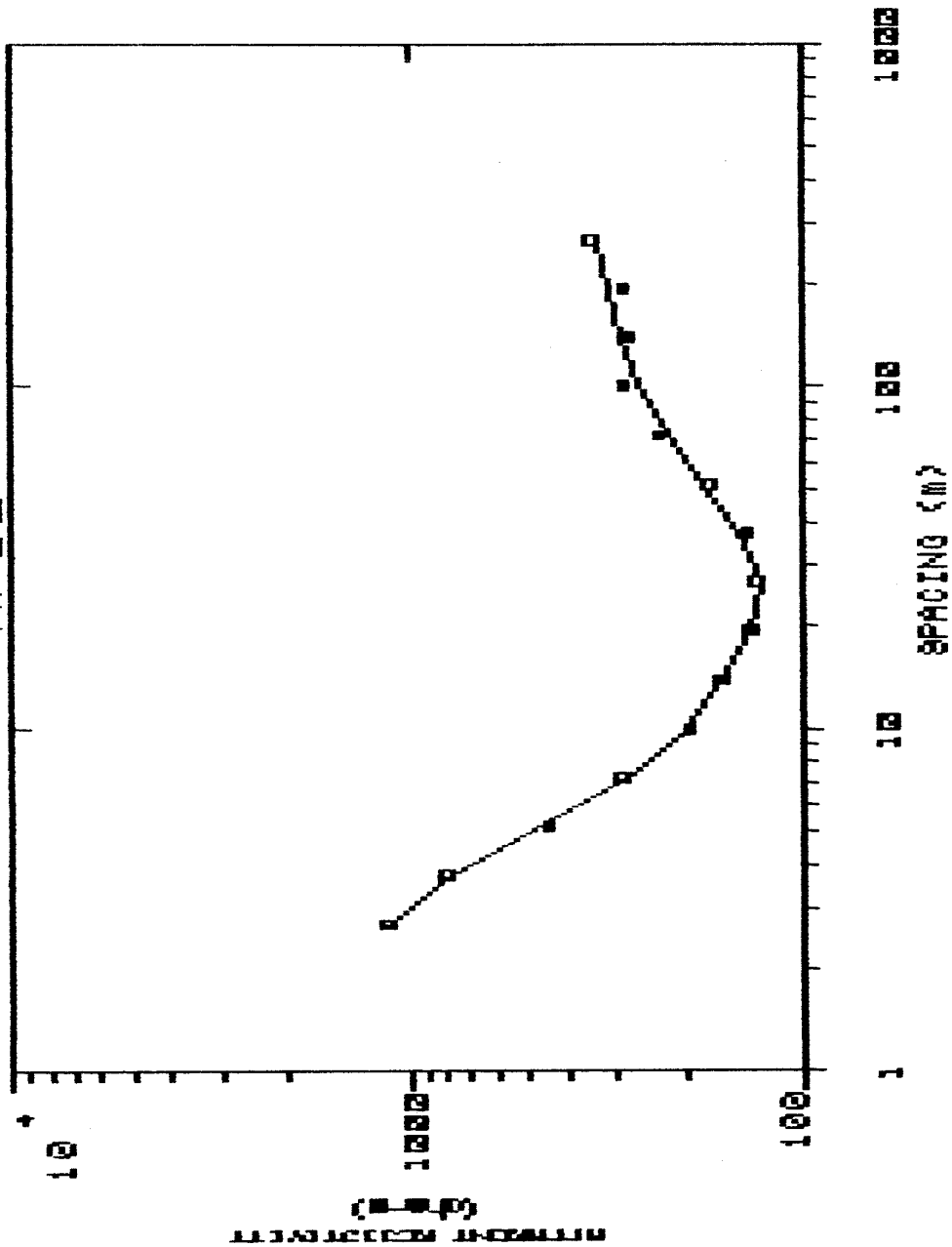
No.	Spacing (m)	DATA	PA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	1133.0	1146.3	-1.18
2	3.73	808.0	782.0	3.21
3	5.18	447.0	465.4	-4.13
4	7.20	289.0	279.4	3.29
5	10.00	196.0	200.7	-2.40
6	13.90	163.0	162.5	0.286
7	19.30	138.0	137.2	0.546
8	26.80	132.0	130.2	1.35
9	37.30	140.0	147.0	-5.03
10	51.80	173.0	181.0	-4.65
11	72.00	234.0	221.2	5.42
12	100.0	286.0	258.5	9.58
13	139.0	275.0	287.3	-4.49
14	193.0	287.0	308.0	-7.33
15	268.0	347.0	332.1	4.26

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ADARO

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RP32



DATA SET: RP33

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-06-92
 SOUNDING: RP33
 AZIMUTH: N-50-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 6.588 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfc)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	228.4		2.23	-2.23	0.00977
2	85.87		19.31	-21.54	0.224
3	162.8		9.44	-30.99	0.0580
4	299.7		17.60	-48.60	0.0587
5	116.5		34.26	-82.86	0.294
6	1534.8				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	DATA	FA (ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	210.0	202.1	3.74
2	3.73	174.0	178.5	-2.60
3	5.18	142.0	148.6	-4.71
4	7.20	122.0	121.1	0.721
5	10.00	111.0	103.2	6.98
6	13.90	95.00	95.45	-0.480
7	19.30	96.00	94.81	1.23
8	26.80	89.00	99.85	-12.19
9	37.30	109.0	110.9	-1.77
10	51.80	141.0	127.7	9.41
11	72.00	161.0	149.1	7.35
12	100.0	163.0	175.4	-7.65
13	139.0	190.0	211.7	-11.44
14	193.0	270.0	265.2	1.74
15	268.0	365.0	340.8	6.61

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ADARO

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PARAMETER RESOLUTION MATRIX:

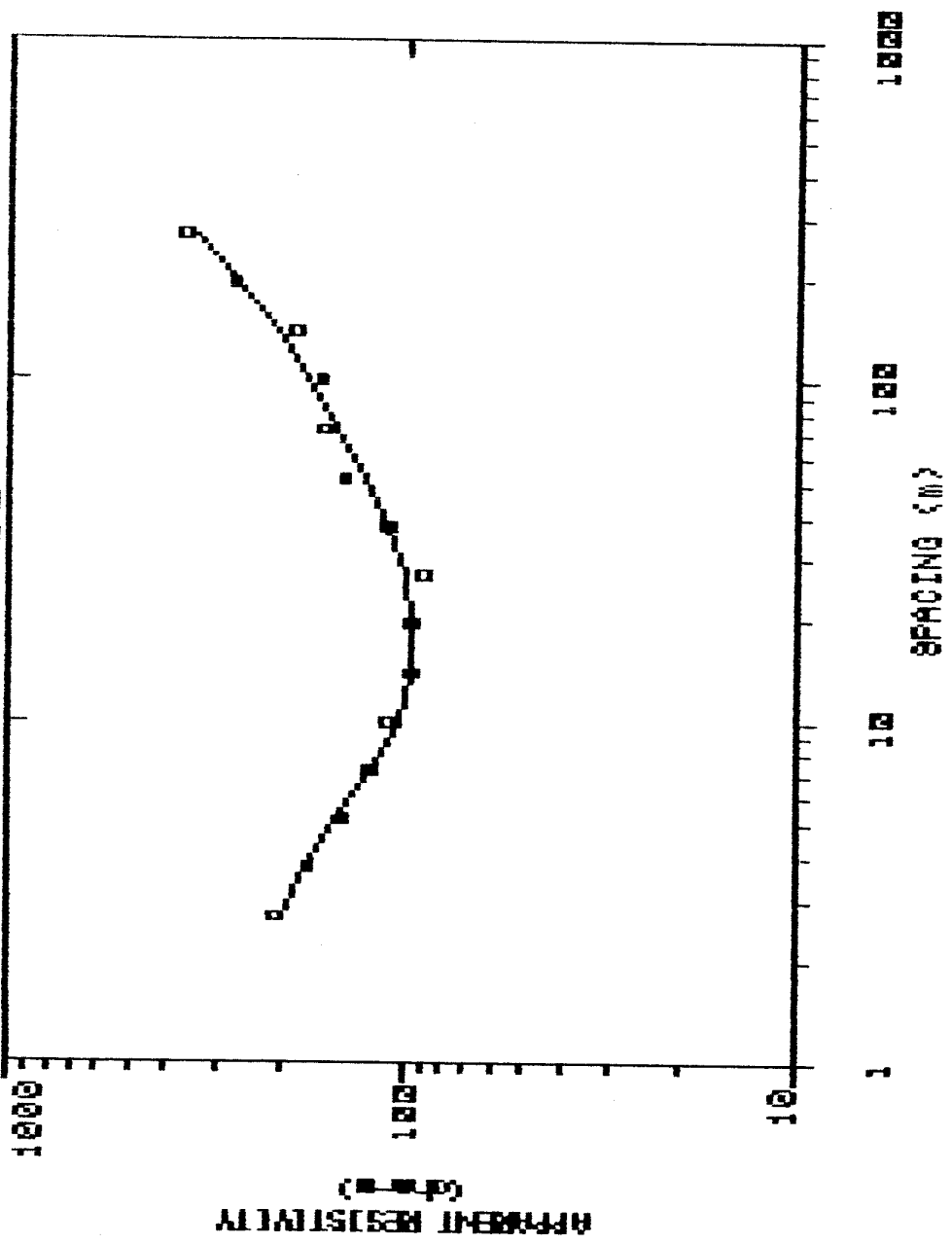
"F" INDICATES FIXED PARAMETER

P 1	0.79										
P 2	-0.02	0.90									
P 3	0.01	0.04	0.07								
P 4	0.01	0.02	0.07	0.10							
P 5	0.00	-0.01	0.04	0.09	0.30						
P 6	0.00	-0.01	0.00	0.00	0.11	0.06					
T 1	0.19	0.11	-0.05	-0.03	0.00	0.00	0.58				
T 2	-0.03	-0.12	-0.16	-0.16	-0.15	-0.03	0.13	0.41			
T 3	0.00	-0.01	-0.02	-0.02	-0.05	-0.02	0.01	0.06	0.01		
T 4	0.00	0.01	0.03	0.03	-0.03	-0.03	-0.01	-0.04	0.00	0.03	
T 5	0.00	0.01	-0.02	-0.06	-0.29	-0.12	-0.01	0.12	0.05	0.05	
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4	

SECOND PART OF RESOLUTION MATRIX:

T 5	0.29										
	T 5										

RP33



DATA SET: RP34

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-06-92
 SOUNDING: RP34
 AZIMUTH: N-72-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 3.536 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	596.8		1.56	0.0	
2	67.32		7.42	-1.56	0.00261
3	610.0		112.5	-8.98	0.110
4	262.9			-121.5	0.184

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	373.3	371.4	0.504
2	3.73	241.2	248.7	-3.09
3	5.18	159.5	150.5	5.62
4	7.20	96.19	102.5	-6.58
5	10.00	99.25	95.73	3.54
6	13.90	113.7	111.3	2.09
7	19.30	134.0	140.3	-4.74
8	26.80	184.0	179.3	2.51
9	37.30	224.0	226.4	-1.08
10	51.80	285.0	278.8	2.14
11	72.00	320.0	333.9	-4.35
12	100.0	400.0	385.4	3.62
13	139.0	419.0	425.0	-1.45
14	193.0	442.0	442.2	-0.0675

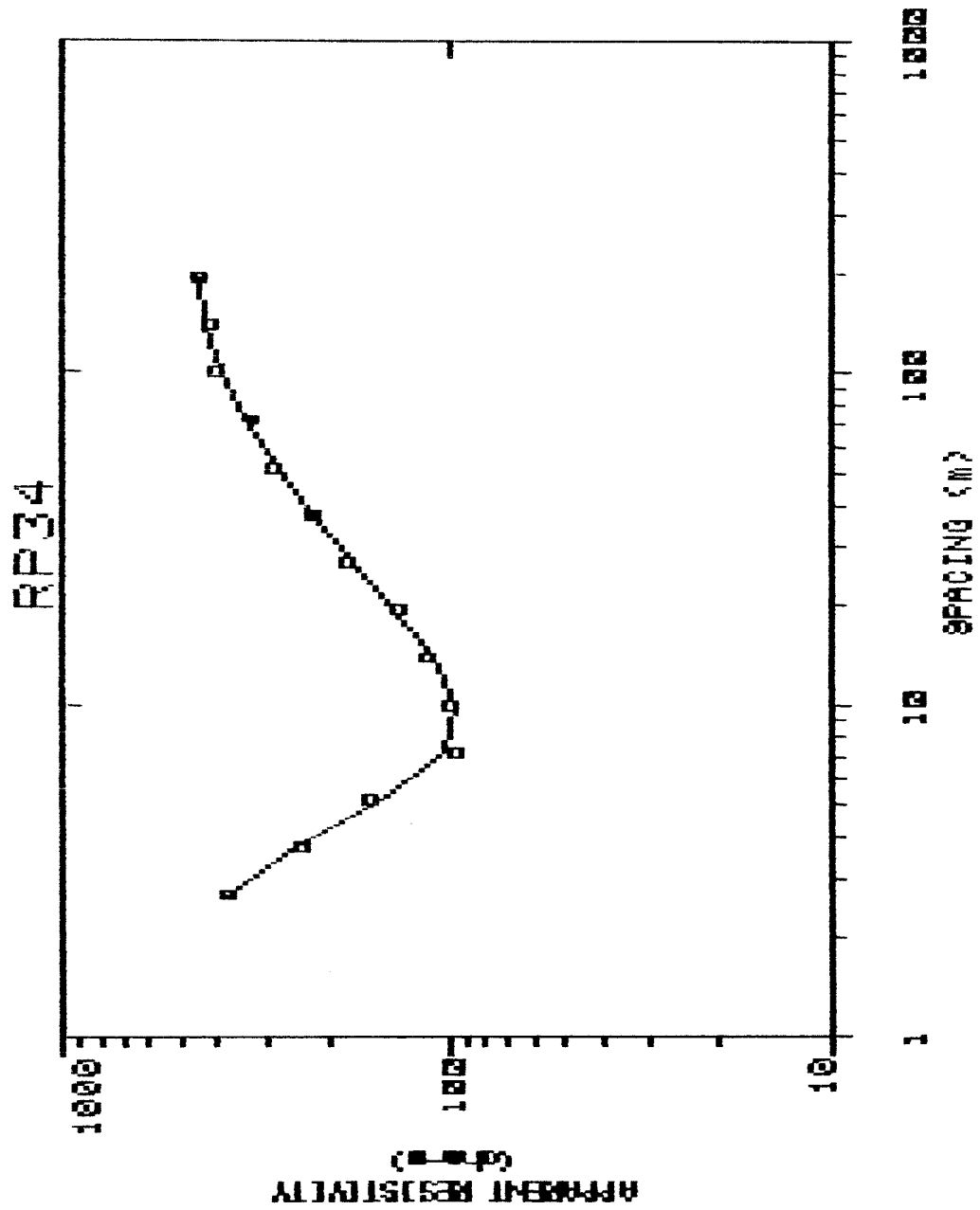
PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 1.00

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ADARO

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P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	-0.01	0.54				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.02	0.42	0.00	0.01	0.58	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	



RP35

PAGE 1

DATA SET: RP35

CLIENT: ITCE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 2-06-92
 SOUNDING: RP35
 AZIMUTH: N-52-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 7.161 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	110.0		0.667	-0.667	0.00606
2	4202.5		1.45	-2.12	3.461E-04
3	97.34		2.61	-4.74	0.0269
4	663.5		9.58	-14.32	0.0144
5	75.72		29.01	-43.34	0.383
6	246.2				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	332.8	376.5	-13.13
2	3.73	465.7	479.6	-2.92
3	5.18	701.1	582.2	16.95
4	7.20	924.1	662.4	28.31
5	10.00	1084.1	692.4	36.12
6	13.90	879.2	654.1	25.60
7	19.30	528.2	558.6	-5.75
8	26.00	443.6	445.1	0.789
9	37.30	345.0	344.0	0.275
10	51.80	268.0	259.4	3.20
11	72.00	190.0	194.5	-2.40
12	100.0	160.0	164.6	-2.91
13	139.0	173.0	167.4	3.21
14	193.0	185.0	184.2	0.423
15	268.0	200.0	201.8	-0.921

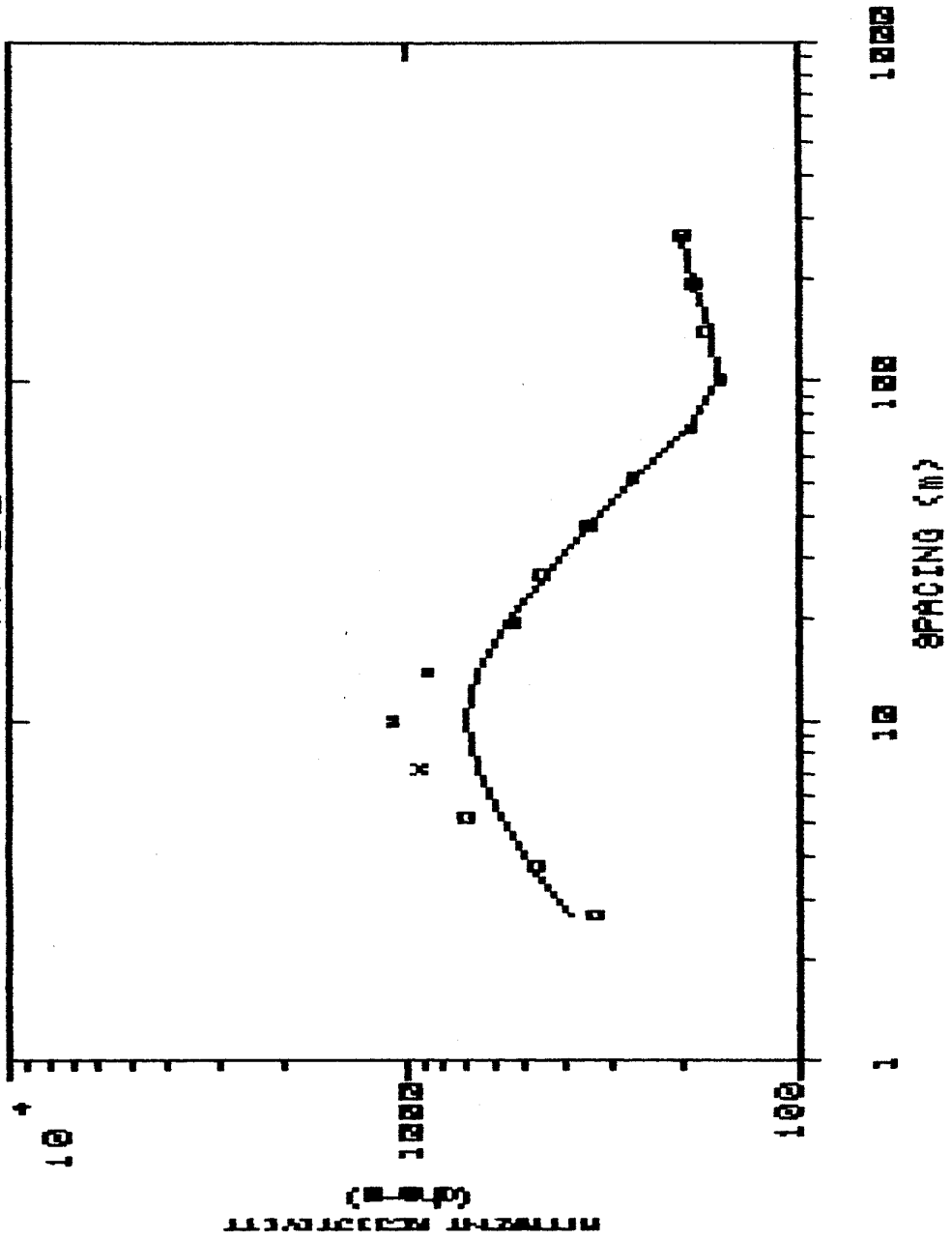
PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

P 1	0.50												
P 2	0.01	0.49											
P 3	0.01	0.04	0.39										
P 4	0.01	0.00	0.10	0.55									
P 5	0.00	0.01	-0.07	0.04	0.63								
P 6	0.00	0.01	0.02	0.01	0.00	0.93							
T 1	-0.05	-0.03	0.02	0.02	0.00	0.00	0.50						
T 2	-0.01	0.49	0.04	0.00	0.02	-0.01	-0.01	0.48					
T 3	-0.01	0.02	-0.39	-0.10	0.08	-0.03	-0.02	-0.02	0.40				
T 4	0.01	0.00	-0.09	0.36	0.08	-0.02	0.01	0.01	0.10	0.47			
T 5	0.00	0.01	-0.04	0.05	-0.43	-0.07	0.00	0.01	0.04	0.07			
	P 1	P 2	P 3	P 4	P 5	P 6	T 1	T 2	T 3	T 4			

SECOND PART OF RESOLUTION MATRIX:

T 5	0.37
	T 5

RP35



DATA SET: RP36

CLIENT: ITGE DATE: 1.06-92
 LOCATION: ESTIVELLA SOUNDING: RP36
 COUNTY: VALENCIA AZIMUTH: N-52-E
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 7.278 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	855.7		1.12	-1.12	0.00131
2	26.21		0.619	-1.73	0.0236
3	3298.0		5.42	-7.16	0.00165
4	28.92		28.04	-35.21	0.969
5	138.5				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	335.0	338.4	-1.00
2	3.73	230.9	226.7	1.80
3	5.18	207.2	209.4	-1.05
4	7.20	243.7	257.3	-5.55
5	10.00	318.9	332.3	-4.19
6	13.90	419.9	416.4	0.825
7	19.30	545.5	493.1	9.61
8	26.80	551.0	537.3	2.47
9	37.30	537.0	520.9	2.98
10	51.80	499.0	431.4	13.54
11	72.00	349.0	293.8	15.80
12	100.0	144.0	170.3	-18.29
13	139.0	104.0	106.9	-2.88
14	193.0	102.0	95.97	5.91

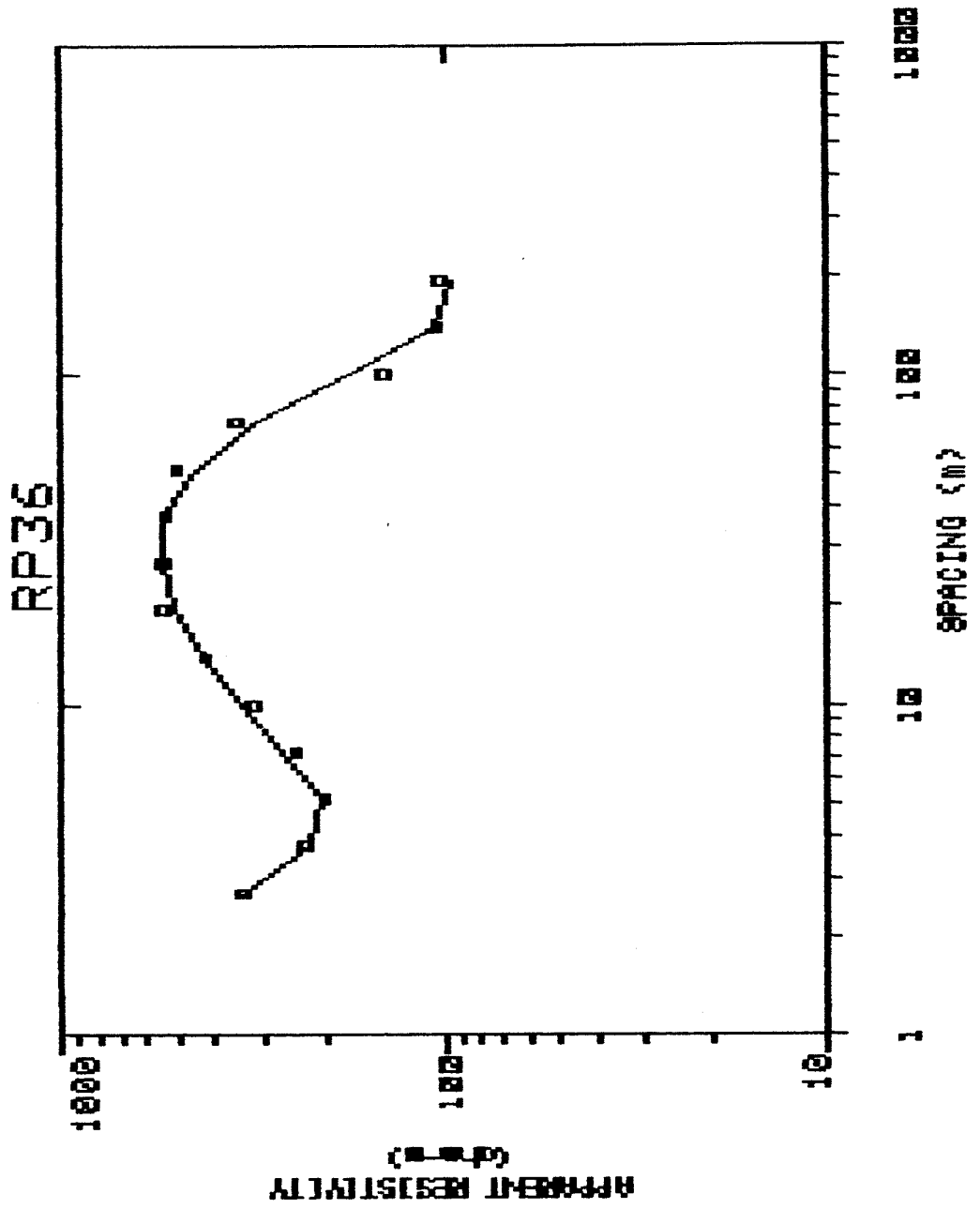
PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

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ADARO

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P 1	0.19									
P 2	0.01	0.46								
P 3	0.00	0.00	0.47							
P 4	0.00	-0.01	0.05	0.20						
P 5	0.00	0.00	0.01	0.19	0.21					
T 1	0.23	0.02	0.00	0.01	0.00	0.78				
T 2	-0.01	-0.45	-0.02	0.03	0.02	0.00	0.47			
T 3	0.00	0.02	0.47	0.05	0.01	0.00	0.00	0.47		
T 4	0.00	0.00	-0.03	-0.19	-0.19	-0.01	-0.02	-0.03	0.19	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	



DATA SET: RP37

CLIENT: ITGE DATE: 1.06-92
 LOCATION: ESTIVELLA SOUNDING: RP37
 COUNTY: VALENCIA AZIMUTH: N-50-E
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 4.044 PERCENT

#	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	286.2		2.49	-2.49	0.00871
2	122.0		4.95	-7.44	0.0405
3	59.33		41.70	-49.14	0.702
4	154.4				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	330.1	262.5	20.46
2	3.73	250.5	238.6	4.77
3	5.18	193.9	204.0	-5.21
4	7.20	163.4	165.1	-1.07
5	10.00	134.0	130.4	2.62
6	13.90	102.4	103.1	-0.729
7	19.30	84.00	83.63	0.439
8	26.80	73.00	72.08	1.25
9	37.30	67.00	67.69	-1.03
10	51.80	66.00	68.88	-4.37
11	72.00	73.00	74.85	-2.53
12	100.0	93.00	85.00	8.59
13	139.0	101.0	97.79	3.17
14	193.0	104.0	111.0	-6.76

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.84

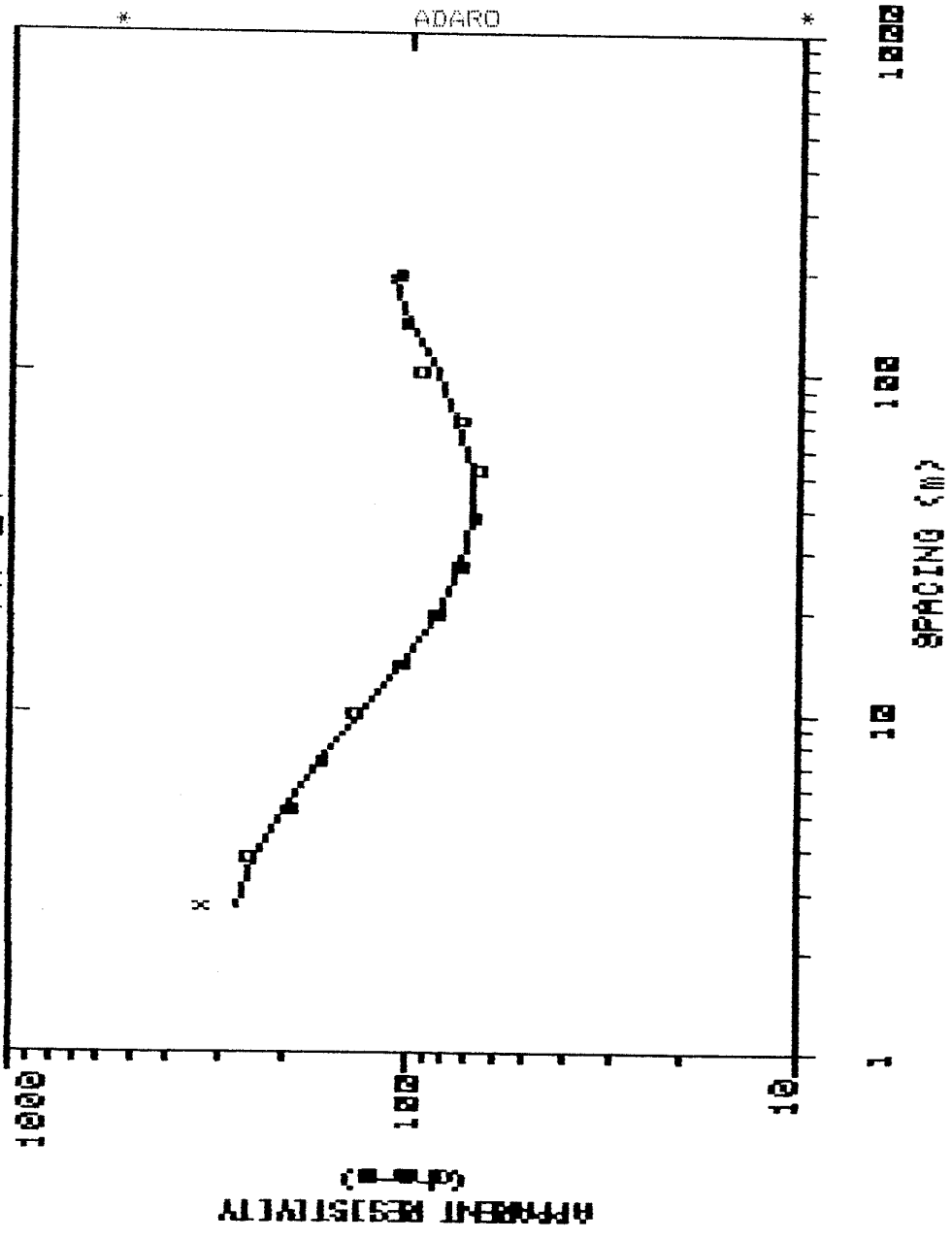
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ADARO

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P 2	-0.02	0.49						
P 3	-0.01	0.03	0.88					
P 4	0.01	0.00	0.04	0.45				
T 1	0.15	0.37	0.00	-0.01	0.44			
T 2	-0.06	0.19	0.11	-0.06	0.05	0.22		
T 3	-0.01	0.02	-0.14	-0.30	0.01	0.12	0.33	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

RP37



RP38

PAGE 1

DATA SET: RP38

CLIENT: IFCE DATE: 1-6 92
 LOCATION: ESTIVELLA SOUNDING: RP38
 COUNTY: VALENCIA AZIMUTH: N 50-E
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 2.764 PERCENT

L #	RESISTIVITY (ohm m)	CHARGEABILITY (pfc)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
1	888.4		2.37	0.0 -2.37	0.00275
2	101.7		10.14	-12.52	0.0558
3	63.98		92.27	-104.8	1.45
4	23.11		20.11	-124.9	0.216
5	582.3				

ALL PARAMETERS ARE FREE

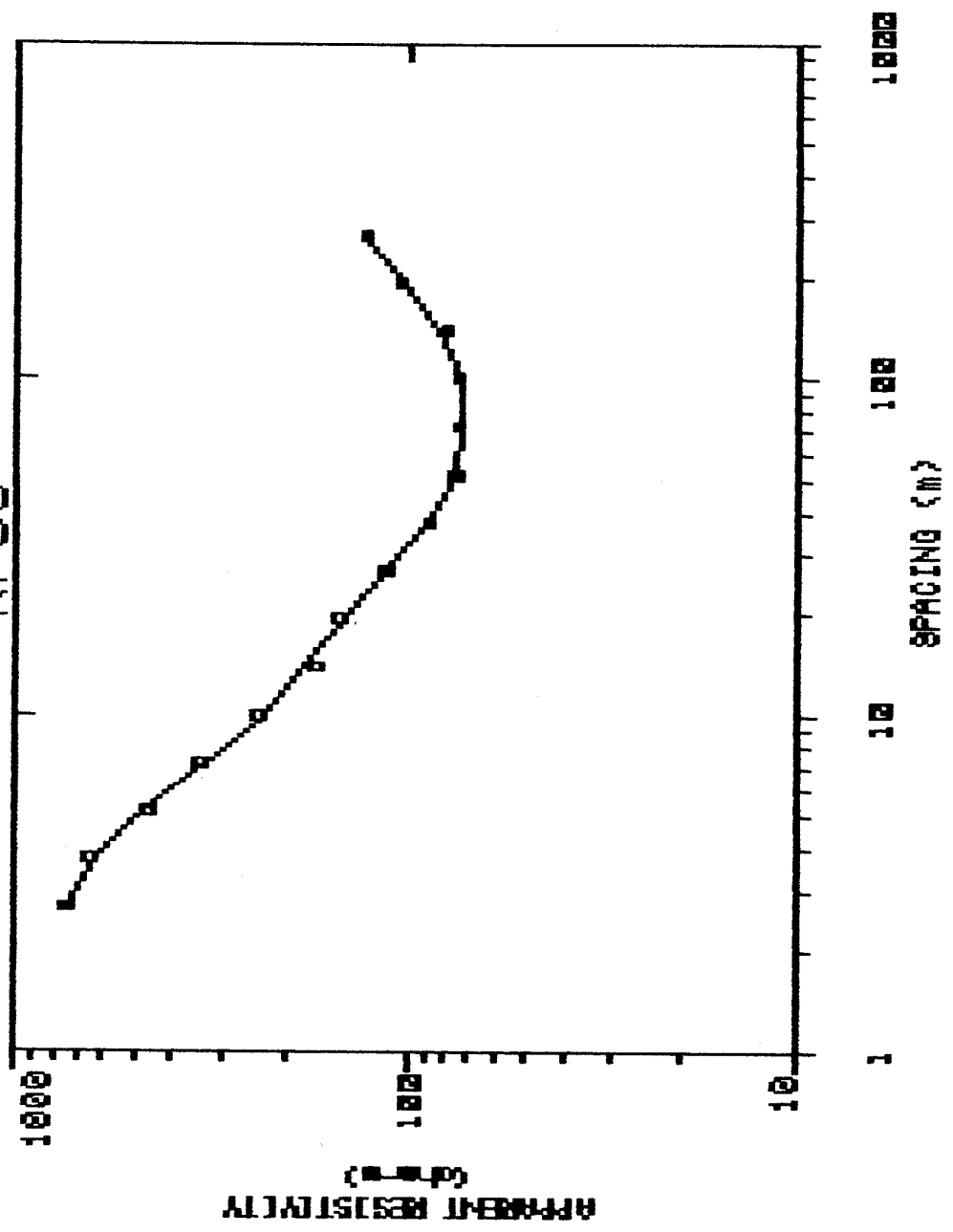
No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.58	737.6	742.1	-0.334
2	3.78	641.3	627.6	2.20
3	5.18	460.4	476.8	-3.55
4	7.03	336.6	332.2	1.30
5	10.00	227.6	234.1	2.28
6	13.88	172.3	150.3	-4.65
7	19.30	150.0	145.0	3.33
8	26.80	114.0	113.7	0.0494
9	37.00	88.00	89.59	-1.80
10	51.00	76.00	76.08	-0.115
11	72.00	74.00	71.74	3.04
12	100.0	74.00	74.07	-0.107
13	139.0	50.00	83.25	-5.39
14	173.0	105.0	101.0	3.72
15	238.0	120.0	128.5	-0.443

PARAMETER RESOLUTION MATRIX:

INDICATIVE FIXED PARAMETER

P 1	1.00									
P 2	0.07	1.00								
P 3	0.14	0.03	1.00							
P 4	0.07	0.00	0.00	0.14						
P 5	0.14	0.00	0.00	-0.07	0.86					
T 1	0.00	0.00	0.00	0.00	0.00	1.00				
T 2	0.00	0.00	0.00	0.00	0.01	0.00	1.00			
T 3	0.00	0.00	0.00	0.14	-0.04	0.00	0.00	0.95		
T 4	0.00	0.00	0.00	-0.02	-0.02	0.00	0.00	0.14	0.00	
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4	

RP38



DATA SET: RP39

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 1-6-92
 SOUNDING: RP39
 AZIMUTH: N-50-E
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.585 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	3819.9		0.714	-0.714	1.870E-04
2	151.6		3.75	-4.46	0.0247
3	33.01		17.17	-21.63	0.520
4	96.15				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	436.2	437.0	-0.177
2	3.73	204.2	201.9	1.11
3	5.18	129.8	135.5	-4.35
4	7.20	106.6	102.6	3.69
5	10.00	74.35	73.25	1.48
6	13.90	51.06	52.54	-2.90
7	19.30	43.00	43.29	-0.675
8	26.80	43.00	42.81	0.433
9	37.30	50.00	47.69	4.61
10	51.80	55.00	55.32	-0.595
11	72.00	62.00	63.90	-3.07
12	100.0	70.00	72.12	-3.04
13	139.0	80.00	79.32	0.840
14	193.0	87.00	85.07	2.21

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.98

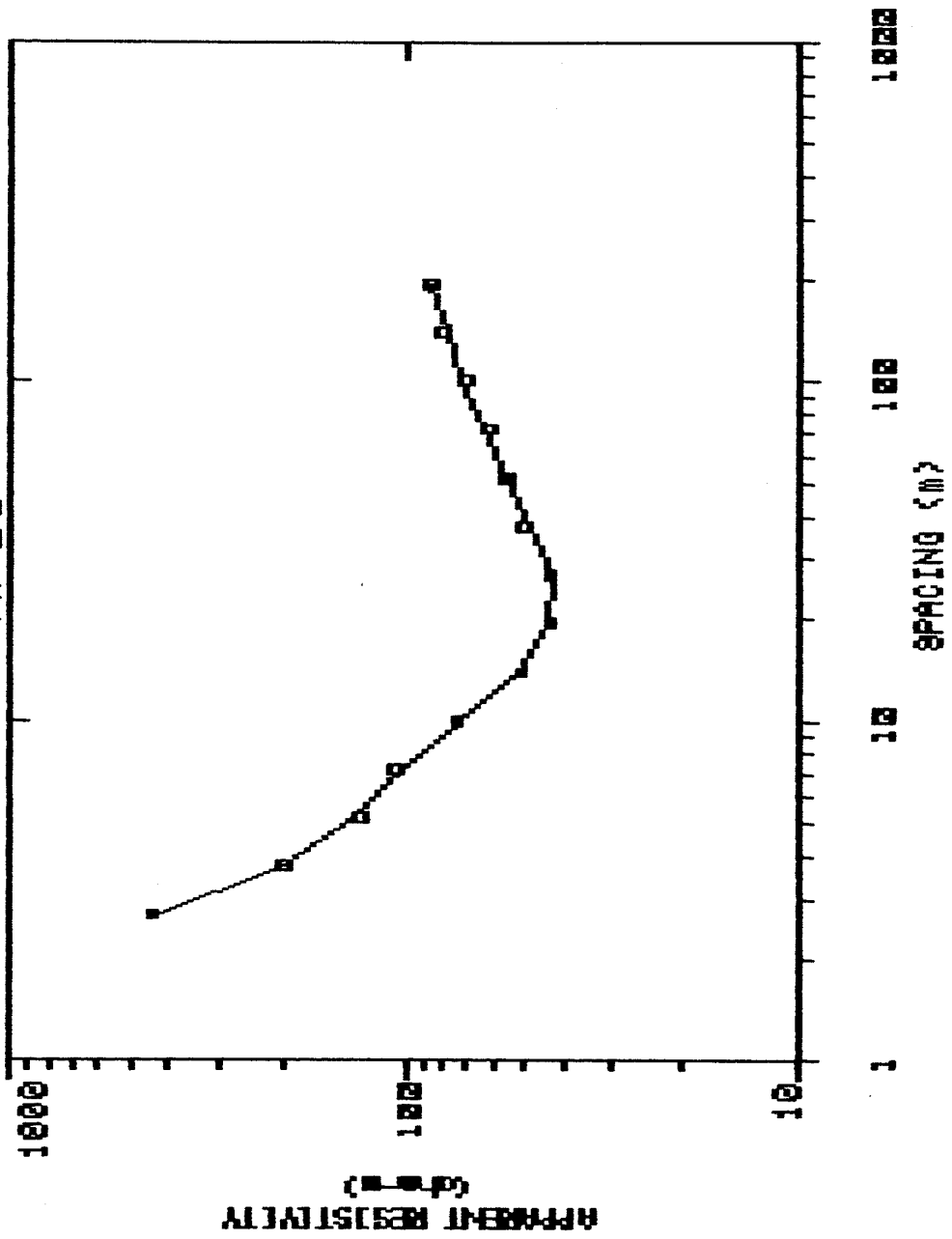
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ADARO

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P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	0.00	1.00				
T 1	0.00	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.00	0.00	0.00	0.00	0.99	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

RP39



DATA SET: RP40

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X:

DATE: 1-6-92
 SOUNDING: RP40
 AZIMUTH: N-16-E
 EQUIPMENT: ADARO

0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 1.635 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	138.6		1.74	-1.74	0.0126
2	60.16		3.18	-4.92	0.0528
3	217.8		5.77	-10.70	0.0265
4	42.29		43.39	-54.09	1.02
5	164.2				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	116.0	117.4	-1.28
2	3.73	107.0	104.3	2.51
3	5.18	91.00	93.56	-2.81
4	7.20	92.00	90.67	1.44
5	10.00	95.00	95.53	-0.558
6	13.90	100.0	101.6	-1.67
7	19.30	105.0	101.6	3.14
8	26.80	92.00	92.72	-0.784
9	37.30	85.00	78.13	8.08
10	51.80	65.00	65.87	-1.35
11	72.00	63.00	62.13	1.38
12	100.0	68.00	67.76	0.349
13	139.0	79.00	79.68	-0.870
14	193.0	94.00	94.33	-0.356
15	268.0	110.0	109.4	0.470

PARAMETER RESOLUTION MATRIX:

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ADARO

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"F" INDICATES FIXED PARAMETER

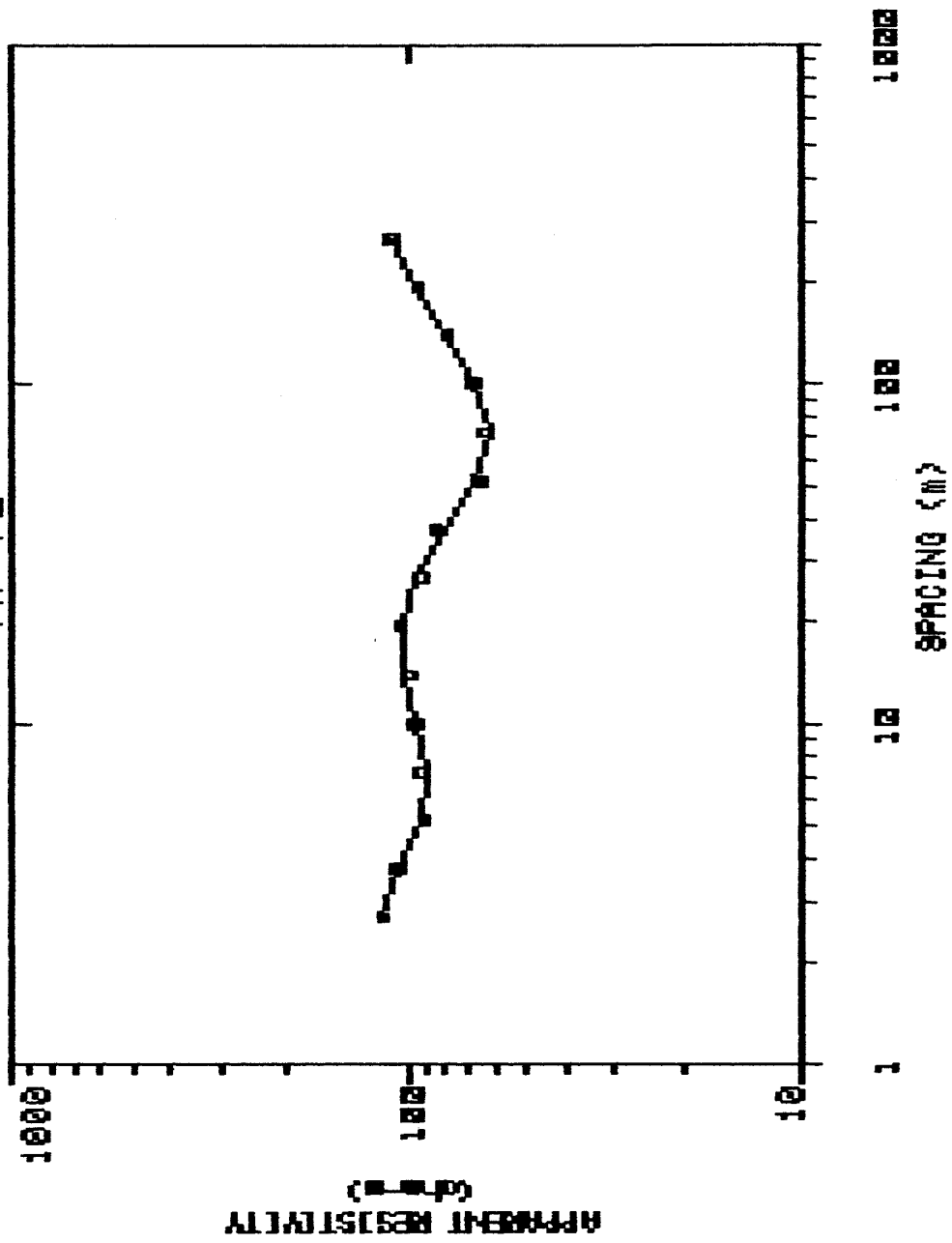
P 1	0.97								
P 2	-0.04	0.80							
P 3	0.02	0.03	0.63						
P 4	0.00	0.03	-0.01	0.92					
P 5	0.00	0.00	0.01	-0.04	0.94				
T 1	0.07	0.19	-0.06	-0.01	0.00	0.77			
T 2	-0.05	-0.30	-0.10	0.06	0.01	0.26	0.47		
T 3	-0.01	-0.02	0.44	0.08	0.02	0.04	0.12	0.43	
T 4	-0.01	0.04	-0.02	-0.13	-0.10	-0.01	0.08	0.12	0.75
	P 1	P 2	P 3	P 4	P 5	T 1	T 2	T 3	T 4

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ADARO

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RP40



DATA SET: RP41

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 1-6-92
 SOUNDING: RP41
 AZIMUTH: N-35-92
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 5.758 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1441.9		1.39	-1.39	9.701E-04
2	96.07		25.89	-27.29	0.269
3	35.64		25.82	-53.11	0.724
4	239.3				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	734.0	744.9	-1.48
2	3.73	465.9	433.8	6.88
3	5.18	197.1	219.9	-11.57
4	7.20	138.3	128.0	7.43
5	10.00	111.3	104.0	6.55
6	13.90	92.91	98.23	-5.72
7	19.30	86.53	94.79	-9.54
8	26.80	93.00	90.68	2.49
9	37.30	89.00	84.56	4.98
10	51.80	77.00	77.83	-1.08
11	72.00	73.00	75.20	-3.02
12	100.0	83.00	81.50	1.80
13	139.0	97.00	96.78	0.222
14	193.0	117.0	117.2	-0.210

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER
 P 1 0.97

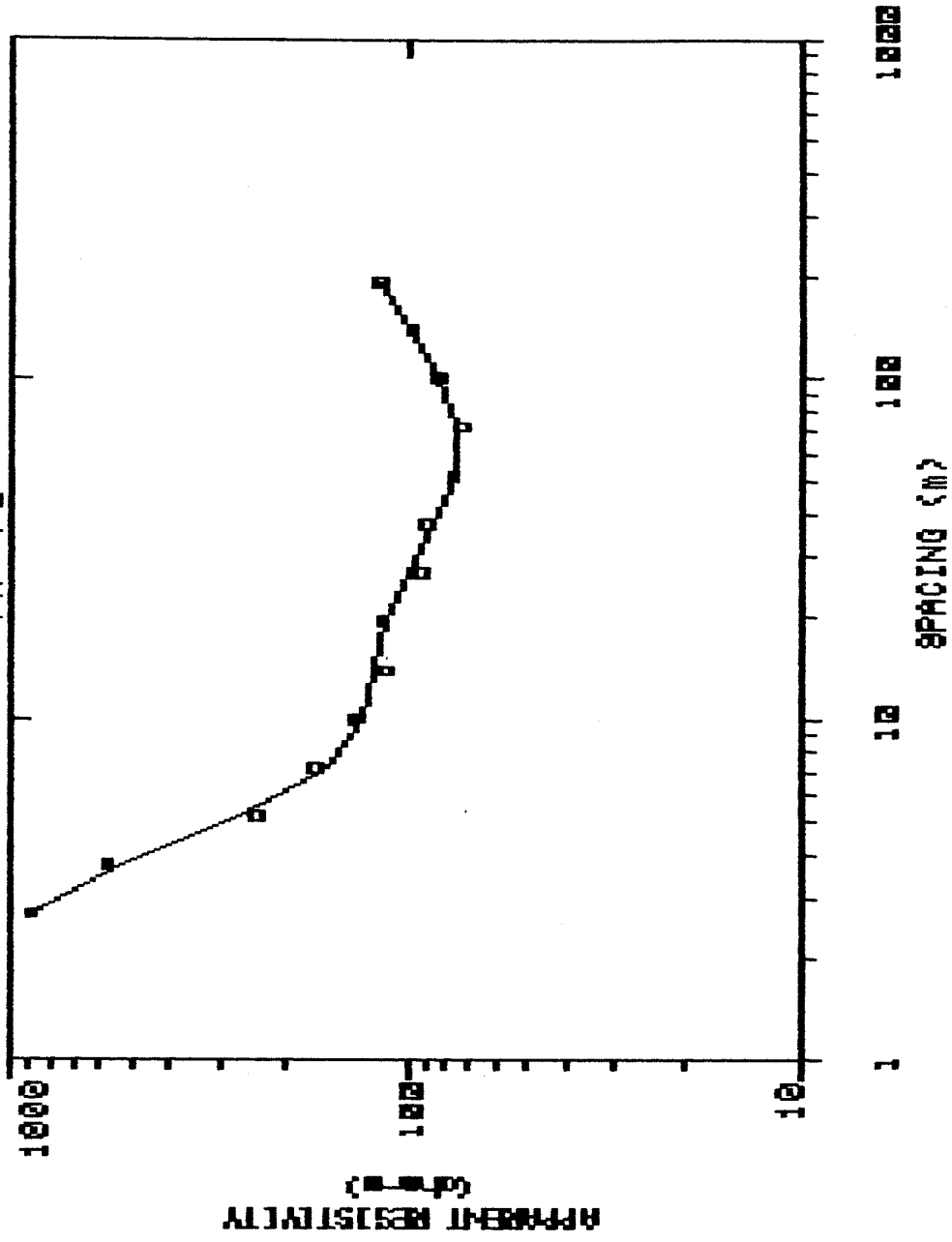
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ADARO

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P 2	0.00	1.00						
P 3	0.00	0.00	0.59					
P 4	0.01	0.01	0.05	0.64				
T 1	0.01	0.00	0.00	0.00	0.99			
T 2	0.01	0.01	0.15	-0.10	-0.01	0.88		
T 3	0.00	0.00	-0.44	-0.14	0.00	0.12	0.41	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

RP41



RP42

PAGE 1

DATA SET: RP42

CLIENT: IREE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 1-6-72
 SOUNDING: RP42
 AZIMUTH: N 44-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 4.41E PERCENT

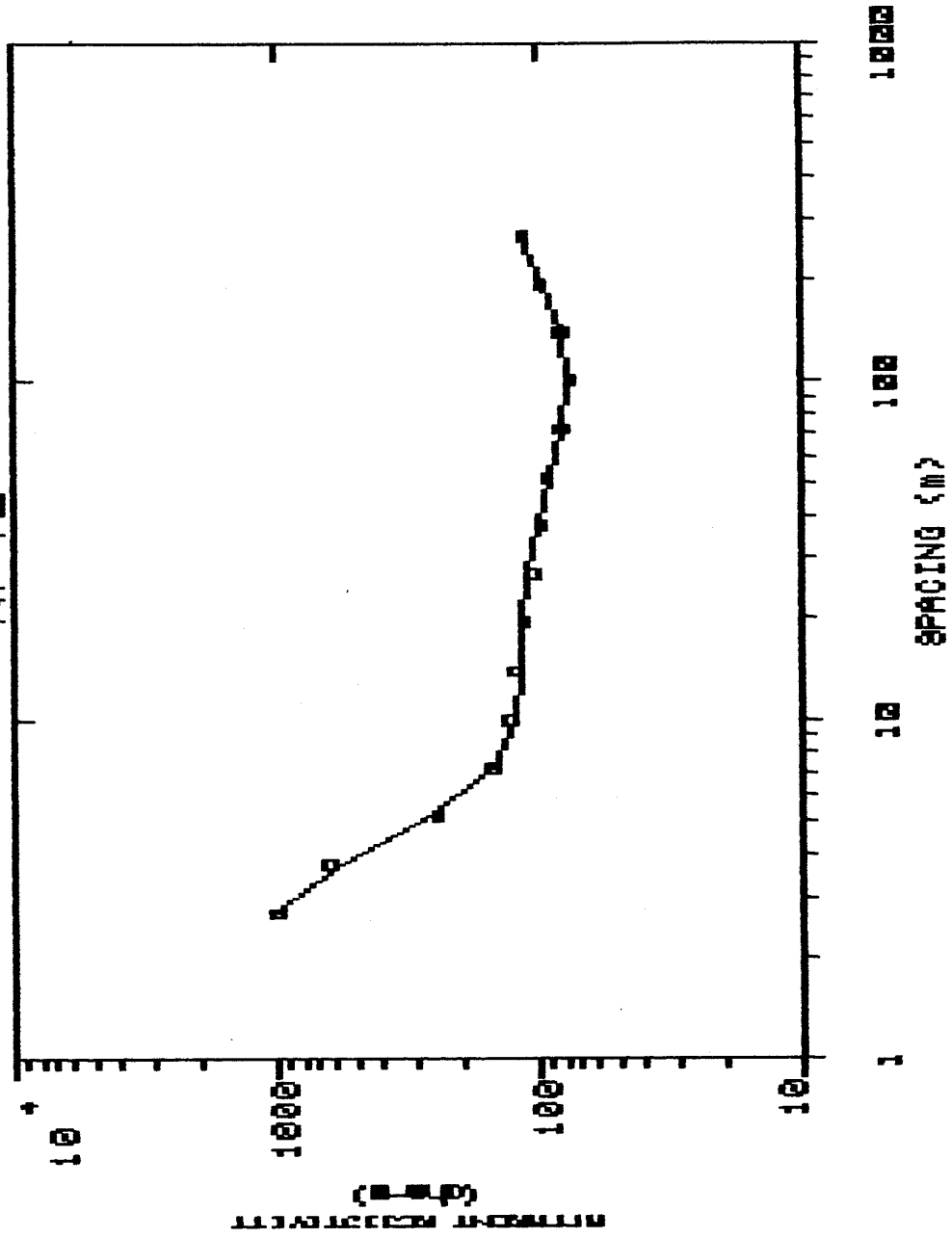
L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	344.2		1.32	-1.32	3.645E-04
2	100.9		1.13	-2.45	0.0112
3	181.2		17.74	-20.20	0.145
4	63.55		83.17	-103.3	1.30
5	234.1				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.58	1080.0	1080.8	-5.96
2	3.73	647.0	579.4	10.70
3	5.13	240.0	267.6	-7.99
4	7.20	152.0	151.4	0.375
5	10.00	100.0	126.9	-2.32
6	13.70	80.0	121.2	-2.35
7	17.00	114.0	116.2	-1.97
8	26.00	107.0	109.0	-1.93
9	37.00	98.00	98.53	-0.550
10	51.00	93.00	87.31	6.11
11	68.00	92.00	77.51	3.03
12	100.00	77.00	73.04	-1.35
13	137.00	62.00	83.94	-2.87
14	188.00	57.00	76.97	-2.04
15	260.00	115.0	115.4	-0.371

PARAMETER RESOLUTION MATRIX:

RP42



DATA SET: RP43

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 1-6-92
 SOUNDING: RP43
 AZIMUTH: N-44-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.731 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	1167.1		1.94	-1.94	0.00167
2	186.7		8.43	-10.38	0.0451
3	86.94		56.65	-67.03	0.651
4	239.9				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	863.4	893.6	-3.49
2	3.73	735.0	686.7	6.57
3	5.18	447.2	465.0	-3.98
4	7.20	298.5	299.4	-0.295
5	10.00	216.1	213.0	1.43
6	13.90	171.2	172.1	-0.576
7	19.30	143.3	143.9	-0.425
8	26.80	121.0	120.7	0.240
9	37.30	107.0	105.5	1.35
10	51.80	97.00	99.77	-2.85
11	72.00	103.0	102.0	0.897
12	100.0	114.0	111.7	1.94
13	139.0	116.0	128.0	-10.39
14	193.0	144.0	148.2	-2.94
15	268.0	172.0	169.2	1.60

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

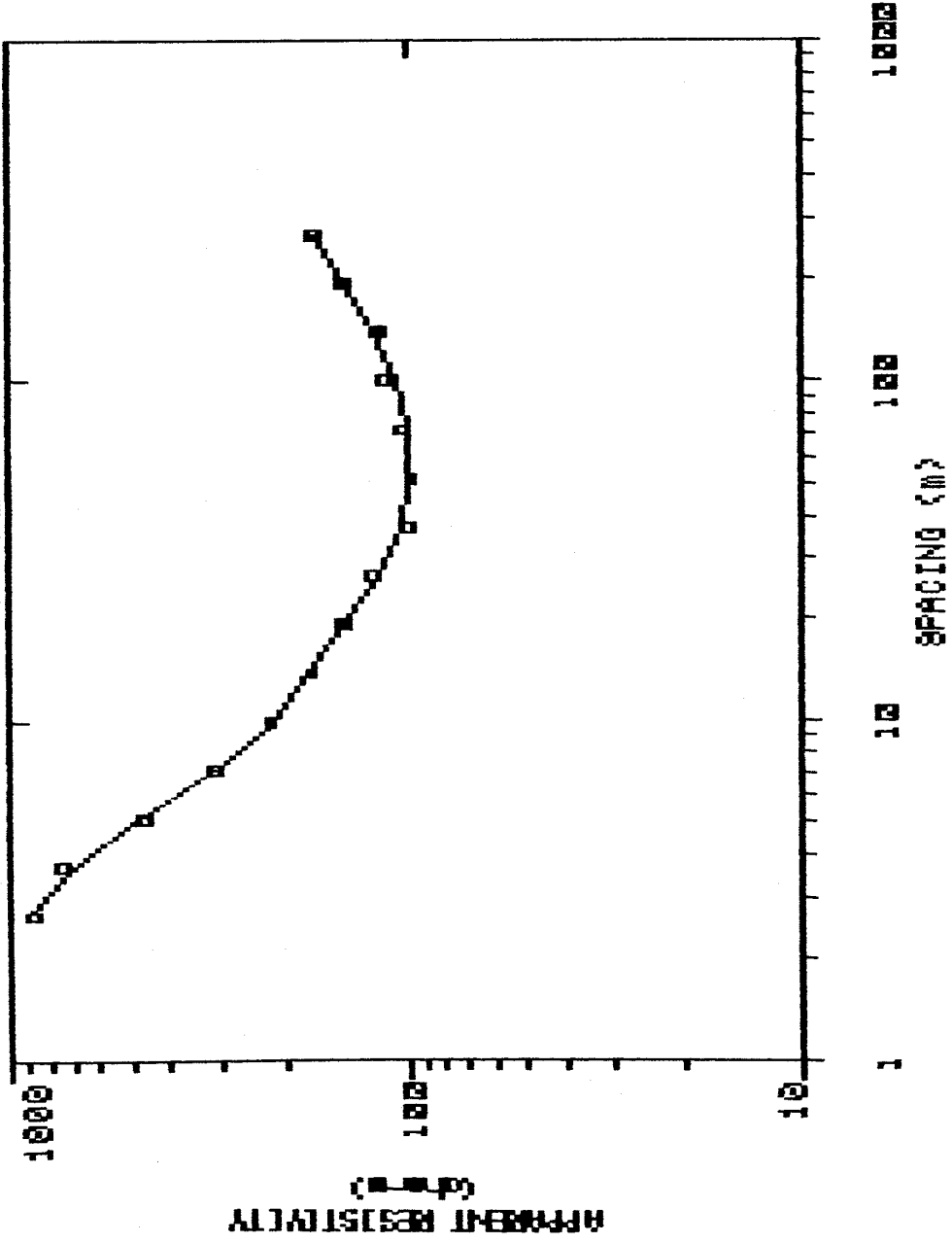
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ADARO

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P 1	1.00						
P 2	0.00	1.00					
P 3	0.00	0.00	1.00				
P 4	0.00	0.00	0.00	1.00			
T 1	0.00	0.00	0.00	0.00	1.00		
T 2	0.00	0.00	0.00	0.00	0.00	1.00	
T 3	0.00	0.00	0.00	-0.01	0.00	0.00	0.99
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

RP43



DATA SET: RP44

CLIENT: ITGE DATE: 1-6-92
 LOCATION: ESTIVELLA SOUNDING: RP44
 COUNTY: VALENCIA AZIMUTH: N-44-W
 PROJECT: RESISTIVIDADES EQUIPMENT: ADARO
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

Schlumberger Configuration

FITTING ERROR: 2.756 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	776.8		0.817	-0.817	0.00105
2	152.7		8.50	-9.31	0.0556
3	74.84		64.74	-74.06	0.865
4	242.9				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA DATA	(ohm-m) SYNTHETIC	DIFFERENCE (percent)
1	2.68	266.6	266.7	-0.0362
2	3.73	196.3	195.7	0.326
3	5.18	162.8	166.4	-2.19
4	7.20	162.8	153.9	5.48
5	10.00	140.4	143.7	-2.30
6	13.90	124.5	130.6	-4.92
7	19.30	119.7	114.5	4.35
8	26.80	97.00	99.02	-2.08
9	37.30	91.00	88.41	2.83
10	51.80	82.00	84.29	-2.79
11	72.00	86.00	86.13	-0.153
12	100.0	96.00	94.05	2.02
13	139.0	107.0	108.4	-1.33
14	193.0	128.0	127.8	0.0898
15	268.0	150.0	149.7	0.135

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

*

ADARO

*

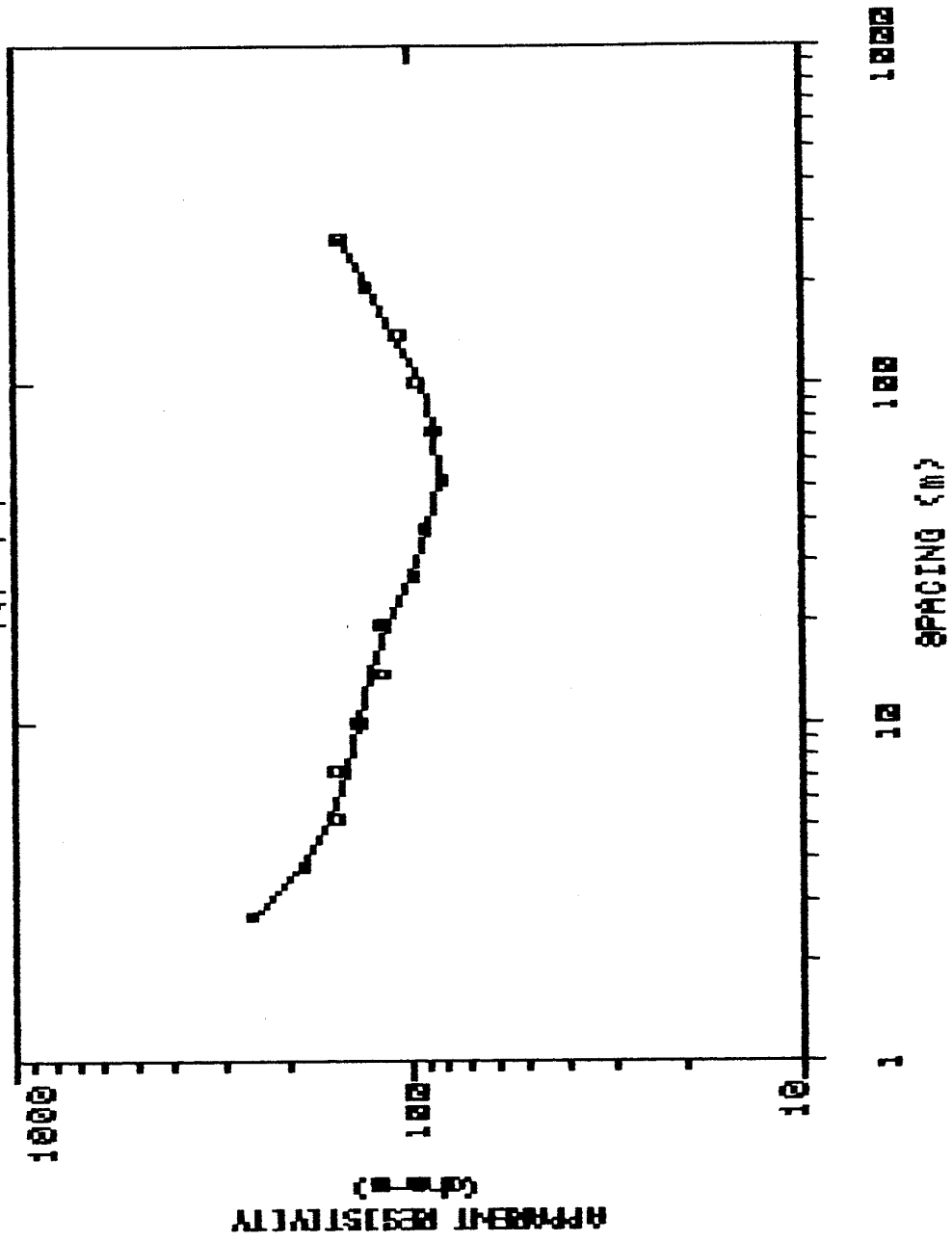
P 1	0.99							
P 2	0.00	1.00						
P 3	0.00	0.00	1.00					
P 4	0.00	0.00	0.00	1.00				
T 1	0.01	0.00	0.00	0.00	1.00			
T 2	0.00	0.00	0.00	0.00	0.00	1.00		
T 3	0.00	0.00	0.00	0.00	0.00	0.00	0.99	
	P 1	P 2	P 3	P 4	T 1	T 2	T 3	

*

ADARO

*

RP44



DATA SET: RP45

CLIENT: ITGE
 LOCATION: ESTIVELLA
 COUNTY: VALENCIA
 PROJECT: RESISTIVIDADES
 ELEVATION: 0.00
 SOUNDING COORDINATES: X: 0.0000 Y: 0.0000

DATE: 1-6-92
 SOUNDING: RP45
 AZIMUTH: N-44-W
 EQUIPMENT: ADARO

Schlumberger Configuration

FITTING ERROR: 2.136 PERCENT

L #	RESISTIVITY (ohm-m)	CHARGEABILITY (pfe)	THICKNESS (meters)	ELEVATION (meters)	CONDUCTANCE (Siemens)
				0.0	
1	268.9		2.57	-2.57	0.00956
2	142.1		9.42	-12.00	0.0663
3	63.19		32.26	-44.26	0.510
4	179.2				

ALL PARAMETERS ARE FREE

No.	Spacing (m)	PA (ohm-m)		DIFFERENCE (percent)
		DATA	SYNTHETIC	
1	2.68	249.0	253.2	-1.68
2	3.73	242.0	236.8	2.14
3	5.18	234.0	212.7	9.08
4	7.20	182.0	185.2	-1.77
5	10.00	163.0	160.4	1.59
6	13.90	137.0	139.5	-1.86
7	19.30	120.0	120.1	-0.129
8	26.80	105.0	101.7	3.11
9	37.30	85.00	88.37	-3.96
10	51.80	84.00	84.37	-0.451
11	72.00	91.00	89.99	1.10
12	100.0	104.0	102.3	1.63
13	139.0	114.0	117.5	-3.13
14	193.0	135.0	132.8	1.61
15	268.0	196.0	146.4	25.30

PARAMETER RESOLUTION MATRIX:
 "F" INDICATES FIXED PARAMETER

*

ADARO

*

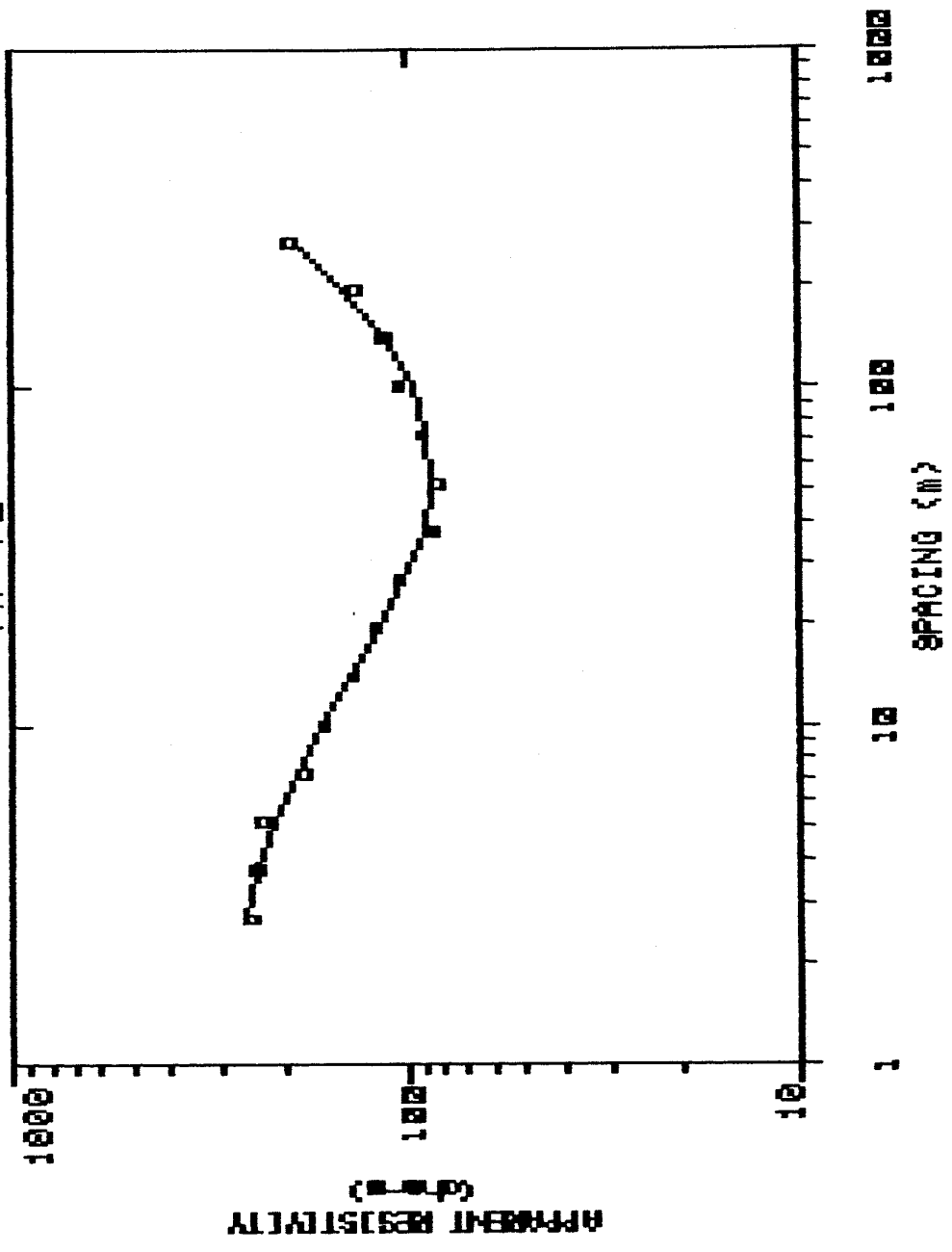
P 1	0.99						
P 2	-0.01	0.95					
P 3	0.00	-0.03	0.95				
P 4	0.00	-0.01	-0.03	0.94			
T 1	0.04	0.11	0.04	0.01	0.76		
T 2	0.01	0.07	0.08	0.03	-0.10	0.84	
T 3	-0.01	-0.06	-0.11	-0.11	0.09	0.17	0.69
	P 1	P 2	P 3	P 4	T 1	T 2	T 3

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ADARO

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RP45



FORMATOS DE LOS FICHEROS

Los ficheros ASCII, de extensión .RPD tienen los formatos siguientes:

- La primera línea contiene los datos del sondeo, el tipo de dispositivo, la cota, indicación del tipo de unidades empleadas y las coordenadas del sondeo.

Su formato es: (5X, A8, 2X, A4, 2F10.3, I5, 2F15.3).

- Las siguientes líneas, hasta la quinta, tienen el formato: (5X, 30A1, 10X, 15A1). Correspondiendo a datos de identificación del sondeo.

- La sexta línea corresponde a un encabezamiento.

- La séptima, como sexta +N, corresponde al número de puntos medidos, espaciado y resistividad aparente, para N igual al número de datos.

Su formato es: (I5, 5F13.4).