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APPLICATION OF ATMOSPHERIC TRACER TECHNIQUES TO DETERMINE THE TRANSPORT AND DISPERSION ASSOCIATED WITH THE LAND-BREEZE MOVEMENT OF AIR OVER THE LOS ANGELES COASTAL ZONE

LOS ANGELES: TESTS 1 through 7

CONDUCTED JULY 22, 1977 through JULY 14, 1978

VOLUME 3 - TRACER DATA

by

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Prepared for the California Air Resources Board
December 2, 1982

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~~Meteorological Data~~	~~See Volume 4~~

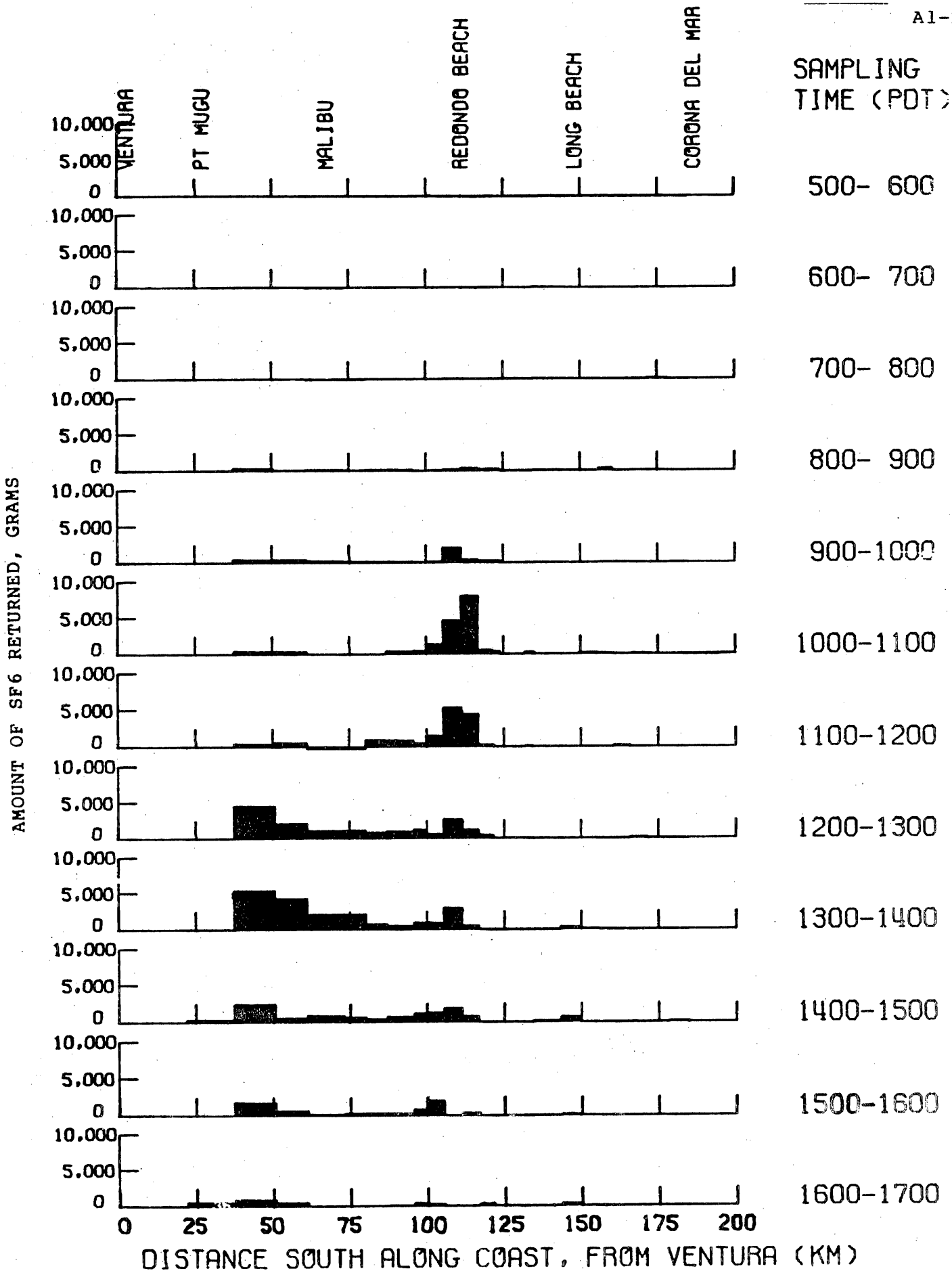
Appendix A1

Hourly Averaged Tracer Data for Fixed Sites

for

Test No. 1

Conducted Starting July 22, 1977



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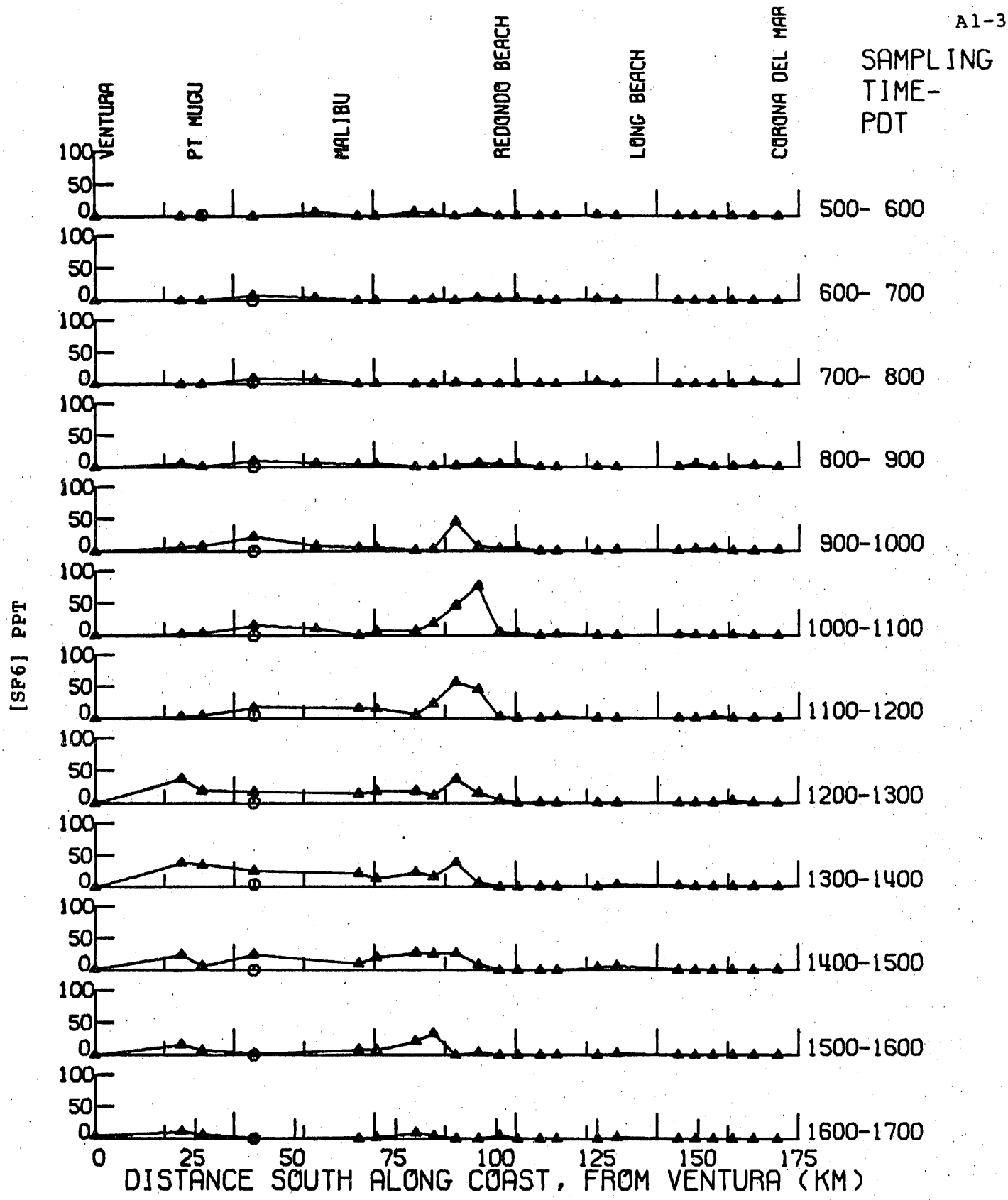

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HOURLY AVERAGED SAMPLES
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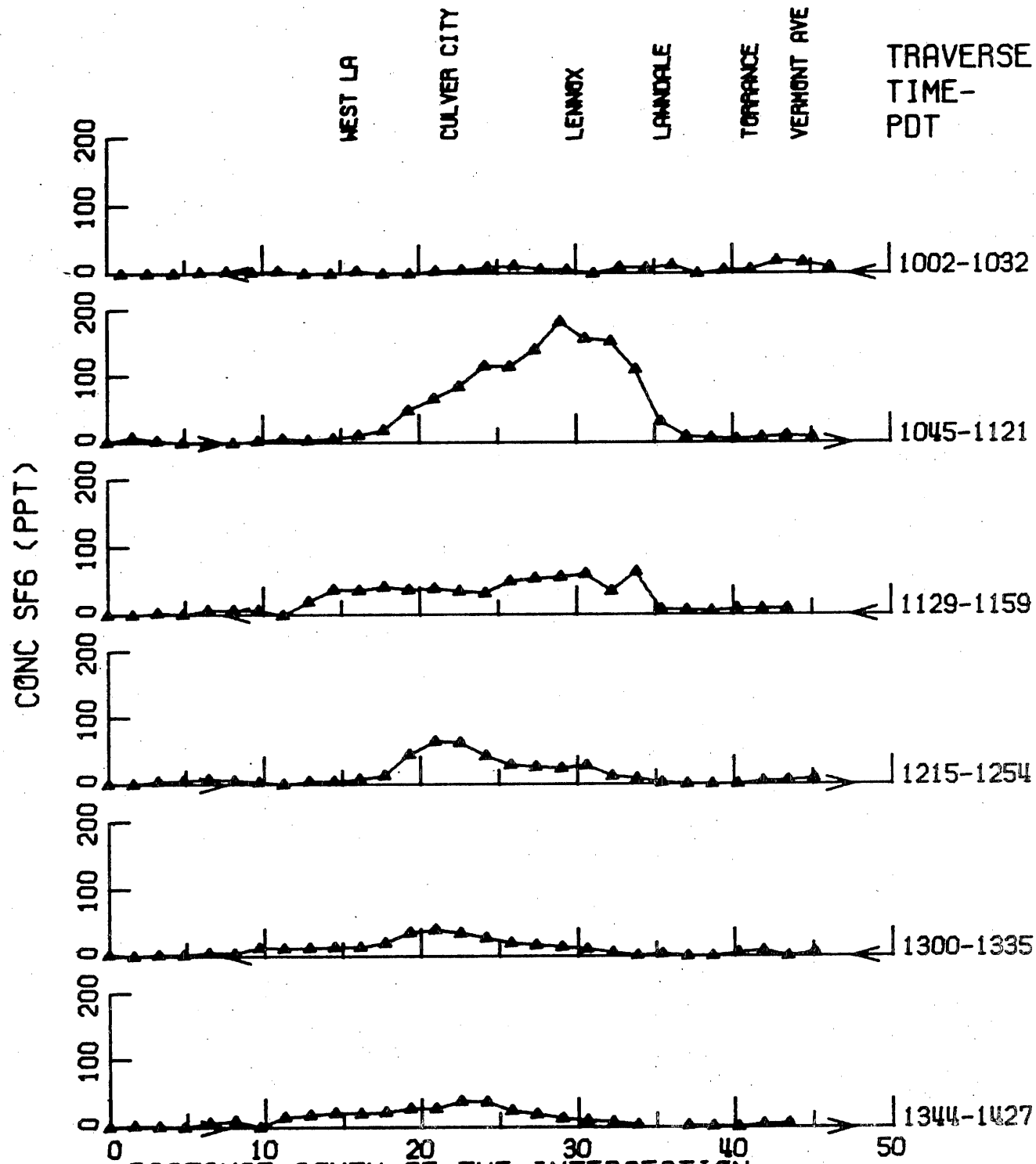

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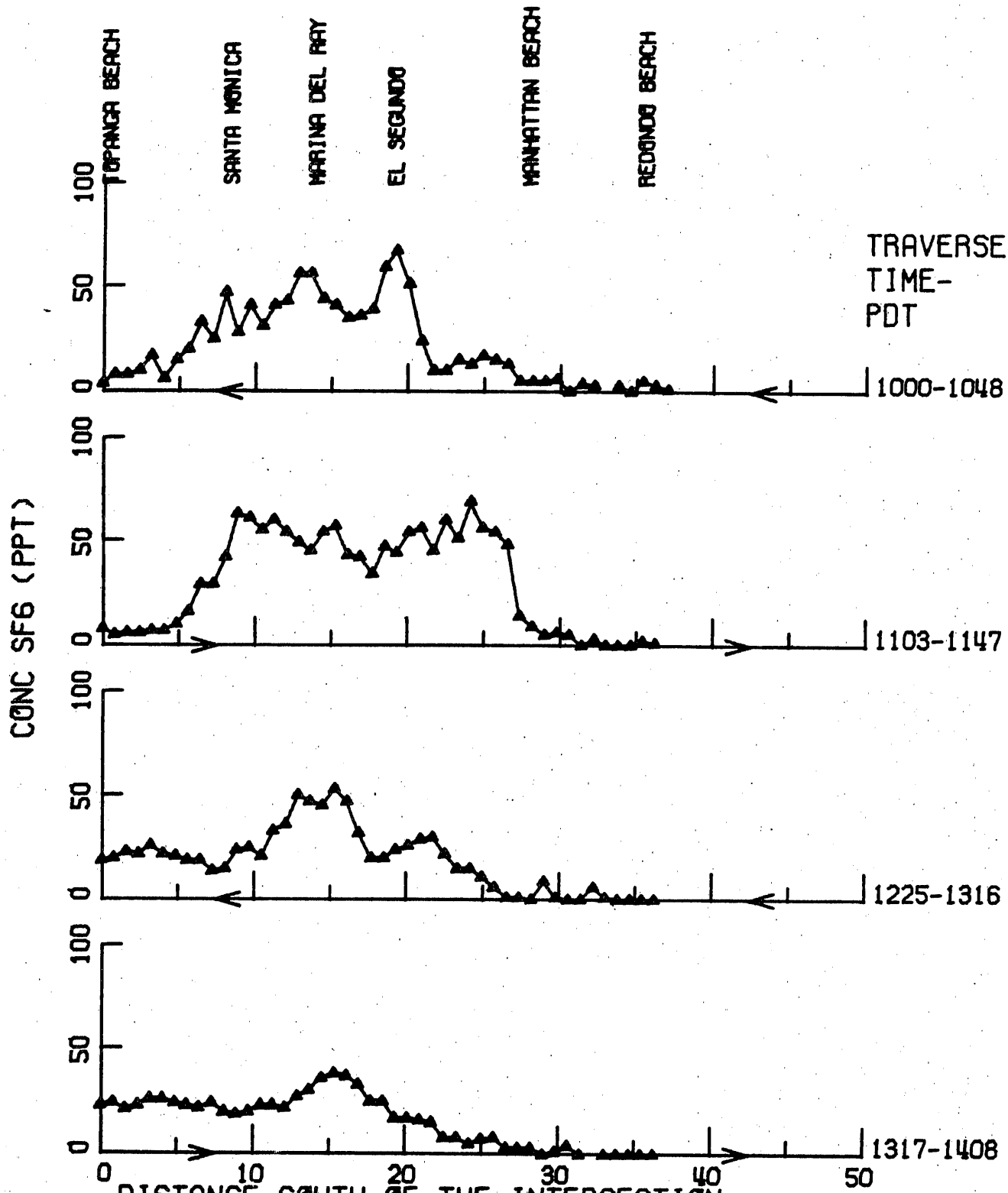
SF6 RELEASED FROM SCE EL SEGUNDO POWER PLANT STACK # 4
SF6 RELEASED AT 5 GRAMS/SECOND (40 POUNDS/HOUR)
FROM 0005-0500 PDT



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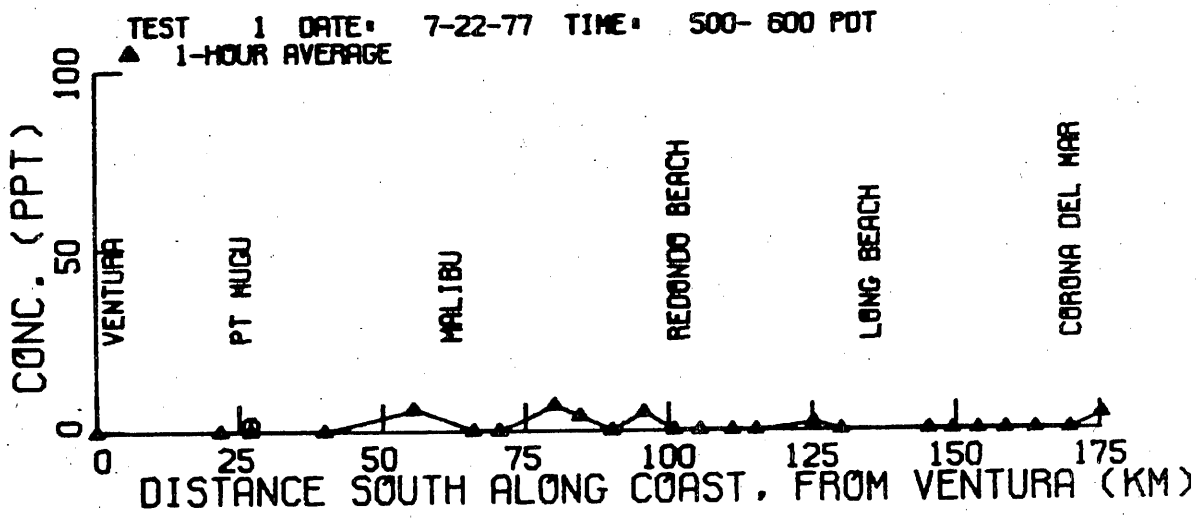
SF6 RELEASED FROM SCE EL SEGUNDO POWER PLANT STACK #4
SF6 RELEASED AT 5 GRAMS/SECOND (40 POUNDS/HOUR)
FROM 0005-0500 PDT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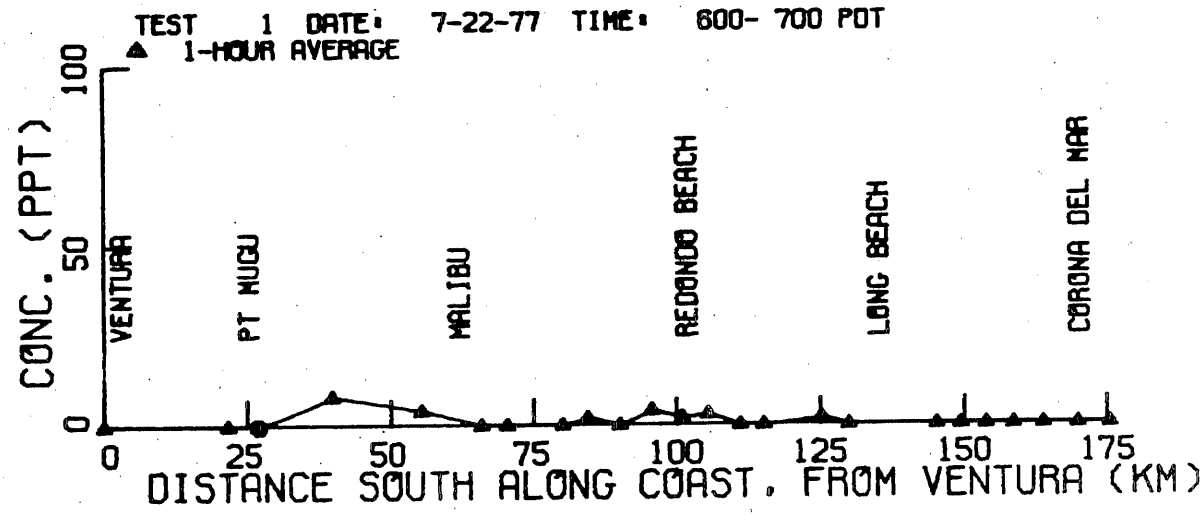
CONC. (PPT)
100
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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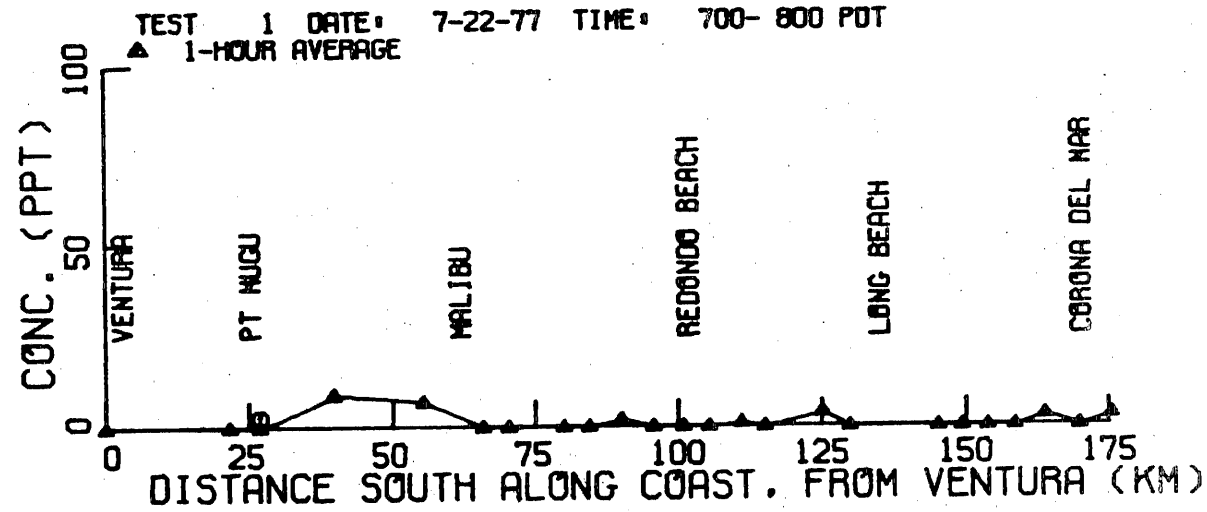
CONC. (PPT)
100
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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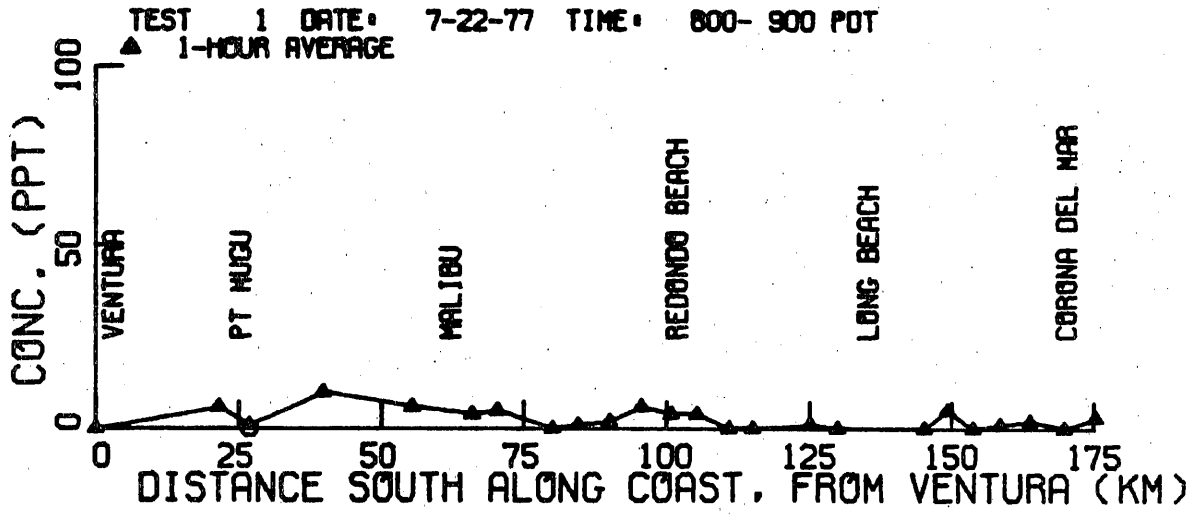
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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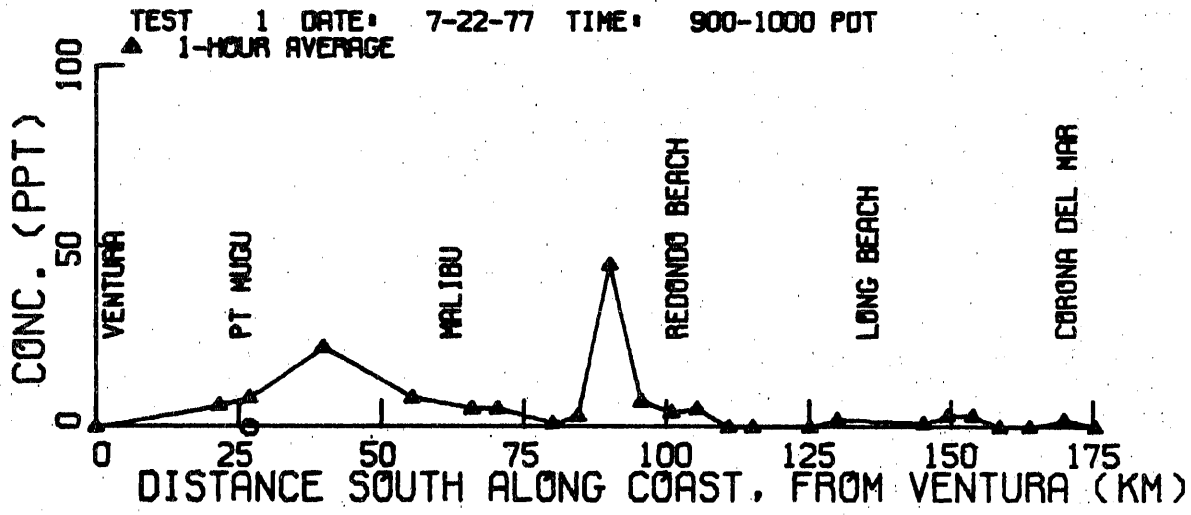
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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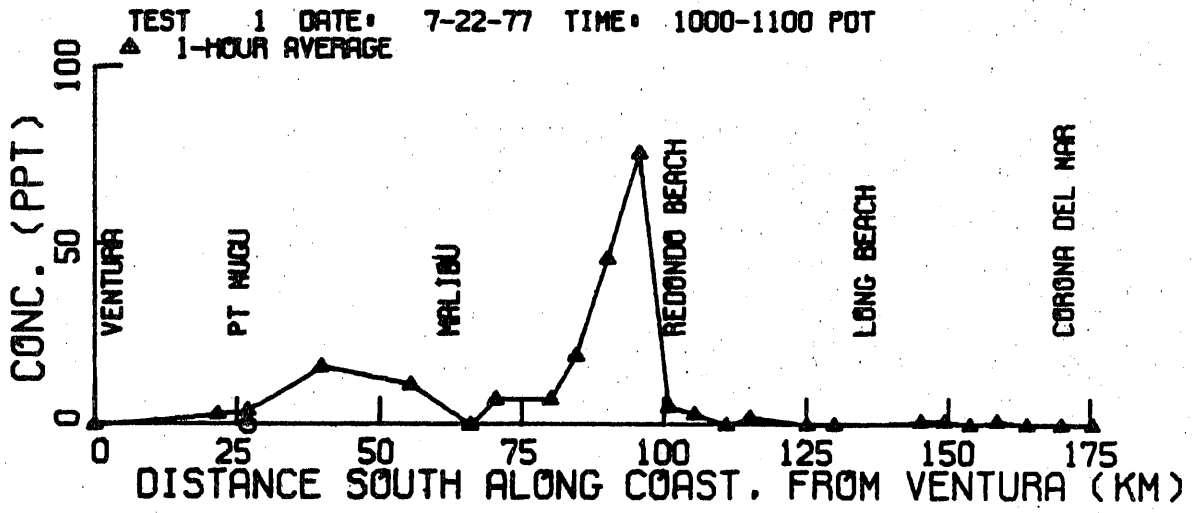
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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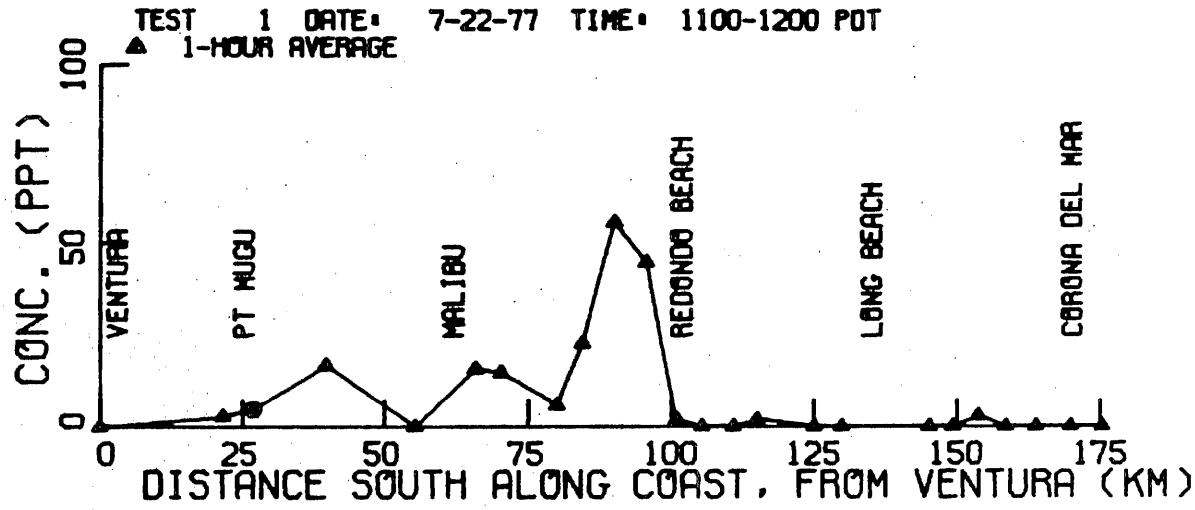
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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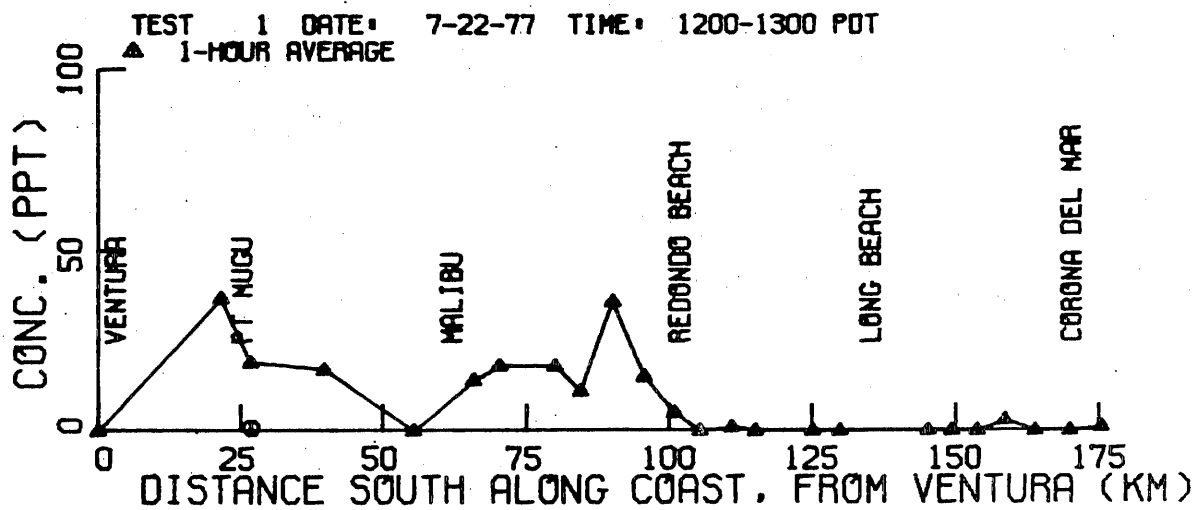
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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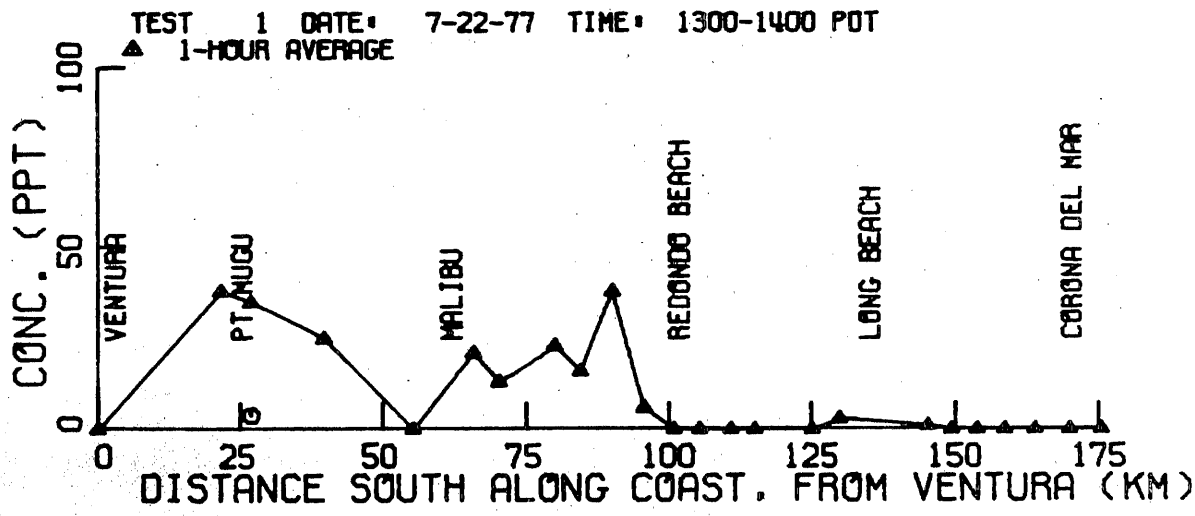
1-HOUR AVERAGE
CONC. (PPT)
100
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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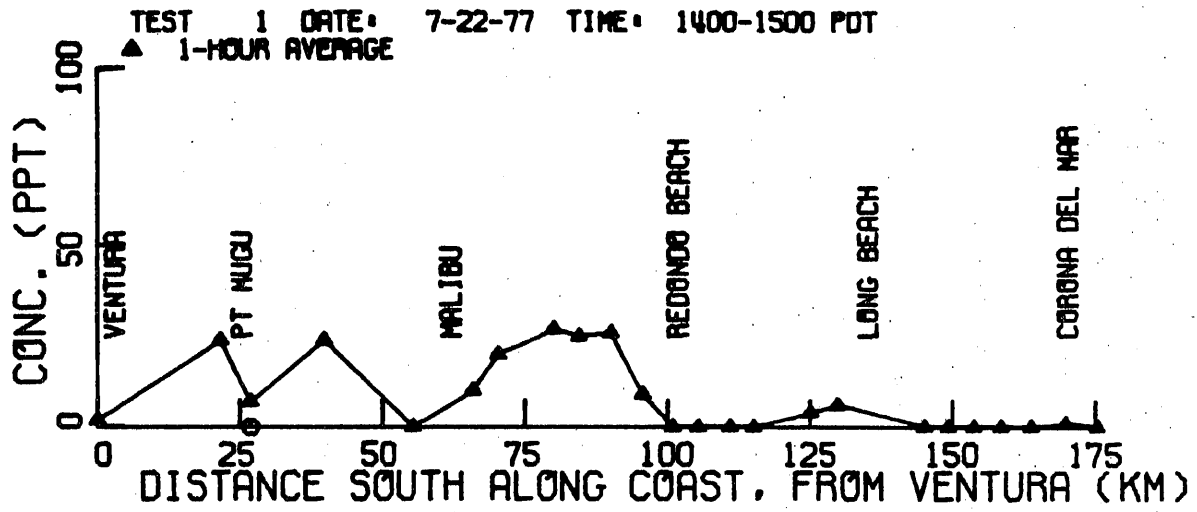
50
0
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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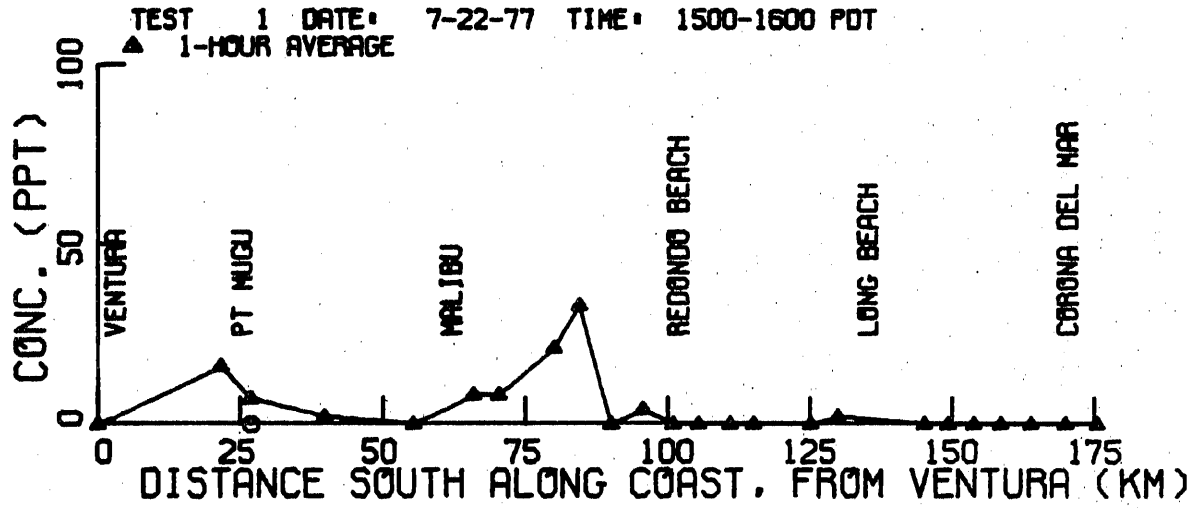
CONC. (PPT)
0
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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CONC. (PPT)
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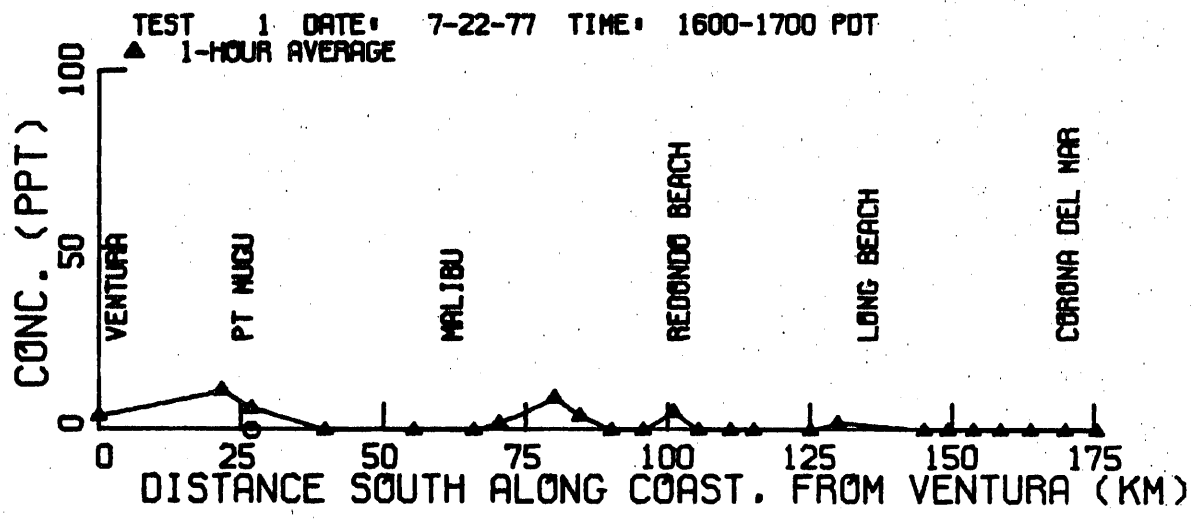
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)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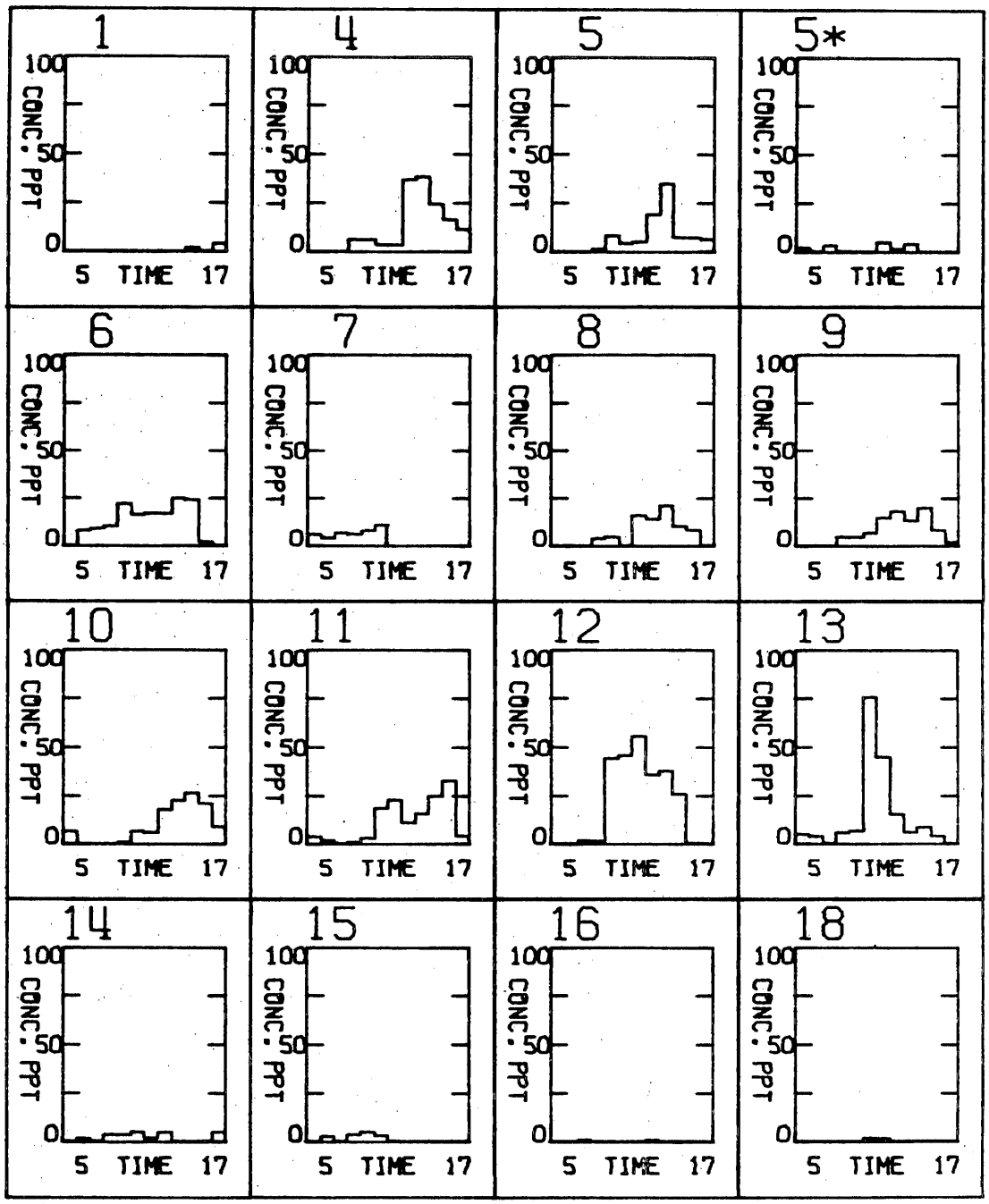
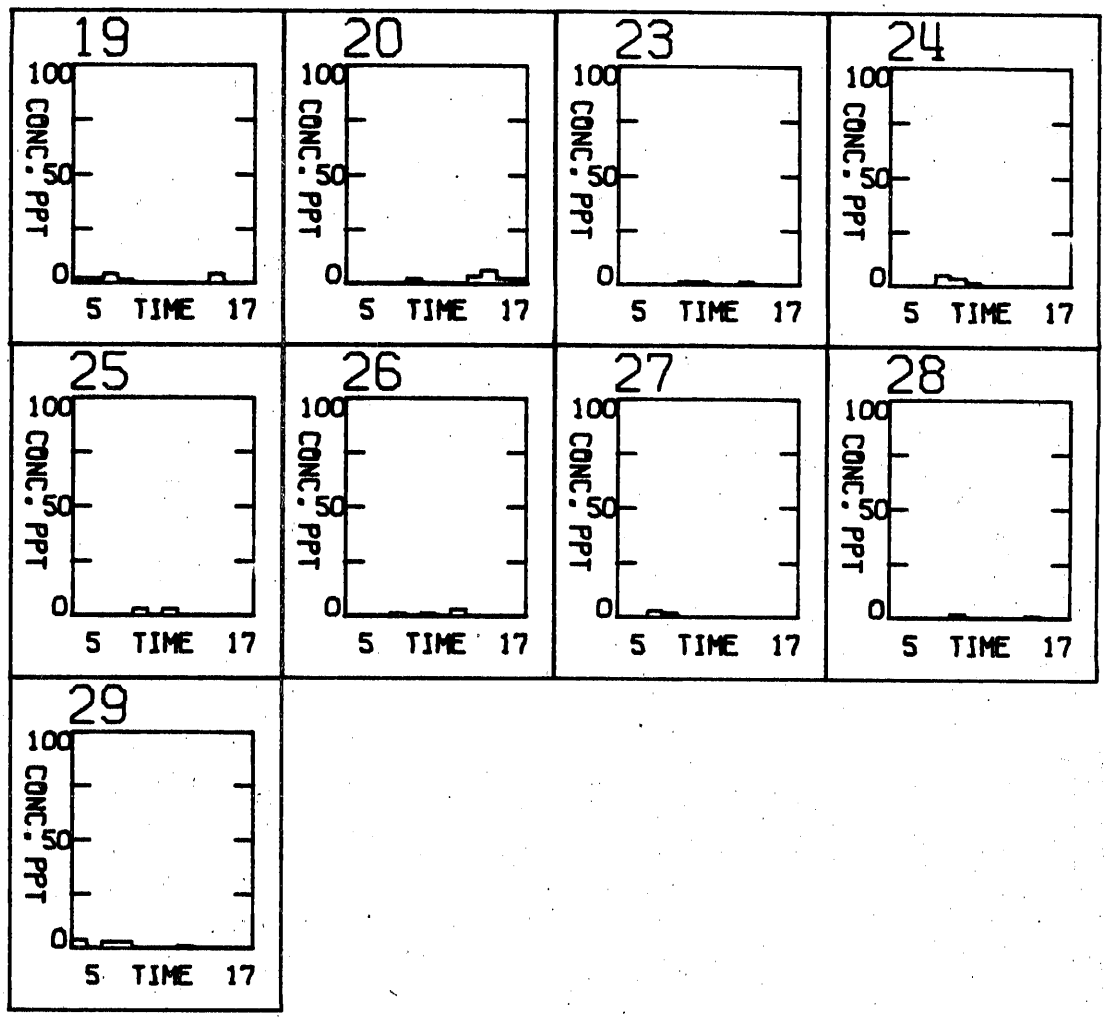
50
100
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)



* INDICATES ELEVATED SITE, LAGUNA PEAK

TEST 1



TEST 1

TABLE 1

ONE-HOUR AVERAGED TRACER CONCENTRATION (PPT)

LOS ANGELES TEST NO. 1 SF6 TRACER

HOUR OF DAY-PACIFIC DAYLIGHT TIME 7-22-77

STATION NUMBER	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
1	0	0	0	0	0	0	0	0	0	2	0	4
4	0	0	0	6	6	3	3	37	38	24	16	11
5	0	0	0	1	8	4	5	19	35	7	7	6
5*	2	0	3	0	0	0	5	1	4	0	0	0
6	0	8	9	10	22	16	17	17	25	24	2	0
7	6	4	7	6	8	11	0	0	0	0	0	0
8	0	0	0	4	5	0	16	14	21	10	8	0
9	0	0	0	5	5	7	15	18	13	20	8	2
10	7	0	0	0	1	7	6	18	23	27	21	9
11	4	2	0	1	3	19	23	11	16	25	33	4
12	0	0	2	2	45	46	56	36	38	26	0	0
13	5	4	0	6	7	76	45	15	6	9	4	0
14	0	2	0	4	4	5	2	5	0	0	0	5
15	0	3	0	4	5	3	0	0	0	0	0	0

**** INDICATES UNAVAILABLE OR FAULTY DATA

* INDICATES ELEVATED SITE, LAGUNA PEAK

TABLE 1 (CONT.)

ONE-HOUR AVERAGED TRACER CONCENTRATION (PPT)

LOS ANGELES TEST NO. 1 SF6 TRACER

HOUR OF DAY-PACIFIC DAYLIGHT TIME 7-22-77

STATION NUMBER	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
16	0	0	1	0	0	0	0	1	0	0	0	0
18	0	0	0	0	0	2	2	0	0	0	0	0
19	2	2	4	1	0	0	0	0	0	4	0	0
20	0	0	0	0	2	0	0	0	3	6	2	2
23	0	0	0	0	1	1	0	0	1	0	0	0
24	0	0	0	5	3	1	0	0	0	0	0	0
25	0	0	0	0	3	0	3	0	0	0	0	0
26	0	0	0	1	0	1	0	3	0	0	0	0
27	0	0	3	2	0	0	0	0	0	0	0	0
28	0	0	0	0	2	0	0	0	0	1	0	0
29	4	0	3	3	0	0	0	1	0	0	0	0

**** INDICATES UNAVAILABLE OR FAULTY DATA

* INDICATES ELEVATED SITE, LAGUNA PEAK

Appendix A2

Auto Traverse Tracer Data

for

Test No. 1

Conducted Starting July 22, 1977

Test: Land Breeze - Sea Breeze, Test 1

February 3, 1982

Conducted: July 22-23, 1977

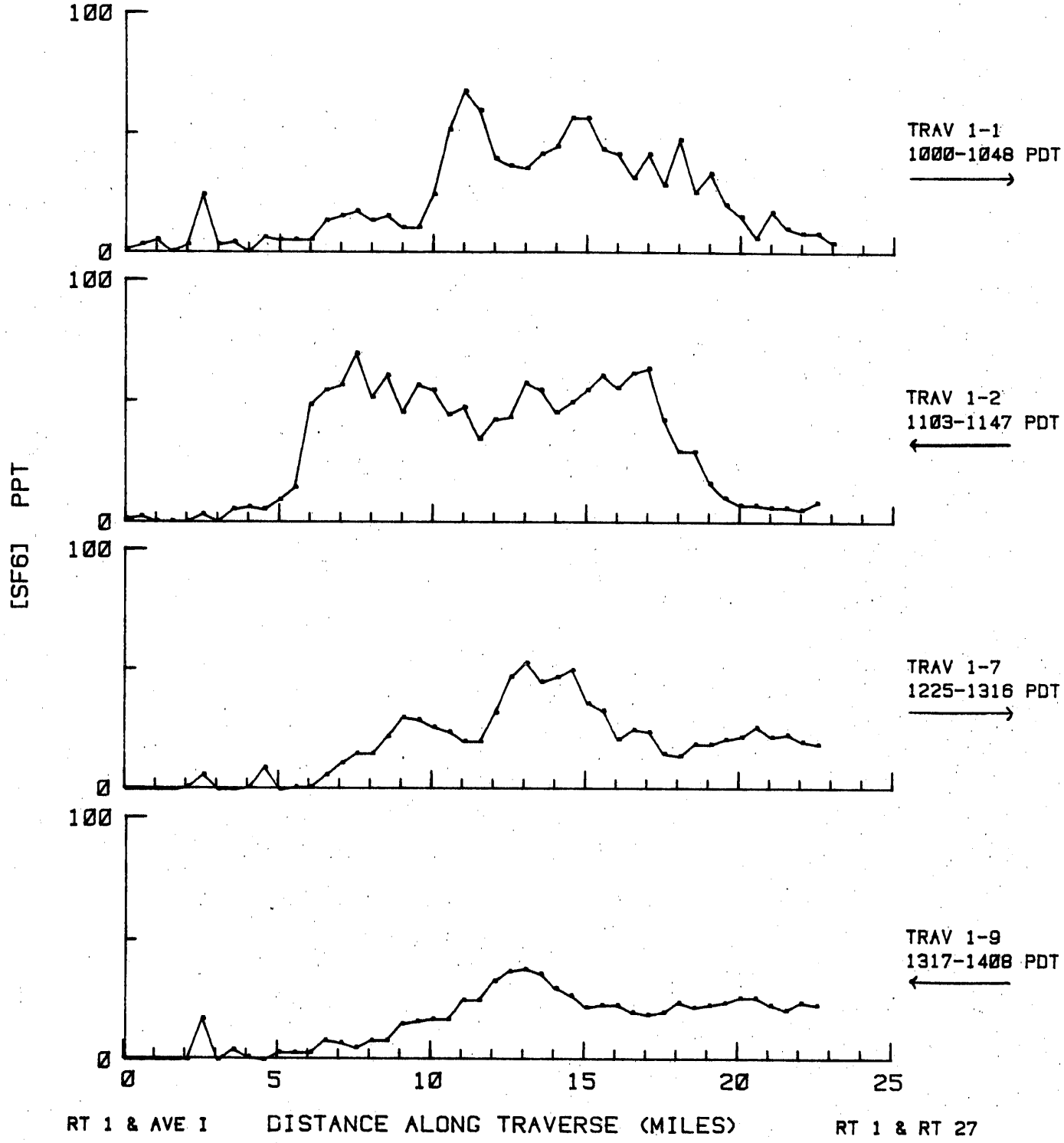
Release Location: El Segundo Power Plant Stack #4

Release Rate: 40 pounds SF_6 per hour (5.0 grams per second)

Release Time: 0005-0500 PDT - July 22, 1977

Traverse Number	Day	Start Time	End Time	Start Location	End Location	Number of Samples	Route
1	1	1000	1048	1 & Ave I	1 & 27	47	N on 1
2	1	1002	1032	405 & Vermont Ave.	405 & 101	28	N on 405
3	1	1045	1121	405 & Burbank Blvd.	405 & Vermont Ave.	29	S on 405
4	1	1103	1147	1 & 27	1 & Ave I	46	S on 1
5	1	1129	1159	405 & Vermont Ave.	405 & Burbank Blvd.	28	N on 405
6	1	1215	1254	405 & Burbank Blvd.	405 & Vermont Ave.	29	S on 405
7	1	1225	1316	1 & Ave I	1 & Ave I	46	N on 1
8	1	1300	1335	405 & Vermont Ave.	405 & Burbank Blvd.	29	N on 405
9	1	1317	1408	1 & 27	1 & Ave I	46	S on 1
10	1	1344	1427	405 & Burbank Blvd	405 & 11	29	S on 405
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

LSB-1 AUTO TRAVERSES ALONG ROUTE 1, 7/22/77

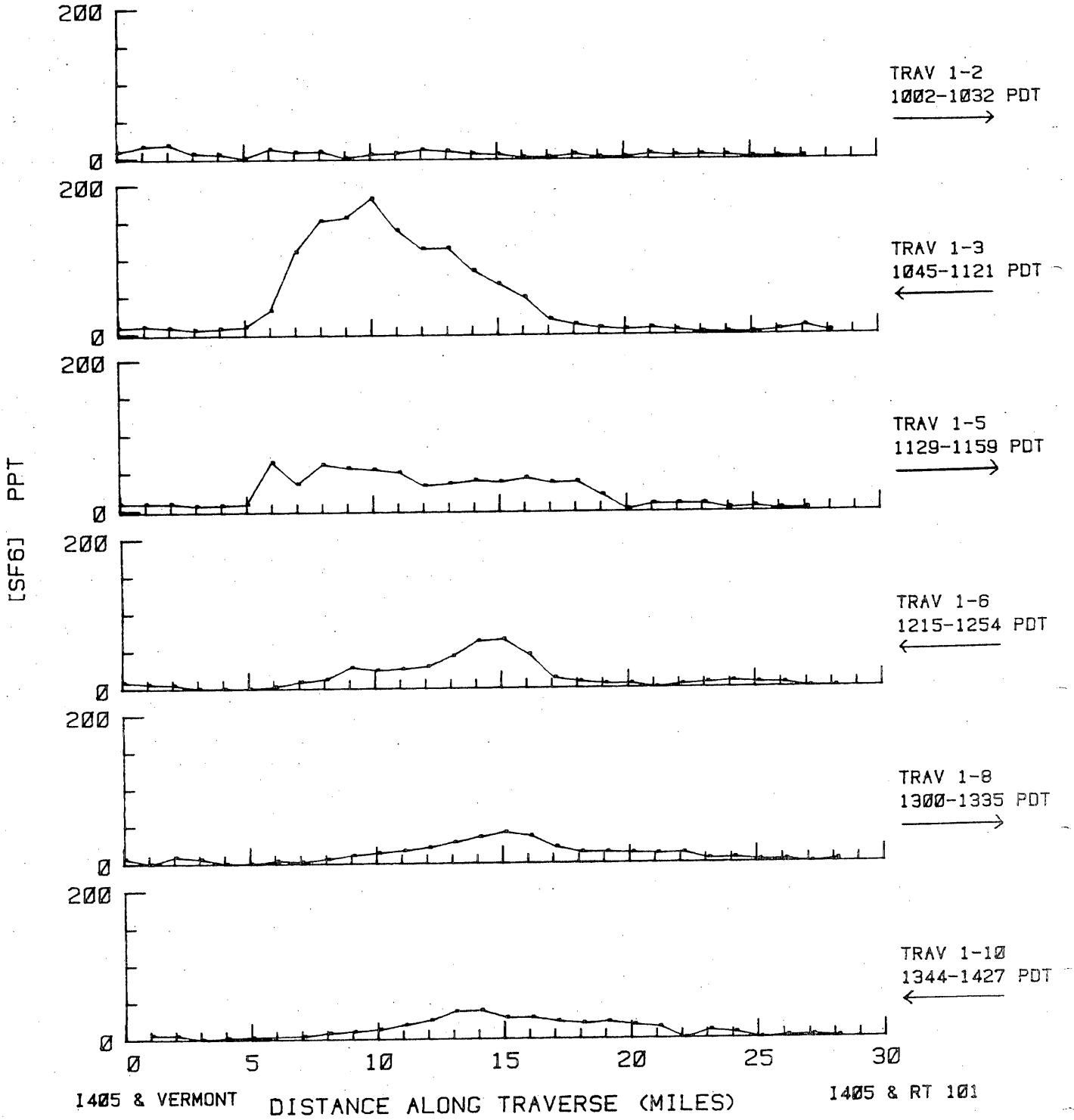


RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO POWER PLANT STACK # 4

RELEASE TIME: 0005-0500 PDT, 7/22/77

⟶ INDICATES DIRECTION OF TRAVERSE

LSB-1 AUTO TRAVERSES ALONG I405, 7/22/77



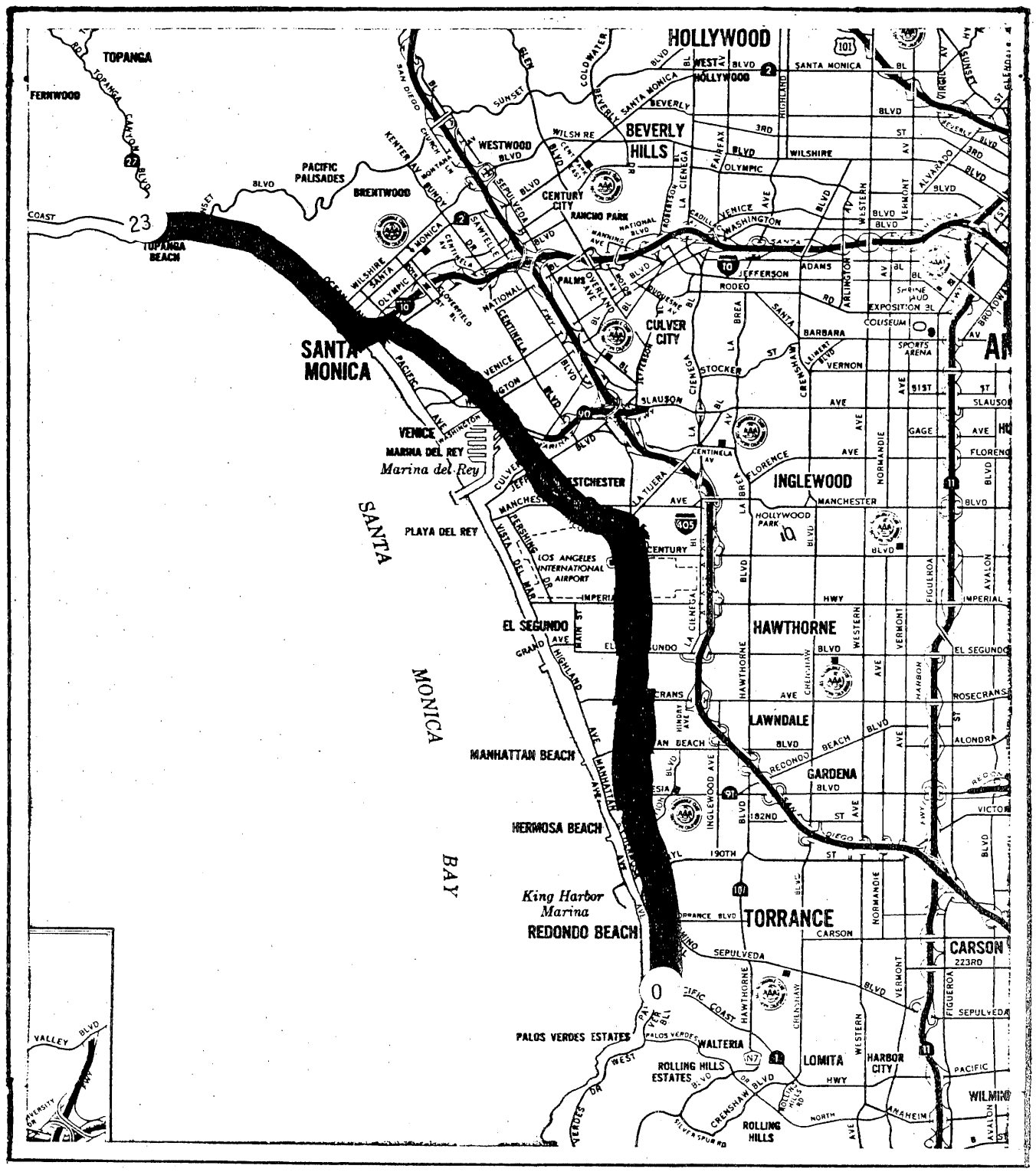
RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO POWER PLANT STACK # 4

RELEASE TIME: 0005-0500 PDT, 7/22/77

⟶ INDICATES DIRECTION OF TRAVERSE

LSB-1

1-1



THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-1 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1000 PDT, 7/22/77 AT 1 & AVE I
TRAVERSE END: 1048 PDT AT 1 & 27
TRAVERSE ROUTE: N ON HWY 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	1	12.5	36
.5	3	13	35
1	5	13.5	41
1.5	0	14	44
2	3	14.5	56
2.5	24	15	56
3	3	15.5	43
3.5	4	16	41
4	0	16.5	31
4.5	6	17	41
5	5	17.5	28
5.5	5	18	47
6	5	18.5	25
6.5	13	19	33
7	15	19.5	20
7.5	17	20	15
8	13	20.5	6
8.5	15	21	17
9	10	21.5	10
9.5	10	22	8
10	24	22.5	8
10.5	51	23	4
11	67		
11.5	59		
12	39		

LSB1

1-2

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-2 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1002 PDT, 7/22/77 AT 405 & VERMONT AVE
TRAVERSE END: 1032 PDT AT 405 & 101
TRAVERSE ROUTE: N ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	9	25	0
1	16	26	0
2	18	27	0
3	6		
4	5		
5	0		
6	12		
7	8		
8	9		
9	0		
10	5		
11	6		
12	11		
13	9		
14	5		
15	4		
16	0		
17	0		
18	4		
19	0		
20	0		
21	4		
22	2		
23	3		
24	2		

LSB-1

1-3

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-3 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

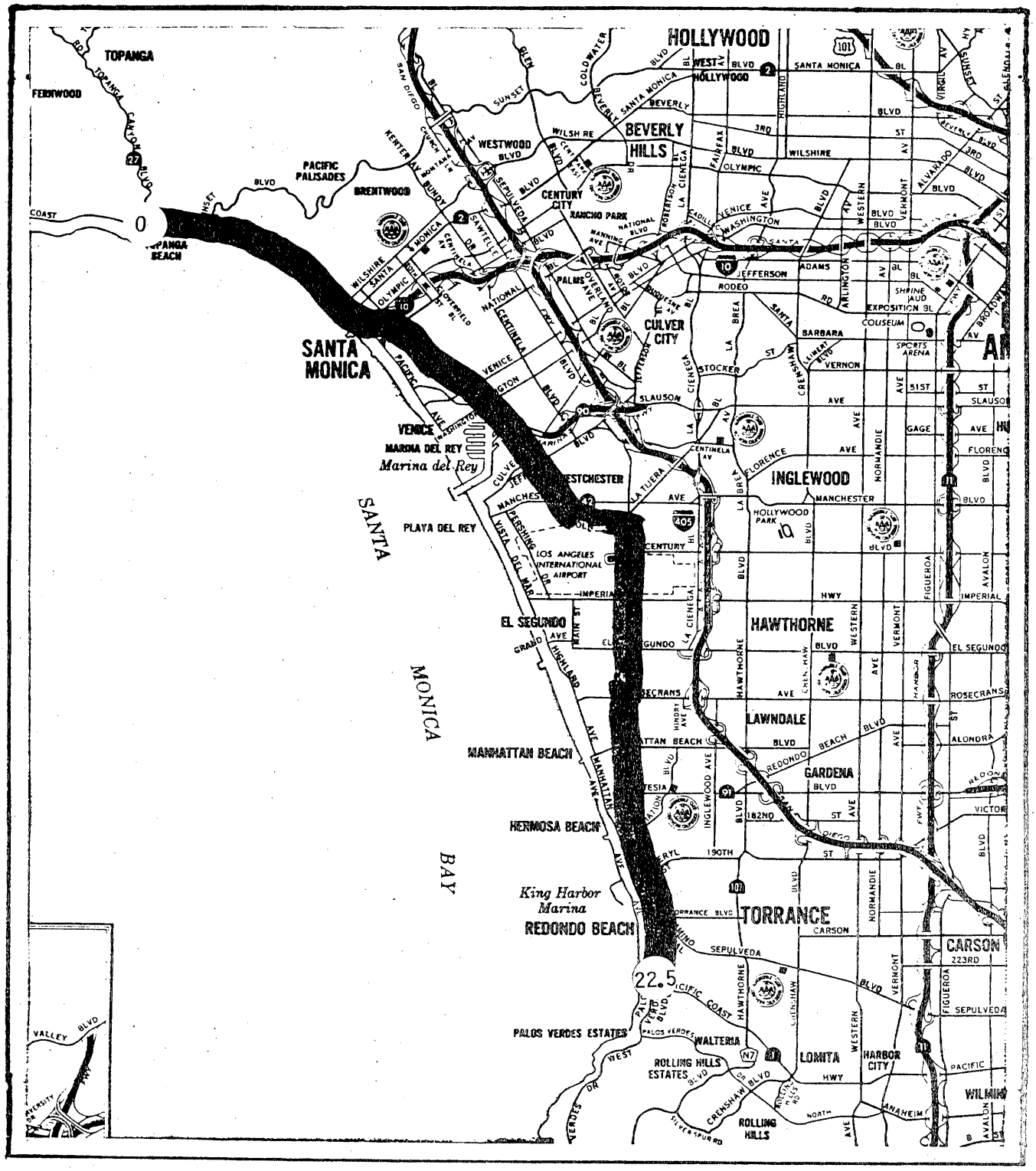
TRAVERSE START: 1045 PDT, 7/22/77 AT 405 & BURBANK BLVD
TRAVERSE END: 1121 PDT AT 405 AND VERMONT AVE
TRAVERSE ROUTE: S ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	1	25	5
1	8	26	8
2	3	27	10
3	0	28	8
4	0		
5	0		
6	3		
7	6		
8	4		
9	6		
10	11		
11	18		
12	48		
13	66		
14	84		
15	115		
16	114		
17	139		
18	182		
19	156		
20	152		
21	110		
22	31		
23	9		
24	7		

LSB-1

1-4



THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-4 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1103 PDT, 7/22/77 AT 1 & 27
TRAVERSE END: 1147 PDT AT 1 & AVE I
TRAVERSE ROUTE: S ON HWY 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	8	12.5	54
.5	5	13	56
1	6	13.5	45
1.5	6	14	60
2	7	14.5	51
2.5	7	15	69
3	10	15.5	56
3.5	16	16	54
4	29	16.5	48
4.5	29	17	14
5	42	17.5	9
5.5	63	18	5
6	61	18.5	6
6.5	55	19	5
7	60	19.5	0
7.5	54	20	3
8	49	20.5	0
8.5	45	21	0
9	54	21.5	0
9.5	57	22	2
10	43	22.5	1
10.5	42		
11	34		
11.5	47		
12	44		

LSB-1

1-5

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-5 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1129 PDT, 7/22/77 AT 405 & VERMONT AVE
TRAVERSE END: 1159 PDT AT 405 & BURBANK BLVD
TRAVERSE ROUTE: N ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	9	25	3
1	9	26	0
2	9	27	0
3	6		
4	7		
5	8		
6	64		
7	35		
8	61		
9	56		
10	54		
11	50		
12	32		
13	35		
14	39		
15	37		
16	42		
17	36		
18	37		
19	19		
20	0		
21	7		
22	7		
23	7		
24	1		

LSB-1

1-6

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-6 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

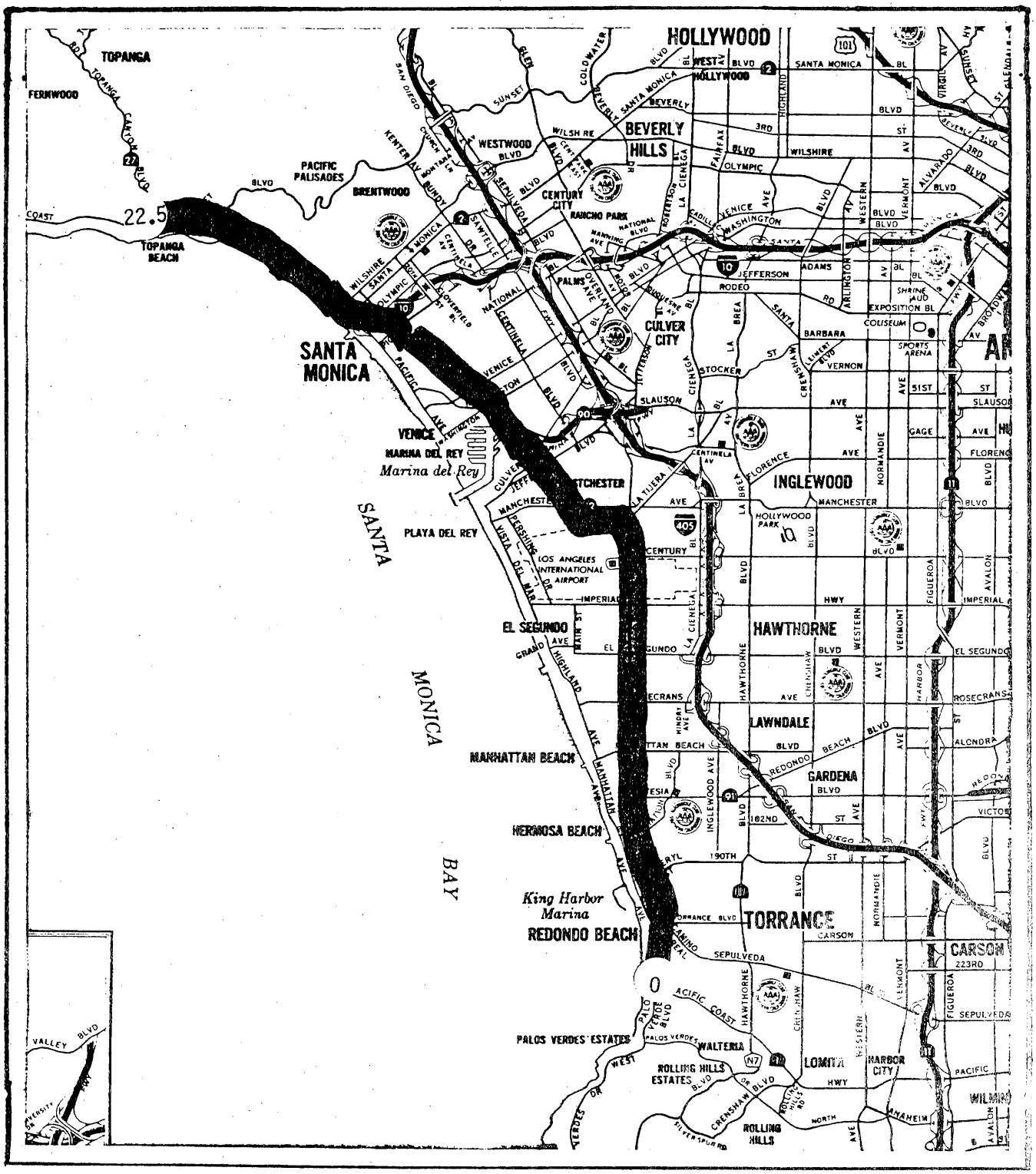
TRAVERSE START: 1215 PDT, 7/22/77 AT 405 & BURBANK BLVD
TRAVERSE END: 1254 PDT AT 405 & VERMONT AVE
TRAVERSE ROUTE: S ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	25	0
1	0	26	5
2	5	27	6
3	6	28	9
4	8		
5	6		
6	4		
7	0		
8	5		
9	5		
10	8		
11	13		
12	45		
13	65		
14	63		
15	43		
16	29		
17	26		
18	24		
19	28		
20	12		
21	9		
22	3		
23	0		
24	0		

LSB-1

1-7



THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-7 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1225 PDT, 7/22/77 AT 1 & AVE I
TRAVERSE END: 1316 PDT AT 1 & 27
TRAVERSE ROUTE: N ON HWY 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	12.5	47
.5	0	13	53
1	0	13.5	45
1.5	0	14	47
2	1	14.5	50
2.5	6	15	36
3	0	15.5	33
3.5	0	16	21
4	1	16.5	25
4.5	9	17	24
5	0	17.5	15
5.5	1	18	14
6	1	18.5	19
6.5	6	19	19
7	11	19.5	21
7.5	15	20	22
8	15	20.5	26
8.5	22	21	22
9	30	21.5	23
9.5	29	22	20
10	26	22.5	19
10.5	24		
11	20		
11.5	20		
12	32		

LSB-1

1-3

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-8 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1300 PDT, 7/22/77 AT 405 & VERMONT AVE
TRAVERSE END: 1335 PDT AT 405 & BURBANK BLVD
TRAVERSE ROUTE: N ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	7	25	3
1	0	26	3
2	9	27	0
3	6	28	3
4	0		
5	0		
6	4		
7	2		
8	6		
9	11		
10	14		
11	17		
12	21		
13	28		
14	35		
15	41		
16	36		
17	21		
18	14		
19	14		
20	13		
21	12		
22	13		
23	5		
24	6		

LSB-1

1-9

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-9 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

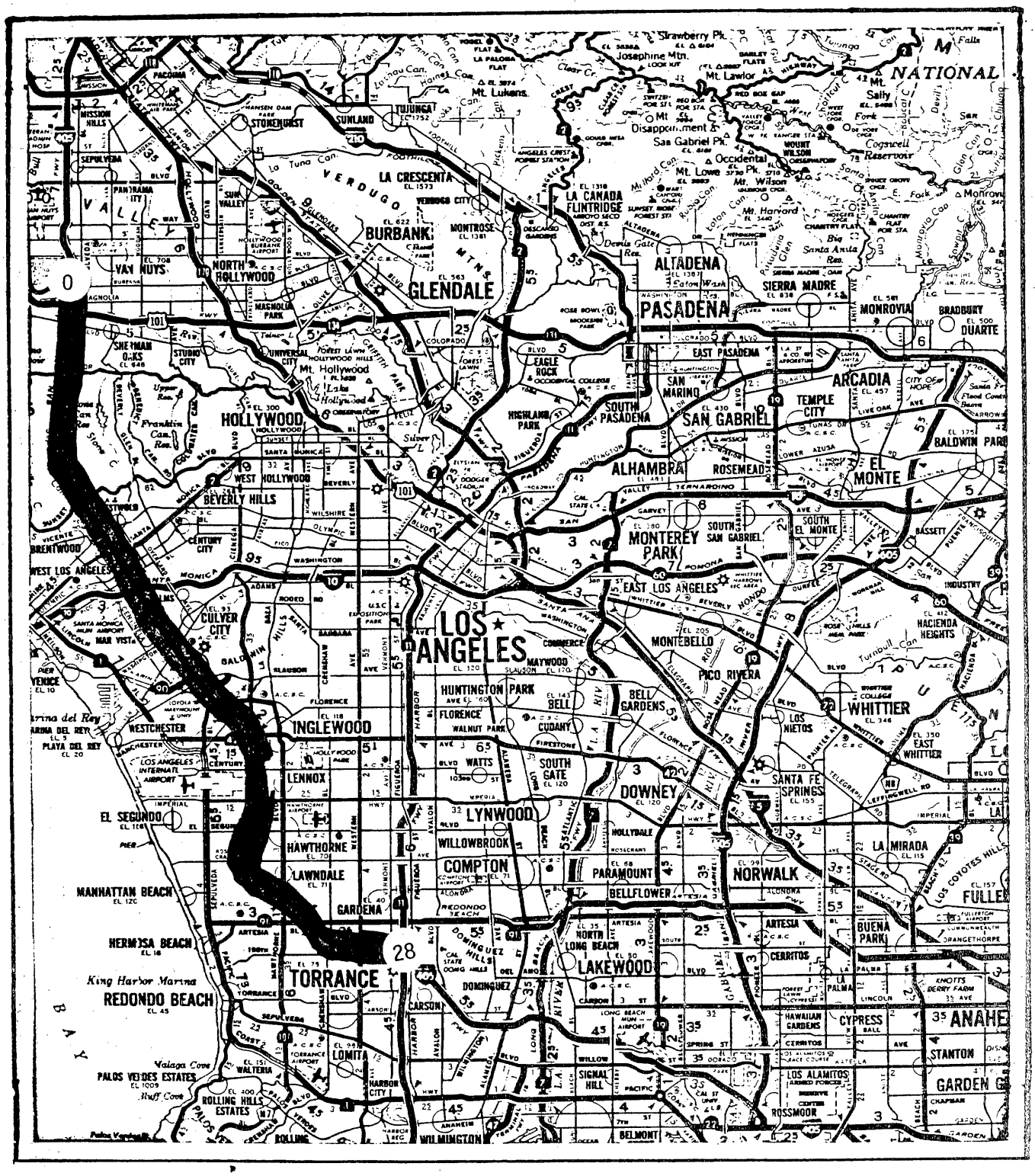
TRAVERSE START: 1317 PDT, 7/22/77 AT 1 & 27
TRAVERSE END: 1408 PDT AT 1 & AVE I
TRAVERSE ROUTE: S ON HWY 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	23	12.5	17
.5	24	13	16
1	21	13.5	15
1.5	23	14	8
2	26	14.5	8
2.5	26	15	5
3	24	15.5	7
3.5	23	16	8
4	22	16.5	3
4.5	24	17	3
5	20	17.5	3
5.5	19	18	0
6	20	18.5	1
6.5	23	19	4
7	23	19.5	0
7.5	22	20	17
8	27	20.5	0
8.5	30	21	0
9	36	21.5	0
9.5	38	22	0
10	37	22.5	0
10.5	33		
11	25		
11.5	25		
12	17		

LSB-1

1-10



THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-10 TRAV LSB-1

RELEASE: 40 LBS SF6/HR (5.0 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 1344 PDT, 7/22/77 AT 405 & BURBANK BLVD
TRAVERSE END: 1427 PDT AT 405 & 11
TRAVERSE ROUTE: S ON HWY 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	1	25	0
1	3	26	5
2	2	27	6
3	0	28	*
4	7		
5	10		
6	0		
7	15		
8	18		
9	22		
10	20		
11	23		
12	28		
13	28		
14	38		
15	37		
16	25		
17	19		
18	13		
19	10		
20	8		
21	4		
22	*		
23	3		
24	2		

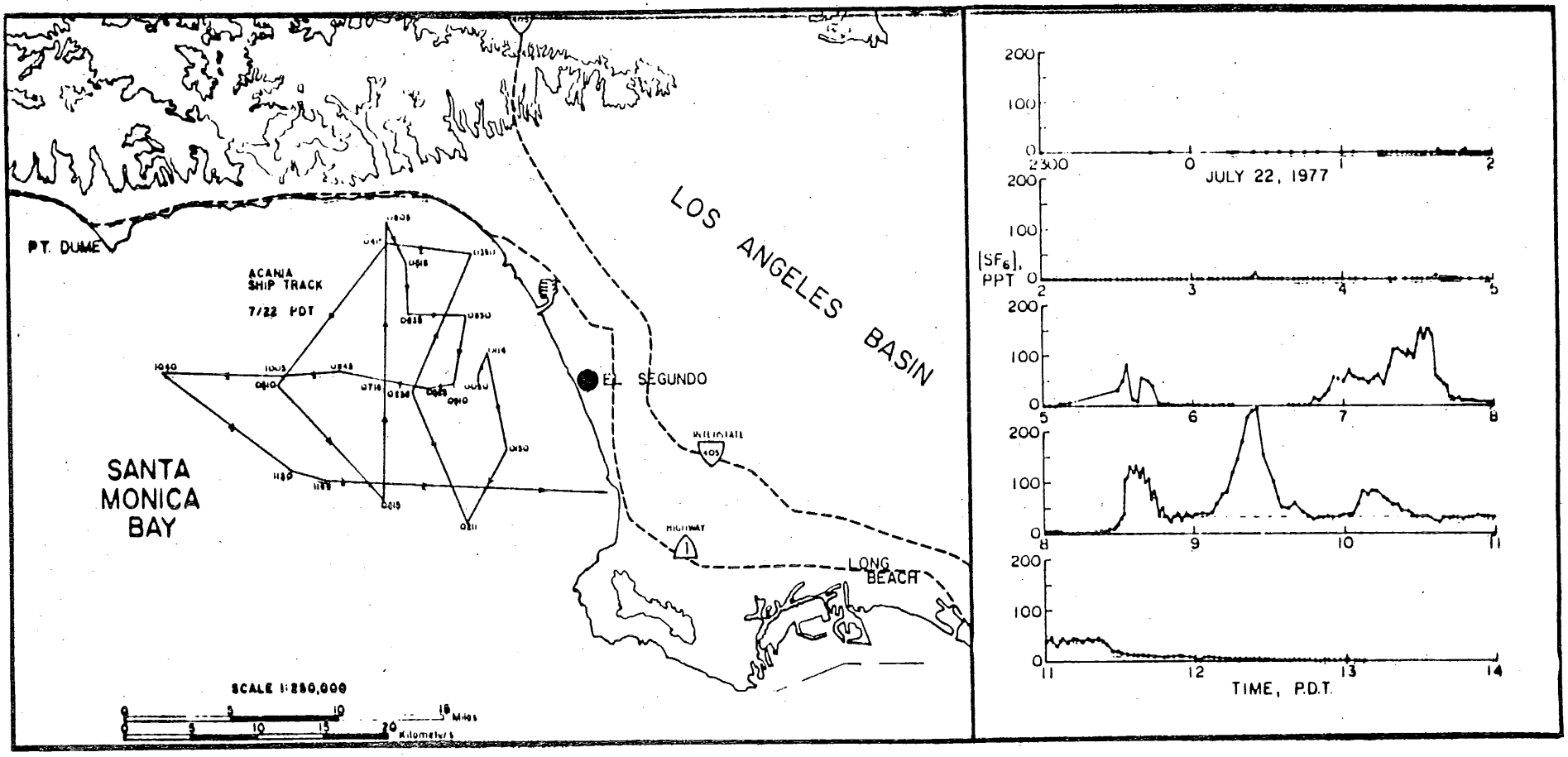
Appendix A3

Boat Traverse Tracer Data

for

Test No. 1

Conducted Starting July 22, 1977


PT. DUME
ACANIA
SHIP TRACK
7/22 PDT
SANTA
MONICA
BAY
EL SEGUNDO
LOS ANGELES BASIN
INTERSTATE
405
HIGHWAY
1
LONG
BEACH
SCALE 1:250,000
Miles
Kilometers
200
100
0
2300
0
1
2
JULY 22, 1977
[SF6],
PPT
3
4
5
6
7
8
9
10
11
12
13
14
TIME, P.D.T.

1-1 BOAT TRAV LSB-1

RELEASE: 5 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 0050 PDT, 7/22/77 AT PT 1
TRAVERSE END: 1257 PDT AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]
0050	0	0136	0	0201	0	0236	0	0301	0	0337	0
0055	0	0137	0	0202	1	0237	0	0302	1	0338	0
0100	0	0138	0	0203	0	0238	0	0303	1	0339	0
0105	0	0139	7	0204	0	0239	0	0304	0	0340	0
0115	0	0140	1	0205	0	0240	0	0305	0	0341	0
0116	0	0141	0	0206	0	0241	0	0306	0	0342	0
0117	0	0142	1	0207	0	0242	0	0307	1	0343	0
0118	0	0143	0	0208	0	0243	0	0308	0	0344	0
0119	0	0144	5	0209	0	0244	0	0309	0	0345	0
0120	0	0145	5	0210	0	0245	0	0310	0	0346	1
0121	0	0146	0	0211	0	0246	0	0311	0	0347	0
0122	0	0147	4	0222	0	0247	0	0312	0	0348	0
0123	0	0148	8	0223	0	0248	0	0313	0	0349	0
0124	0	0149	9	0224	0	0249	0	0314	1	0350	1
0125	0	0150	0	0225	0	0250	0	0315	0	0351	0
0126	0	0151	0	0226	0	0251	0	0316	0	0353	0
0127	0	0152	0	0227	0	0252	0	0317	0	0355	0
0128	0	0153	0	0228	0	0253	0	0318	0	0357	0
0129	0	0154	0	0229	0	0254	0	0319	0	0359	1
0130	0	0155	0	0230	0	0255	3	0320	4	0401	4
0131	0	0156	0	0231	0	0256	0	0321	3	0403	1
0132	0	0157	0	0232	0	0257	3	0322	4	0405	5
0133	0	0158	0	0233	0	0258	0	0323	6	0409	4
0134	0	0159	0	0234	0	0259	0	0324	9	0419	2
0135	0	0200	0	0235	0	0300	0	0325	14	0421	0

1-1 BOAT TRAV LSB-1

RELEASE: 5 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 0050 PDT, 7/22/77 AT PT 1
TRAVERSE END: 1257 PDT AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]
0423	0	0530	31	0640	0	0727	102	0752	6	0817	4
0425	3	0532	49	0642	1	0728	95	0753	7	0818	0
0427	0	0534	80	0644	0	0729	123	0754	7	0819	0
0429	3	0536	13	0646	0	0730	147	0755	8	0820	0
0431	0	0538	6	0648	15	0731	155	0756	6	0821	6
0433	0	0540	56	0650	12	0732	132	0757	6	0822	0
0435	4	0542	50	0652	22	0733	152	0758	4	0823	7
0437	11	0544	38	0654	32	0734	152	0759	5	0824	2
0439	6	0546	2	0656	58	0735	141	0800	6	0825	5
0441	5	0548	0	0658	54	0736	73	0801	6	0826	0
0443	6	0550	5	0700	47	0737	57	0802	6	0827	8
0445	0	0552	0	0702	71	0738	56	0803	7	0828	13
0447	0	0554	0	0704	59	0739	50	0804	5	0829	14
0449	0	0556	0	0706	52	0740	42	0805	5	0830	18
0451	1	0558	2	0708	52	0741	36	0806	5	0831	31
0453	0	0600	0	0710	45	0742	16	0807	2	0832	41
0455	3	0602	1	0712	55	0743	18	0808	0	0833	106
0457	4	0604	0	0714	63	0744	12	0809	3	0834	110
0459	0	0606	0	0716	44	0745	13	0810	0	0835	130
0501	0	0608	0	0718	76	0746	15	0811	0	0836	118
0503	0	0610	0	0720	114	0747	8	0812	2	0837	134
0505	0	0612	0	0722	116	0748	8	0813	5	0838	111
0507	8	0614	0	0724	105	0749	8	0814	4	0839	121
0509	6	0616	0	0725	102	0750	8	0815	4	0840	129
0511	8	0638	3	0726	111	0751	8	0816	3	0841	103

1-1 BOAT TRAV LSB-1

RELEASE: 5 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 0005-0500 PDT, 7/22/77

TRAVERSE START: 0050 PDT, 7/22/77 AT PT 1
TRAVERSE END: 1257 PDT AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]
0842	108	0915	121	1005	56	1055	34	1145	9	1235	0
0843	64	0917	147	1007	82	1057	35	1147	7	1237	0
0844	86	0919	179	1009	76	1059	27	1149	7	1239	0
0845	70	0921	226	1011	81	1101	39	1151	4	1241	0
0846	33	0923	244	1013	81	1103	47	1153	7	1243	0
0847	50	0925	251	1015	68	1105	31	1155	7	1245	0
0848	34	0927	153	1017	63	1107	46	1157	6	1247	1
0849	34	0929	131	1019	56	1109	40	1159	8	1249	0
0850	27	0931	101	1021	56	1111	44	1201	7	1251	0
0851	22	0933	68	1023	46	1113	45	1203	6	1253	0
0852	32	0935	50	1025	44	1115	37	1205	8	1255	0
0853	41	0937	50	1027	36	1117	47	1207	7	1257	0
0854	37	0939	63	1029	32	1119	43	1209	4		
0855	26	0941	0	1031	33	1121	48	1211	5		
0856	28	0943	44	1033	31	1123	37	1213	5		
0857	40	0945	36	1035	26	1125	32	1215	3		
0858	35	0947	27	1037	23	1127	19	1217	0		
0859	33	0949	31	1039	29	1129	18	1219	2		
0901	35	0951	34	1041	29	1131	15	1221	2		
0903	38	0953	34	1043	32	1133	13	1223	0		
0905	37	0955	33	1045	28	1135	13	1225	0		
0907	41	0957	37	1047	27	1137	8	1227	1		
0909	58	0959	36	1049	33	1139	10	1229	0		
0911	76	1001	40	1051	32	1141	8	1231	0		
0913	79	1003	37	1053	35	1143	11	1233	0		

Appendix A4

Mass Balances

for

Test 1

Conducted Starting July 22, 1977

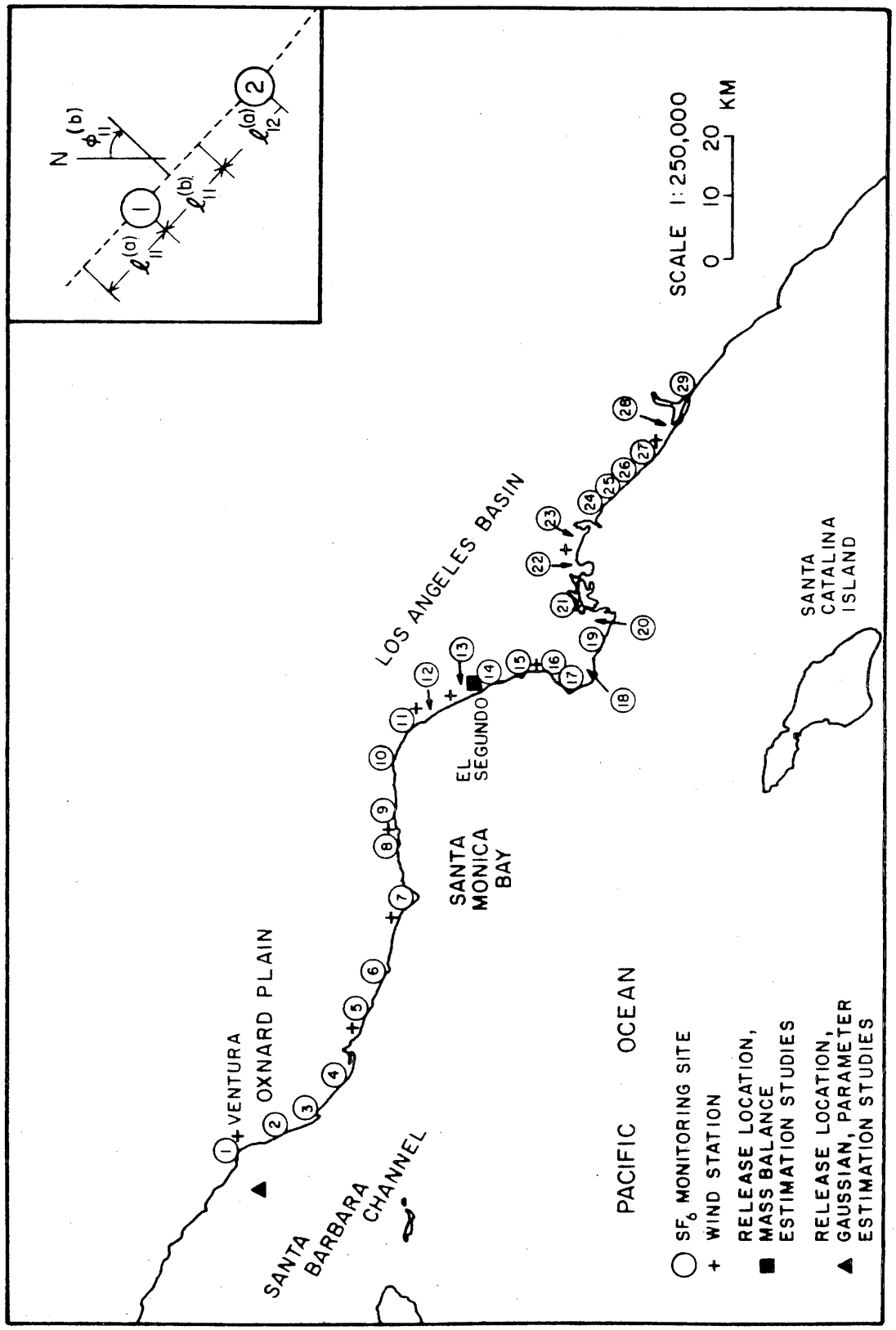

N
SCALE 1:250,000
0 10 20 KM
LOS ANGELES BASIN
SANTA CATALINA ISLAND
EL SEGUNDO
SANTA MONICA BAY
VENTURA
OXNARD PLAIN
SANTA BARBARA CHANNEL
PACIFIC OCEAN
SF6 MONITORING SITE
WIND STATION
RELEASE LOCATION, MASS BALANCE ESTIMATION STUDIES
RELEASE LOCATION, GAUSSIAN, PARAMETER ESTIMATION STUDIES

Figure 1

* SAMPLING POINT	SEGMENT AL(KM)	SEGMENT BL(KM)	SEGMENT NORMAL AT (DEG)	SEGMENT NORMAL BT (DEG)
1	12.8	12.8	51	51
4	12.8	3.7	51	20
5	3.7	3.9	20	20
6	3.9	8.7	20	23
7	8.7	5.4	23	340
8	5.4	2.5	340	352
9	2.5	3.6	352	356
10	3.6	2.7	356	26
11	2.7	2.3	26	50
12	2.3	3.0	50	63
13	3.0	3.0	63	66
14	3.0	1.7	66	73
15	1.7	3.2	73	102
16	3.2	2.9	102	69
18	2.9	3.2	69	16
19	3.2	2.2	16	356
20	2.2	5.8	356	346
23	5.8	1.5	346	32
24	1.5	3.0	32	35
25	3.0	1.7	35	48
26	1.7	2.4	48	45
27	2.4	2.7	45	38
28	2.7	1.6	38	32
29	1.6	1.6	32	32

* SEE FIGURE 1

HOUR: 500- 600 INVERSION HEIGHT: 183 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	.4	30	0
4	.4	40	0
5	.4	40	0
6	.4	40	0
7	.4	60	6
8	.4	60	0
9	.4	60	0
10	.4	60	7
11	.9	60	4
12	.9	60	0
13	2.7	90	5
14	1.3	130	0
15	1.3	130	0
16	1.3	130	0
18	1.3	130	0
19	.9	150	2
20	.9	150	0
23	.9	150	0
24	.9	150	0
25	.9	150	0
26	2.2	90	0
27	2.2	90	0
28	2.2	90	0
29	2.2	90	4

VENTURA COUNTY	0 GRAMS/HOUR	0 %
LOS ANGELES COUNTY	-450 GRAMS/HOUR	88 %
ORANGE COUNTY	-61 GRAMS/HOUR	12 %
TOTAL MASS FLOW	-511 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 600- 700 INVERSION HEIGHT: 233 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	.9	360	0
4	1.3	40	0
5	1.3	40	0
6	1.3	40	8
7	.4	40	4
8	.4	60	0
9	.4	60	0
10	.4	60	0
11	.4	360	2
12	.4	360	0
13	2.2	90	4
14	1.3	150	2
15	1.3	150	3
16	1.3	150	0
18	1.3	150	0
19	.9	180	2
20	.9	180	0
23	.9	180	0
24	.9	180	0
25	.9	180	0
26	1.3	130	0
27	1.3	130	0
28	1.3	130	0
29	1.3	130	0

VENTURA COUNTY	-404 GRAMS/HOUR	40 %
LOS ANGELES COUNTY	-595 GRAMS/HOUR	60 %
ORANGE COUNTY	0 GRAMS/HOUR	0 %
TOTAL MASS FLOW	-999 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 700- 800 INVERSION HEIGHT: 247 METERS

*SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.3	260	0
4	.9	340	0
5	.9	340	0
6	.9	340	9
7	.4	310	7
8	.9	240	0
9	.9	240	0
10	.9	240	0
11	.9	290	0
12	.9	290	2
13	2.2	90	0
14	1.3	200	0
15	1.3	200	0
16	1.3	200	1
18	1.3	200	0
19	.9	270	4
20	.9	270	0
23	.9	270	0
24	.9	270	0
25	.9	270	0
26	1.3	240	0
27	1.3	240	3
28	1.3	240	0
29	1.3	240	3

VENTURA COUNTY	-263 GRAMS/HOUR	89 %
LOS ANGELES COUNTY	-194 GRAMS/HOUR	66 %
ORANGE COUNTY	162 GRAMS/HOUR	-55 %
TOTAL MASS FLOW	-295 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 800- 900 INVERSION HEIGHT: 220 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.3	270	0
4	1.3	290	6
5	1.3	290	1
6	1.3	290	10
7	.4	240	6
8	.9	220	4
9	.9	220	5
10	.9	220	0
11	1.8	240	1
12	1.8	240	2
13	2.2	90	6
14	1.3	240	4
15	1.3	240	4
16	1.3	240	0
18	1.3	240	0
19	.9	290	1
20	.9	290	0
23	.9	290	0
24	.9	290	5
25	.9	290	0
26	3.6	220	1
27	3.6	220	2
28	3.6	220	0
29	3.6	220	3

VENTURA COUNTY	261 GRAMS/HOUR	27 %
LOS ANGELES COUNTY	277 GRAMS/HOUR	29 %
ORANGE COUNTY	432 GRAMS/HOUR	45 %
TOTAL MASS FLOW	971 GRAMS/HOUR	101 %

* SEE FIGURE 1

HOUR: 900- 1000 INVERSION HEIGHT: 213 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.3	290	0
4	2.2	260	6
5	2.2	260	8
6	2.2	260	22
7	.4	240	8
8	1.3	240	5
9	1.3	240	5
10	1.3	240	1
11	1.8	240	3
12	1.8	240	45
13	2.2	270	7
14	1.8	240	4
15	1.8	240	5
16	1.8	240	0
18	1.8	240	0
19	.9	270	0
20	.9	270	2
23	.9	270	1
24	.9	270	3
25	.9	270	3
26	2.2	220	0
27	2.2	220	0
28	2.2	220	2
29	2.2	220	0

VENTURA COUNTY	2063 GRAMS/HOUR	35 %
LOS ANGELES COUNTY	3658 GRAMS/HOUR	62 %
ORANGE COUNTY	149 GRAMS/HOUR	3 %
TOTAL MASS FLOW	5870 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1000- 1100 INVERSION HEIGHT: 247 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.8	290	0
4	1.8	230	3
5	1.8	230	4
6	1.8	230	16
7	1.8	270	11
8	1.8	220	0
9	1.8	220	7
10	1.8	220	7
11	4.0	240	19
12	4.0	240	46
13	4.0	270	76
14	2.7	240	5
15	2.7	240	3
16	2.7	240	0
18	2.7	240	2
19	2.2	180	0
20	2.2	180	0
23	2.2	180	1
24	2.2	180	1
25	2.2	180	0
26	1.8	220	1
27	1.8	220	0
28	1.8	220	0
29	1.8	220	0

VENTURA COUNTY	1823 GRAMS/HOUR	9 %
LOS ANGELES COUNTY	18329 GRAMS/HOUR	91 %
ORANGE COUNTY	70 GRAMS/HOUR	0 %
TOTAL MASS FLOW	20222 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1100- 1200 INVERSION HEIGHT: 230 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	2.2	300	0
4	2.7	220	3
5	2.7	220	5
6	2.7	220	17
7	.9	290	0
8	2.2	220	16
9	2.2	220	15
10	2.2	220	6
11	4.0	240	23
12	4.0	240	56
13	5.4	270	45
14	2.7	240	2
15	2.7	240	0
16	2.7	240	0
18	2.7	240	2
19	2.2	180	0
20	2.2	180	0
23	2.2	180	0
24	2.2	180	0
25	2.2	180	3
26	3.1	220	0
27	3.1	220	0
28	3.1	220	0
29	3.1	220	0

VENTURA COUNTY	2900 GRAMS/HOUR	14 %
LOS ANGELES COUNTY	17856 GRAMS/HOUR	86 %
ORANGE COUNTY	121 GRAMS/HOUR	1 %
TOTAL MASS FLOW	20878 GRAMS/HOUR	101 %

* SEE FIGURE 1

HOUR: 1200- 1300 INVERSION HEIGHT: 207 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	2.7	290	0
4	3.6	220	37
5	3.6	220	19
6	3.6	220	17
7	2.7	240	0
8	2.2	220	14
9	2.2	220	18
10	2.2	220	18
11	3.1	240	11
12	3.1	240	36
13	4.0	270	15
14	2.7	240	5
15	2.7	240	0
16	2.7	240	1
18	2.7	240	0
19	2.2	180	0
20	2.2	180	0
23	2.2	180	0
24	2.2	180	0
25	2.2	180	0
26	3.6	220	3
27	3.6	220	0
28	3.6	220	0
29	3.6	220	1

VENTURA COUNTY	14011 GRAMS/HOUR	61 %
LOS ANGELES COUNTY	8728 GRAMS/HOUR	38 %
ORANGE COUNTY	253 GRAMS/HOUR	1 %
TOTAL MASS FLOW	22992 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1300- 1400 INVERSION HEIGHT: 170 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	2.2	290	0
4	3.6	210	38
5	3.6	210	35
6	3.6	210	25
7	2.7	220	0
8	2.7	240	21
9	2.7	240	13
10	2.7	240	23
11	4.0	240	16
12	4.0	240	38
13	4.5	270	6
14	3.6	240	0
15	3.6	240	0
16	3.6	240	0
18	3.6	240	0
19	2.2	180	0
20	2.2	180	3
23	2.2	180	1
24	2.2	180	0
25	2.2	180	0
26	4.5	180	0
27	4.5	180	0
28	4.5	180	0
29	4.5	180	0

VENTURA COUNTY	14110 GRAMS/HOUR	64 %
LOS ANGELES COUNTY	7978 GRAMS/HOUR	36 %
ORANGE COUNTY	0 GRAMS/HOUR	0 %
TOTAL MASS FLOW	22088 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1400- 1500 INVERSION HEIGHT: 170 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.8	270	2
4	1.8	210	24
5	1.8	210	7
6	1.8	210	24
7	1.8	240	0
8	2.7	240	10
9	2.7	240	20
10	2.7	240	27
11	3.6	220	25
12	3.6	220	26
13	4.5	270	9
14	3.6	240	0
15	3.6	240	0
16	3.6	240	0
18	3.6	240	0
19	1.8	200	4
20	1.8	200	6
23	1.8	200	0
24	1.8	200	0
25	1.8	200	0
26	5.4	220	0
27	5.4	220	0
28	5.4	220	1
29	5.4	220	0

VENTURA COUNTY	4402 GRAMS/HOUR	38 %
LOS ANGELES COUNTY	7083 GRAMS/HOUR	61 %
ORANGE COUNTY	87 GRAMS/HOUR	1 %
TOTAL MASS FLOW	11572 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1500- 1600 INVERSION HEIGHT: 170 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.3	270	0
4	2.7	190	16
5	2.7	190	7
6	2.7	190	2
7	2.7	240	0
8	2.7	240	8
9	2.7	240	8
10	2.7	240	21
11	4.5	240	33
12	4.5	240	0
13	5.8	240	4
14	4.0	240	0
15	4.0	240	0
16	4.0	240	0
18	4.0	240	0
19	2.2	270	0
20	2.2	270	2
23	2.2	270	0
24	2.2	270	0
25	2.2	270	0
26	6.7	180	0
27	6.7	180	0
28	6.7	180	0
29	6.7	180	0

VENTURA COUNTY	2823 GRAMS/HOUR	40 %
LOS ANGELES COUNTY	4230 GRAMS/HOUR	60 %
ORANGE COUNTY	0 GRAMS/HOUR	0 %
TOTAL MASS FLOW	7054 GRAMS/HOUR	100 %

* SEE FIGURE 1

HOUR: 1600- 1700 INVERSION HEIGHT: 170 METERS

* SAMPLING POINTS	WIND SPEED (METERS/SEC)	WIND DIRECTION (DEGREES)	SF6 CONC. (PPT)
1	1.3	260	4
4	1.8	180	11
5	1.8	180	6
6	1.8	180	0
7	3.6	220	0
8	2.7	240	0
9	2.7	240	2
10	2.7	240	9
11	4.0	240	4
12	4.0	240	0
13	5.8	240	0
14	3.6	240	5
15	3.6	240	0
16	3.6	240	0
18	3.6	240	0
19	2.7	180	0
20	2.7	180	2
23	2.7	180	0
24	2.7	180	0
25	2.7	180	0
26	6.7	150	0
27	6.7	150	0
28	6.7	150	0
29	6.7	150	0

VENTURA COUNTY	1570 GRAMS/HOUR	58 %
LOS ANGELES COUNTY	1135 GRAMS/HOUR	42 %
ORANGE COUNTY	0 GRAMS/HOUR	0 %
TOTAL MASS FLOW	2706 GRAMS/HOUR	100 %

* SEE FIGURE 1

TOTAL FOR DAY

VENTURA COUNTY	43297 GRAMS	38 %
LOS ANGELES COUNTY	68037 GRAMS	60 %
ORANGE COUNTY	1214 GRAMS	1 %
TOTAL MASS FLOW	112548 GRAMS	99 %

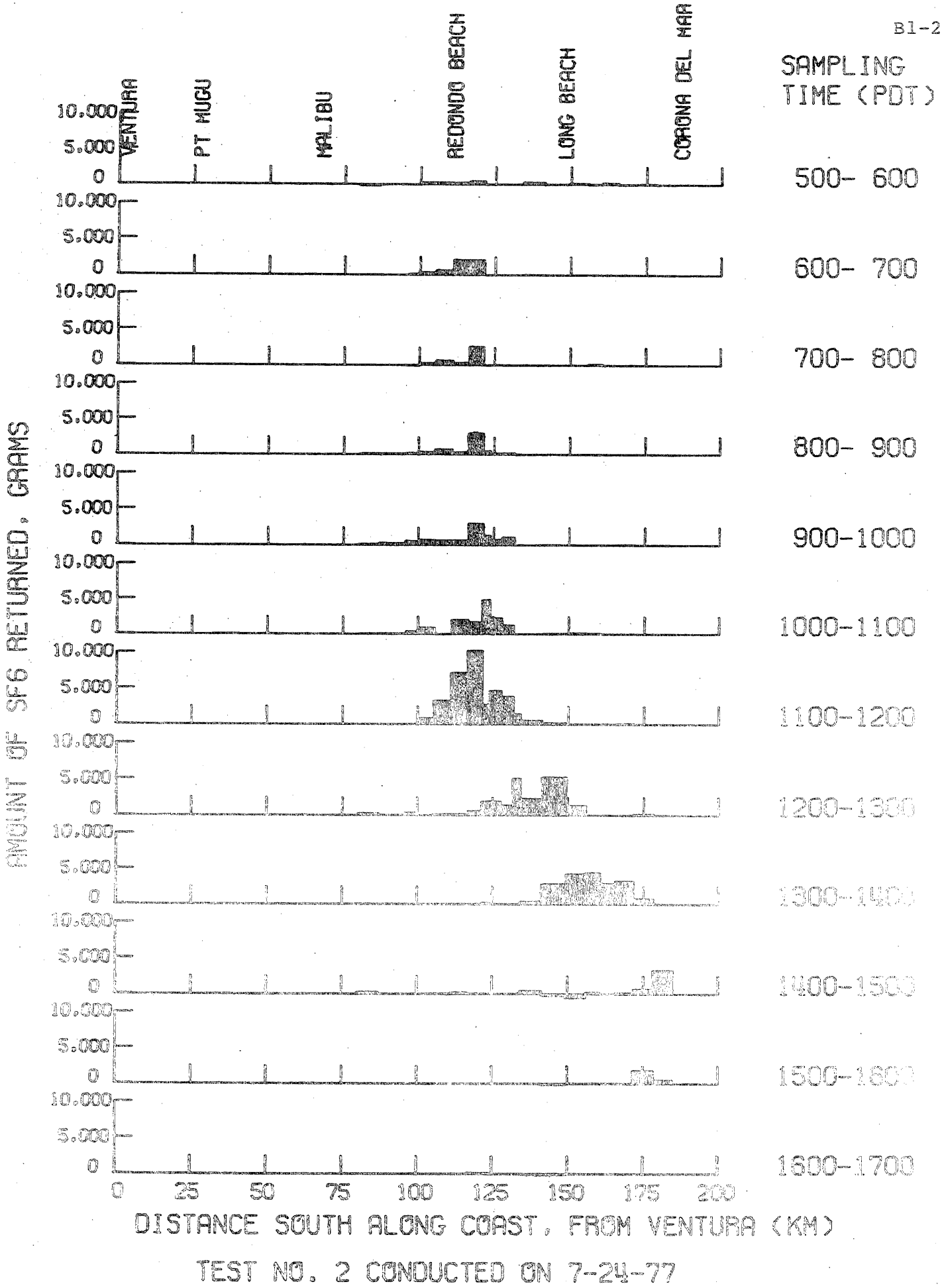
Appendix B1

Hourly Averaged Tracer Data for Fixed Sites

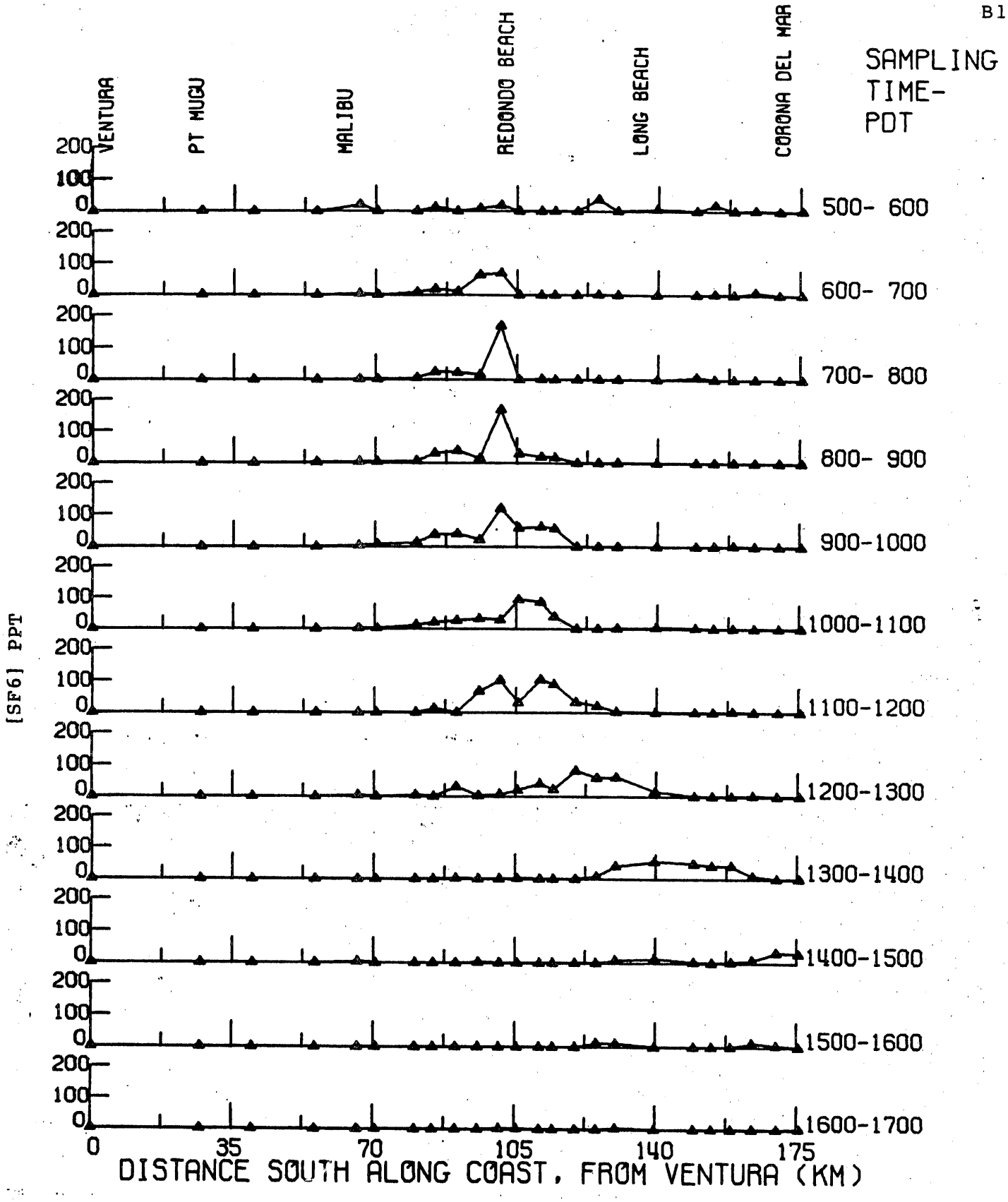
for

Test No. 2

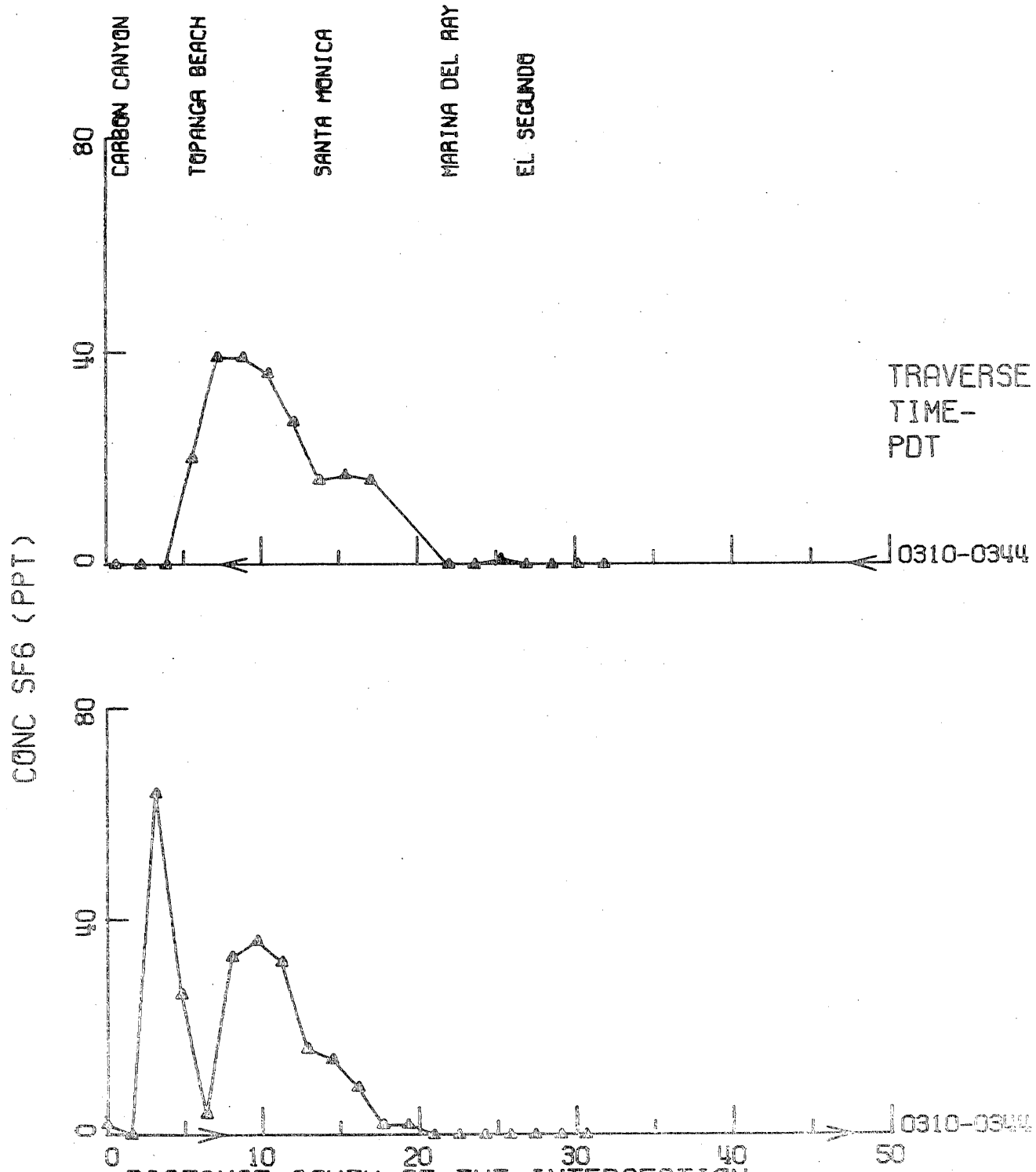
Conducted Starting July 23, 1977



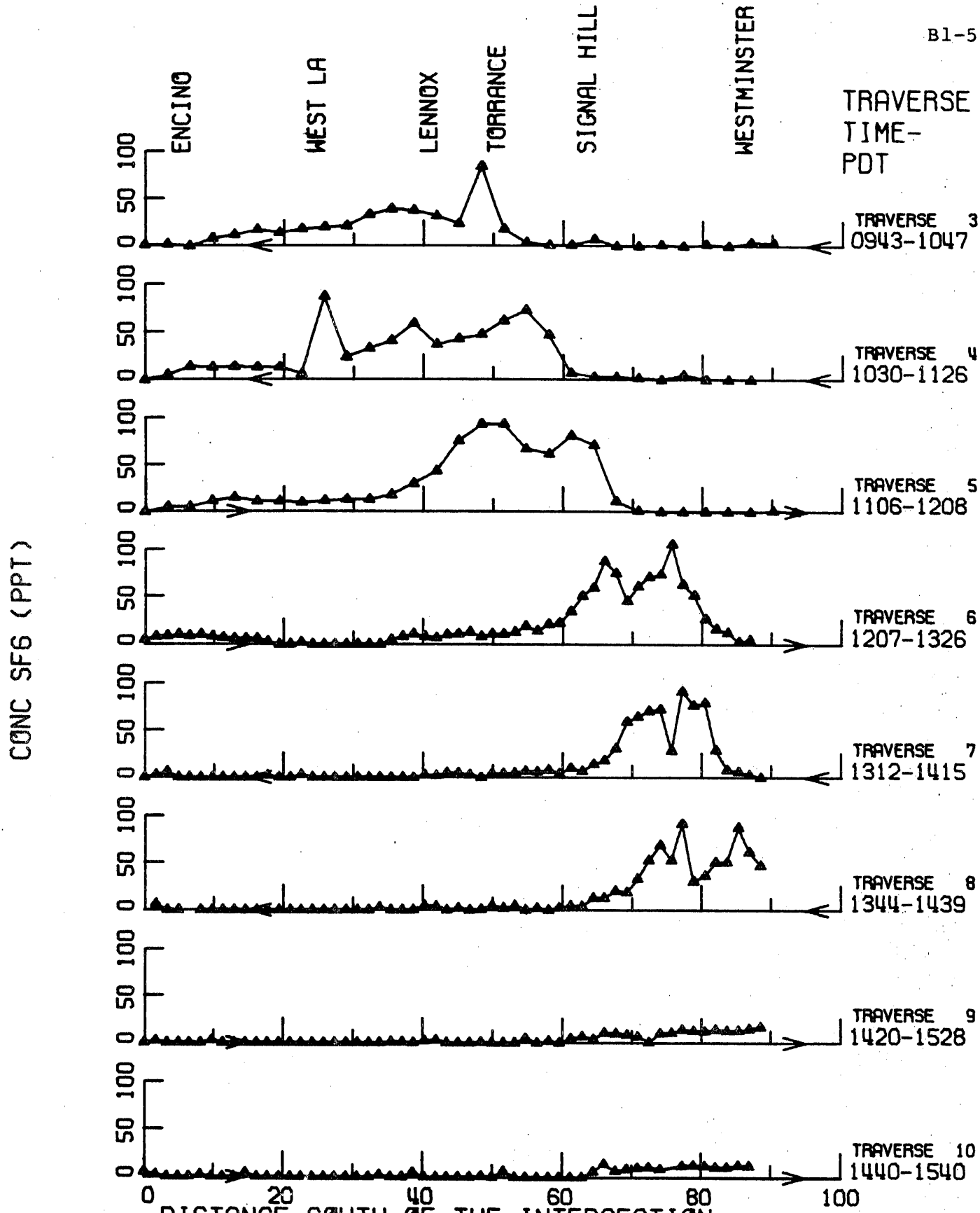
TEST NO. 2 CONDUCTED ON 7-24-77



TEST NO. 2 CONDUCTED ON 7-24-77
HOURLY AVERAGED SAMPLES
SF6 RELEASED FROM SCE EL SEGUNDO POWER PLANT STACK #4

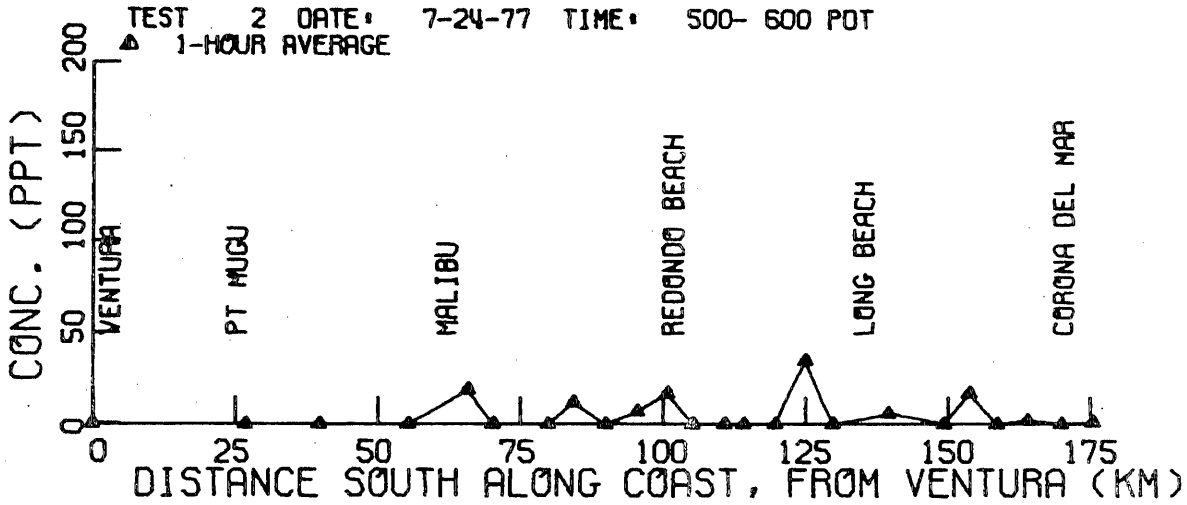


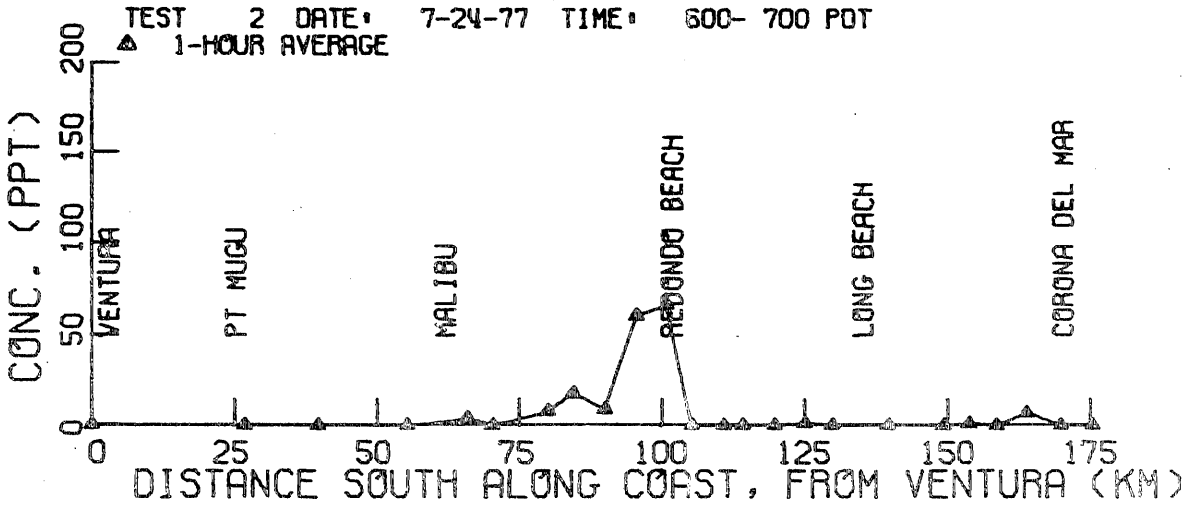
TEST NO.2 CONDUCTED 7-24-77 AUTO TRAVERSE ALONG HIGHWAY 1
SF6 RELEASED FROM SCE EL SEGUNDO POWER PLANT STACK 04
SF6 RELEASED AT 13.6 GRAMS/SECOND (108 POUNDS/HOUR)
FROM 2300-0400 PDT

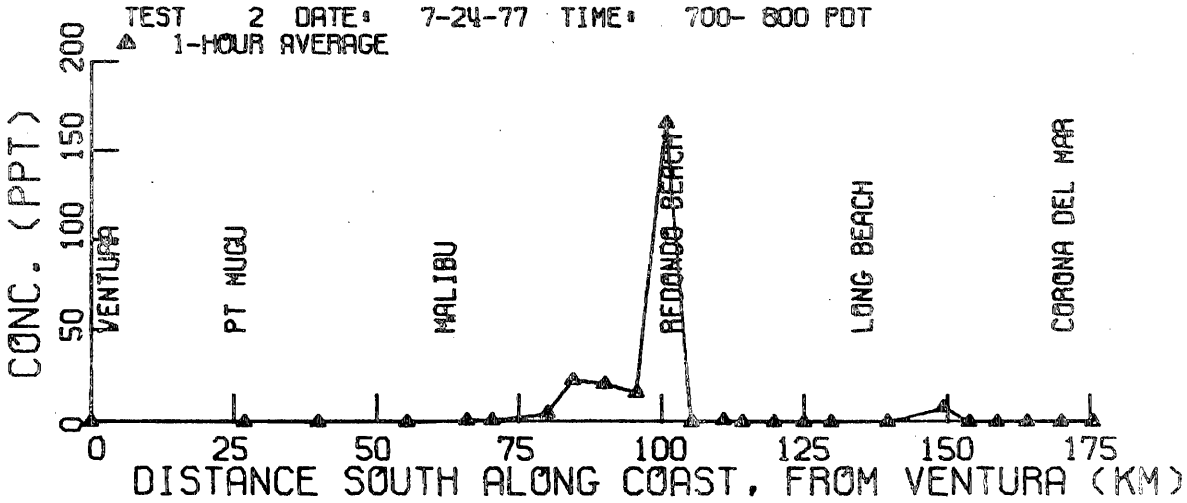


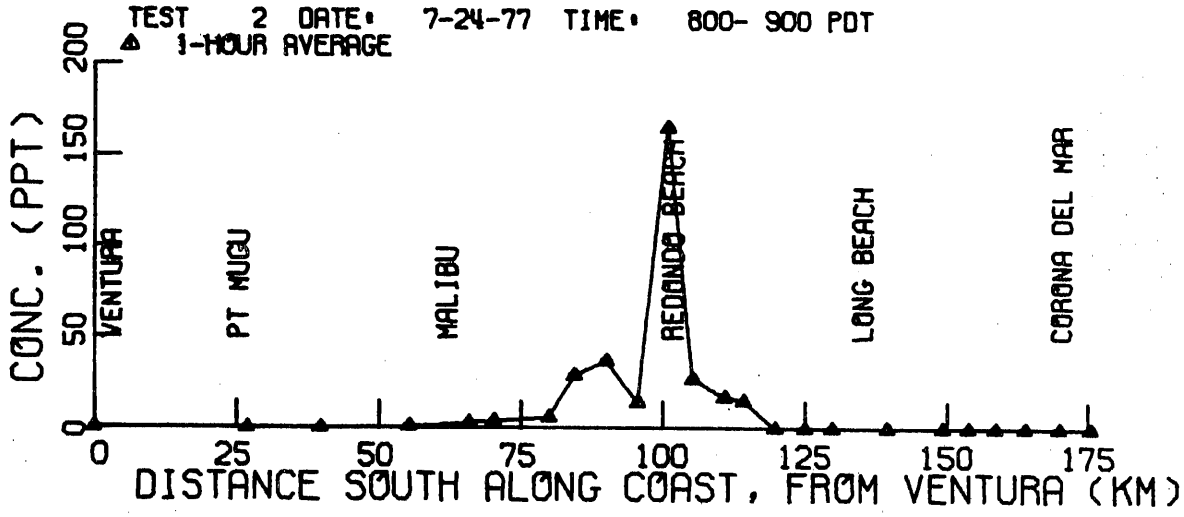
TEST NO.2 CONDUCTED 7-24-77 AUTO TRAVERSE ALONG HIGHWAY 405

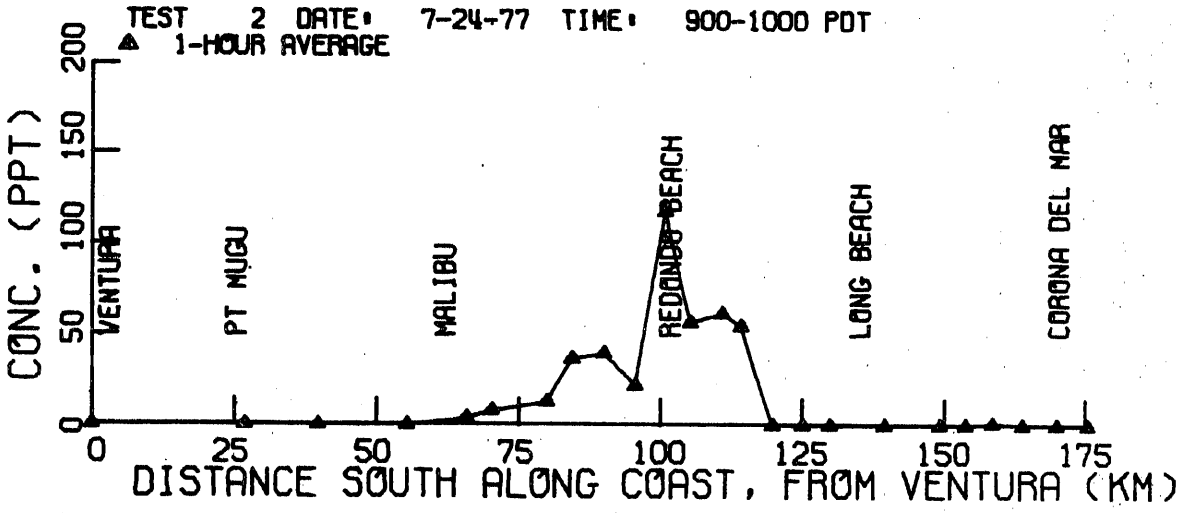
SF6 RELEASED FROM SCE EL SEGUNDO POWER PLANT STACK #4

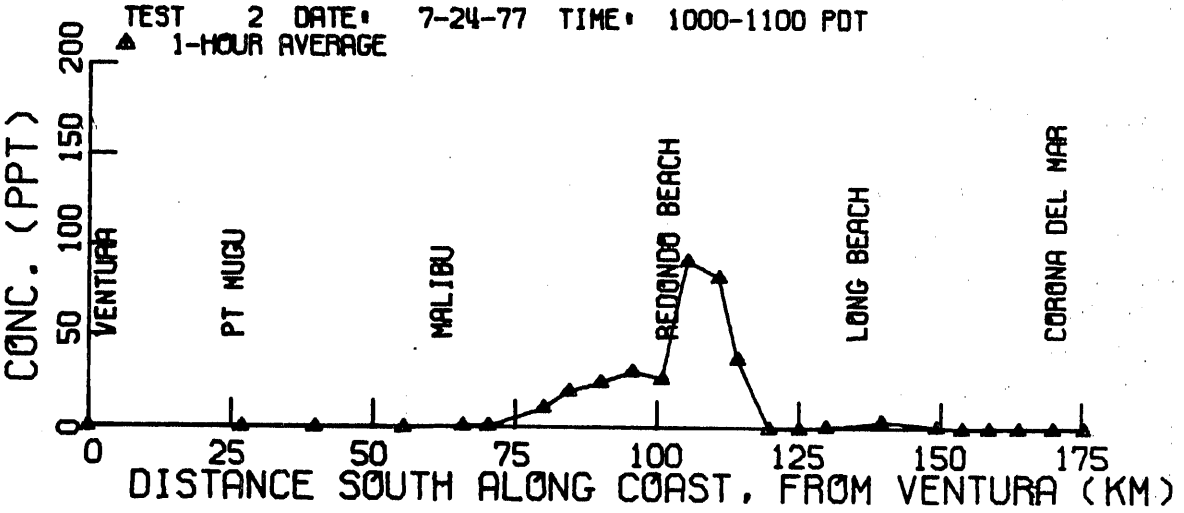

TEST 2 DATE: 7-24-77 TIME: 500- 600 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

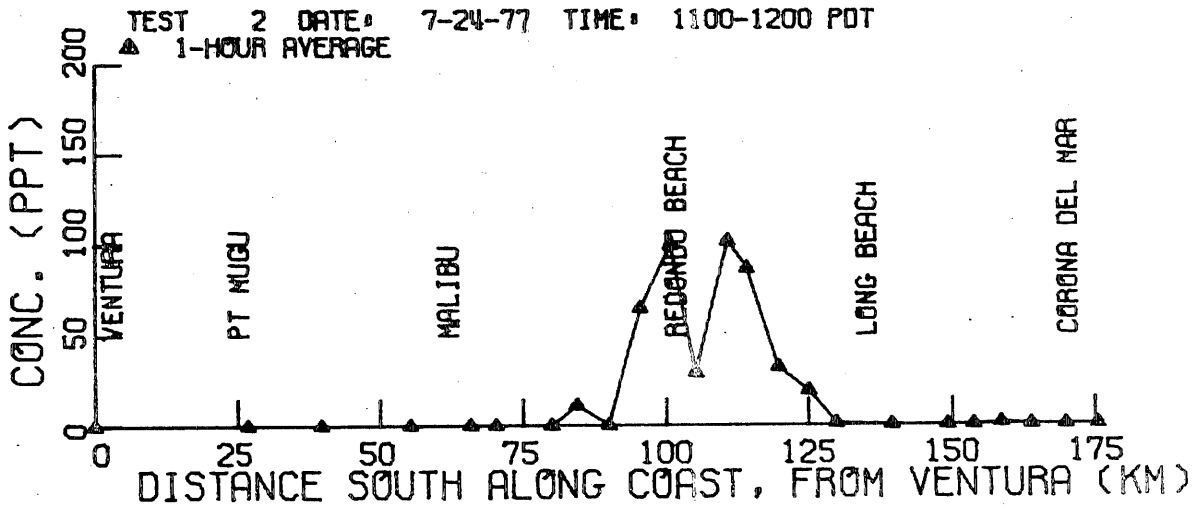

TEST 2 DATE: 7-24-77 TIME: 600- 700 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

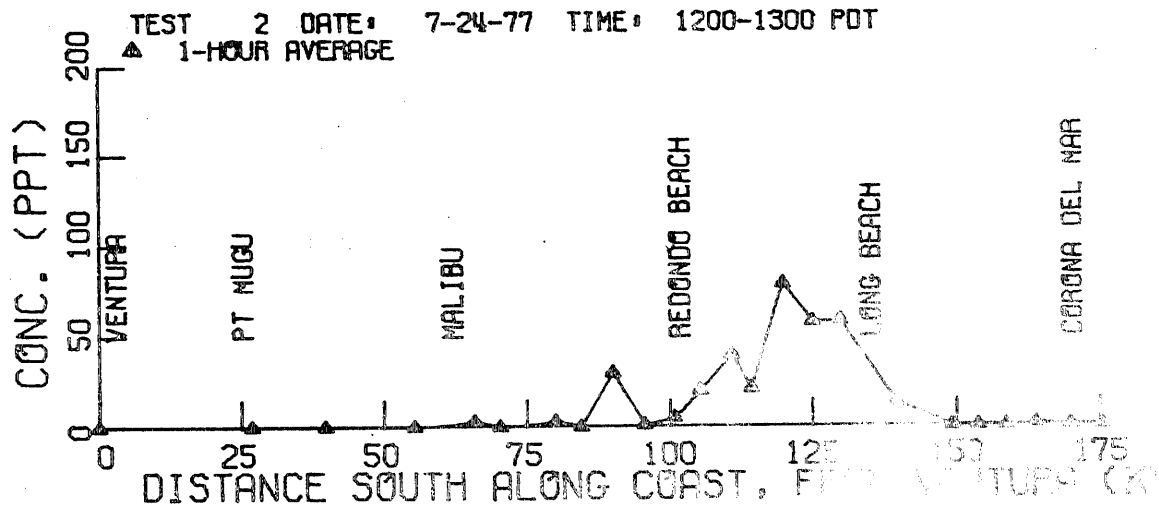

TEST 2 DATE: 7-24-77 TIME: 700- 800 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

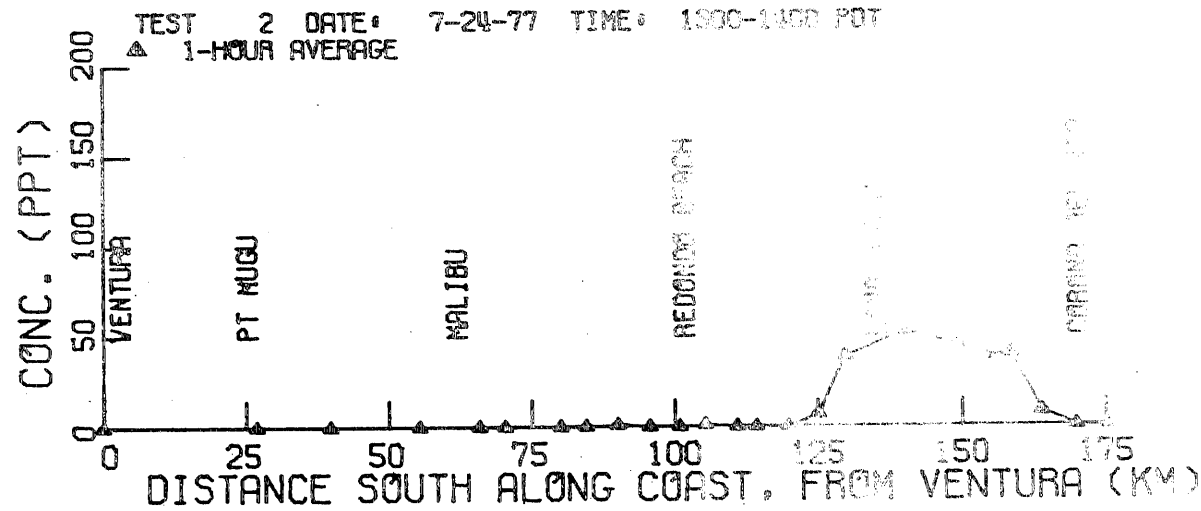

TEST 2 DATE: 7-24-77 TIME: 800- 900 PDT
▲ 1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

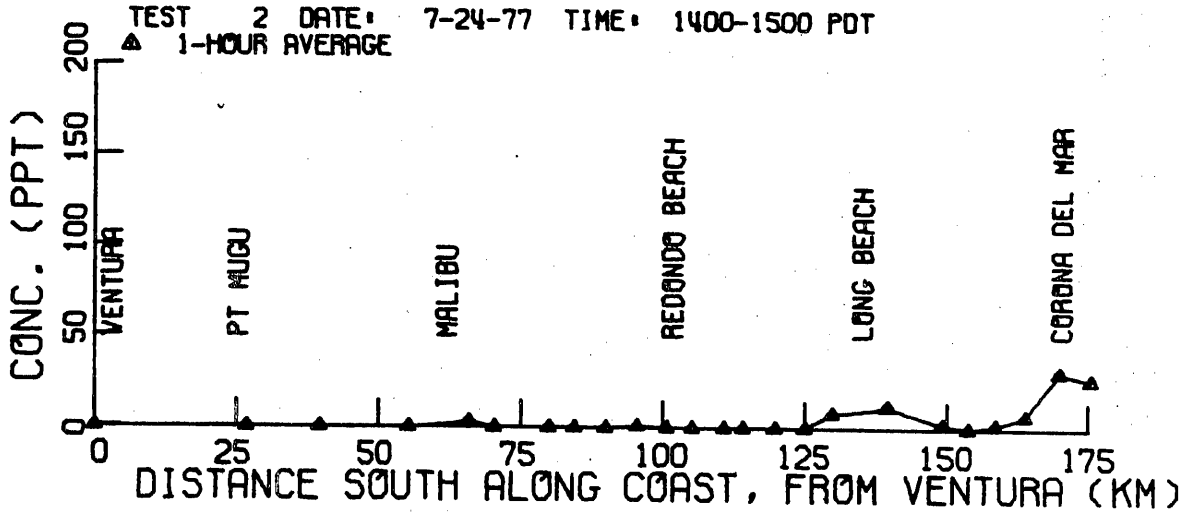

TEST 2 DATE: 7-24-77 TIME: 900-1000 PDT
▲ 1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

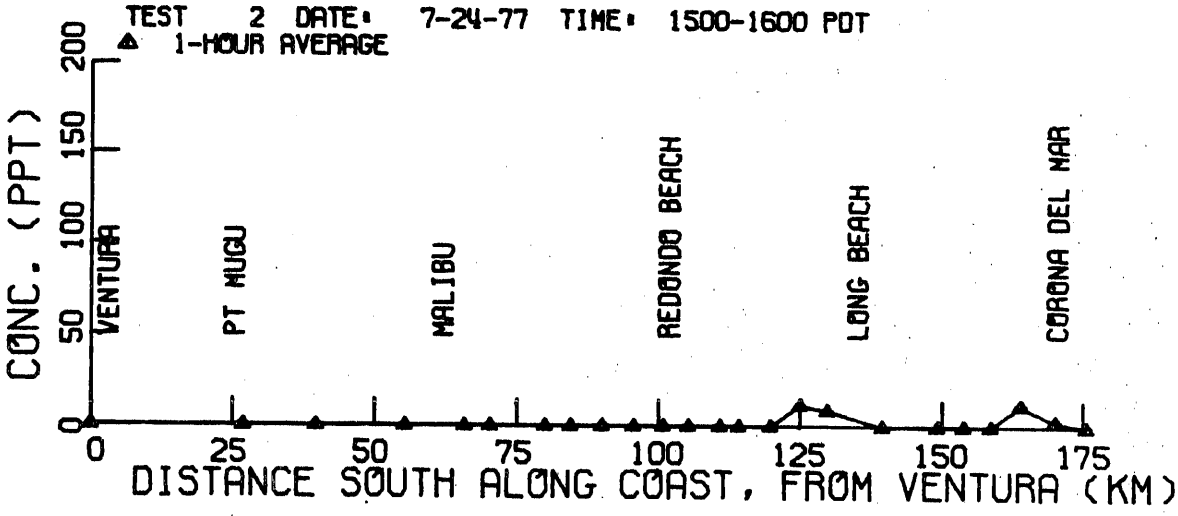

TEST 2 DATE: 7-24-77 TIME: 1000-1100 PDT
▲ 1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

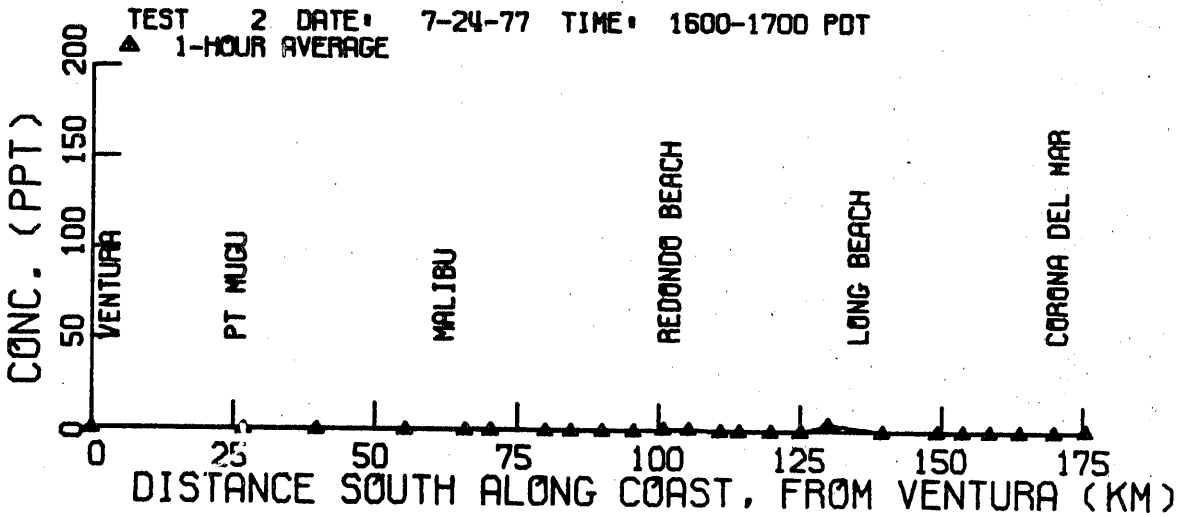

TEST 2 DATE: 7-24-77 TIME: 1100-1200 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

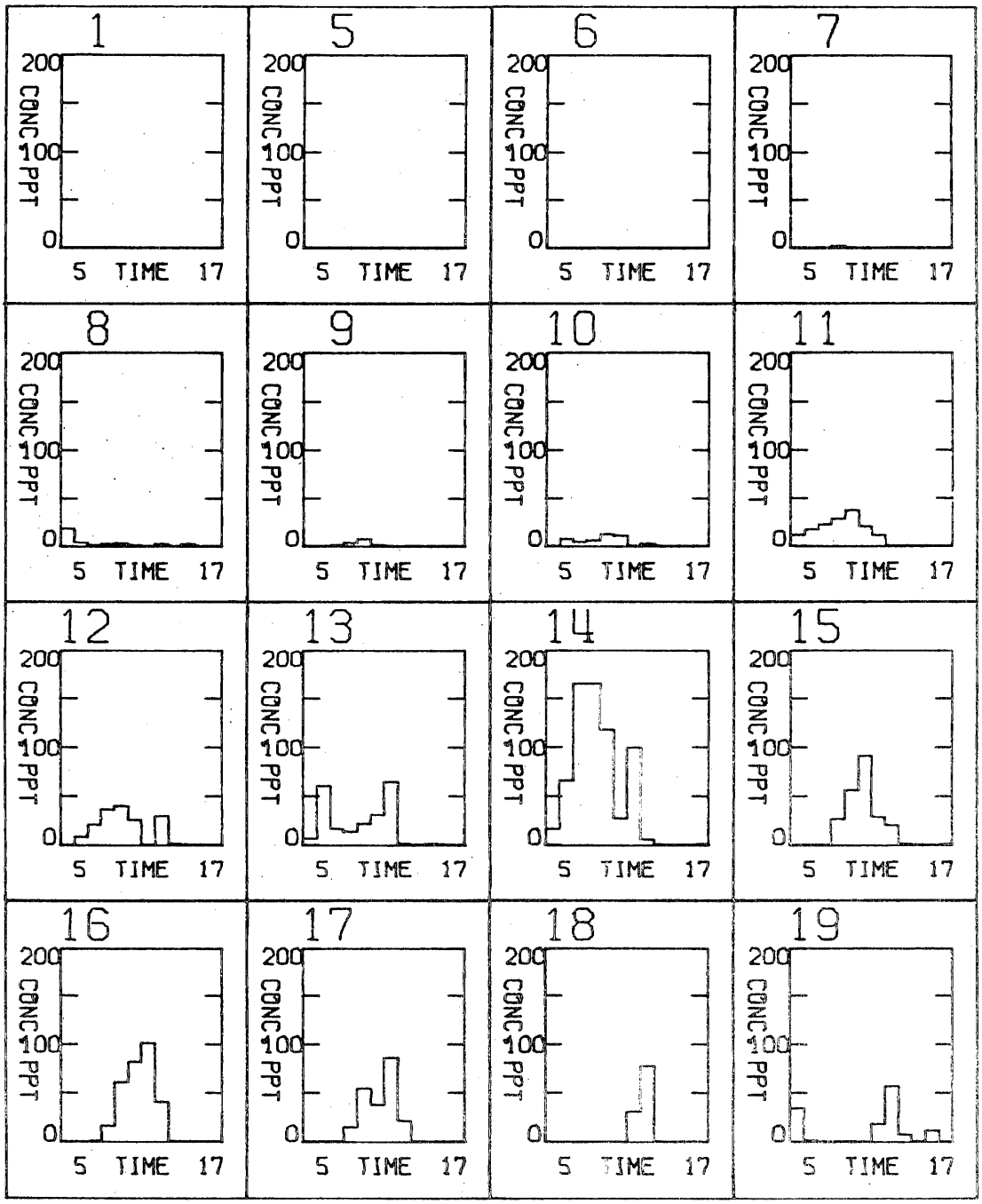

TEST 2 DATE: 7-24-77 TIME: 1200-1300 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
175


TEST 2 DATE: 7-24-77
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)


TEST 2 DATE: 7-24-77 TIME: 1400-1500 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)

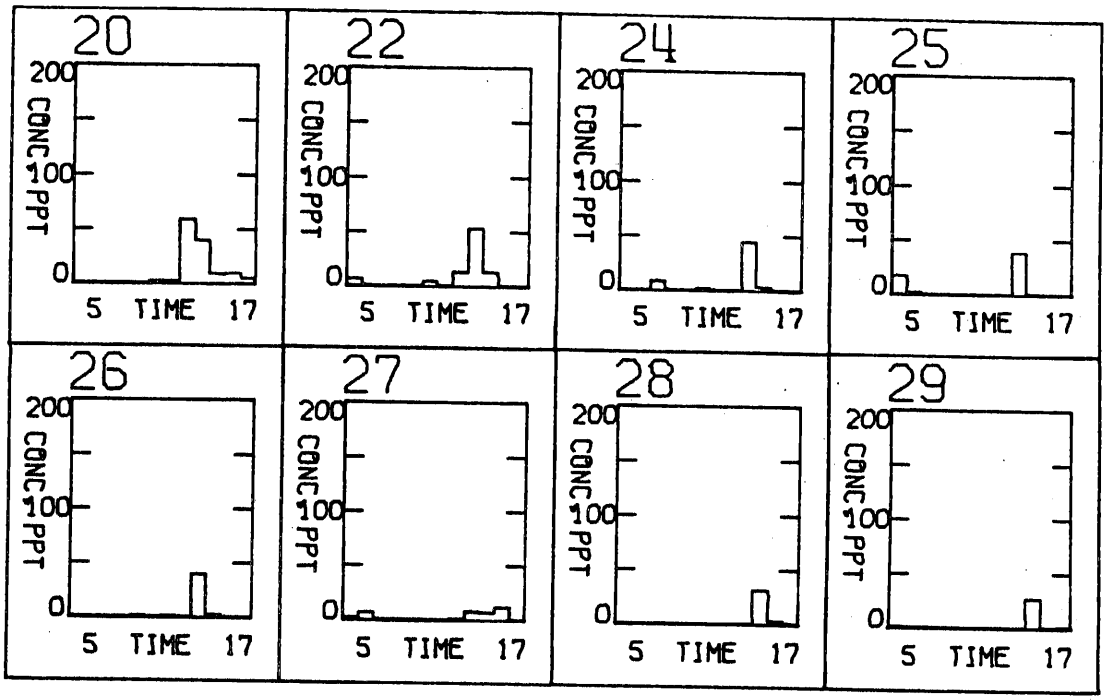

TEST 2 DATE: 7-24-77 TIME: 1500-1600 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)


TEST 2 DATE: 7-24-77 TIME: 1600-1700 PDT
1-HOUR AVERAGE
CONC. (PPT)
0
50
100
150
200
VENTURA
PT MUGU
MALIBU
REDONDO BEACH
LONG BEACH
CORONA DEL MAR
0
25
50
75
100
125
150
175
DISTANCE SOUTH ALONG COAST, FROM VENTURA (KM)



* INDICATES ELEVATED SITE, LAGUNA PEAK

TEST 2



TEST 2

TABLE 2

ONE-HOUR AVERAGED TRACER CONCENTRATION (PPT)

LOS ANGELES TEST NO. 2 SF6 TRACER

HOUR OF DAY-PACIFIC DAYLIGHT TIME 7-25-77

STATION NUMBER	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
1	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	0	0	0	0	0	0
8	19	4	1	3	4	1	0	3	0	3	0	0
9	0	0	1	4	8	1	0	0	0	0	0	0
10	0	8	5	6	13	11	0	3	0	0	0	0
11	12	18	23	29	37	20	11	0	0	0	0	0
12	0	9	21	37	40	25	0	30	1	0	0	0
13	7	61	16	14	22	31	65	1	0	1	0	0
14	17	67	166	166	118	27	100	5	0	0	0	1
15	0	0	0	27	57	92	29	20	1	0	0	1
16	0	0	1	17	62	83	102	40	0	0	0	0
17	0	0	0	15	55	38	87	21	0	0	0	0

**** INDICATES UNAVAILABLE OR FAULTY DATA

* INDICATES ELEVATED SITE, LAGUNA PEAK

TABLE 2 (CONT.)

ONE-HOUR AVERAGED TRACER CONCENTRATION (PPT)

LOS ANGELES TEST NO. 2 SF6 TRACER

HOUR OF DAY-PACIFIC DAYLIGHT TIME 7-25-77

STATION NUMBER	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
18	0	0	0	0	0	0	32	79	0	0	0	0
19	35	1	0	0	0	0	19	58	7	0	12	0
20	0	0	0	0	0	1	1	59	39	8	9	4
22	6	0	0	0	0	4	0	13	53	12	0	0
24	0	0	8	0	0	1	0	0	45	2	0	0
25	17	1	0	0	0	0	0	0	39	0	0	0
26	0	0	0	0	1	0	1	0	40	2	0	0
27	2	7	0	0	0	0	0	1	8	7	12	0
28	0	0	0	0	0	0	0	0	0	31	3	0
29	1	0	0	0	0	0	0	0	0	27	0	1

**** INDICATES UNAVAILABLE OR FAULTY DATA

* INDICATES ELEVATED SITE, LAGUNA PEAK

Appendix B2

Auto Traverse Tracer Data

for

Test No. 2

Conducted Starting July 23, 1977

February 3, 1982

Test: Land Breeze - Sea Breeze, Test 2

Conducted: July 23-25, 1977

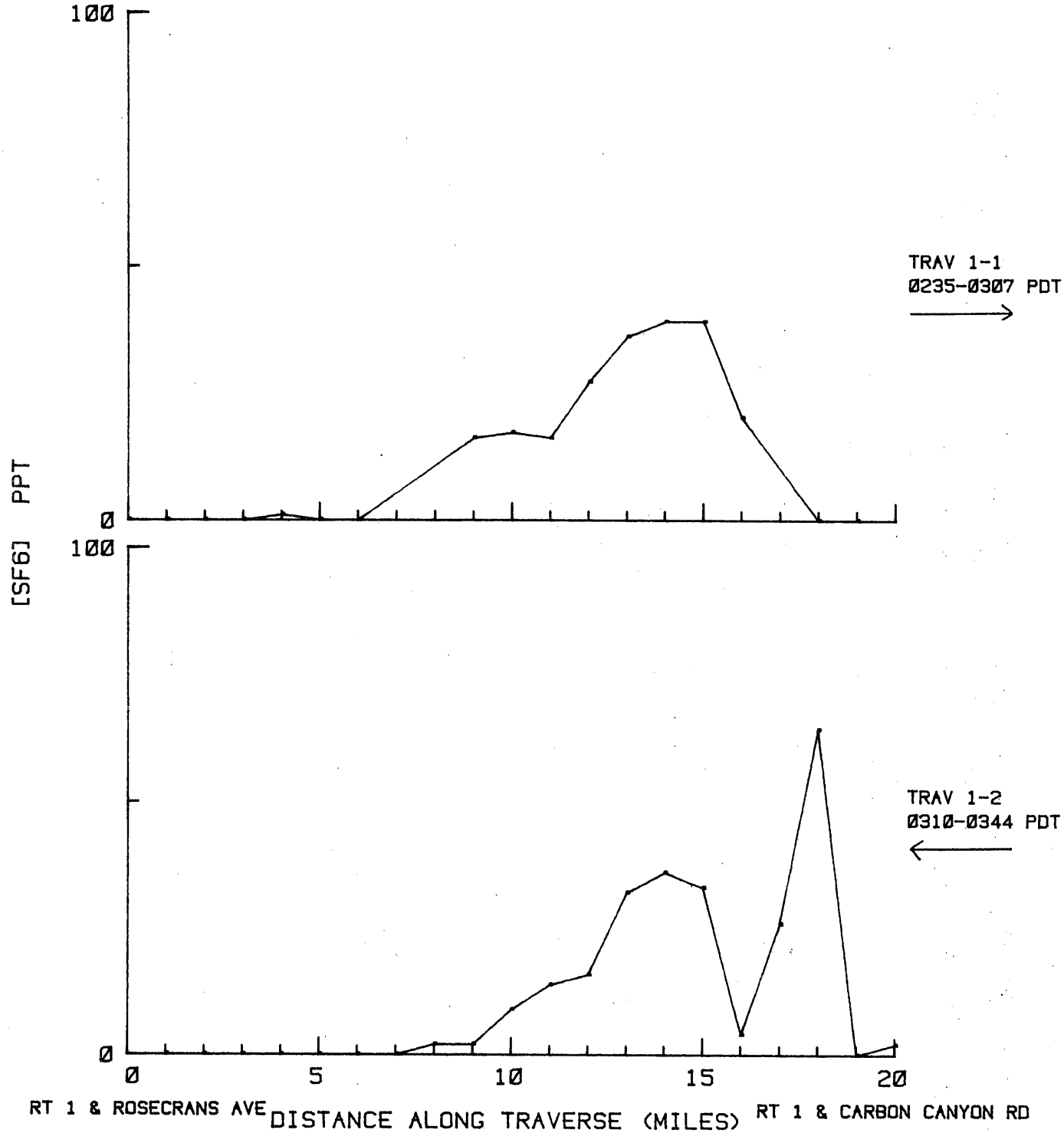
Release Location: El Segundo Power Plant Stack #4

Release Rate: 108 pounds SF_6 per hour (13.6 grams per second)

Release Time: 2303-0400 PDT - July 23-24, 1977

Traverse Number	Day	Start Time	End Time	Start Location	End Location	Number of Samples	Route
1	1	0235	0307	1 & Rosecrans Ave.	1 & Carbon Canyon Rd.	21	N on 1
2	1	0310	0344	1 & Carbon Canyon Rd.	1 & Rosecrans Ave.	21	S on 1
3	1	0943	1047	405 & 39	405 & Devonshire St.	29	N on 405
4	1	1030	1126	405 & 39	405 & Devonshire St.	28	No on 405
5	1	1106	1208	405 & Devonshire St.	405 & 39	30	S on 405
6	1	1207	1326	405 & Devonshire St.	405 & 39	55	S on 405
7	1	1312	1415	405 & 39	405 & Devonshire St.	56	N on 405
8	1	1344	1439	405 & 39	405 & Devonshire St.	55	N on 405
9	1	1420	1528	405 & Devonshire St.	405 & 39	56	S on 405
10	1	1440	1540	405 & Devonshire St.	405 & 39	55	S on 405
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

LSB-2 AUTO TRAVERSES ALONG ROUTE 1, 7/24/77



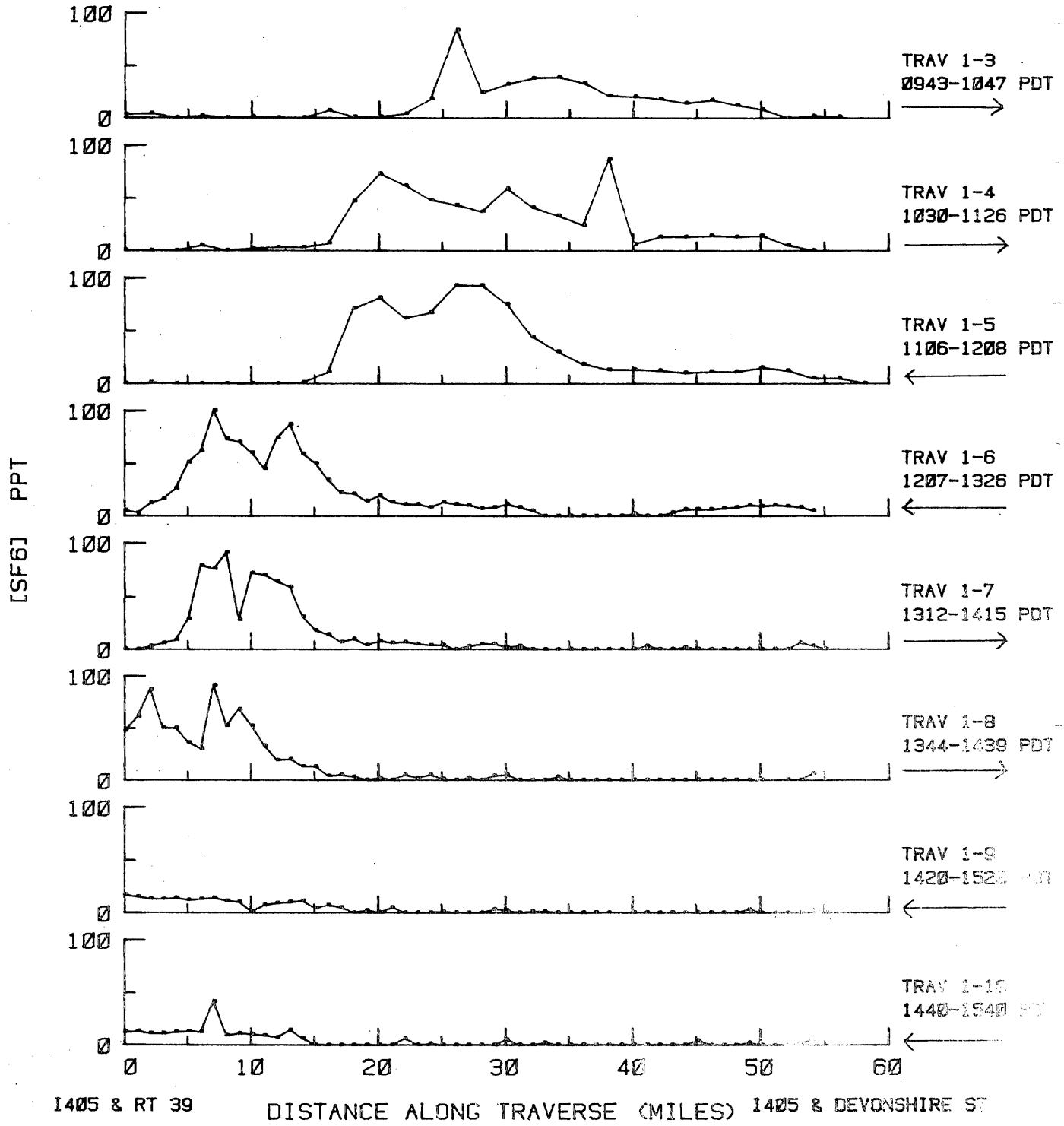
RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO POWER PLANT STACK # 4

RELEASE TIME: 2303-0400 PDT, 7/23-24/77

⟶ INDICATES DIRECTION OF TRAVERSE

TW 2/5/82

LSB-2 AUTO TRAVERSES ALONG I405, 7/24/77



RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO POWER PLANT STACK # 4

RELEASE TIME: 2303-0400 PDT, 7/23-24/77

⟶ INDICATES DIRECTION OF TRAVERSE

LSB-2

1-1

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-1 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 0235 PDT, 7/24/77 AT 1 & ROSECRANS AVE
TRAVERSE END: 0307 PDT AT 1 & CARBON CANYON RD
TRAVERSE ROUTE: N ON 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT
0	0
1	0
2	0
3	0
4	1
5	0
6	0
7	*
8	*
9	16
10	17
11	16
12	27
13	36
14	39
15	39
16	20
17	*
18	0
19	0
20	*

LSB-2

1-2

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-2 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 0310 PDT, 7/24/77 AT 1 & CARBON CANYON RD
TRAVERSE END: 0344 PDT AT 1 & ROSECRANS AVE
TRAVERSE ROUTE: S ON 1

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT
0	2
1	0
2	64
3	26
4	4
5	33
6	36
7	32
8	16
9	14
10	9
11	2
12	2
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	*

LSB-2

1-3

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-3 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 0943 PDT, 7/24/77 AT 405 & 39
TRAVERSE END: 1047 PDT AT 405 & DEVONSHIRE ST
TRAVERSE ROUTE: N ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	3	50	8
2	4	52	0
4	0	54	2
6	2	56	1
8	0		
10	1		
12	0		
14	0		
16	7		
18	1		
20	1		
22	4		
24	18		
26	84		
28	24		
30	32		
32	38		
34	39		
36	33		
38	21		
40	20		
42	18		
44	14		
46	17		
48	12		

LSB-2

1-4

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-4 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1030 PDT, 7/24/77 AT 405 & 39
TRAVERSE END: 1126 PDT AT 405 & DEVONSHIRE ST
TRAVERSE ROUTE: N ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	50	14
2	0	52	5
4	0	54	0
6	5		
8	0		
10	2		
12	3		
14	3		
16	7		
18	47		
20	73		
22	62		
24	48		
26	43		
28	37		
30	59		
32	41		
34	33		
36	24		
38	87		
40	6		
42	13		
44	13		
46	14		
48	13		

LSB-2

1-5

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-5 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1106 PDT, 7/24/77 AT 405 & DEVONSHIRE ST
TRAVERSE END: 1208 PDT AT 405 & 39
TRAVERSE ROUTE: S ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	50	0
2	5	52	0
4	5	54	0
6	12	56	1
8	15	58	0
10	11		
12	11		
14	10		
16	12		
18	13		
20	13		
22	18		
24	30		
26	44		
28	75		
30	93		
32	93		
34	67		
36	62		
38	81		
40	71		
42	11		
44	1		
46	0		
48	0		

LSB-2

1-6

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-6 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1207 PDT, 7/24/77 AT 405 & DEVONSHIRE ST
TRAVERSE END: 1326 PDT AT 405 & 39
TRAVERSE ROUTE: S ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	5	25	8	50	26
1	8	26	7	51	16
2	9	27	10	52	12
3	10	28	11	53	3
4	9	29	13	54	5
5	10	30	8		
6	8	31	11		
7	7	32	11		
8	6	33	13		
9	6	34	19		
10	6	35	14		
11	3	36	21		
12	0	37	22		
13	0	38	34		
14	2	39	50		
15	0	40	59		
16	0	41	87		
17	0	42	74		
18	0	43	45		
19	0	44	60		
20	0	45	70		
21	0	46	73		
22	5	47	105		
23	8	48	62		
24	11	49	51		

LSB-2

1-7

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-7 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1312 PDT, 7/24/77 AT PT 405 & 39 *
TRAVERSE END: 1415 PDT AT 405 & DEVONSHIRE ST
TRAVERSE ROUTE: N ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	25	4	50	0
1	0	26	0	51	0
2	3	27	3	52	0
3	6	28	5	53	6
4	9	29	5	54	3
5	29	30	2	55	0
6	79	31	3		
7	76	32	0		
8	91	33	0		
9	28	34	0		
10	72	35	0		
11	70	36	0		
12	64	37	0		
13	59	38	0		
14	31	39	0		
15	18	40	0		
16	14	41	3		
17	7	42	0		
18	10	43	0		
19	4	44	2		
20	8	45	0		
21	6	46	0		
22	7	47	0		
23	5	48	0		
24	4	49	0		

LSB-2

1-8

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-8 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1344 PDT, 7/24/77 AT 405 & 39
TRAVERSE END: 1439 PDT AT 405 & DEVONSHIRE ST
TRAVERSE ROUTE: N ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	47	25	1	50	0
1	61	26	0	51	*
2	87	27	2	52	0
3	50	28	0	53	0
4	50	29	4	54	6
5	36	30	5		
6	30	31	0		
7	91	32	0		
8	52	33	0		
9	68	34	3		
10	52	35	0		
11	33	36	0		
12	19	37	0		
13	20	38	0		
14	13	39	0		
15	13	40	0		
16	4	41	0		
17	5	42	0		
18	3	43	0		
19	0	44	0		
20	2	45	0		
21	0	46	0		
22	5	47	0		
23	2	48	0		
24	5	49	0		

LSB-2

1-9

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-9 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1420 PDT, 7/24/77 AT 405 & DEVONSHIRE ST
TRAVERSE END: 1528 PDT AT 405 & 39
TRAVERSE ROUTE: S ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	0	25	2	50	12
1	2	26	3	51	14
2	0	27	0	52	13
3	0	28	0	53	13
4	0	29	0	54	15
5	0	30	1	55	17
6	3	31	0		
7	0	32	0		
8	0	33	0		
9	0	34	5		
10	0	35	0		
11	0	36	2		
12	0	37	0		
13	0	38	5		
14	0	39	7		
15	0	40	4		
16	*	41	11		
17	0	42	10		
18	0	43	9		
19	0	44	7		
20	0	45	1		
21	0	46	10		
22	1	47	11		
23	1	48	14		
24	0	49	13		

LSB-2

1-10

THE NUMBERS INDICATE THE MILES TRAVELED ALONG THE TRAVERSE ROUTE

1-10 TRAV LSB-2

RELEASE: 108 LBS SF6/HR (13.6 GR/SEC) FROM EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 1440 PDT, 7/24/77 AT 405 & DEVONSHIRE ST
TRAVERSE END: 1540 PDT AT 405 & 39
TRAVERSE ROUTE: S ON 405

* DENOTES MISSING DATA

MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT	MILEAGE	[SF6] PPT
0	5	25	0	50	12
1	2	26	0	51	11
2	0	27	0	52	11
3	0	28	0	53	13
4	0	29	0	54	12
5	2	30	1		
6	0	31	0		
7	0	32	6		
8	0	33	0		
9	4	34	0		
10	0	35	0		
11	0	36	0		
12	0	37	0		
13	0	38	0		
14	0	39	0		
15	0	40	6		
16	0	41	14		
17	0	42	7		
18	0	43	9		
19	0	44	10		
20	0	45	11		
21	2	46	9		
22	0	47	41		
23	0	48	12		
24	5	49	13		

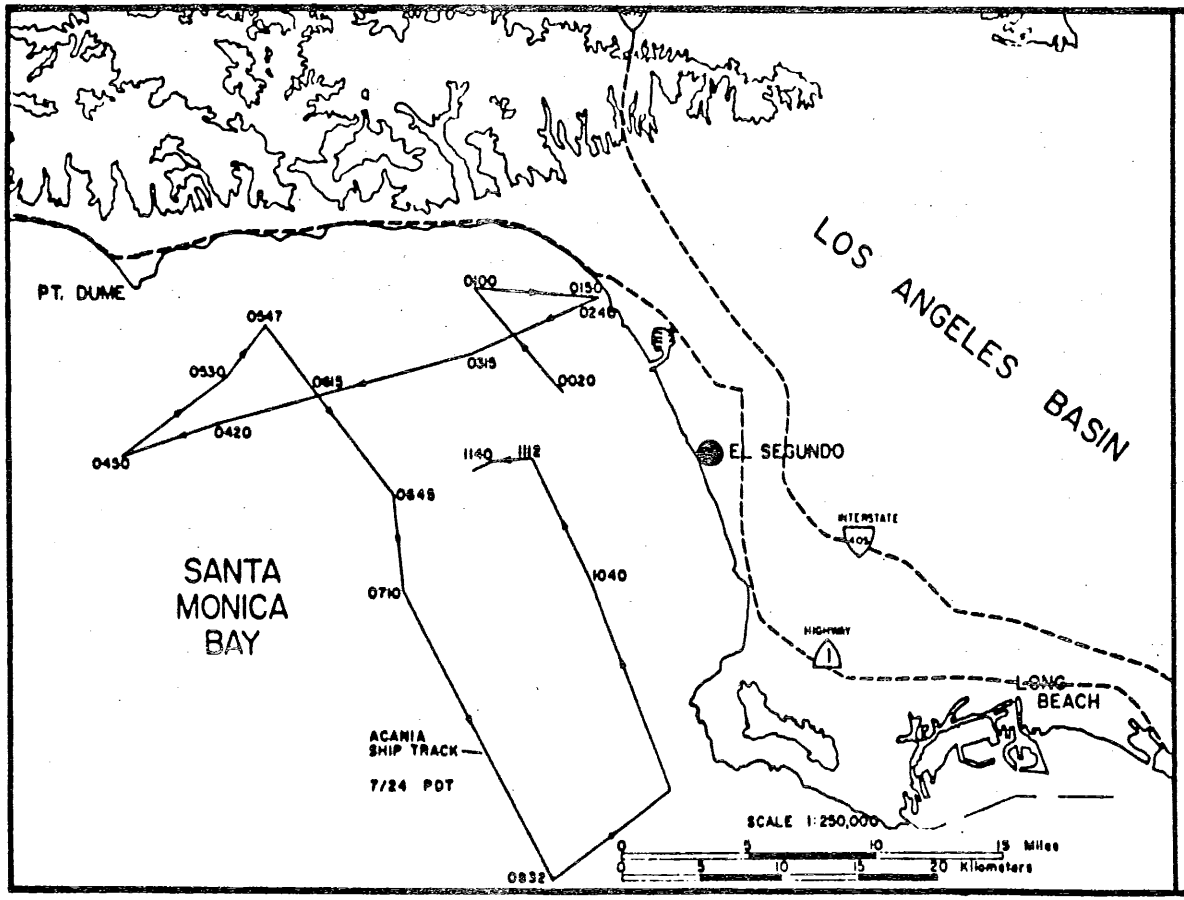
Appendix B3

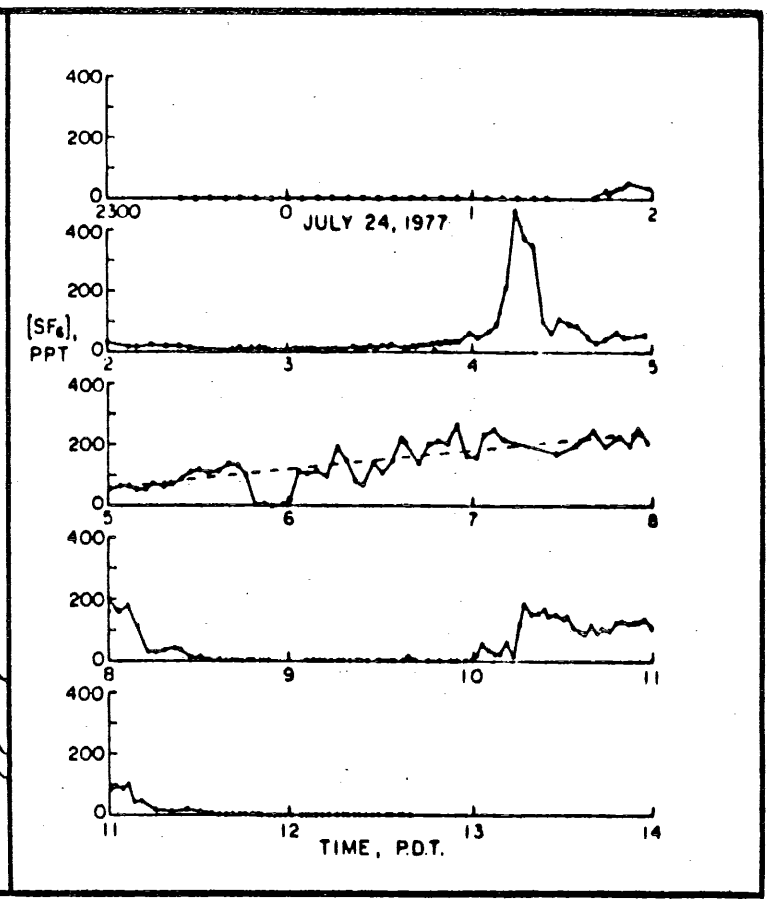
Boat Traverse Tracer Data

for

Test No. 2

Conducted Starting July 23, 1977


PT. DUME
LOS ANGELES BASIN
SANTA MONICA BAY
EL SEGUNDO
LONG BEACH
INTERSTATE 405
HIGHWAY 1
ACANIA SHIP TRACK
7/24 PDT
0430
0420
0530
0547
0615
0646
0710
0832
0315
0100
0150
0240
0020
1140
1112
1040
SCALE 1:250,000
0 5 10 15 Miles
0 5 10 15 20 Kilometers


JULY 24, 1977
[SF6], PPT
400
200
0
2300
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
TIME, P.D.T.

1-1 BOAT TRAV LSB-2

RELEASE: 13.6 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 2340 PDT, 7/23/80 AT PT 1
TRAVERSE END: 1239 PDT, 7/24/80 AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]
2340	0	0148	28	0256	3	0321	21	0349	35	0455	49
2345	9	0149	36	0257	9	0322	11	0350	28	0458	52
2350	0	0150	33	0258	6	0323	16	0351	34	0501	51
2355	0	0151	41	0259	8	0324	2	0352	34	0504	67
0000	0	0152	59	0300	7	0325	14	0353	28	0507	62
0005	0	0159	35	0301	0	0326	14	0354	37	0510	53
0010	0	0208	19	0302	12	0327	21	0355	38	0513	55
0015	0	0210	17	0303	11	0328	16	0356	34	0516	69
0020	0	0216	25	0304	15	0329	16	0359	61	0519	61
0025	0	0220	22	0305	7	0330	17	0402	45	0522	68
0030	0	0224	24	0306	11	0331	21	0405	67	0525	88
0035	0	0228	19	0307	10	0333	17	0408	98	0528	107
0040	0	0232	9	0308	13	0334	22	0411	202	0531	114
0045	0	0242	9	0309	11	0335	*	0414	461	0534	105
0050	0	0244	12	0310	11	0338	18	0417	369	0537	110
0055	0	0246	9	0311	11	0339	14	0420	349	0540	136
0105	0	0247	6	0312	4	0340	19	0423	99	0543	127
0110	0	0248	12	0313	11	0341	21	0426	58	0546	97
0115	0	0249	6	0314	10	0342	19	0429	102	0549	0
0120	0	0250	10	0315	10	0343	25	0432	91	0552	4
0125	0	0251	13	0316	12	0344	26	0435	86	0555	0
0140	0	0252	11	0317	14	0345	21	0438	45	0558	0
0144	31	0253	13	0318	10	0346	27	0441	34	0601	18
0145	10	0254	9	0319	12	0347	31	0444	43	0604	112
0147	17	0255	7	0320	16	0348	1	0448	68	0607	102

1-1 BOAT TRAV LSB-2

RELEASE: 13.6 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 2340 PDT, 7/23/80 AT PT 1
TRAVERSE END: 1239 PDT, 7/24/80 AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]	TIME	[SF6]
0610	113	0749	223	0847	0	0935	0	1031	141	1133	5
0613	91	0752	194	0848	0	0937	0	1033	100	1135	4
0616	195	0755	254	0849	0	0939	10	1035	94	1137	0
0619	145	0758	202	0850	1	0941	0	1037	86	1139	4
0622	79	0801	197	0851	0	0945	0	1039	108	1141	4
0625	64	0804	159	0852	0	0949	1	1041	83	1143	5
0628	142	0807	184	0853	0	0953	3	1043	99	1145	0
0631	101	0810	117	0854	0	0955	0	1045	96	1147	2
0634	144	0813	29	0906	0	0957	4	1047	124	1149	0
0637	218	0816	27	0908	0	0959	6	1049	126	1151	0
0638	206	0819	33	0910	0	1001	13	1051	118	1153	0
0643	140	0822	42	0912	0	1003	53	1053	126	1155	0
0646	196	0825	35	0914	0	1005	34	1055	124	1159	0
0649	211	0828	4	0916	0	1007	22	1057	138	1201	0
0652	200	0831	10	0918	0	1009	20	1059	103	1203	0
0655	264	0834	0	0920	0	1011	58	1101	89	1205	0
0658	159	0837	0	0922	0	1013	12	1103	93	1207	[illegible]
0701	152	0839	0	0924	0	1015	120	1105	91	1209	0
0704	227	0840	1	0926	0	1017	177	1107	104	1211	0
0707	250	0841	0	0928	0	1019	145	1109	42	1213	5
0710	214	0842	0	0929	0	1021	147	1111	49	1215	0
0728	168	0843	0	0930	3	1023	169	1116	19	1217	0
0734	192	0844	0	0931	0	1025	140	1121	13	1219	0
0740	253	0845	0	0932	0	1027	144	1126	17	1221	0
0744	190	0846	0	0933	0	1029	131	1131	10	1223	0

1-1 BOAT TRAV LSB-2

RELEASE: 13.6 GRAMS SF6/SEC AT EL SEGUNDO
RELEASE TIME: 2303-0400 PDT, 7/23-24/77

TRAVERSE START: 2340 PDT, 7/23/80 AT PT 1
TRAVERSE END: 1239 PDT, 7/24/80 AT PT 2
TRAVERSE ROUTE: SEE MAP

* DENOTES MISSING DATA
TIME (PDT) [SF6] (PPT)

TIME	[SF6]
1225	0
1227	0
1229	0
1231	0
1233	0
1235	0
1237	1
1239	0