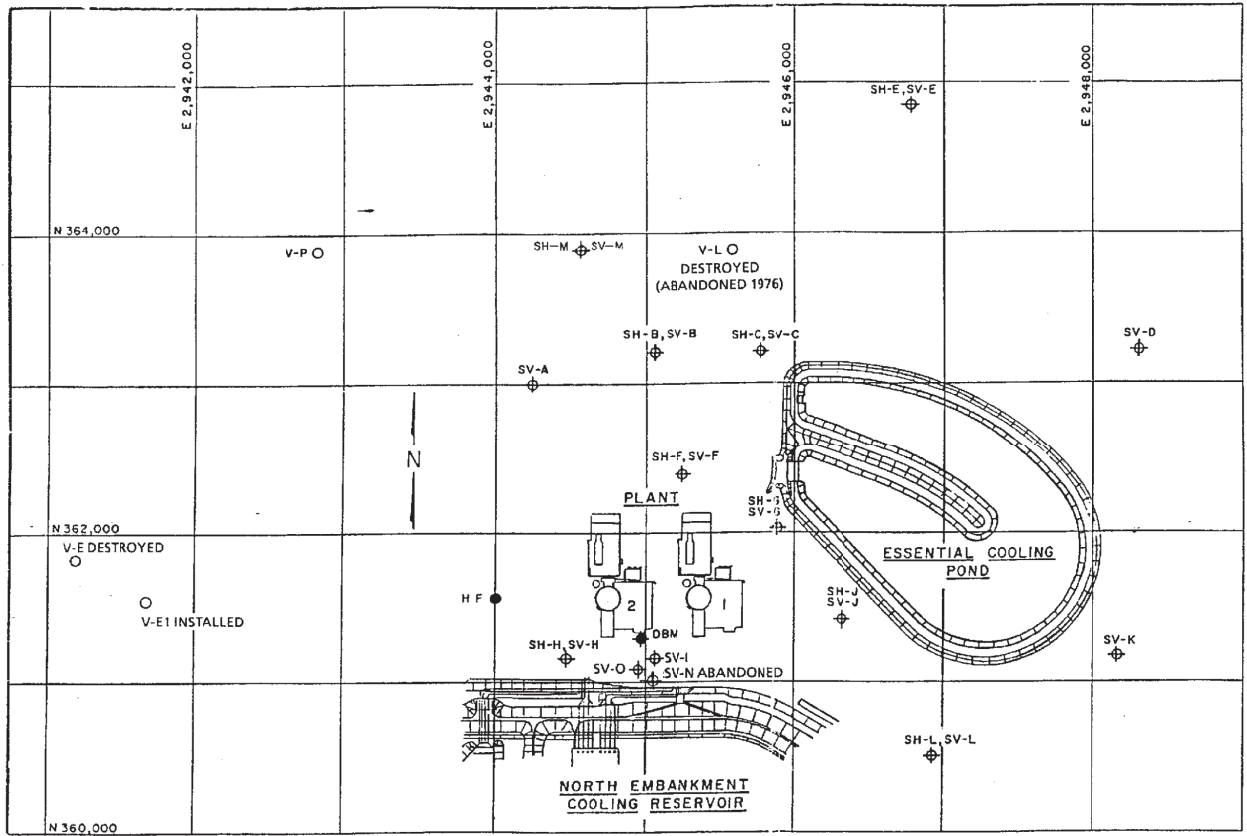


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Section 2.5.C

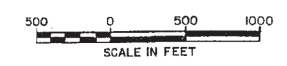


LEGEND

- ⊕ NEAR SURFACE MONUMENT
- PRIMARY REFERENCE BENCHMARK
- SECONDARY REFERENCE BENCHMARK
- ◆ DEEP REFERENCE BENCHMARK

NOTES:

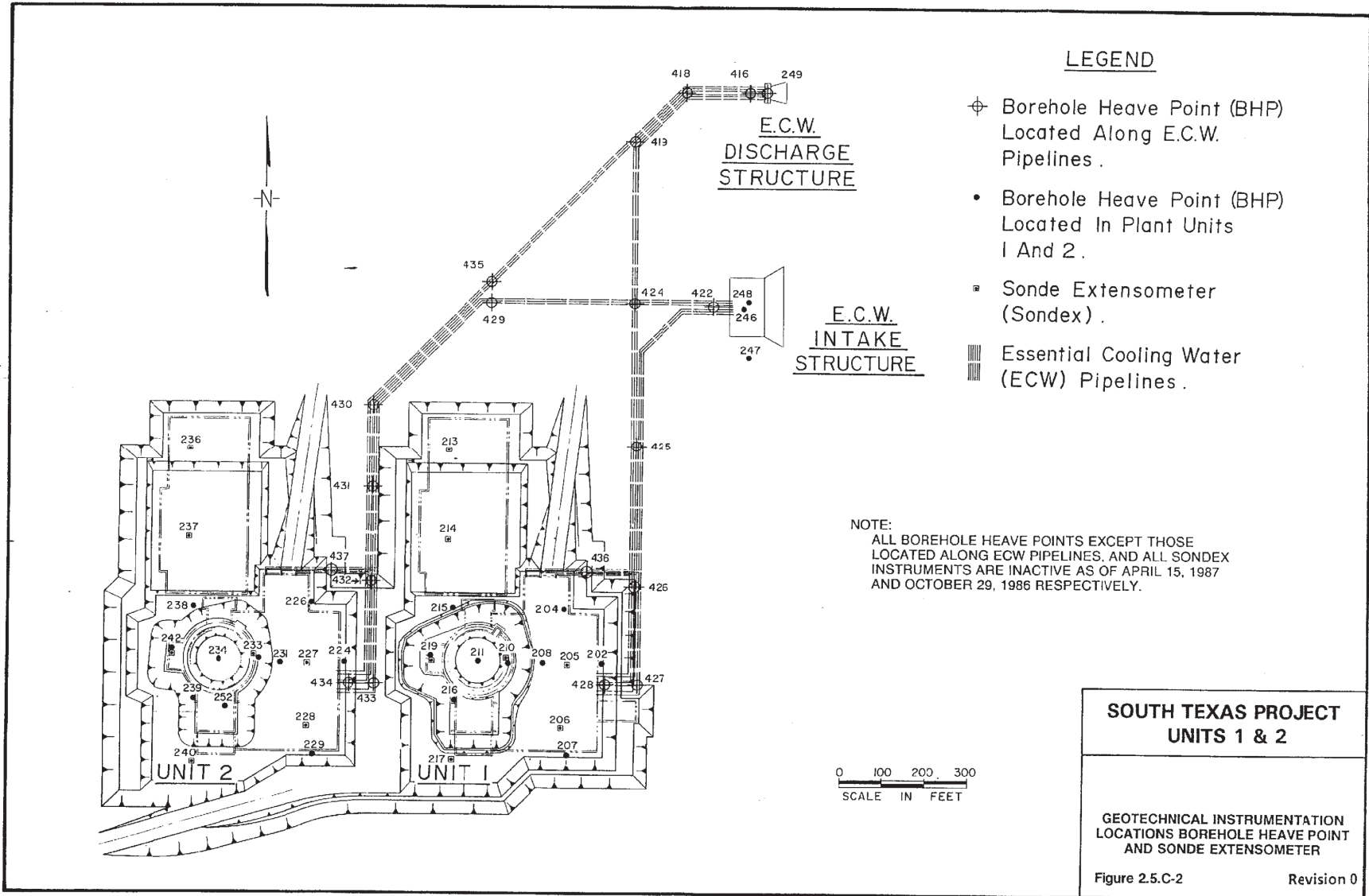
1. SV DENOTES VERTICAL NEAR SURFACE MONUMENT AND SH DENOTES HORIZONTAL NEAR SURFACE MONUMENT.
2. MONUMENT "M" WAS INSTALLED IN APRIL, 1978 AS A REPLACEMENT AND A BACKUP FOR MONUMENT "B"
3. MONUMENT "N" WAS INSTALLED IN APRIL, 1978 AS A REPLACEMENT FOR MONUMENT "I".
4. MONUMENT "V-E1" WAS INSTALLED AS A REPLACEMENT FOR "V-E".
5. MONUMENT "O" WAS INSTALLED AS A REPLACEMENT FOR MONUMENT "N"



**SOUTH TEXAS PROJECT
UNITS 1 & 2**

LOCATION MAP HORIZONTAL AND
VERTICAL BASELINE AND CONTROL
MONUMENTS

Figure 2.5.C-1 Revision 0



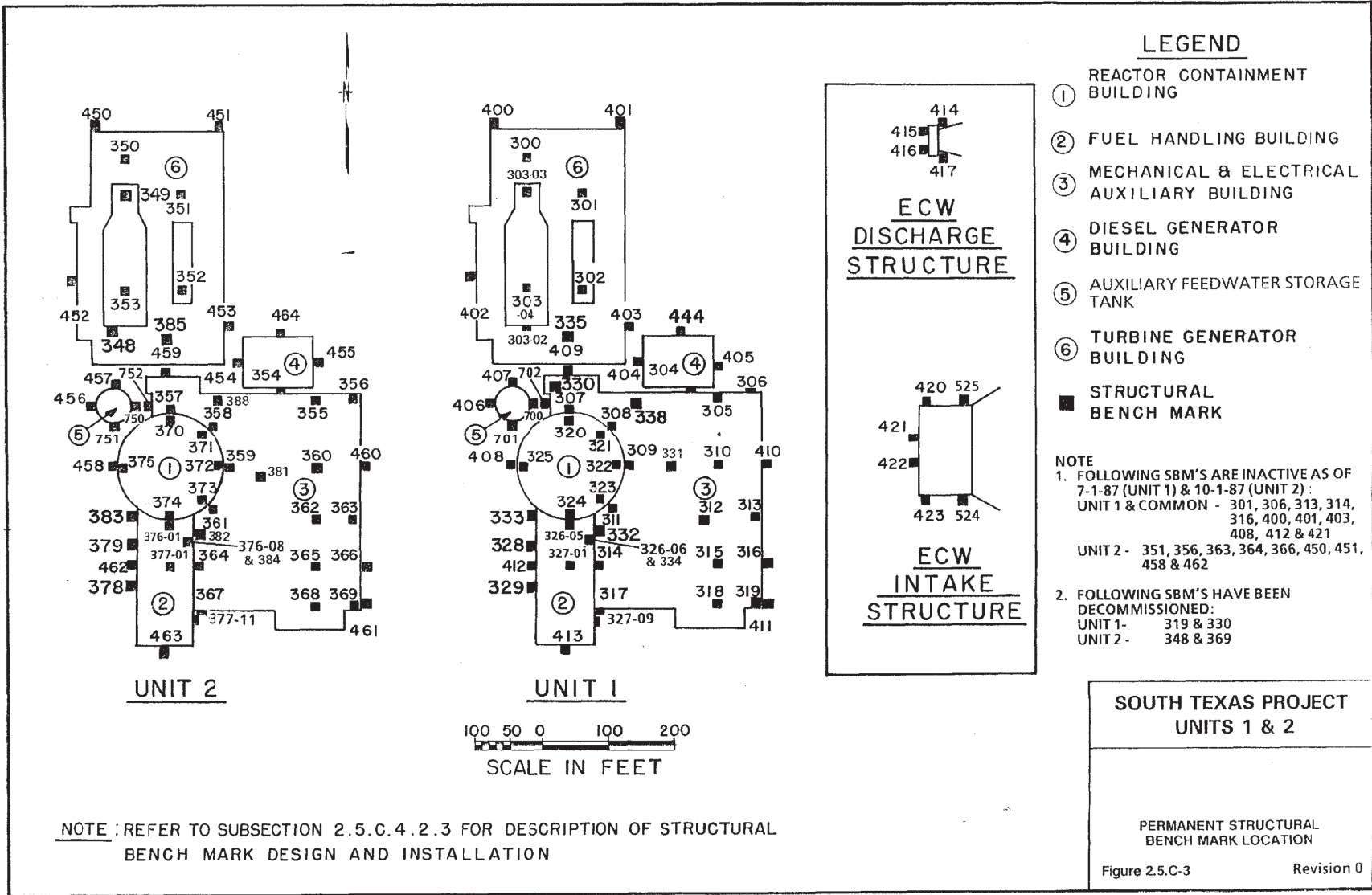
LEGEND

- ⊕ Borehole Heave Point (BHP) Located Along E.C.W. Pipelines .
- Borehole Heave Point (BHP) Located In Plant Units I And 2 .
- ▣ Sonde Extensometer (Sondex) .
- ▬▬▬ Essential Cooling Water (ECW) Pipelines .

NOTE:
 ALL BOREHOLE HEAVE POINTS EXCEPT THOSE LOCATED ALONG ECW PIPELINES, AND ALL SONDEX INSTRUMENTS ARE INACTIVE AS OF APRIL 15, 1987 AND OCTOBER 29, 1986 RESPECTIVELY.

SOUTH TEXAS PROJECT UNITS 1 & 2	
GEOTECHNICAL INSTRUMENTATION LOCATIONS BOREHOLE HEAVE POINT AND SONDE EXTENSOMETER	
Figure 2.5.C-2	Revision 0

0 100 200 300
 SCALE IN FEET

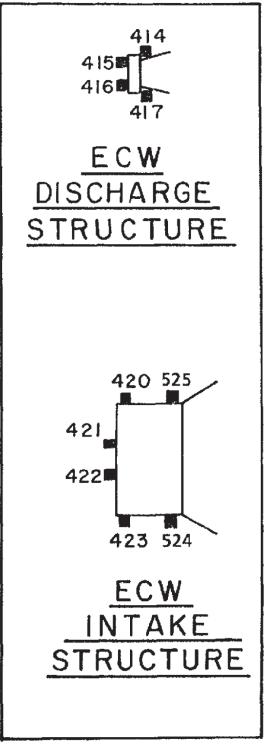


LEGEND

- ① REACTOR CONTAINMENT BUILDING
- ② FUEL HANDLING BUILDING
- ③ MECHANICAL & ELECTRICAL AUXILIARY BUILDING
- ④ DIESEL GENERATOR BUILDING
- ⑤ AUXILIARY FEEDWATER STORAGE TANK
- ⑥ TURBINE GENERATOR BUILDING

■ STRUCTURAL BENCH MARK

- NOTE**
1. FOLLOWING SBM'S ARE INACTIVE AS OF 7-1-87 (UNIT 1) & 10-1-87 (UNIT 2):
 UNIT 1 & COMMON - 301, 306, 313, 314, 316, 400, 401, 403, 408, 412 & 421
 UNIT 2 - 351, 356, 363, 364, 366, 450, 451, 458 & 462
 2. FOLLOWING SBM'S HAVE BEEN DECOMMISSIONED:
 UNIT 1 - 319 & 330
 UNIT 2 - 348 & 369

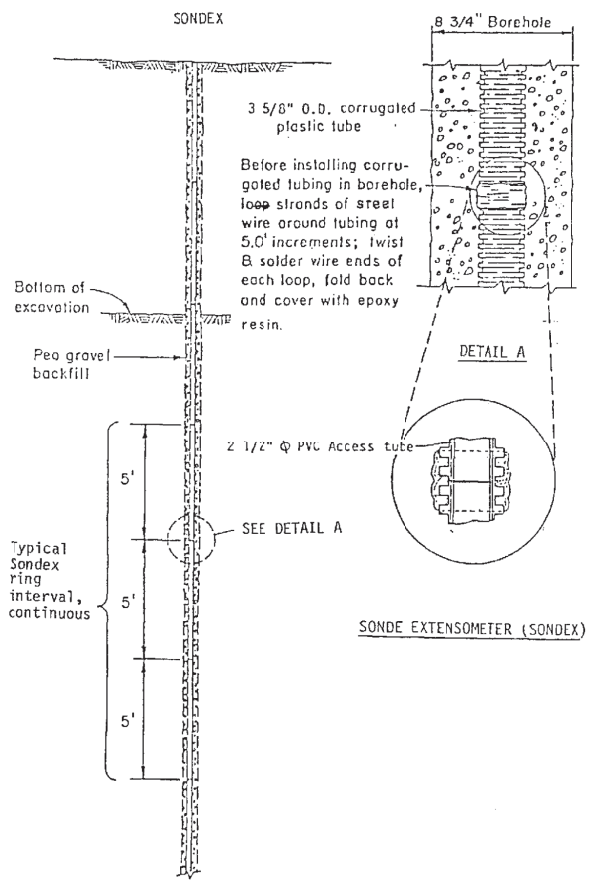


NOTE: REFER TO SUBSECTION 2.5.C.4.2.3 FOR DESCRIPTION OF STRUCTURAL BENCH MARK DESIGN AND INSTALLATION

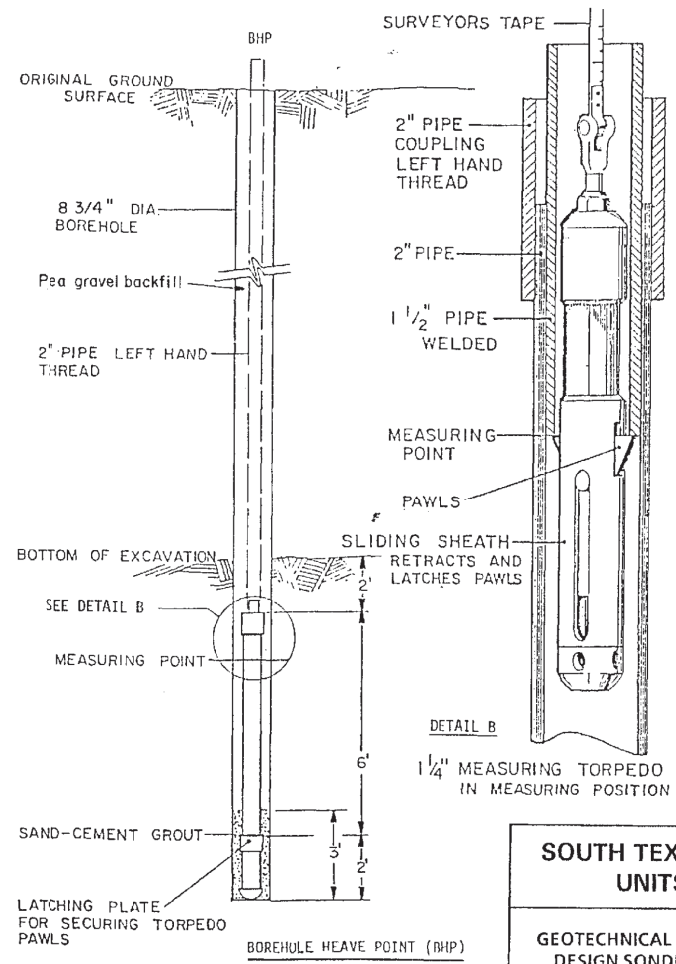
**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

PERMANENT STRUCTURAL BENCH MARK LOCATION

Figure 2.5.C-3 Revision 0



----Sketch----
Not To Scale

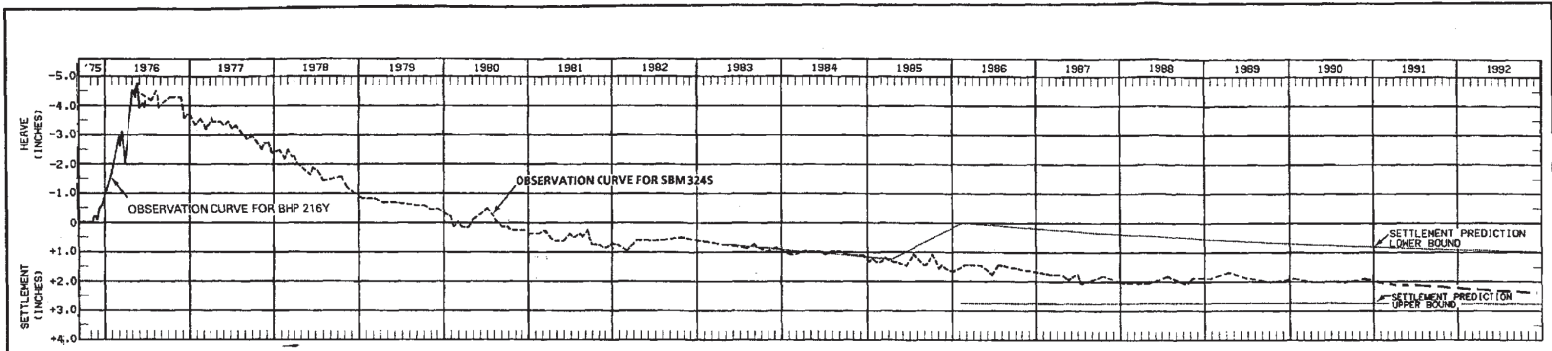


**SOUTH TEXAS PROJECT
UNITS 1 & 2**

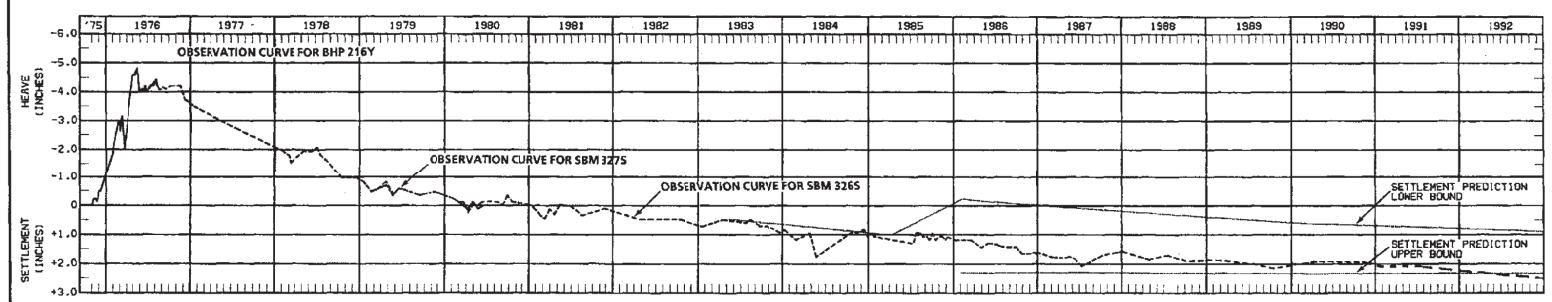
**GEOTECHNICAL INSTRUMENTATION
DESIGN SONDE EXTENSOMETER
(SONDEX) & BOREHOLE
HEAVE POINT (BHP)**

Figure 2.5.C-4

Revision 0



UNIT 1 - REACTOR CONTAINMENT BUILDING



UNIT 1 - FUEL HANDLING BUILDING

NOTES:

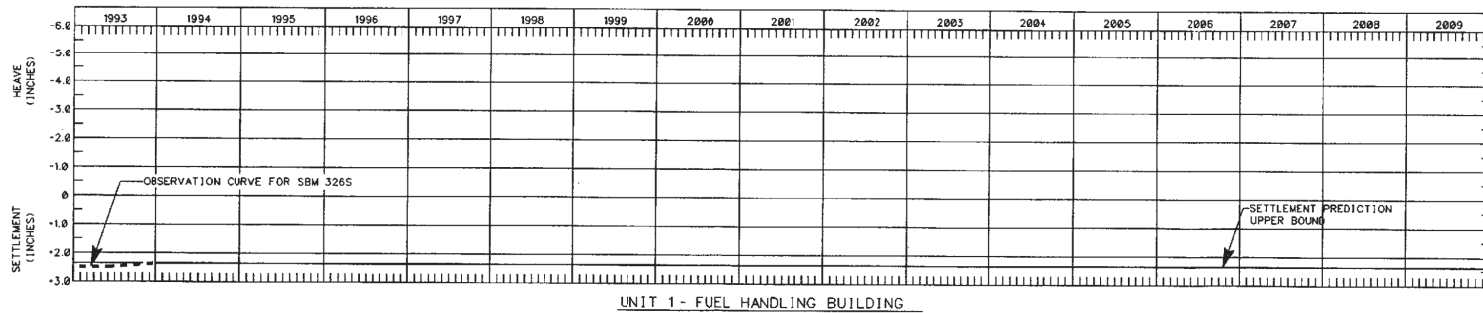
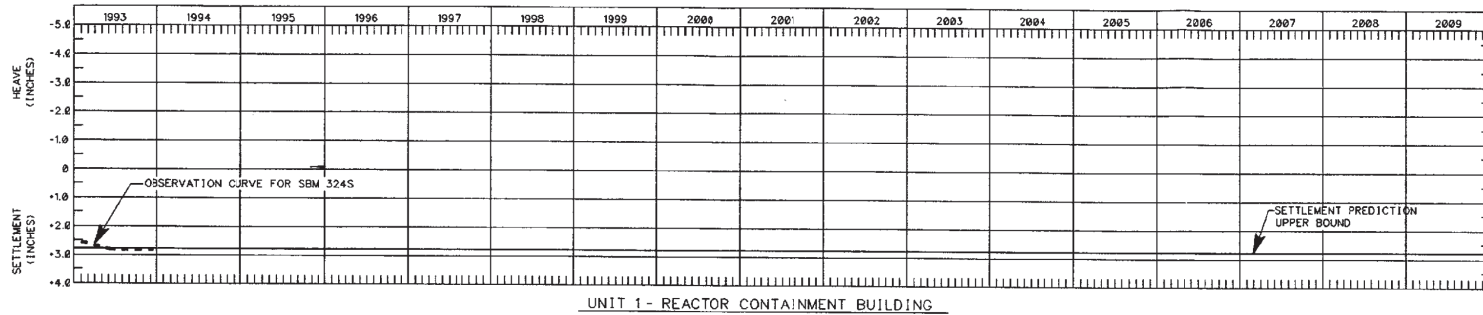
1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C.4.4 FOR SETTLEMENT PREDICTIONS - UPPER BOUND & LOWER BOUND.
4. SEE FIGURE 2.5.C-9 SH 2 OF 2 FOR CONTINUATION OF MOVEMENT.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 1 (RCB, FHB)

FIGURE 2.5.C-9 (SH 1 OF 2) REVISION 4

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LO037.cr

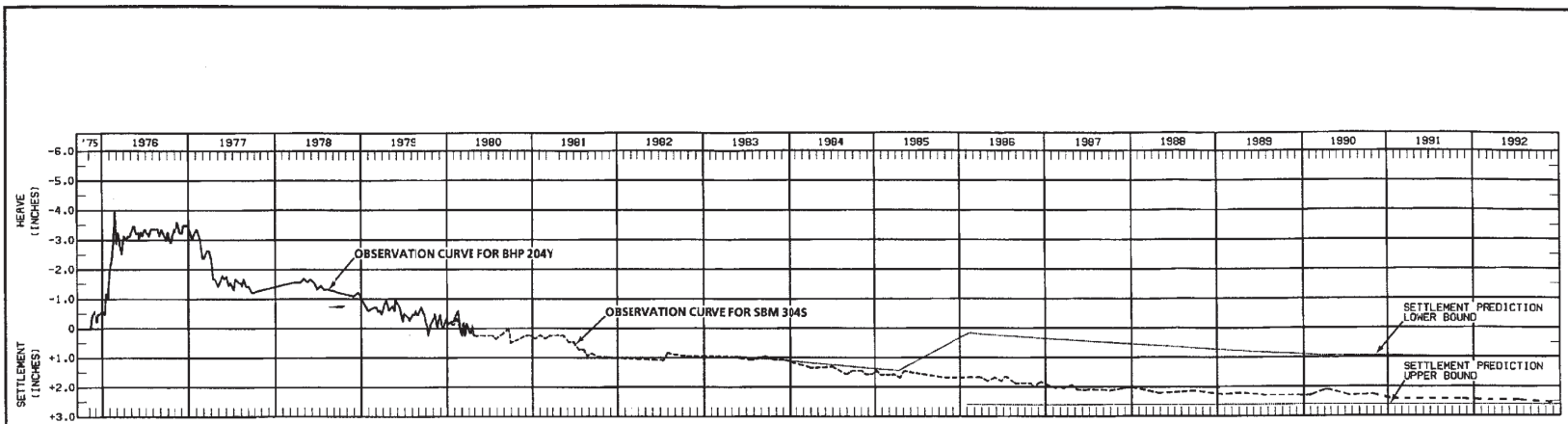


1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C-4.4 FOR SETTLEMENT PREDICTIONS- UPPER AND LOWER BOUND.
4. CONTINUED FROM FIGURE 2.5.C-9 SH 1 OF 2.

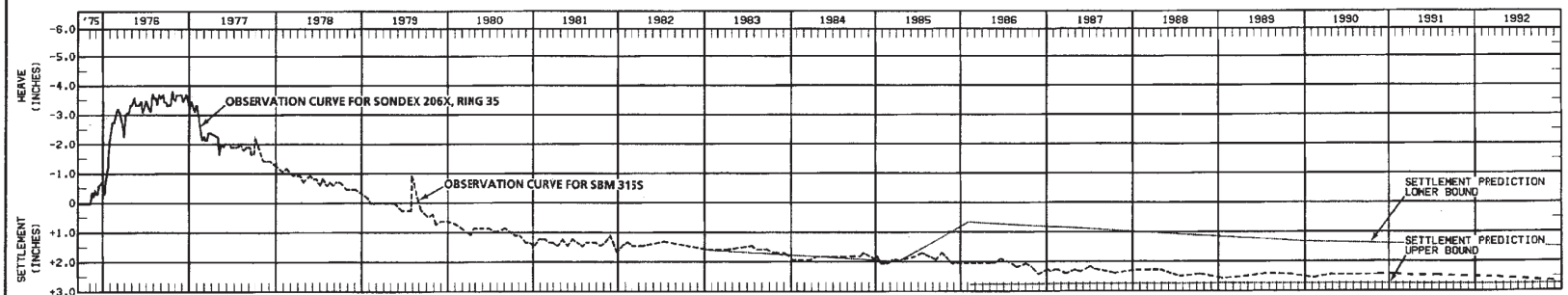
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 1 (RCB,FHB)

Figure 2.5.C-9 SH 2 OF 2. REVISION 4



UNIT 1 - DIESEL GENERATOR BUILDING



UNIT 1 - MECHANICAL & ELECTRICAL AUXILIARY BUILDING

NOTES:

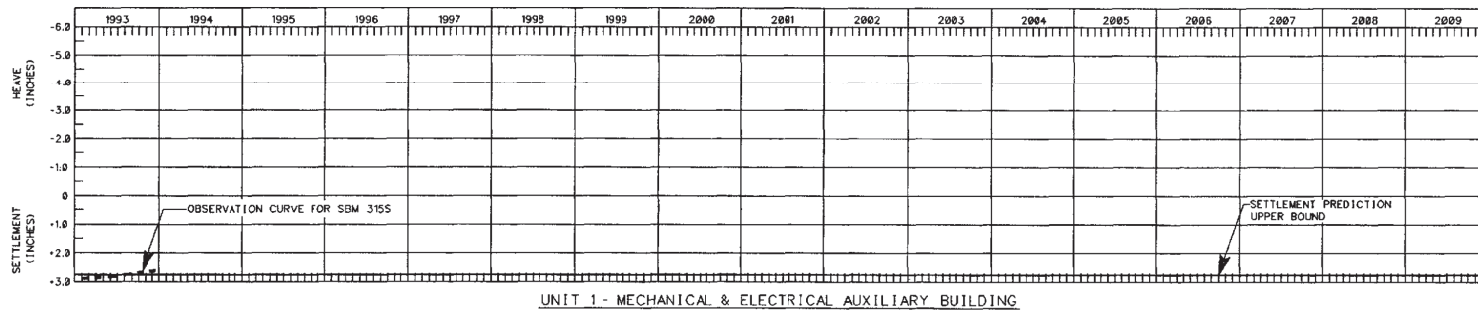
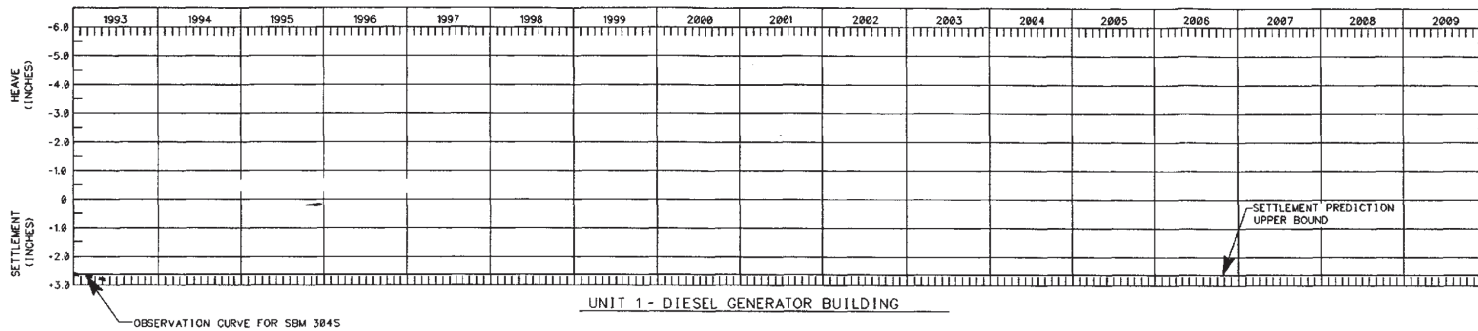
1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C.4.4 FOR SETTLEMENT PREDICTIONS - UPPER BOUND & LOWER BOUND.
4. SEE FIGURE 2.5.C-9A SH 2 OF 2 FOR CONTINUATION OF MOVEMENT.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 1 (DGB, MEAB)

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L0038.cit

FIGURE 2.5.C-9A (SH 1 OF 2) REVISION 4

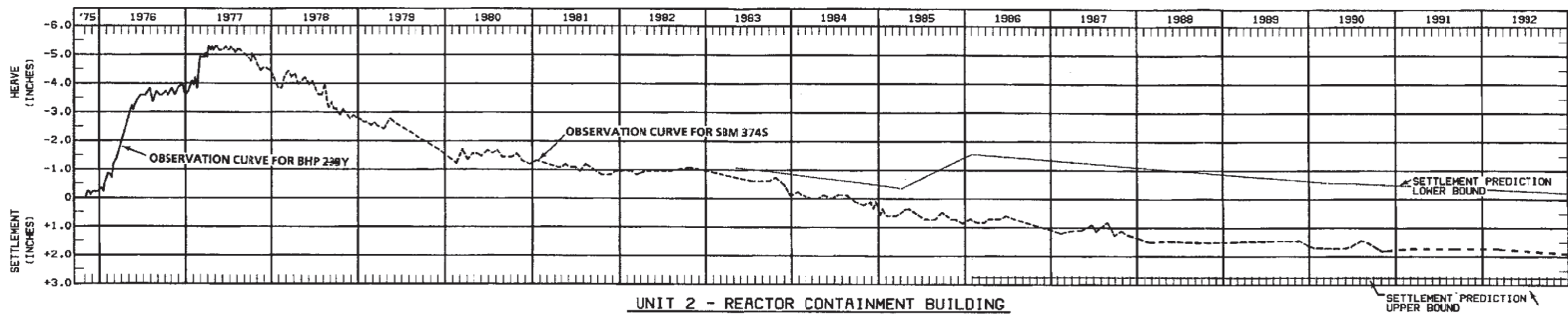


1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C-4.4 FOR SETTLEMENT PREDICTIONS- UPPER AND LOWER BOUND.
4. CONTINUED FROM FIGURE 2.5.C-9A SH 10F 2.

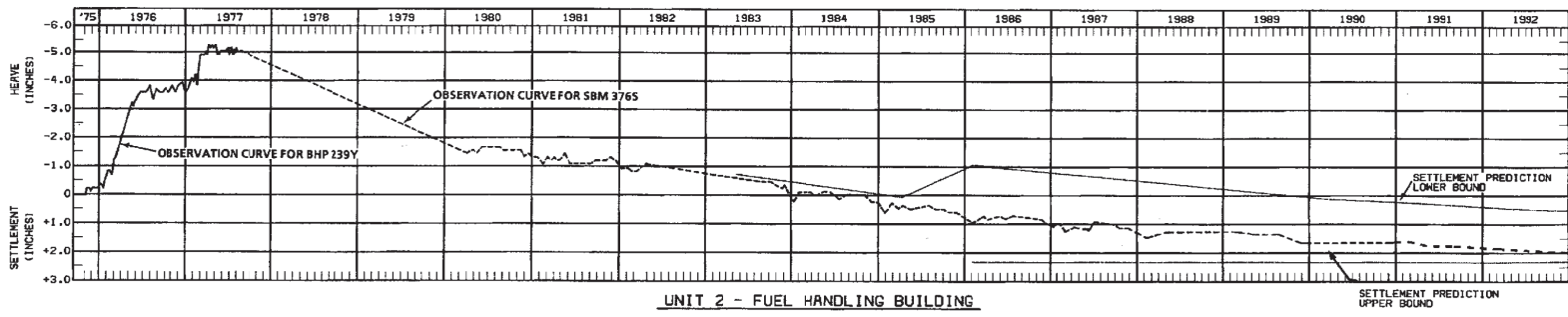
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 1 (DGB,MEAB)
FIGURE 2.5.C-9A (SH 2 OF 2) REVISION 4





UNIT 2 - REACTOR CONTAINMENT BUILDING



UNIT 2 - FUEL HANDLING BUILDING

NOTES:

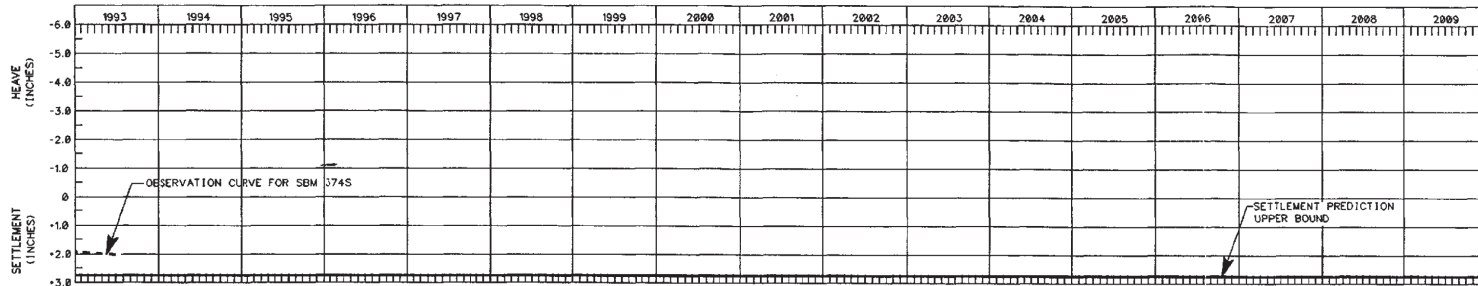
1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C.4.4 FOR SETTLEMENT PREDICTIONS: UPPER BOUND & LOWER BOUND.
4. SEE FIGURE 2.5.C-10 SH 2 OF 2 FOR CONTINUATION OF MOVEMENT.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

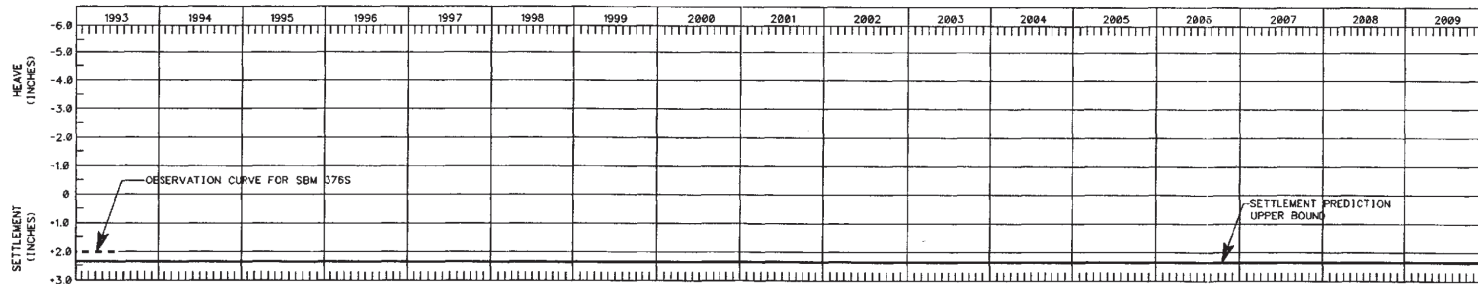
**GEO TECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 2 (RCB, FHB)**

FIGURE 2.5.C-10 (SH 1 OF 2) REVISION 4

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L0039.C11



UNIT 2 - REACTOR CONTAINMENT BUILDING



UNIT 2 - FUEL HANDLING BUILDING

1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C-4.4 FOR SETTLEMENT PREDICTIONS- UPPER AND LOWER BOUND.
4. CONTINUED FROM FIGURE 2.5.C-10 SH 1 OF 2.

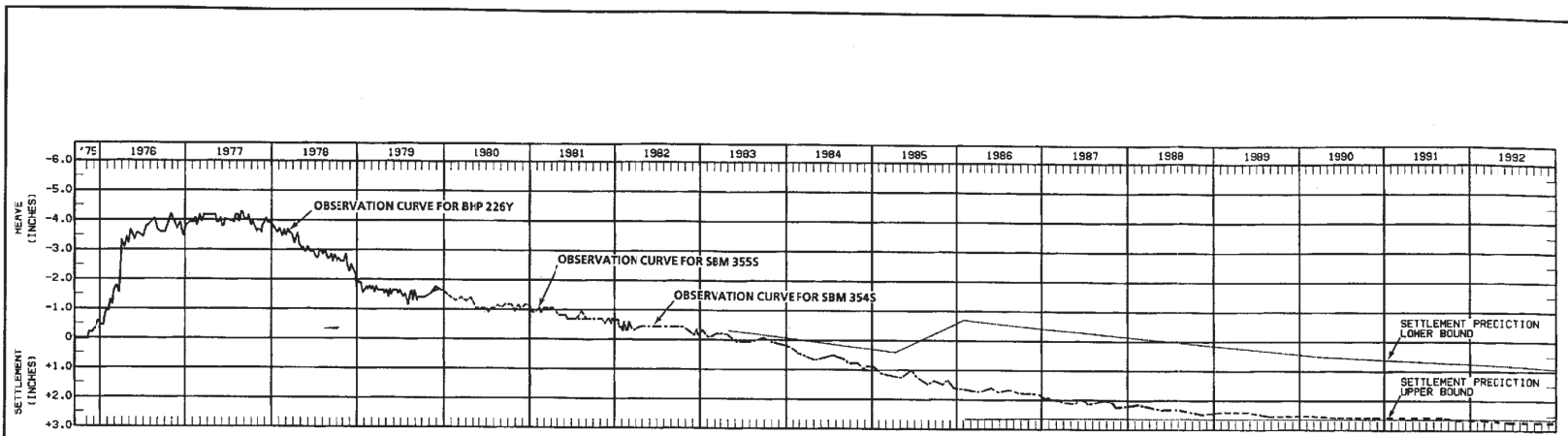
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 2 (RCB,FHB)

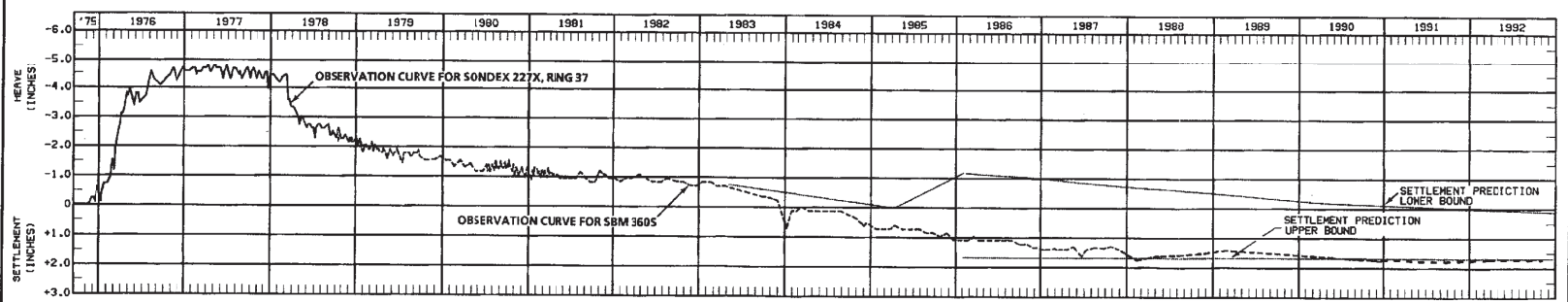
Figure 2.5.C-10 (SH 2 OF 2) REVISION 4



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UNIT 2 - DIESEL GENERATOR BUILDING

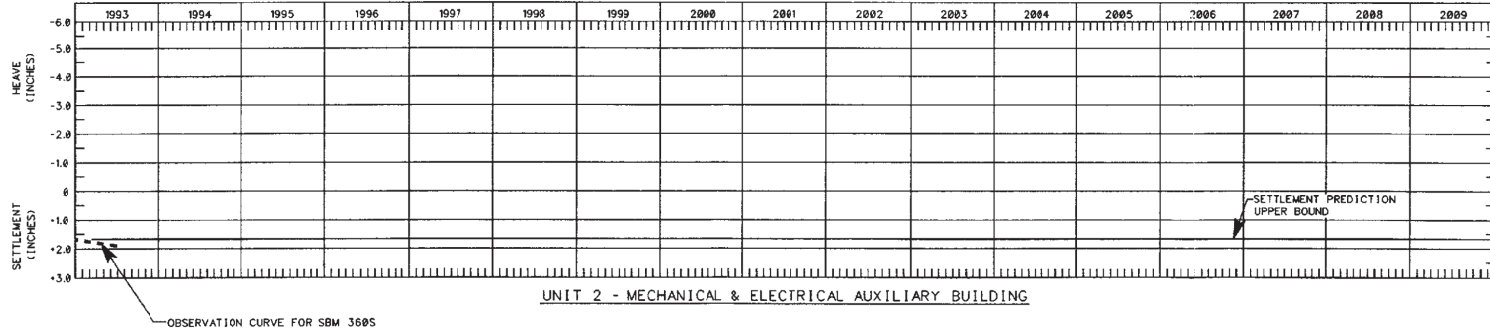
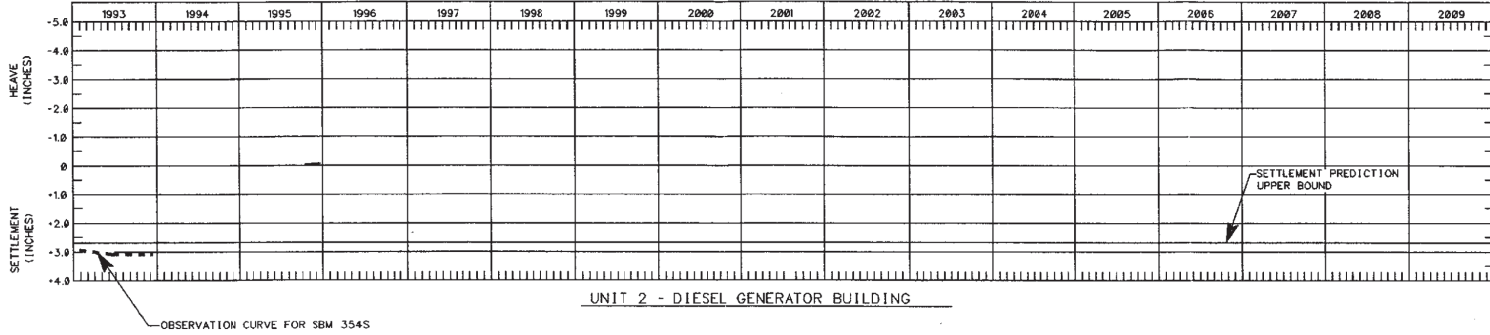
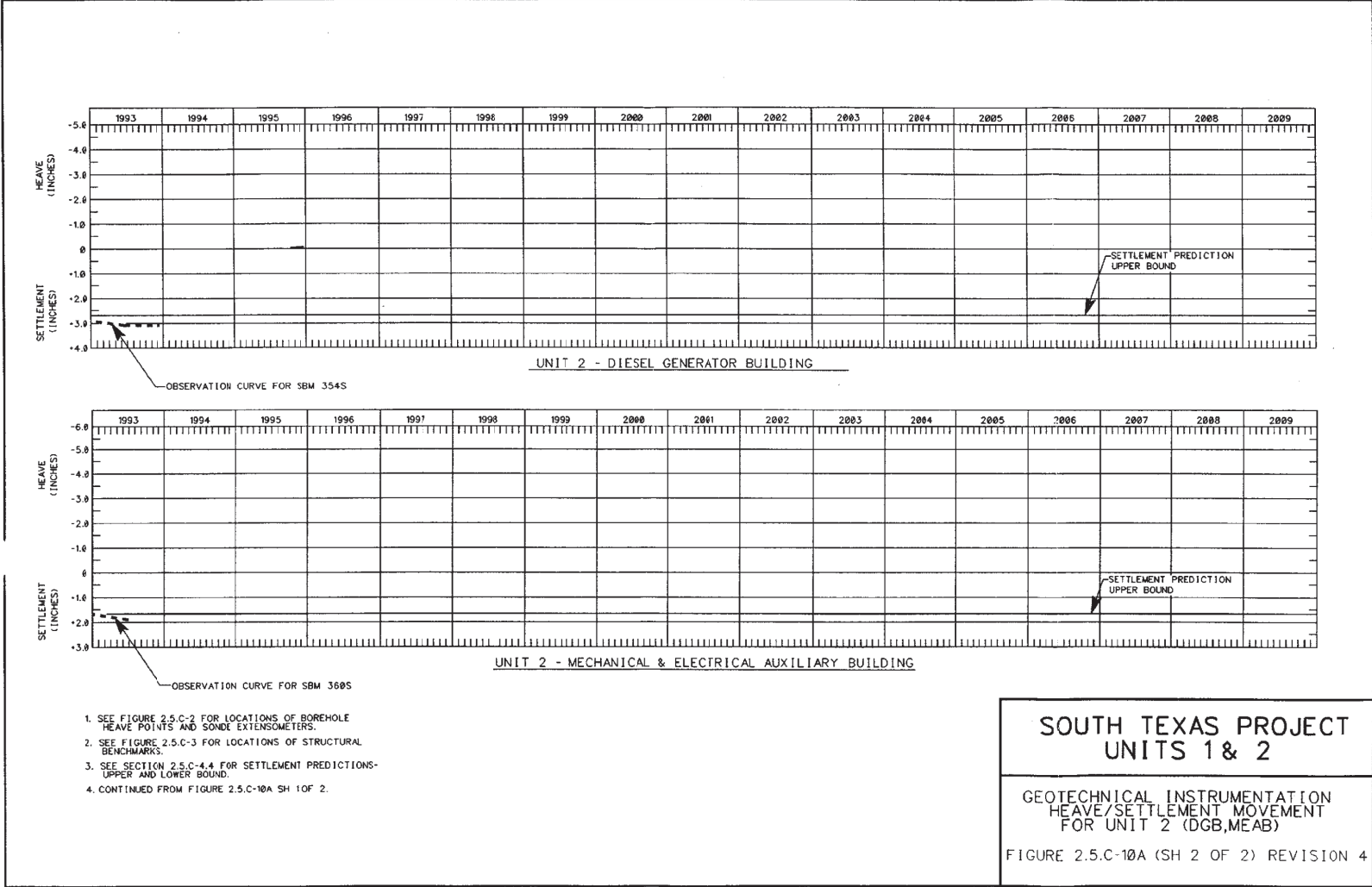


UNIT 2 - MECHANICAL & ELECTRICAL AUXILIARY BUILDING

- NOTES:
1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
 2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
 3. SEE SECTION 2.5.C.4.4 FOR SETTLEMENT PREDICTIONS - UPPER BOUND & LOWER BOUND.
 4. SEE FIGURE 2.5.C-10A SH 2 OF 2 FOR CONTINUATION OF MOVEMENT.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

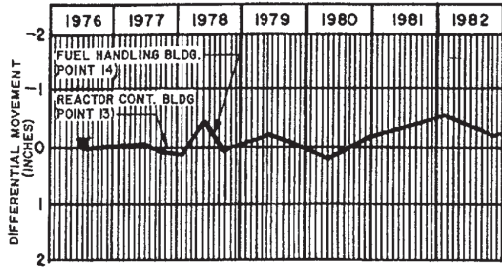
GEOTECHNICAL INSTRUMENTATION
HEAVE/SETTLEMENT MOVEMENT
FOR UNIT 2 (DGB, MEAB)



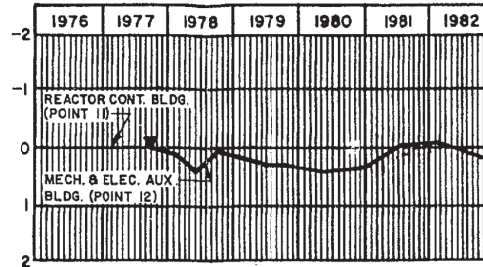
1. SEE FIGURE 2.5.C-2 FOR LOCATIONS OF BOREHOLE HEAVE POINTS AND SONDE EXTENSOMETERS.
2. SEE FIGURE 2.5.C-3 FOR LOCATIONS OF STRUCTURAL BENCHMARKS.
3. SEE SECTION 2.5.C-4.4 FOR SETTLEMENT PREDICTIONS- UPPER AND LOWER BOUND.
4. CONTINUED FROM FIGURE 2.5.C-10A SH 1 OF 2.



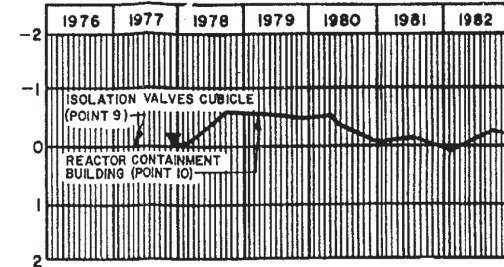
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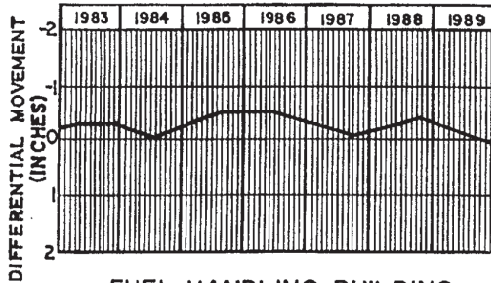
FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



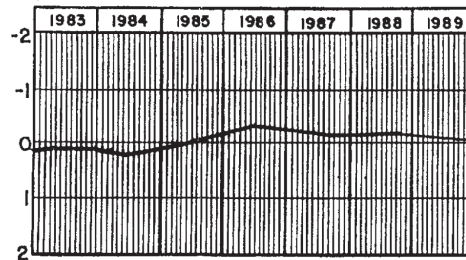
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



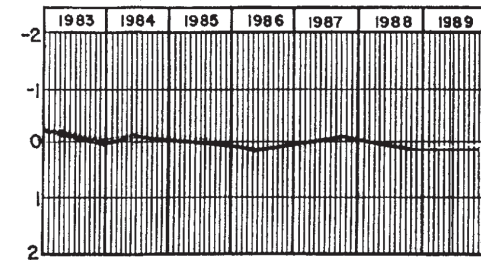
ISOLATION VALVES CUBICLE
VERSUS
REACTOR CONTAINMENT BUILDING



FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



ISOLATION VALVES CUBICLE
VERSUS
REACTOR CONTAINMENT BUILDING

CONTROL POINTS	3	4	7	8	9	10	11	12	13	14	17	18
HEAVE (INCHES) SEE NOTE 2	-0.1	0.3	-0.4	-2.6	-2.5	-2.5	-2.8	-4.3	-4.1	-2.8	-2.4	

LEGEND:

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

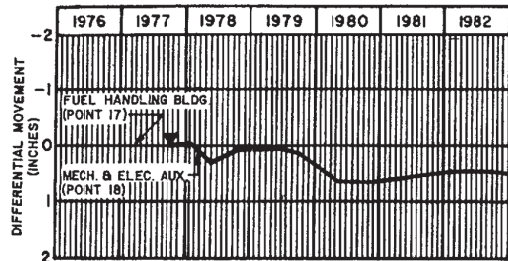
NOTES:

1. SEE FIGURE 2.5.C-13 FOR LOCATION OF ANALYSIS CONTROL POINTS.
2. POSITIVE NUMBER INDICATES SETTLEMENT.

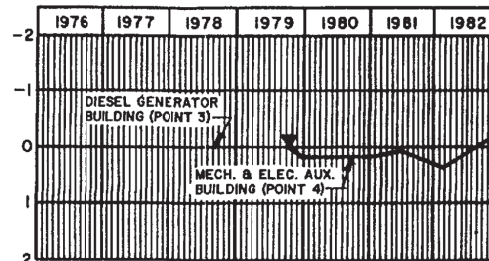
**SOUTH TEXAS PROJECT
UNITS 1&2**

DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 1

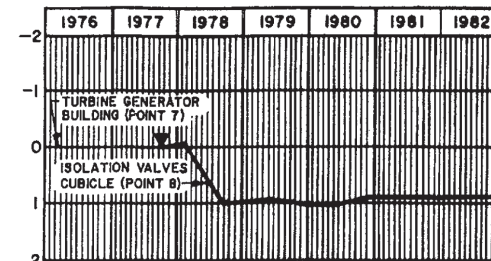
Figure 2.5.C-11 Revision 1



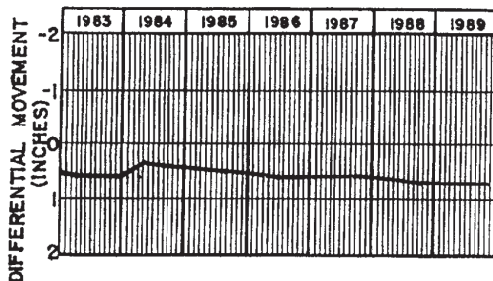
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



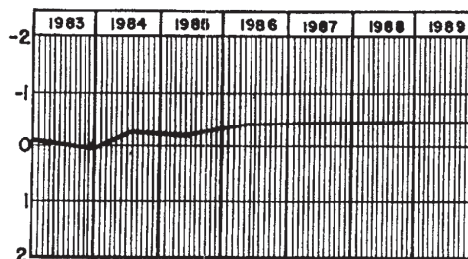
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



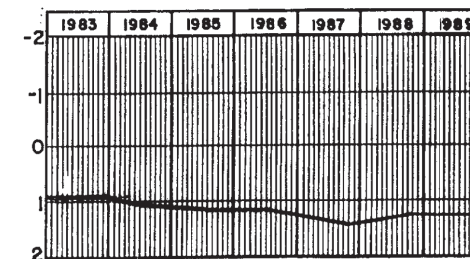
ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING

CONTROL POINTS	3	4	7	8	9	10	11	12	13	14	17	18
HEAVE (INCHES) SEE NOTE 2	-0.1	0.3	-0.4	-2.5		-2.5	-2.5	-2.6	-4.3	-4.1	-2.6	-2.4

LEGEND:

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

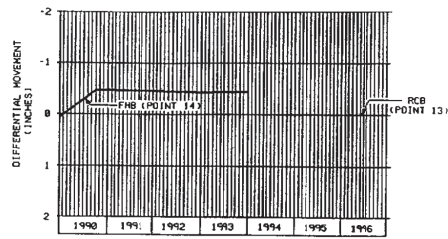
NOTES:

- SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
- POSITIVE NUMBER INDICATES SETTLEMENT.

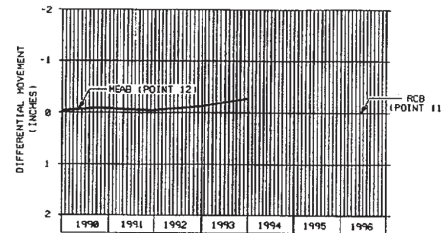
**SOUTH TEXAS PROJECT
UNITS 1&2**

DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 1

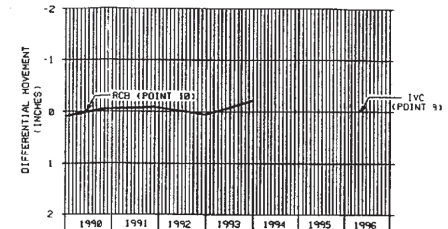
Figure 2.5.C-11A Revision 1



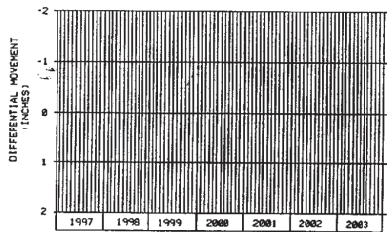
FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



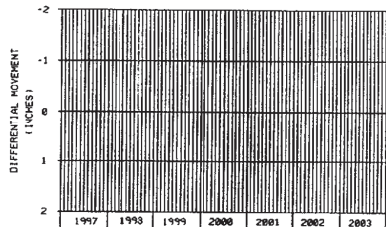
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



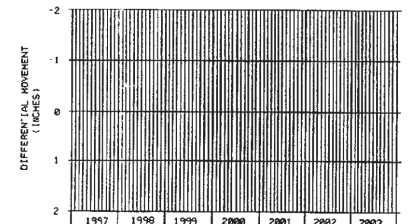
REACTOR CONTAINMENT BUILDING
VERSUS
ISOLATION VALVES CUBICLE



FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



REACTOR CONTAINMENT BUILDING
VERSUS
ISOLATION VALVES CUBICLE

CONTROL POINTS	3	4	7	8	9	10	11	12	13	14	17	18
HEAVE (INCHES) SEE NOTE 2	-0.1	0.3	-0.4	-2.5		-2.5	-2.6	-4.3	-4.1	-2.6	-2.4	

LEGEND

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

NOTES:

1. SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
2. POSITIVE NUMBER INDICATES SETTLEMENT.
3. SEE FIGURE 2.5.C-11 FOR MOVEMENT FROM 1976-1989.

SOUTH TEXAS PROJECT
UNITS 1 & 2

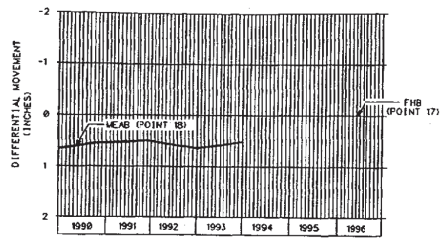
DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 1

FIGURE 2.5.C-11B

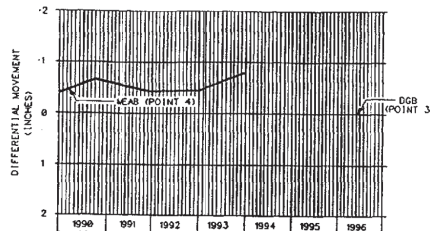
REVISION 4



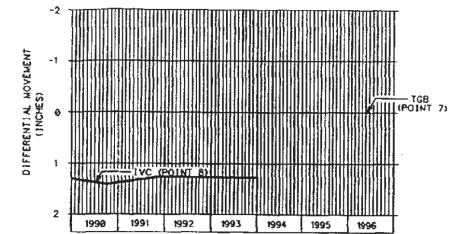
L0055.042



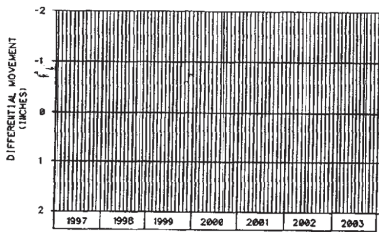
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



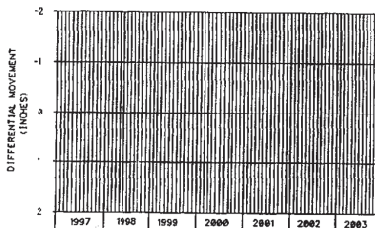
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



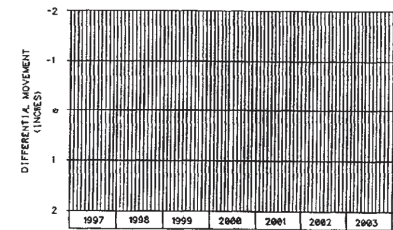
ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING

CONTROL POINTS	3	4	7	8	9	10	11	12	13	14	17	18
HEAVE (INCHES) SEE NOTE 2	-0.1	0.3	-0.4	-2.5		-2.5	-2.5	-2.6	-4.3	-4.1	-2.6	-2.4

LEGEND

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

NOTES:

1. SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
2. POSITIVE NUMBER INDICATES SETTLEMENT.
3. SEE FIGURE 2.5.C-11A FOR MOVEMENT FROM 1976-1989.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

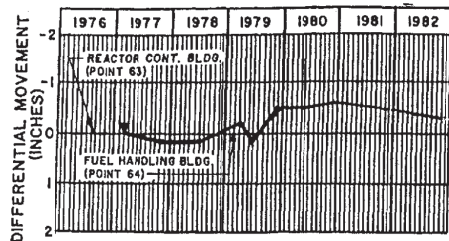
**DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 1**

Figure 2.5.C-11C

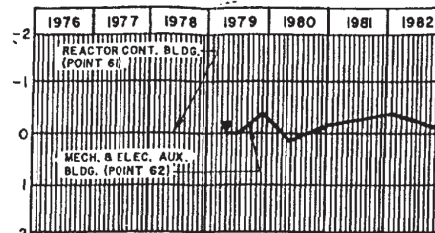
Revision 4



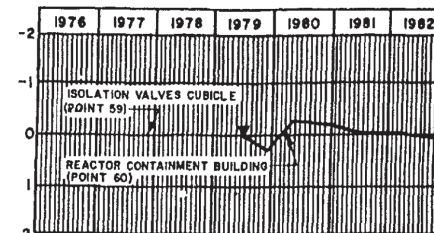
L8049842



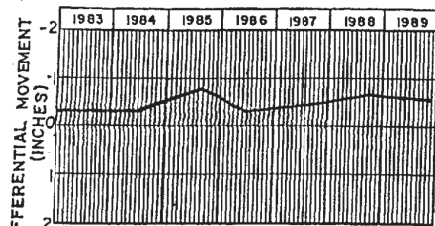
FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



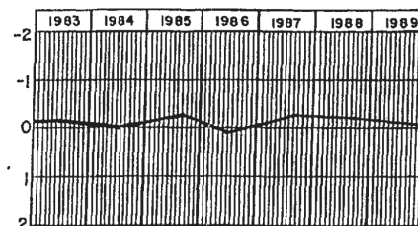
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



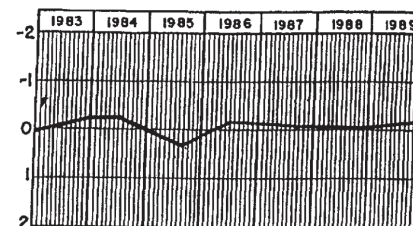
ISOLATION VALVES CUBICLE
VERSUS
REACTOR CONTAINMENT BUILDING



FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



ISOLATION VALVES CUBICLE
VERSUS
REACTOR CONTAINMENT BUILDING

CONTROL POINTS	53	54	57	58	59	60	61	62	63	64	67	68
HEAVE (INCHES) SEE NOTE 2			0.5		-2.3	-2.3	-2.1	-2.	-5.1	-5.0	-2.3	-2.3

LEGEND:

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

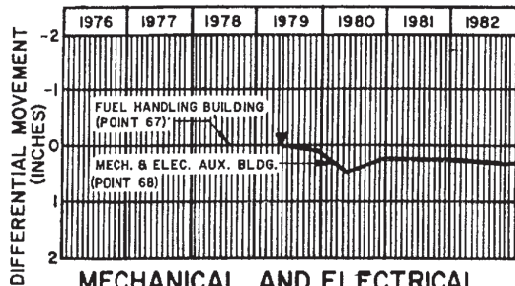
NOTES:

- SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
- POSITIVE NUMBER INDICATES SETTLEMENT

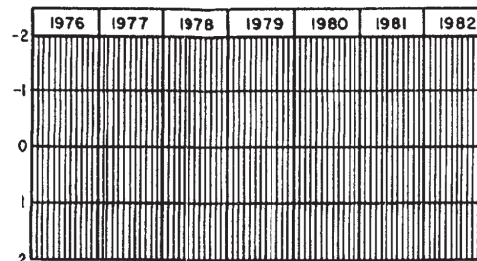
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

DIFFERENTIAL MOVEMENTS
BUILDINGS
UNIT 2

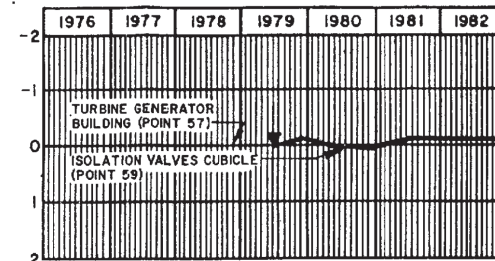
Figure 2.5.C-12 Revision 1



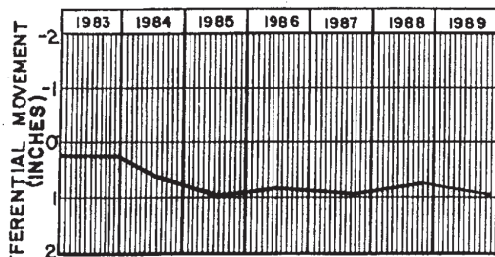
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



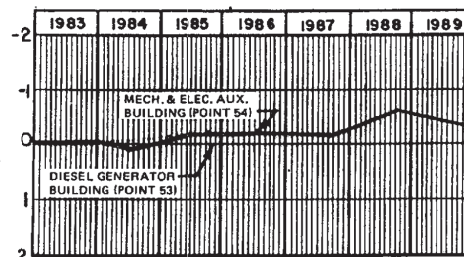
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



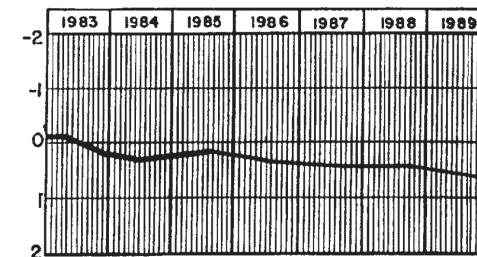
ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



ISOLATION VALVES CUBICLE
VERSUS
TURBINE GENERATOR BUILDING

CONTROL POINTS	53	54	57	58	59	60	61	62	63	64	67	68
HEAVE (INCHES) SEE NOTE 2			0.5		-2.3	-2.3	-2.1	-2.1	-5.1	-5.0	-2.3	-2.3

LEGEND:

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

NOTES:

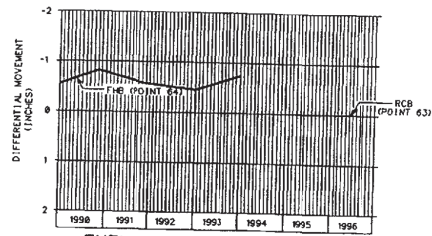
1. SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
2. POSITIVE NUMBER INDICATES SETTLEMENT

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

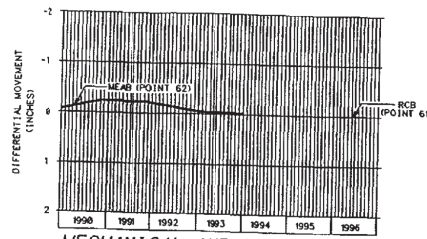
DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 2

Figure 2.5.C-12A

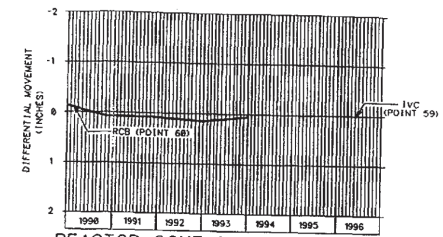
Revision 1



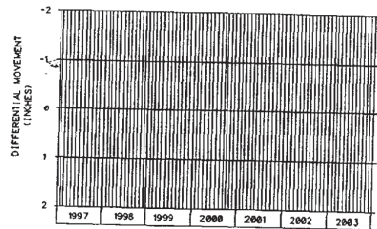
FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



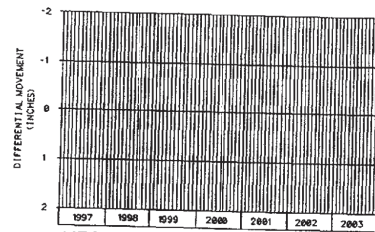
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



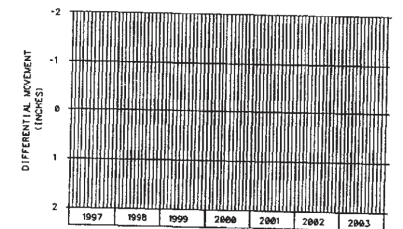
REACTOR CONTAINMENT BUILDING
VERSUS
ISOLATION VALVES CUBICLE



FUEL HANDLING BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
REACTOR CONTAINMENT BUILDING



REACTOR CONTAINMENT BUILDING
VERSUS
ISOLATION VALVES CUBICLE

CONTROL POINTS	53	54	57	58	59	60	61	62	63	64	67	68
HEAVE (INCHES) SEE NOTE 2			0.5	-2.3	-2.3	-2.1	-2.1	-5.1	-5.0	-2.3	-2.3	

LEGEND

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

NOTES:

1. SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
2. POSITIVE NUMBER INDICATES SETTLEMENT.
3. SEE FIGURE 2.5.C-12 FOR MOVEMENT FROM 1976-1989.

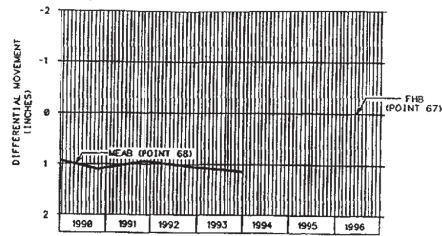
SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 2

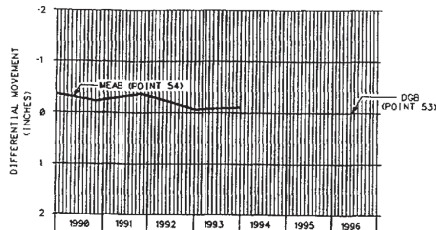
Figure 2.5.C-12B

Revision 4

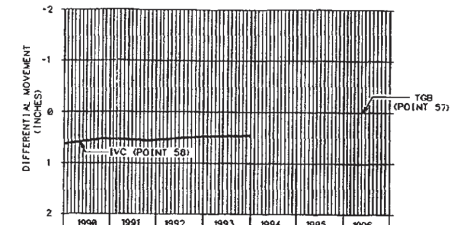
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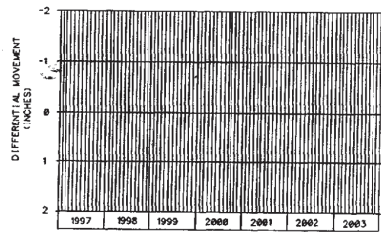
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



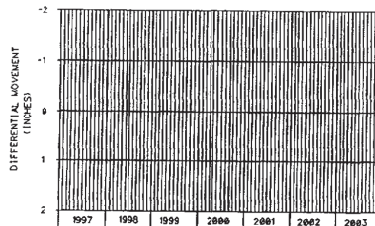
MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



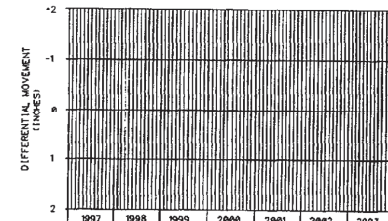
TURBINE GENERATOR BUILDING
VERSUS
ISOLATION VALVES CUBICLE



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
FUEL HANDLING BUILDING



MECHANICAL AND ELECTRICAL
AUXILIARY BUILDING
VERSUS
DIESEL GENERATOR BUILDING



TURBINE GENERATOR BUILDING
VERSUS
ISOLATION VALVES CUBICLE

CONTROL POINTS	53	54	57	58	59	60	61	62	63	64	67	68
HEAVE (INCHES) SEE NOTE 2			0.5	-2.3	-2.3	-2.1	-2.1	-5.1	-5.0	-2.3	-2.3	

LEGEND

▼ INDICATES START OF DIFFERENTIAL MOVEMENT COMPARISON

NOTES:

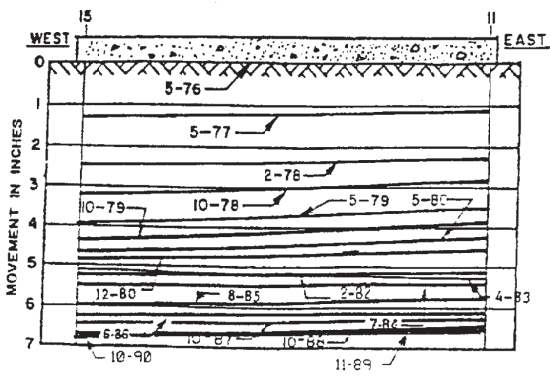
- SEE FIGURE 2.5.C-15 FOR LOCATION OF ANALYSIS CONTROL POINTS.
- POSITIVE NUMBER INDICATES SETTLEMENT.
- SEE FIGURE 2.5.C-12A FOR MOVEMENT FROM 1976-1989.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

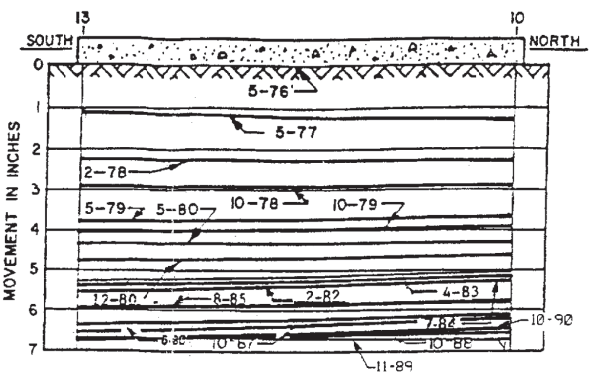
**DIFFERENTIAL MOVEMENTS
BETWEEN BUILDINGS
UNIT 2**

Figure 2.5.C-12C

Revision 4

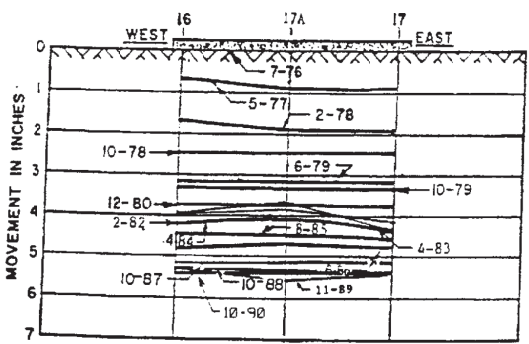


SECTION A₁-A₁

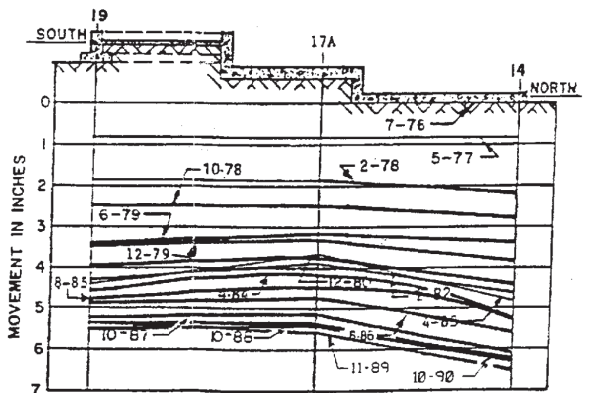


SECTION C₁-C₁

REACTOR CONTAINMENT BUILDING



SECTION B₂-B₂



SECTION C₂-C₂

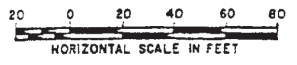
FUEL HANDLING BUILDING

NOTES

1. SEE FIGURE 2.5.C-15 FOR LOCATIONS OF ANALYSIS CONTROL POINTS.
2. SUBSCRIPT NUMBER INDICATES BUILDING CODE AS SHOWN IN FIGURE 2.5.C-15 SEE NOTE 1
3. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 4 INCHES) PLUS NET SETTLEMENT.
4. STRUCTURAL BENCHMARK AT ANALYSIS CONTROL POINT 19 WAS INSTALLED IN OCTOBER, 1978.
5. SEE FIGURE 2.5.C-13C FOR MOVEMENT SINCE DAY 3400 (†).

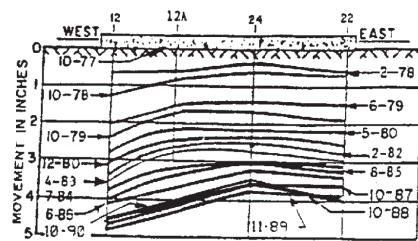
LEGEND

- 13 ANALYSIS CONTROL POINT
- 2-78 DATE READINGS WERE TAKEN

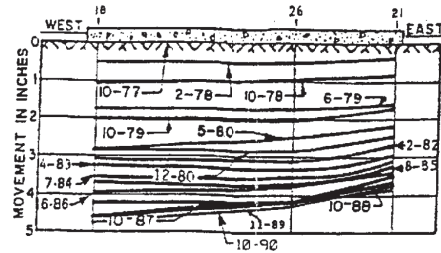


SOUTH TEXAS PROJECT
UNITS 1 & 2

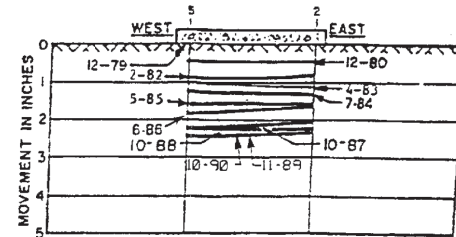
DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 1



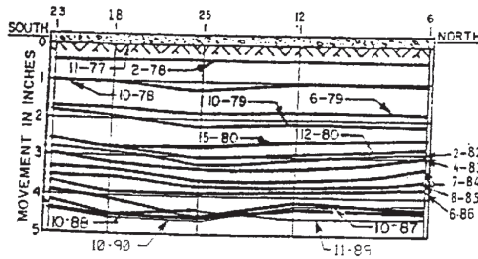
SECTION A₃-A₃



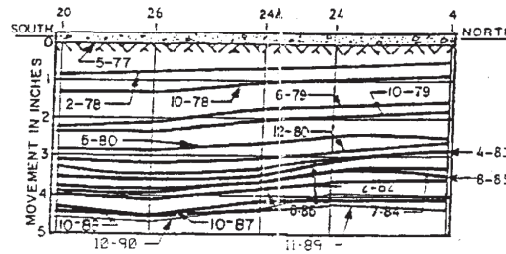
SECTION B₃-B₃



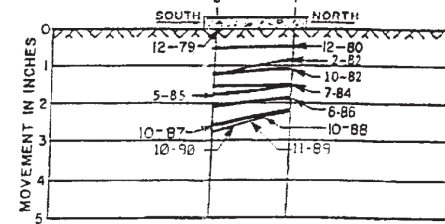
SECTION F₄-F₄



SECTION D₃-D₃



SECTION E₃-E₃



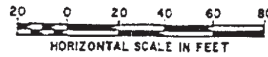
SECTION G₄-G₄

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

DIESEL GENERATOR BUILDING

NOTES

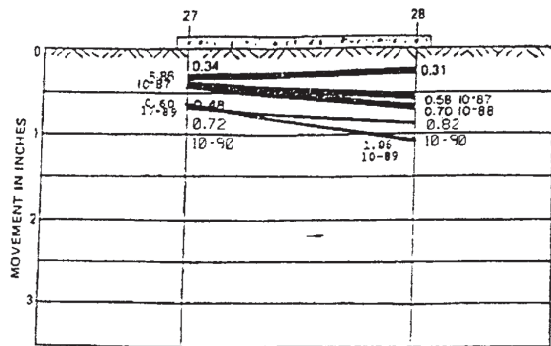
1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-13A
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF EACH INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 3 INCHES) PLUS NET SETTLEMENT.



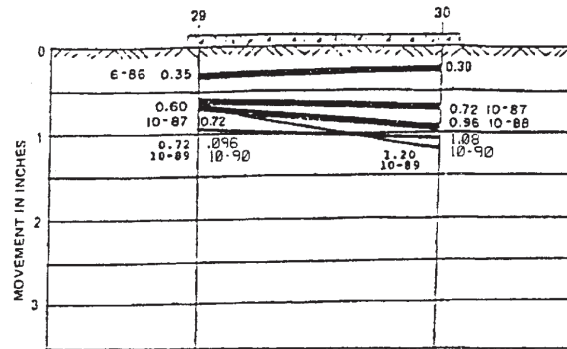
3. THE SAME POINT IN DIFFERENT SECTIONS MAY SHOW DIFFERENT MOVEMENTS ON THE SAME DATE, BECAUSE THEY ARE MEASURED FROM DIFFERENT STARTING DATES.
4. SEE FIGURE 2.5.C-13C FOR MOVEMENT SINCE DAY 3400 (±)

SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 1

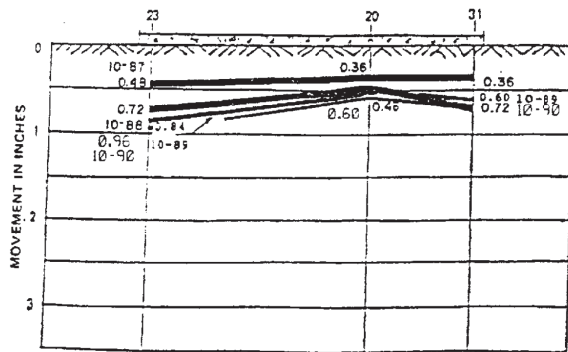


SECTION U₁-U₂



SECTION T₂-T₂

FUEL HANDLING BUILDING



SECTION T₃-T₃

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

NOTES:

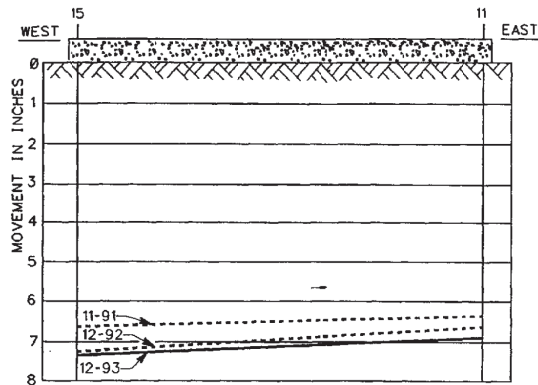
1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C - 13A.
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF EACH INDIVIDUAL ANALYSIS CONTROL POINT SINCE DAY 3400 (±) OF CONSTRUCTION.

SOUTH TEXAS PROJECT
UNITS 1 & 2

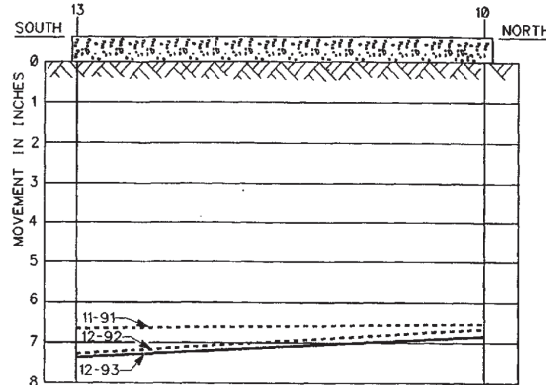
DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 1

FIGURE 2.5.C-13C

REVISION 2

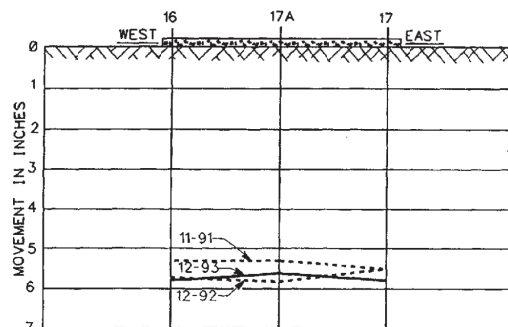


SECTION A₁-A₁

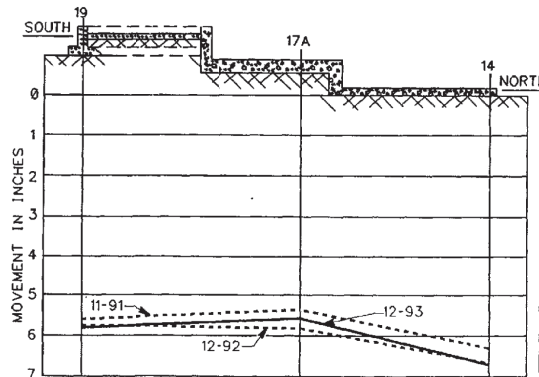


SECTION C₁-C₁

REACTOR CONTAINMENT BUILDING



SECTION B₂-B₂



SECTION C₂-C₂

FUEL HANDLING BUILDING

NOTES:

1. SEE FIGURE 2.5.C-15 FOR LOCATIONS OF ANALYSIS CONTROL POINTS. SUBJECT NUMBER INDICATES BUILDING
2. SUBSCRIPT NUMBER INDICATES BUILDING CODE AS SHOWN IN FIGURE 2.5.C-15 SEE NOTE 1.
3. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 4 INCHES) PLUS NET SETTLEMENT.
4. STRUCTURAL BENCHMARK AT ANALYSIS CONTROL POINT 19 WAS INSTALLED IN OCTOBER, 1978.
5. SEE FIGURE 2.5.C-13C AND 2.5.C-13F FOR MOVEMENT SINCE DAY 3400 (±).
6. SEE FIGURE 2.5.C-13A FOR MOVEMENT FROM 1976-1990.

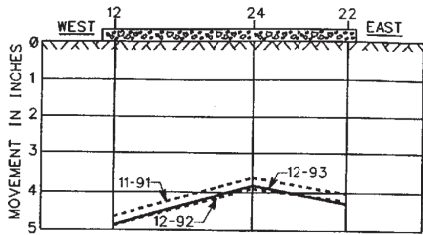
LEGEND

13 ANALYSIS CONTROL POINT
2-78 DATE READINGS WERE TAKEN

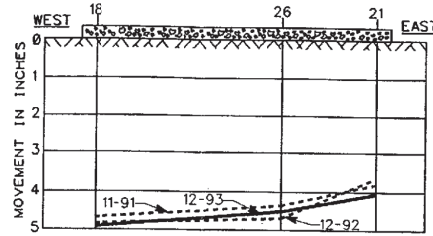


SOUTH TEXAS PROJECT
UNITS 1 & 2

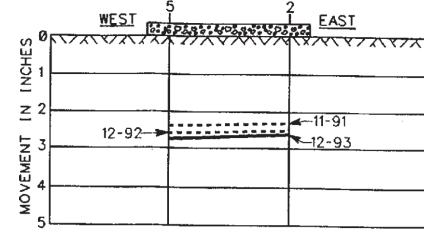
DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 1



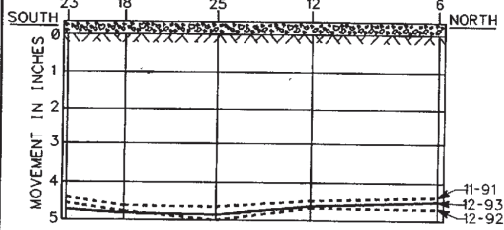
SECTION A₃-A₃



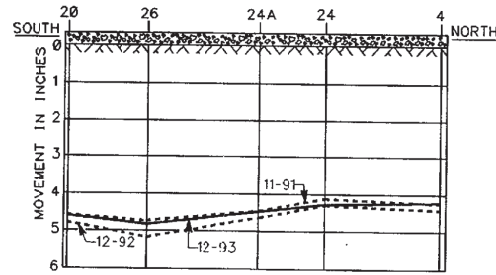
SECTION B₃-B₃



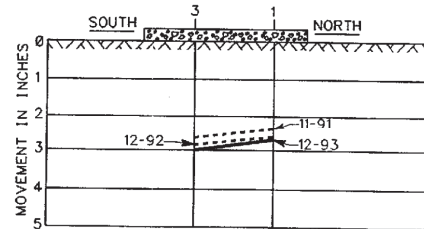
SECTION F₄-F₄



SECTION D₃-D₃



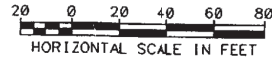
SECTION E₃-E₃



SECTION G₄-G₄

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

DIESEL GENERATOR BUILDING

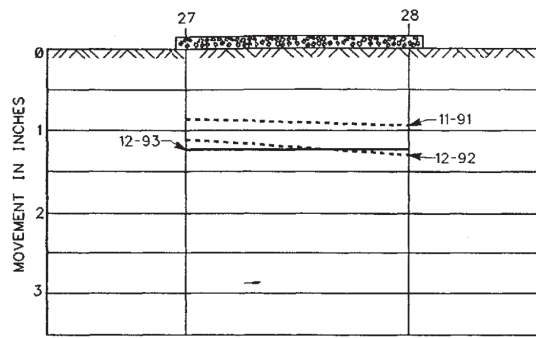


NOTES:

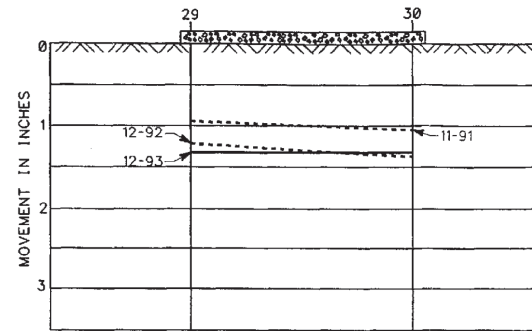
1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-13D
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF EACH INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 3 INCHES) PLUS NET SETTLEMENT.
3. THE SAME POINT IN DIFFERENT SECTIONS MAY SHOW DIFFERENT MOVEMENTS ON THE SAME DATE, BECAUSE THEY ARE MEASURED FROM DIFFERENT STARTING DATES.
4. SEE FIGURE 2.5.C-13C AND 2.5.C-13F FOR MOVEMENT SINCE DAY 3400 ±.
5. SEE FIGURE 2.5.C-13B FOR MOVEMENT FROM 1977-1990.

SOUTH TEXAS PROJECT
 UNITS 1 & 2

DIFFERENTIAL MOVEMENT
 PROFILE WITHIN BUILDINGS
 UNIT 1

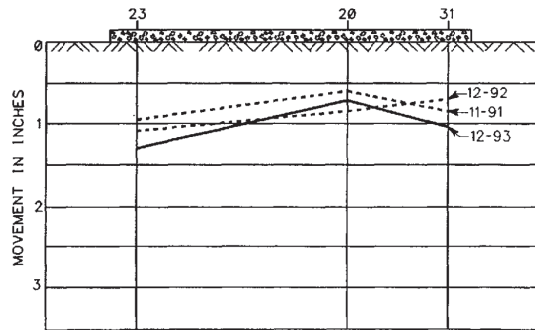


SECTION U₂-U₂



SECTION T₂-T₂

FUEL HANDLING BUILDING



SECTION T₃-T₃

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

NOTES:

1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-13D.
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF EACH INDIVIDUAL ANALYSIS CONTROL POINT SINCE DAY 3400 (C) OF CONSTRUCTION.
2. SEE FIGURE 2.5.C-13C FOR MOVEMENT FROM 1986-1990.

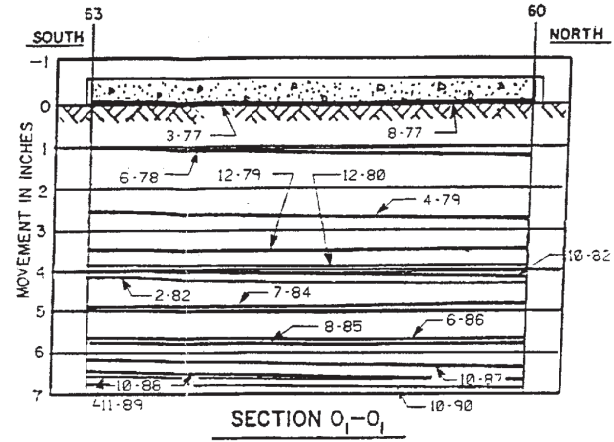
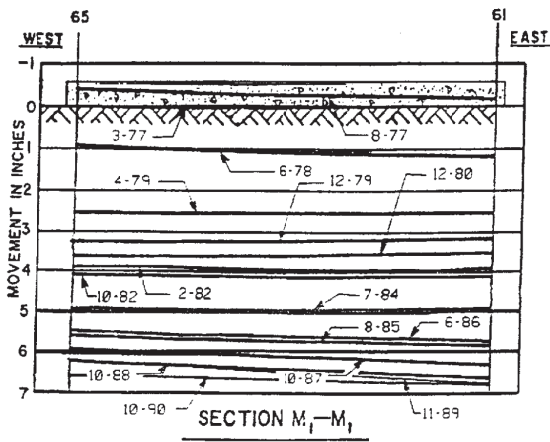
SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 1

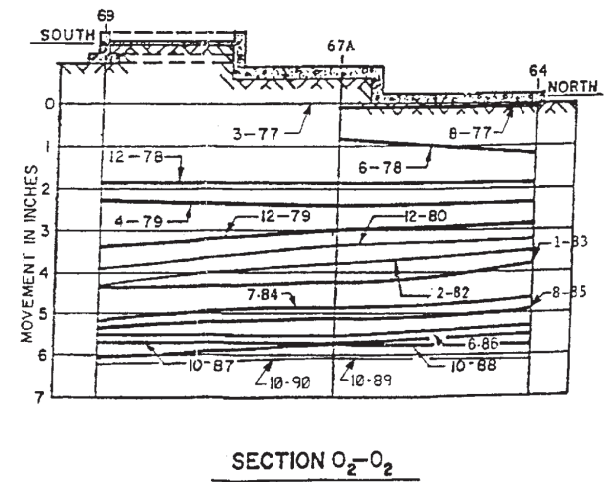
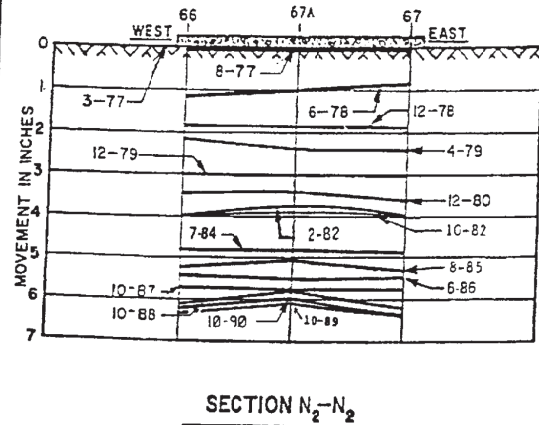
FIGURE 2.5.C-13F

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REACTOR CONTAINMENT BUILDING



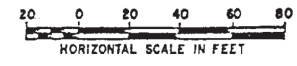
FUEL HANDLING BUILDING

NOTES

1. SEE FIGURE 2.5.C-15 FOR LOCATIONS OF ANALYSIS CONTROL POINTS.
2. SUBSCRIPT NUMBER INDICATES BUILDING CODE AS SHOWN IN FIGURE 2.5.C-15 SEE NOTE 1
3. POSITIVE MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 5 INCHES) PLUS NET SETTLEMENT.
4. SEE FIGURE 2.5.C-14B FOR MOVEMENT SINCE DAY 3400 (+)

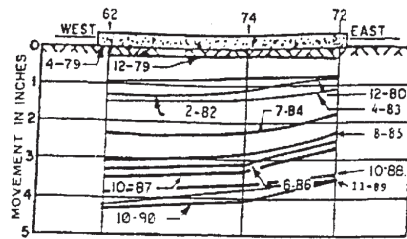
LEGEND

63 ANALYSIS CONTROL POINT
12-79 DATE READINGS WERE TAKEN

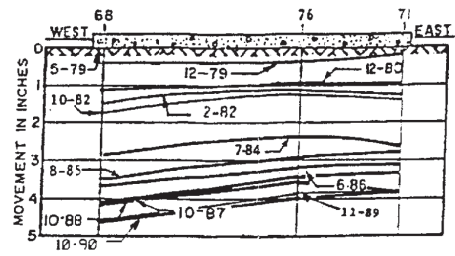


**SOUTH TEXAS PROJECT
UNITS 1 & 2**

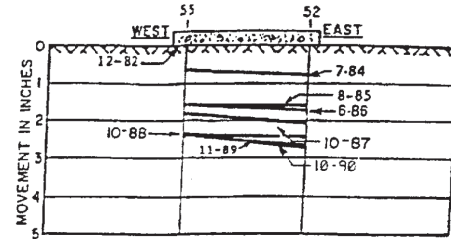
DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 2



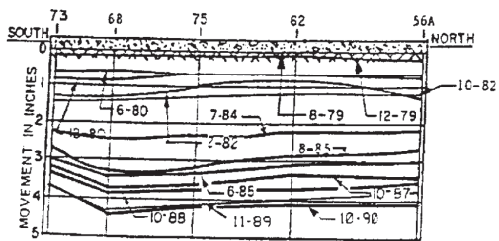
SECTION M₃-M₃



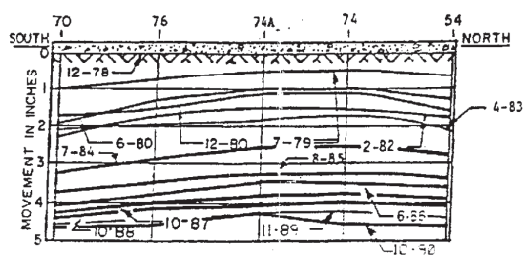
SECTION N₃-N₃



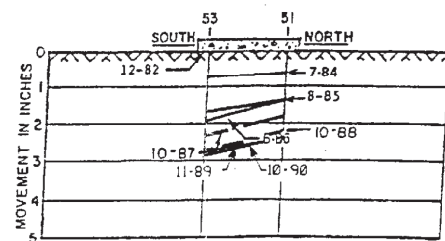
SECTION R₄-R₄



SECTION P₃-P₃



SECTION Q₃-Q₃



SECTION S₄-S₄

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

DIESEL GENERATOR BUILDING

NOTES

1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-14
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 2 INCHES) PLUS NET SETTLEMENT.

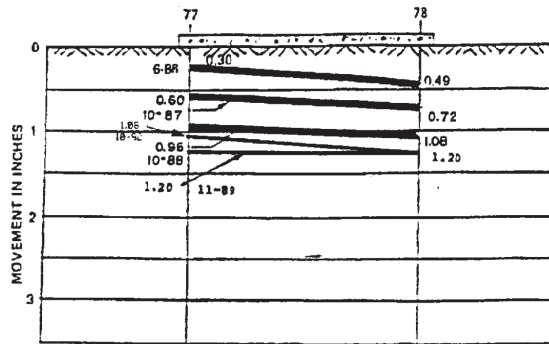


3. THE SAME POINT IN DIFFERENT SECTIONS MAY SHOW DIFFERENT MOVEMENTS AT THE SAME DATE, BECAUSE THEY ARE MEASURED FROM DIFFERENT STARTING DATES.
4. SEE FIGURE 2.5.C-14B FOR MOVEMENT SINCE DAY 3400 (+J).

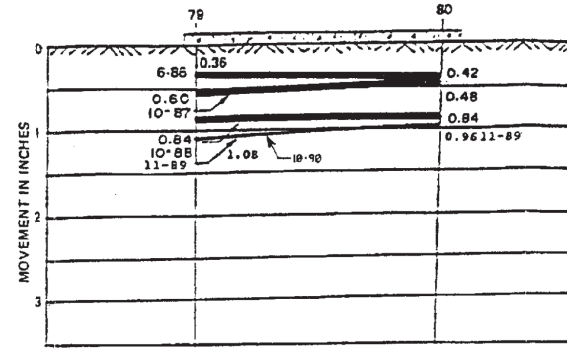
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 2

FIGURE 2.5.C-14A REVISION 2

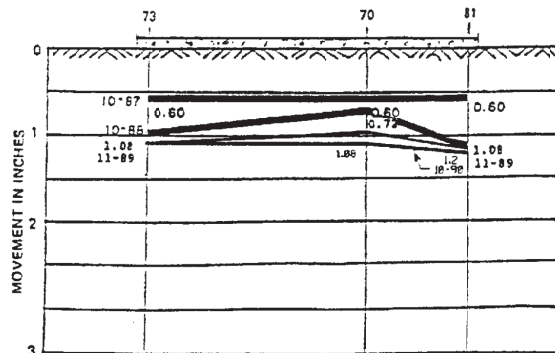


SECTION W₂-W₂



SECTION V₂-V₂

FUEL HANDLING BUILDING



SECTION V₃-V₃

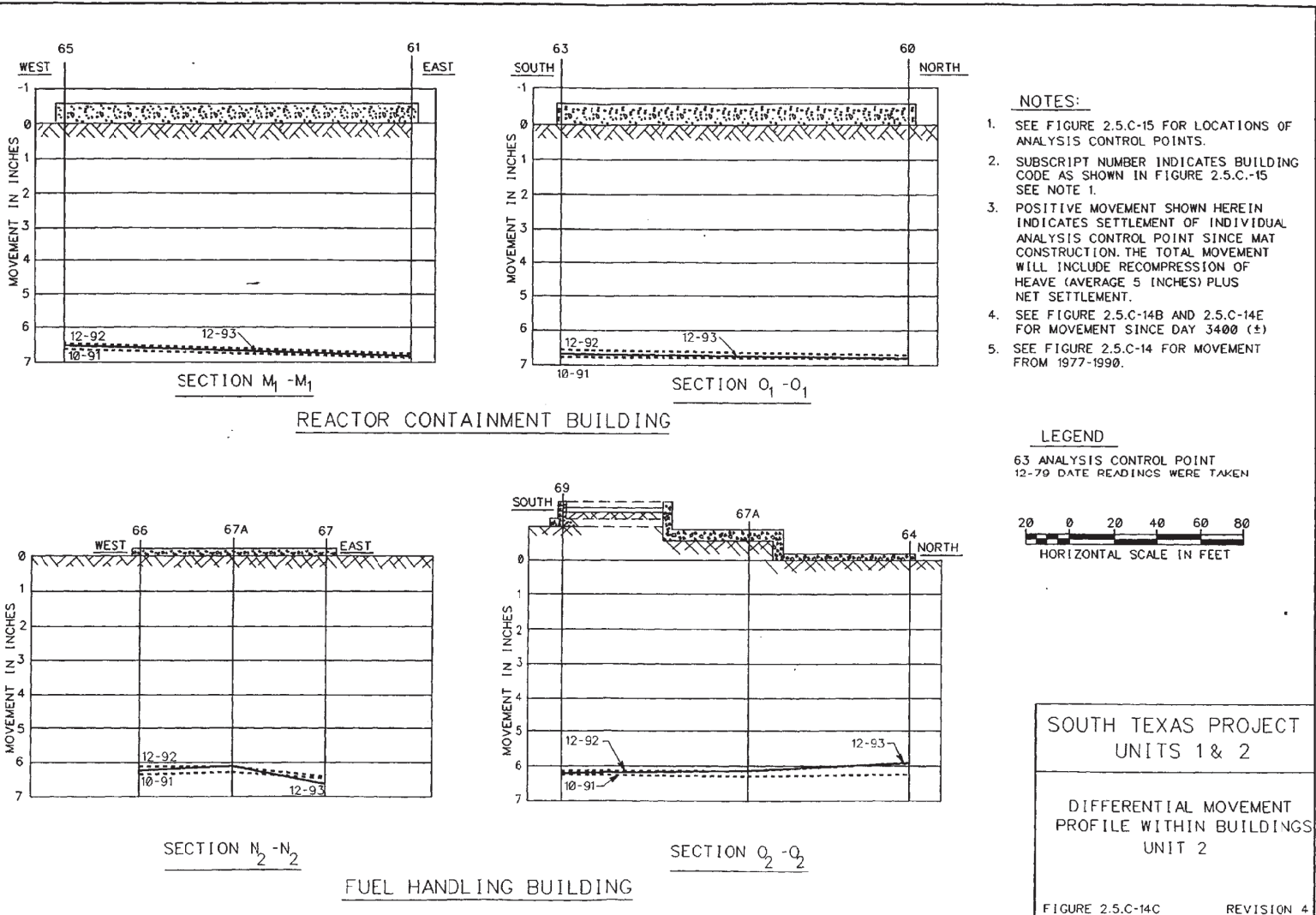
MECHANICAL & ELECTRICAL AUXILIARY BUILDING

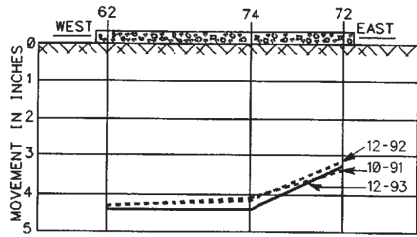
NOTES:

1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-14.
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE DAY 3400 (±) OF CONSTRUCTION.

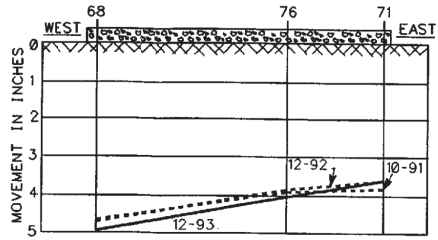
SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 2

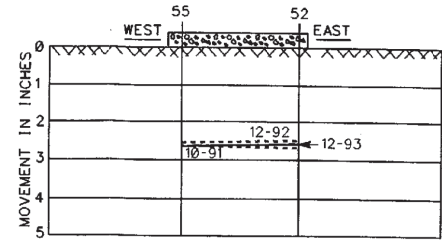




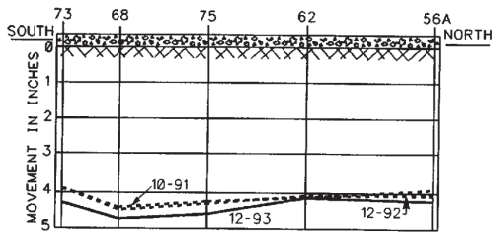
SECTION M_3-M_3



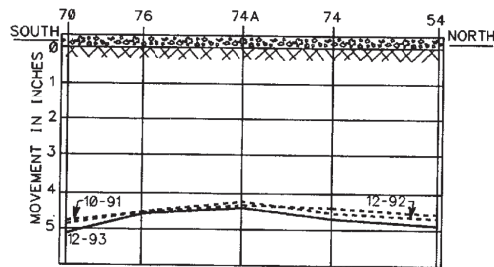
SECTION N_3-N_3



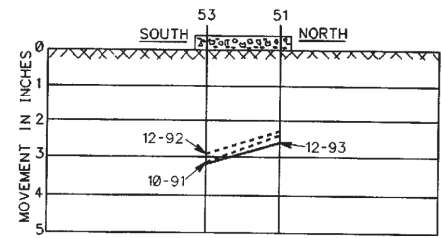
SECTION R_4-R_4



SECTION P_3-P_3



SECTION Q_3-Q_3



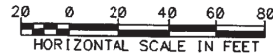
SECTION S_4-S_4

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

DIESEL GENERATOR BUILDING

NOTES:

1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-14C
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE MAT CONSTRUCTION. THE TOTAL MOVEMENT WILL INCLUDE RECOMPRESSION OF HEAVE (AVERAGE 2 INCHES) PLUS NET SETTLEMENT.
3. THE SAME POINT IN DIFFERENT SECTIONS MAY SHOW DIFFERENT MOVEMENTS AT THE SAME DATE, BECAUSE THEY ARE MEASURED FROM DIFFERENT STARTING DATES.



4. SEE FIGURE 2.5.C-14B AND 2.5.C-14E FOR MOVEMENT SINCE DAY 3400 (±).
5. SEE FIGURE 2.5.C-14A FOR MOVEMENT FROM 1979-1990.

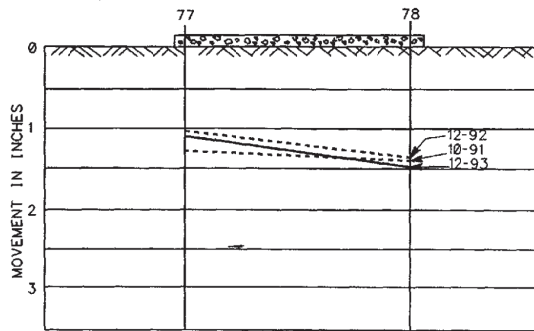
SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 2

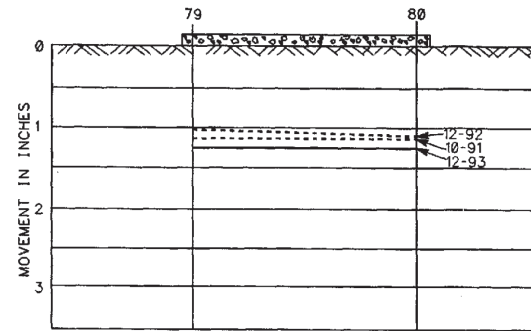
FIGURE 2.5.C-14D

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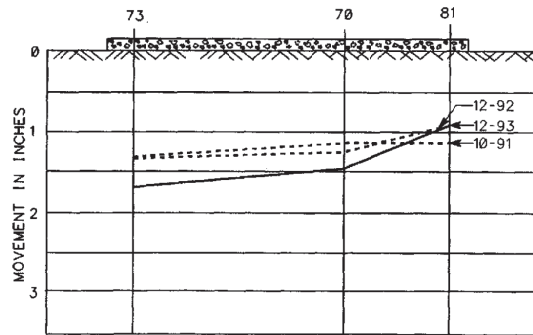


SECTION W₂-W₂



SECTION V₂-V₂

FUEL HANDLING BUILDING



SECTION V₃-V₃

MECHANICAL & ELECTRICAL AUXILIARY BUILDING

NOTES:

1. FOR NOTES AND LEGEND SEE FIGURE 2.5.C-14C.
2. MOVEMENT SHOWN HEREIN INDICATES SETTLEMENT OF INDIVIDUAL ANALYSIS CONTROL POINT SINCE DAY 3400 (±) OF CONSTRUCTION.
3. SEE FIGURE 2.5.C-14B FOR MOVEMENT FROM 1986-1990.

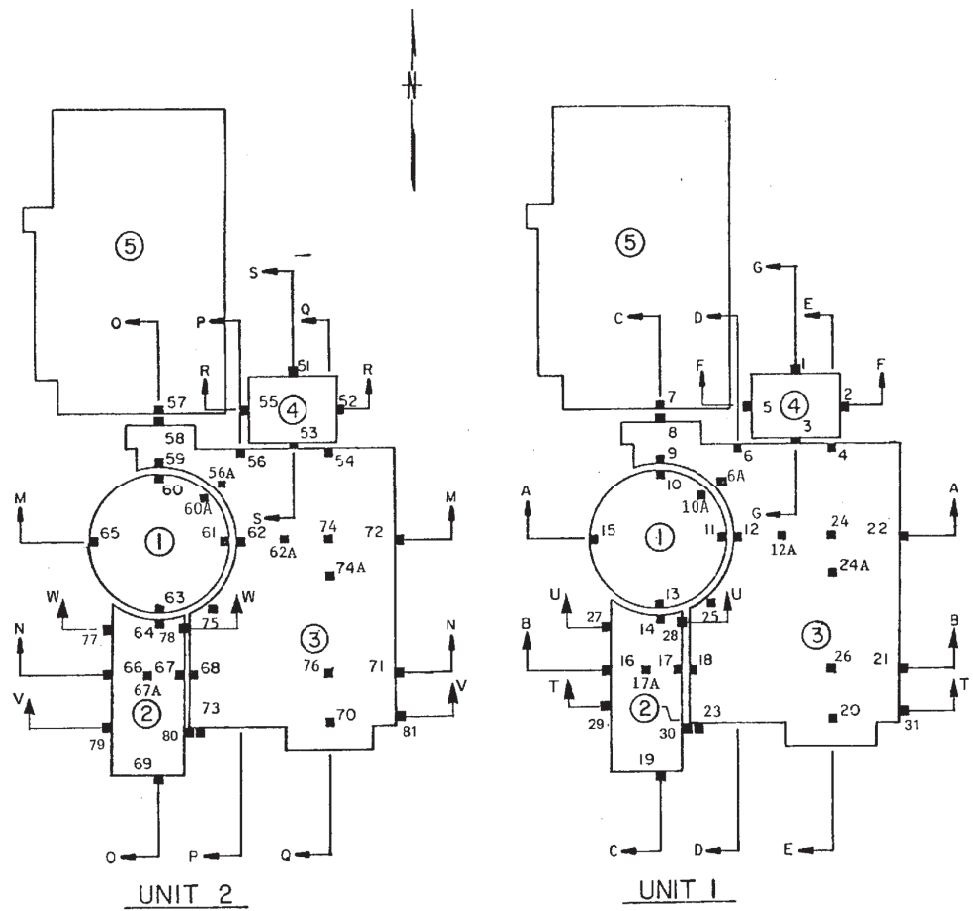
SOUTH TEXAS PROJECT
UNITS 1 & 2

DIFFERENTIAL MOVEMENT
PROFILE WITHIN BUILDINGS
UNIT 2

FIGURE 2.5.C-14E

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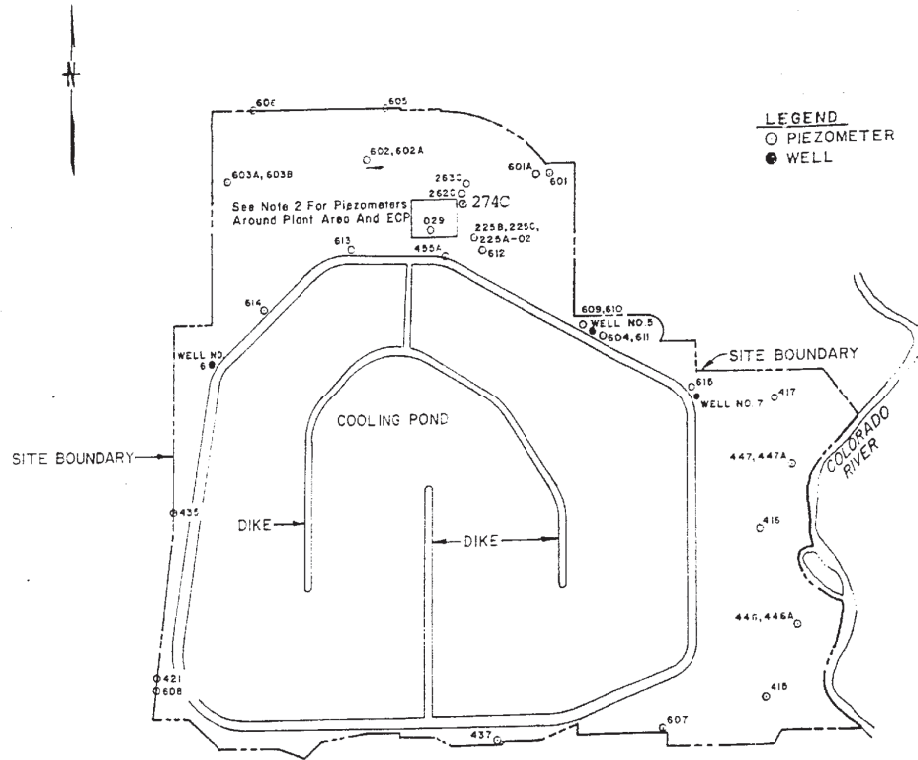
- LEGEND:**
- ANALYSIS CONTROL POINTS
 - ① REACTOR CONTAINMENT BUILDING
 - ② FUEL HANDLING BUILDING
 - ③ MECHANICAL & ELECTRICAL AUXILIARY BUILDING
 - ④ DIESEL GENERATOR BUILDING
 - ⑤ TURBINE GENERATOR BUILDING

- NOTE**
1. SEE FIGURES 2.5.C-13 AND 2.5.C-14 FOR DIFFERENTIAL MOVEMENT PROFILES. THE PROFILES ARE GIVEN SUBSCRIPT DESIGNATIONS FOR EACH BUILDING AREA, EX. PROFILE "A" WITHIN MECH. ELECT. AUX. BUILDING IS DESIGNATED AS A₃.
 2. MONITORING SECTIONS B₂-B₂ AND N₂-N₂ WERE DISCONTINUED AS OF FEBRUARY 4, 1986. SECTIONS T₂-T₂, U₂-U₂, V₂-V₂ AND W₂-W₂ WERE ADDED ON FEBRUARY 4, 1986.
 3. MONITORING SECTIONS B₃-B₃ AND N₃-N₃ TO BE DISCONTINUED AS OF JULY 1, 1987 AND OCTOBER 1, 1987, RESPECTIVELY. SECTIONS T₃-T₃ AND V₃-V₃ TO BE ADDED BEFORE THE ABOVE SECTIONS ARE DISCONTINUED.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

LOCATIONS OF DIFFERENTIAL
MOVEMENT PROFILES WITHIN
BUILDINGS

Figure 2.5.C-15 Revision 0



DEEP AQUIFER MONITORING PIEZOMETERS

029	608	612
604	609 (Decommissioned 3/76)	613
605	610	614
606	611	615
607		

UPPER SHALLOW AQUIFER MONITORING PIEZOMETERS

201C (1)	238B1 (1)	269B (2)
207B1 (1)	240B1 (1)	271B (2)
217B1 (1) (Decommissioned 5/87)	241C (1)	435
218C (1)	245C (1)	446A
223C (1)	262C (2) (Decommissioned 5/87)	447A
225A-02	263C (2)	455A
225B	265 (2)	601
226B1 (1) (Decommissioned 5/81)	266 (2)	602A
229B1 (1) (Decommissioned 1/84)	267 (2)	603B
230C (1)	268 (2)	274C

LOWER SHALLOW AQUIFER MONITORING PIEZOMETERS

201E (1)	415	446
216E (1)	416 (Inactive)	447
223E (1)	417	601A
225C-02	421	602
230E (1)	437	603A
241E (1)		
245E (1)		

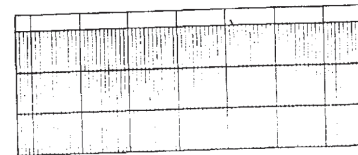
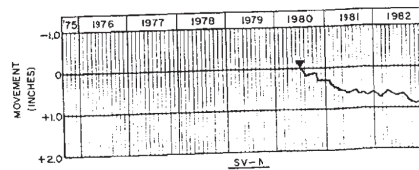
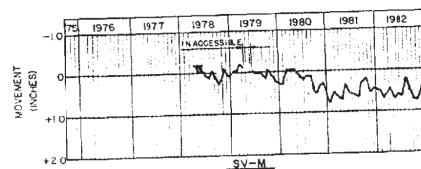
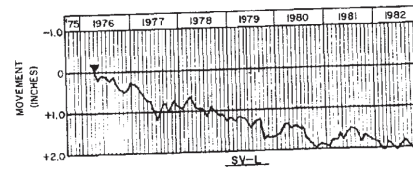
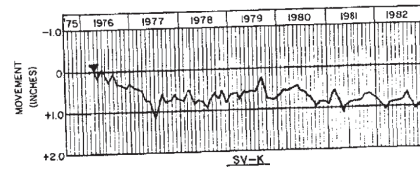
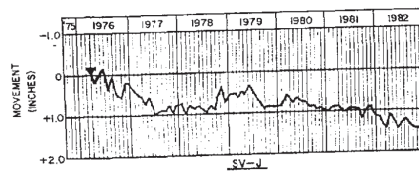
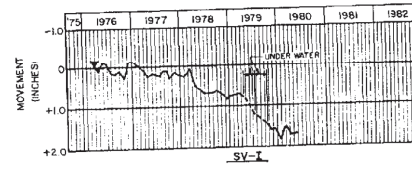
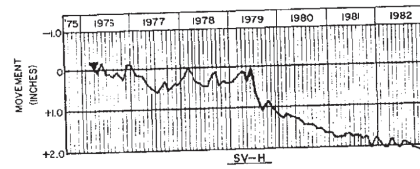
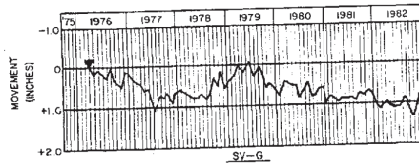
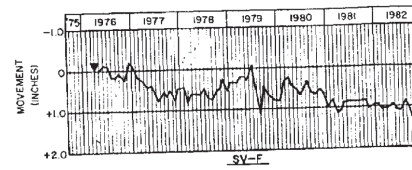
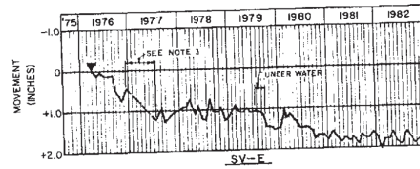
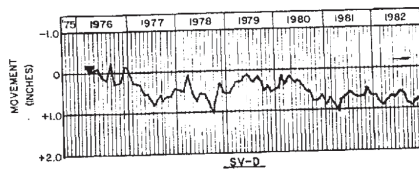
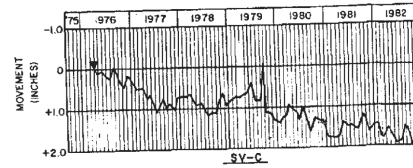
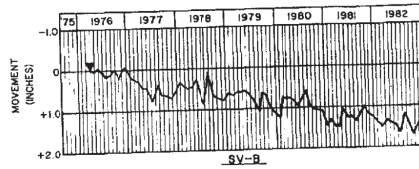
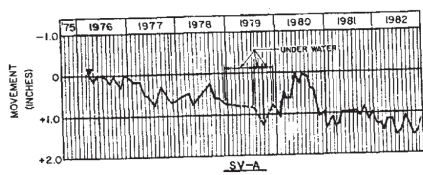
NOTES

- (1) Located around the plant area and installed as part of the construction dewatering monitoring system. Will be permanently maintained and monitored as regional piezometer upon termination of dewatering the plant site (see Figure 2.5.4-64 for location).
- (2) Installed during construction of the ECP and will be permanently maintained and monitored as regional piezometer (see Figure 2.5.6-12 for location).

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

LOCATIONS OF
PERMANENT PIEZOMETER
INSTALLATIONS

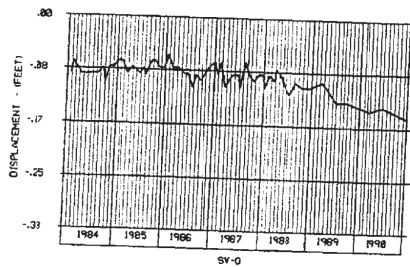
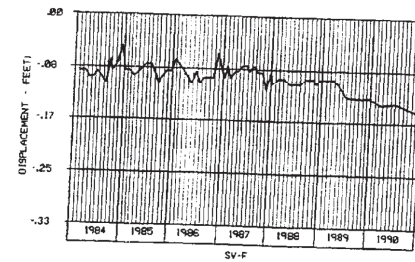
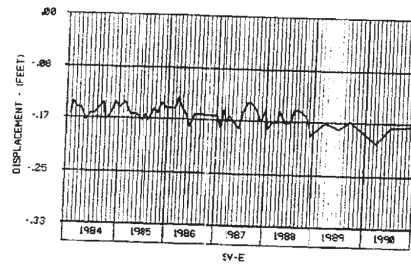
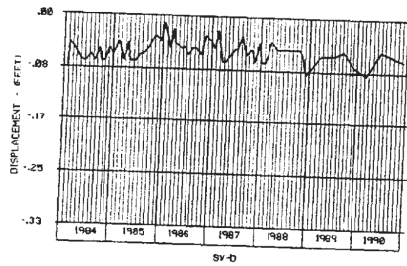
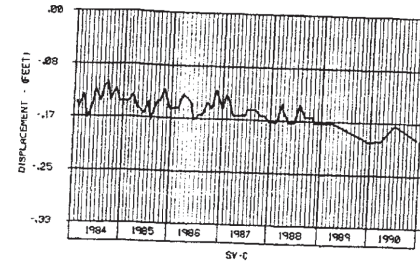
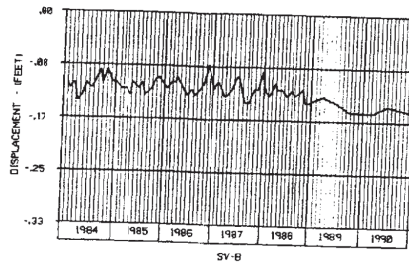
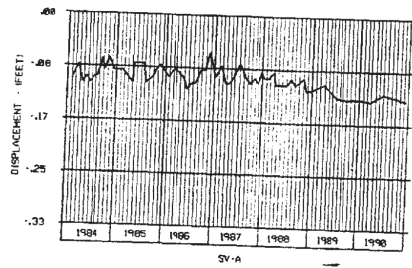
Figure 2.5.C-18 Revision 2



**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL NEAR-SURFACE
SUBSIDENCE MONITORING

Figure 2.5.C-19

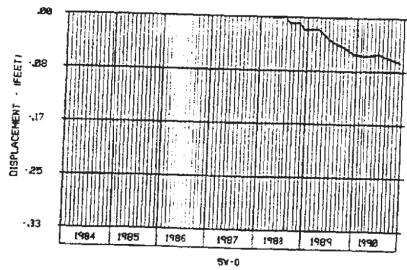
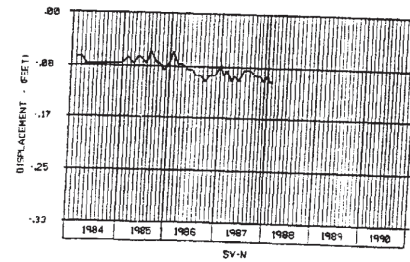
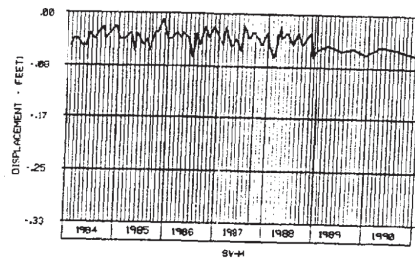
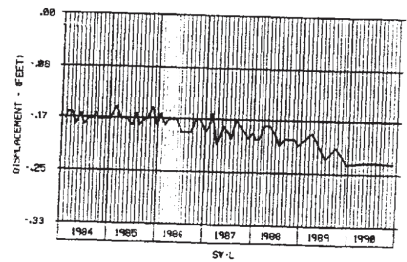
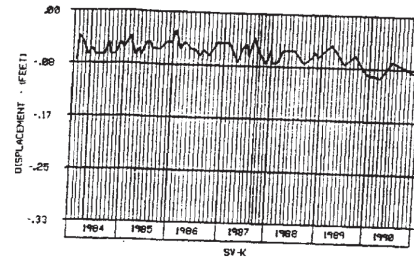
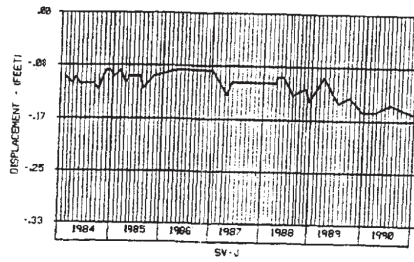
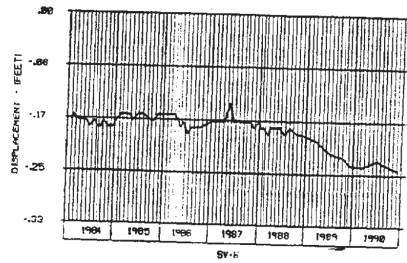


**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL NEAR-SURFACE
SUBSIDENCE MONITORING

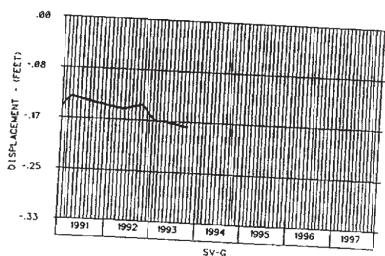
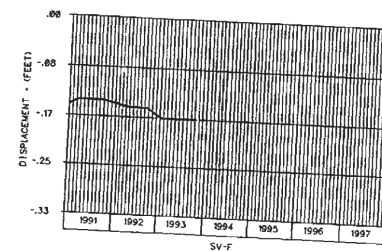
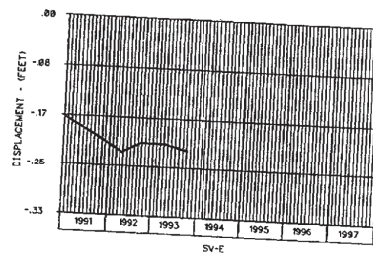
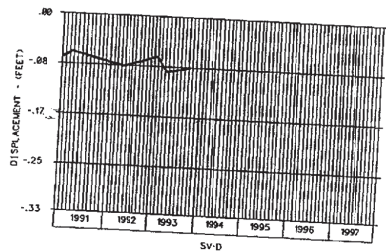
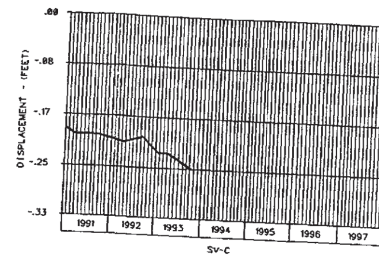
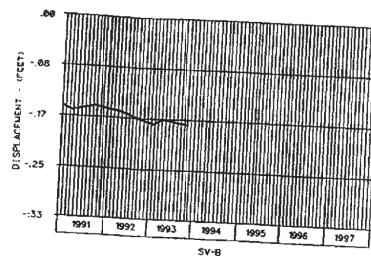
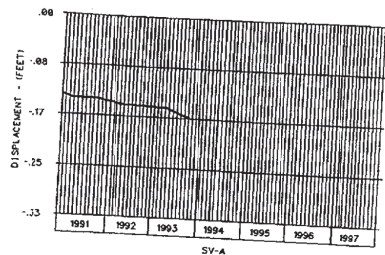
FIGURE 2.5.C-19A SH.1 OF 2

REVISION 2



SOUTH TEXAS PROJECT
UNITS 1 & 2

REGIONAL NEAR-SURFACE
SUBSIDENCE MONITORING



NOTES:

1. SEE FIGURE 2.5.C-1 FOR LOCATION OF REGIONAL NEAR-SURFACE SUBSIDENCE MONITORING POINTS.
2. SEE FIGURE 2.5.C-19 FOR MOVEMENT FROM 1975-1982.
3. SEE FIGURE 2.5.C-19A SHT 1 FOR MOVEMENT FROM 1984-1990.

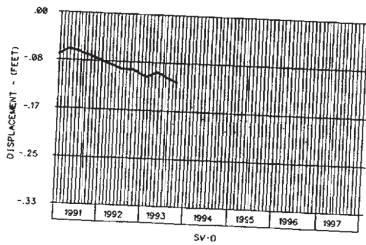
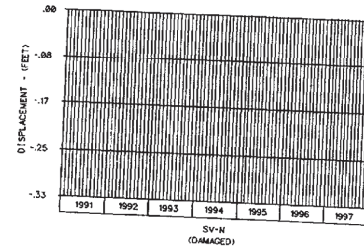
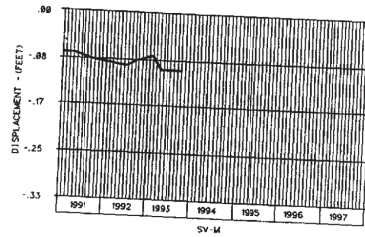
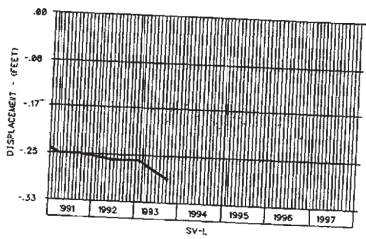
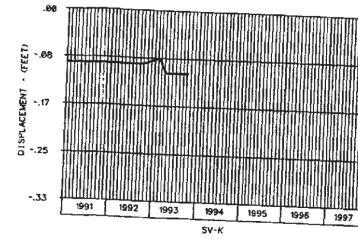
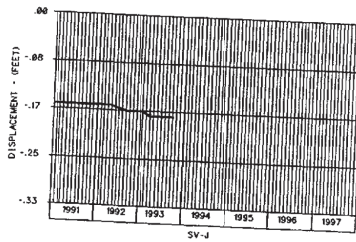
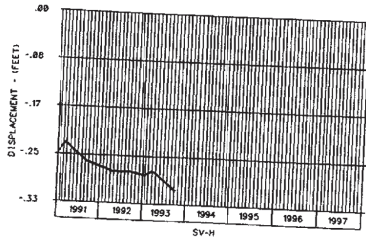
SOUTH TEXAS PROJECT
UNITS 1 & 2

REGIONAL NEAR-SURFACE
SUBSIDENCE MONITORING

FIGURE 2.5.C-19B SH.1 OF 2

REVISION 4

L0354.042



- NOTES:
1. SEE FIGURE 2.5.C-1 FOR LOCATION OF REGIONAL NEAR-SURFACE SUBSIDENCE MONITORING POINTS.
 2. SEE FIGURE 2.5.C-19 FOR MOVEMENT FROM 1975-1982.
 3. SEE FIGURE 2.5.C-19A SH. 2 FOR MOVEMENT FROM 1984-1990.
 4. SV-O REPLACED SV-N IN MARCH 1988.

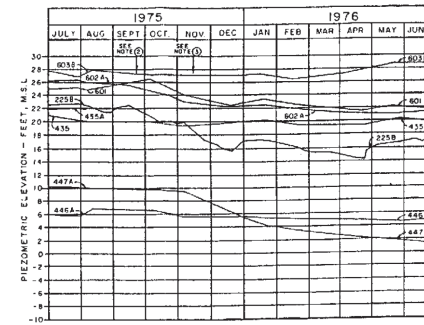
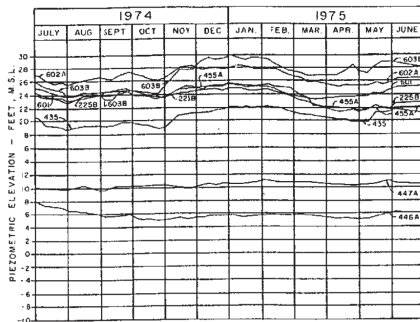
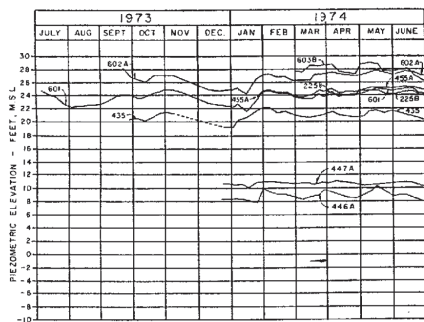
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL NEAR-SURFACE
SUBSIDENCE MONITORING

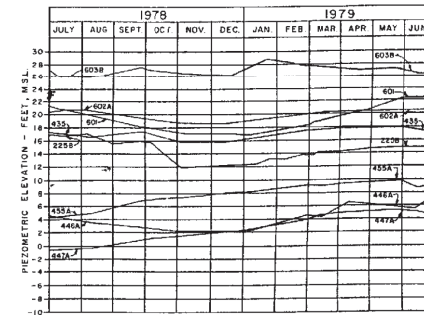
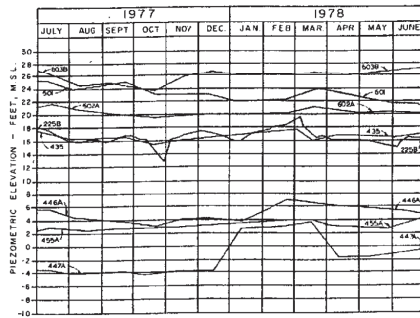
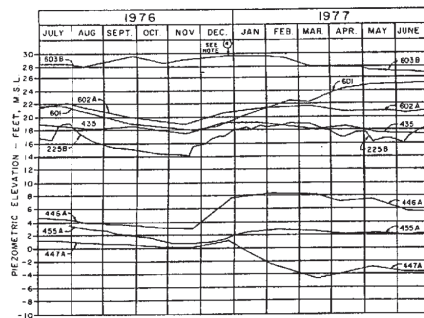
FIGURE 2.5.C-19B SH. 2 OF 2

REVISION 4

L0355.042



NOTE: Piezometer No. 455A was inaccessible from August, 1975 to July, 1976.



NOTES:

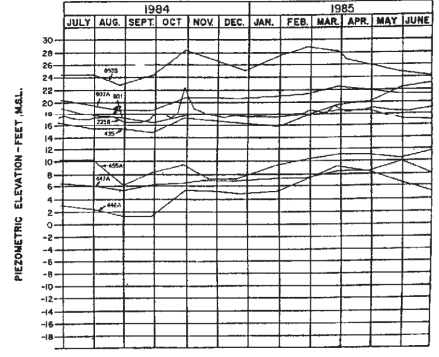
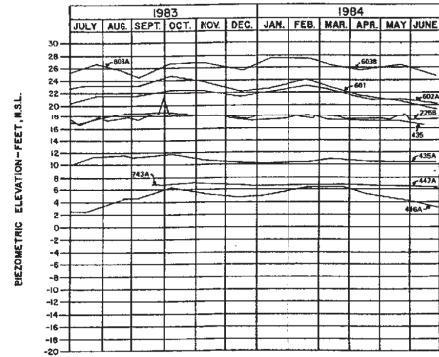
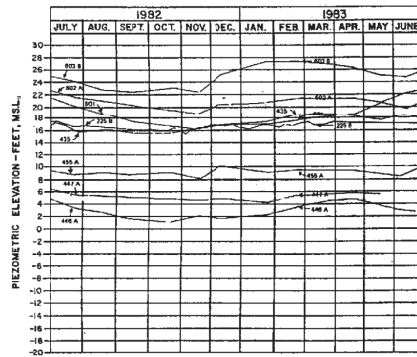
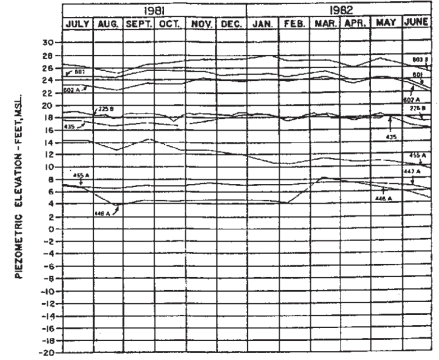
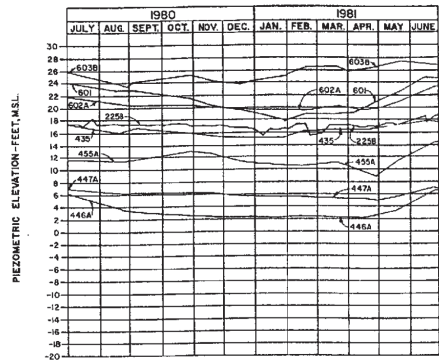
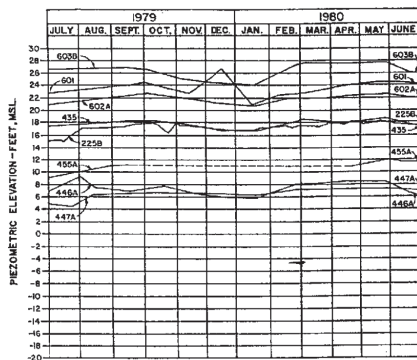
- ① Refer to Figure 2.5.C-18 for locations of the Permanent Piezometers.
- ② Site Preparation - Surface Drainage was started on September 22, 1975.
- ③ Plant Dewatering was started on November 15, 1975.
- ④ Dewatering for Make-Up Pump Station was started on December 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL UPPER SHALLOW AQUIFER
MONITORING DATA**

Figure 2.5.C-20

Revision 0



NOTES:

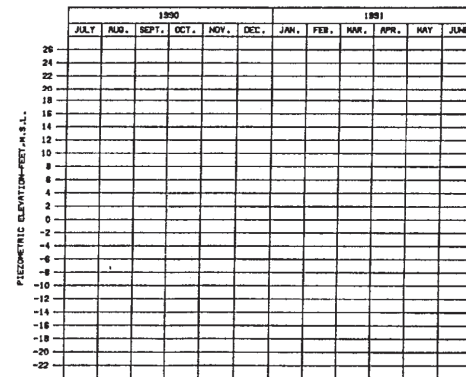
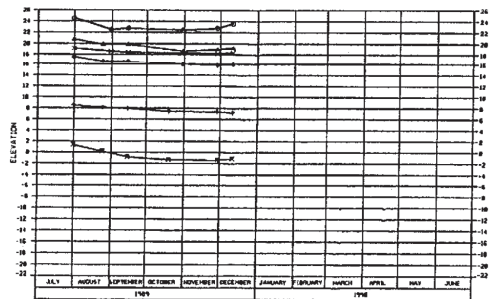
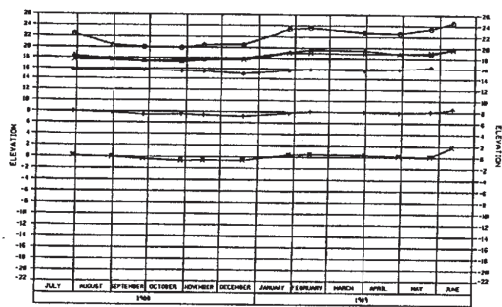
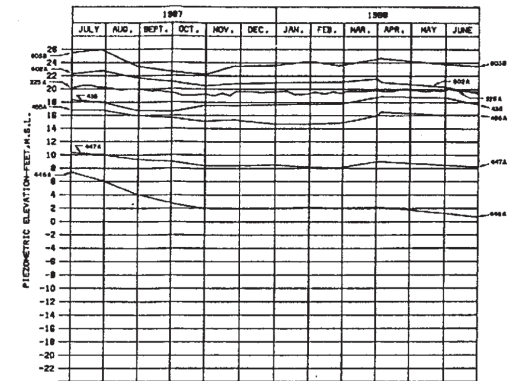
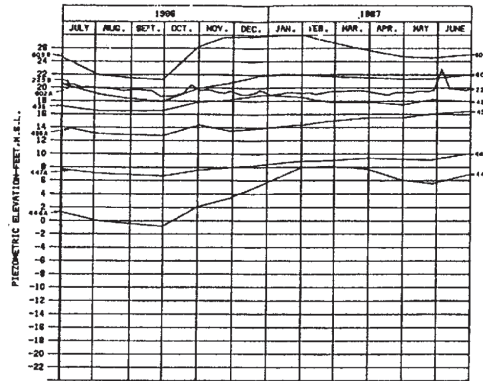
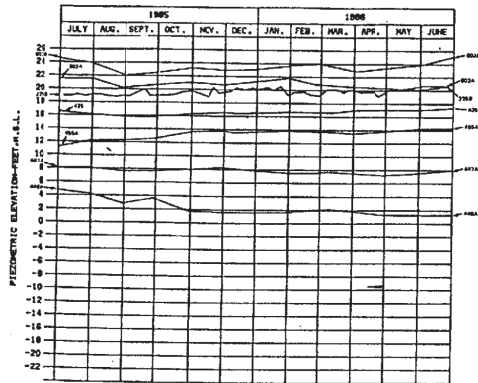
- ① Refer To Figure 2.5.C-1B For Locations Of The Permanent Piezometers.
- ② Site Preparation-Surface Drainage. Was Started On September 22, 1975.
- ③ Plant Dewater Was Started On Nov. 15, 1975.
- ④ Dewatering For Make-up Pump Station Was Started On December 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL UPPER SHALLOW AQUIFER
MONITORING DATA**

Figure 2.5.C-20A

Revision 0



LEGEND Symbol Instrument
 ○ 6820-01
 △ 682A-01
 □ 435-01
 ◇ 455A-01
 ☆ 447A-01
 × 446A-01

LEGEND Symbol Instrument
 ○ 6820-01
 △ 682A-01
 □ 435-01
 ◇ 455A-01
 ☆ 447A-01
 × 446A-01

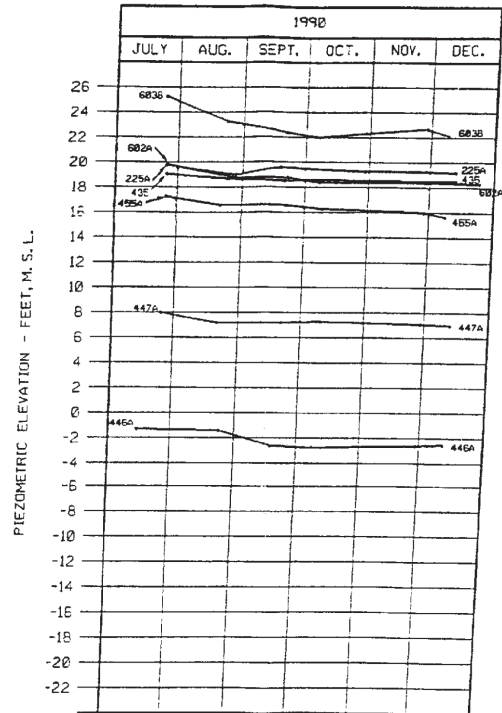
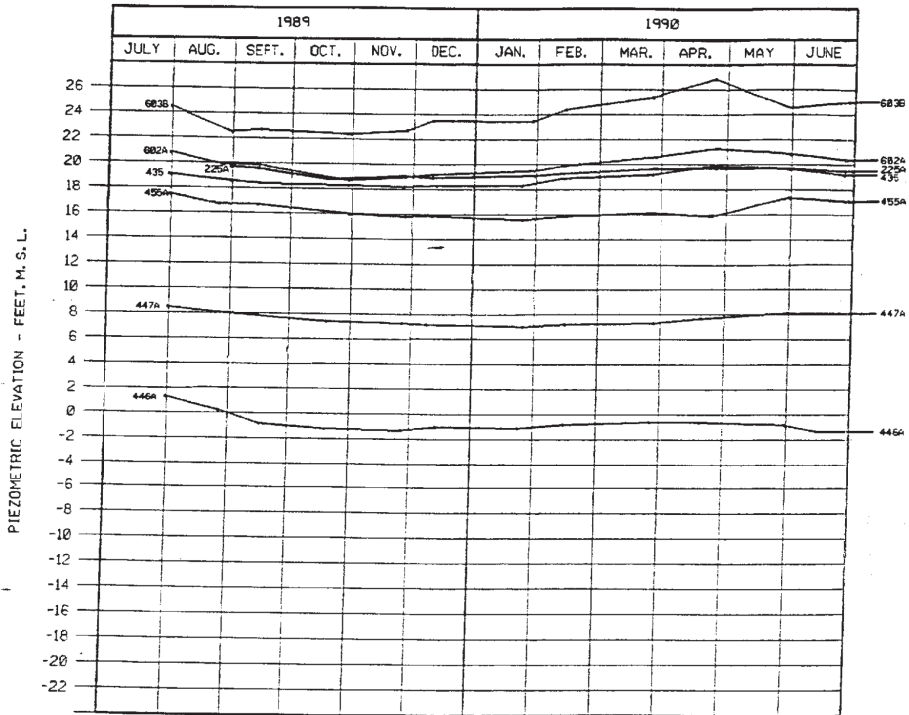
NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1979.
3. PLANT DEWETS WAS STARTED ON NOVEMBER 15, 1979.
4. DEMATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1979.

**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

REGIONAL UPPER SHALLOW
 AQUIFER MONITORING DATA

Figure 2.5.C-20B Revision 1



NOTES:

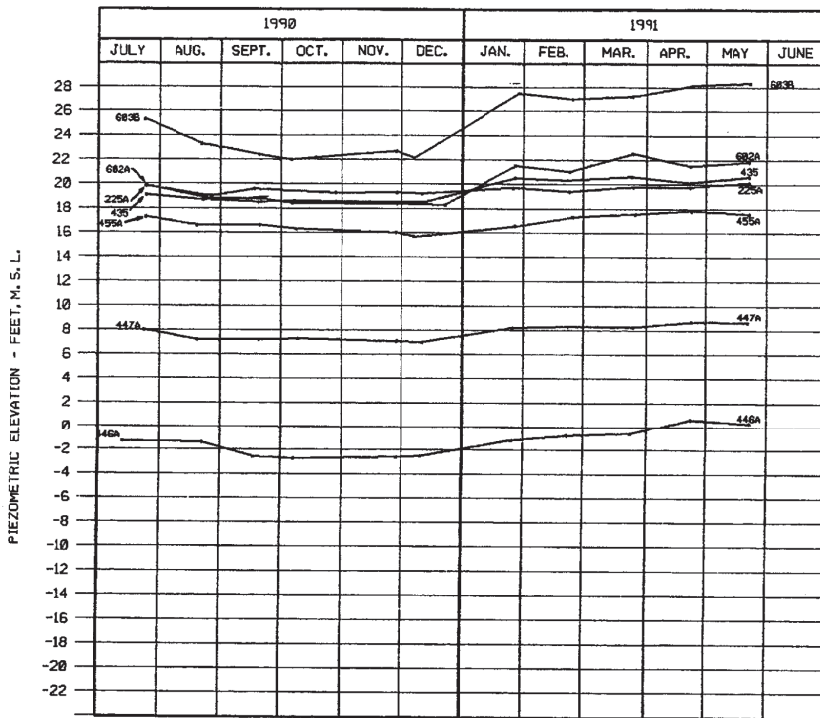
1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

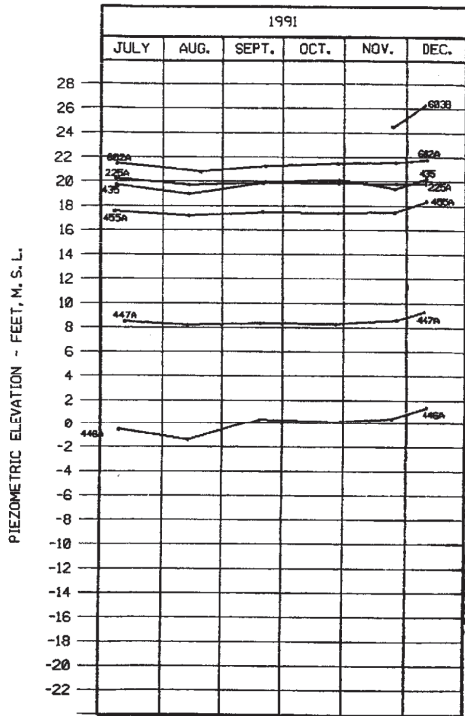
**REGIONAL UPPER SHALLOW
AQUIFER MONITORING DATA**

FIGURE 2.5.C-20C

REVISION 2



NO DATA AVAILABLE JUNE THRU OCTOBER ON 683B, BROKEN



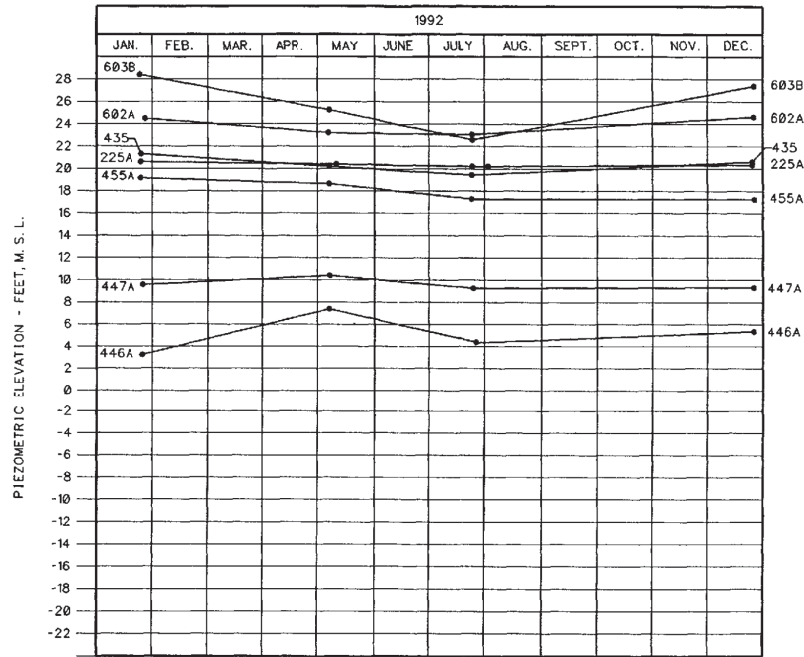
NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL UPPER SHALLOW
AQUIFER MONITORING DATA

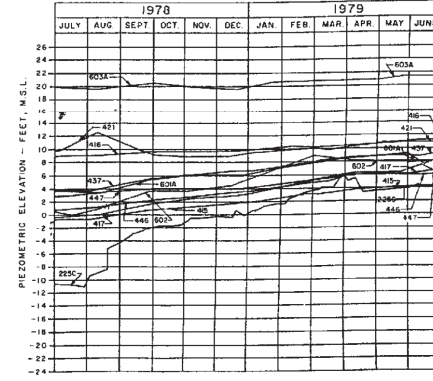
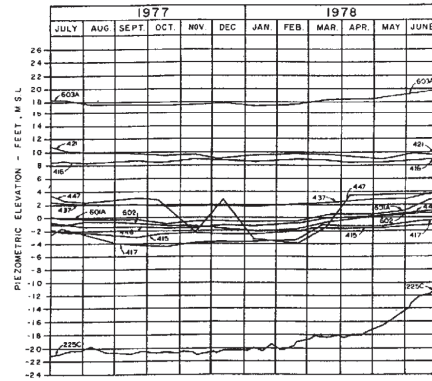
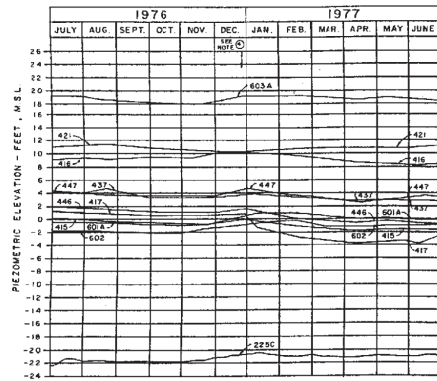
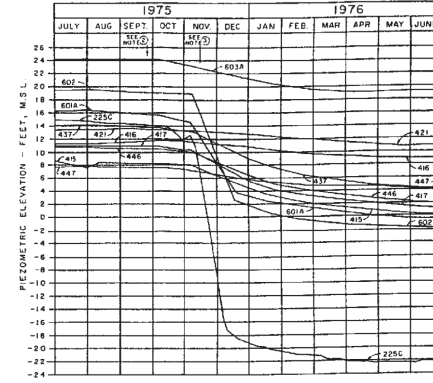
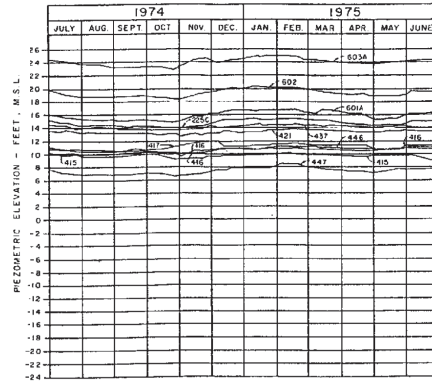
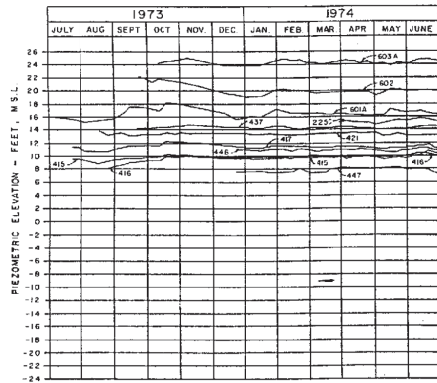
FIGURE 2.5.C-20D REVISION 3



NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.
5. SEE FIGURE 2.5.C-20F FOR CONTINUATION 1993-1994.

SOUTH TEXAS PROJECT UNITS 1 & 2
REGIONAL UPPER SHALLOW AQUIFER MONITORING DATA
FIGURE 2.5.C-20E REVISION 4



NOTES:

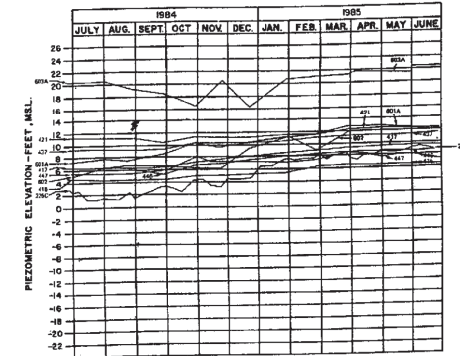
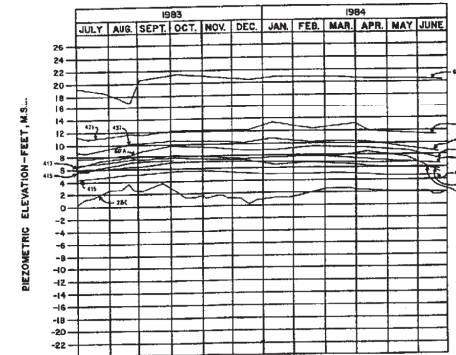
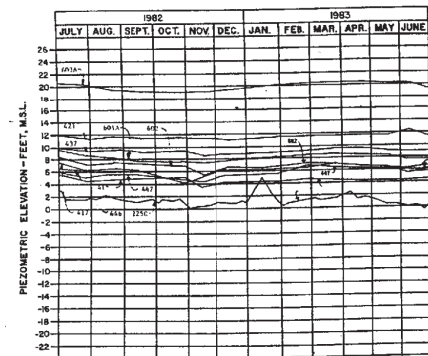
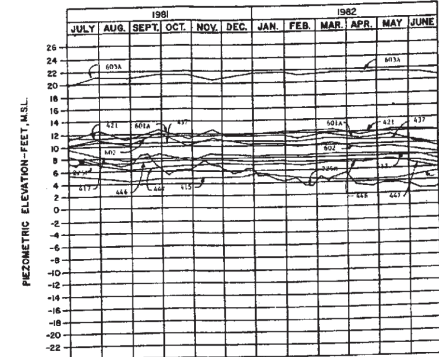
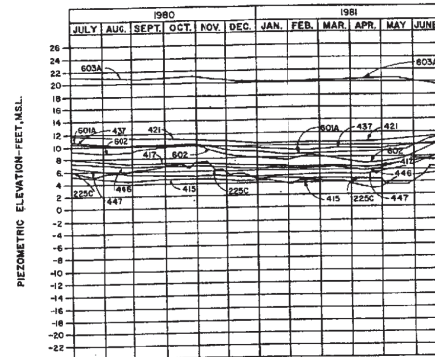
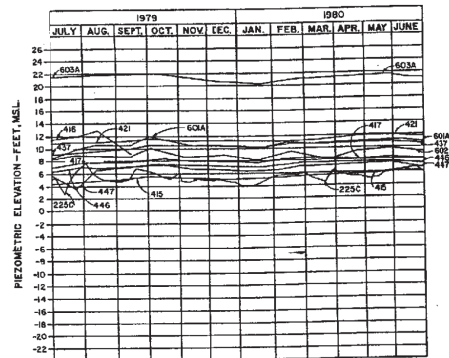
- ① Refer to Figure 2.5.C-18 for locations of the Permanent Piezometers .
- ② Site Preparation - Surface Drainage was started on September 22, 1975 .
- ③ Plant Dewatering was started on November 15, 1975 .
- ④ Dewatering for Make-Up Pump Station was started on December 27, 1976 .

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL LOWER SHALLOW AQUIFER
MONITORING DATA**

Figure 2.5.C-21

Revision 0



NOTES:

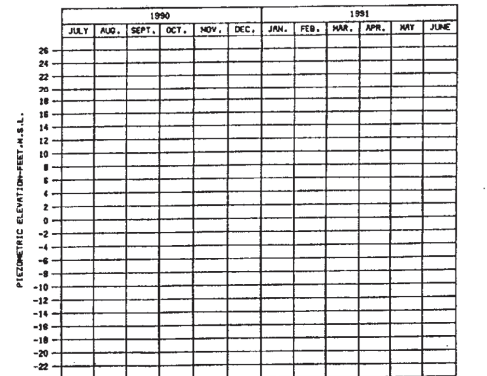
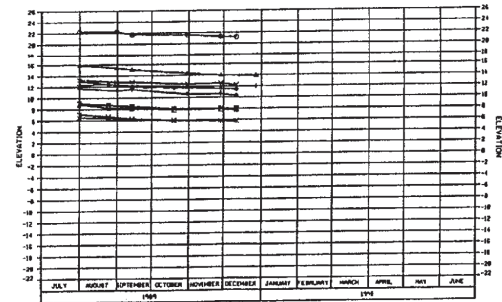
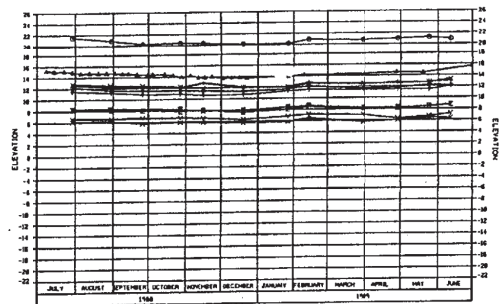
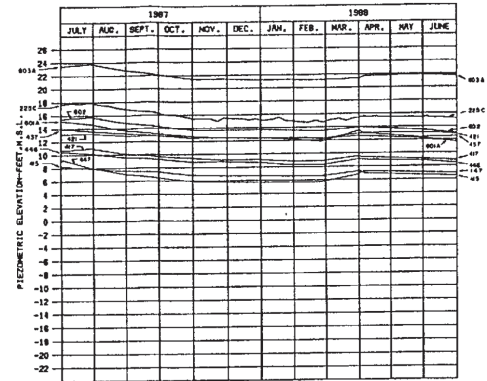
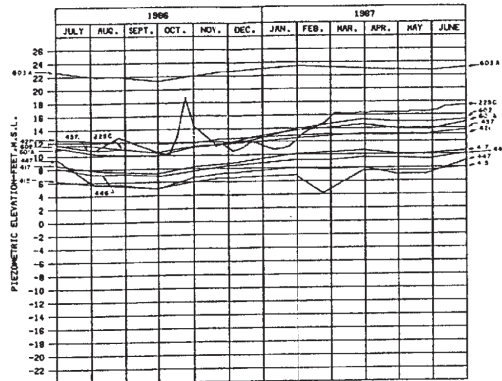
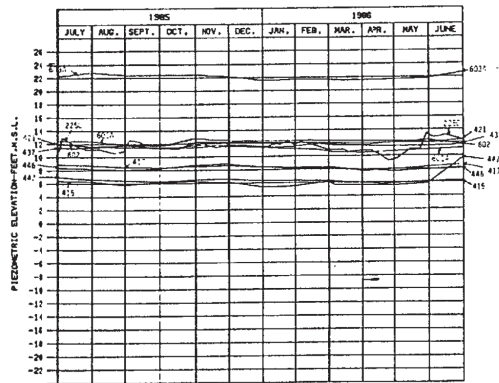
- ① Refer To Figure 2.5.C-1B For Locations Of The Permanent Piezometers.
- ② Site Preparation-Surface Drainage Was Started On September 22, 1975.
- ③ Plant Dewater Was Started On Nov. 15, 1975.
- ④ Dewatering For Make-up Pump Station Was Started On December 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL LOWER SHALLOW AQUIFER
MONITORING DATA

Figure 2.5.C-21A

Revision 0



LEGEND	Symbol	Instrument	Symbol	Instrument
	○	683A-01	△	446-01
	△	225C-01	▽	447-01
	□	682-01	×	415-01
	◇	421-01		
	○	437-01		
	○	681A-01		
	○	417-01		

LEGEND	Symbol	Instrument	Symbol	Instrument
	○	683A-01	△	446-01
	△	225C-01	▽	447-01
	□	682-01	×	415-01
	◇	421-01		
	○	437-01		
	○	681A-01		
	○	417-01		

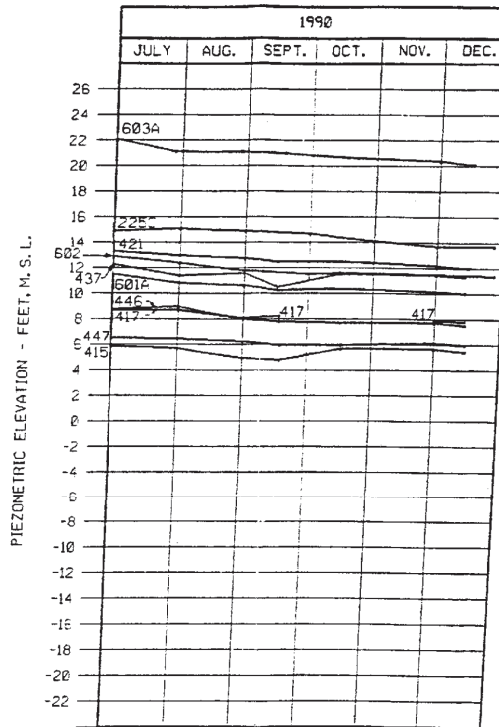
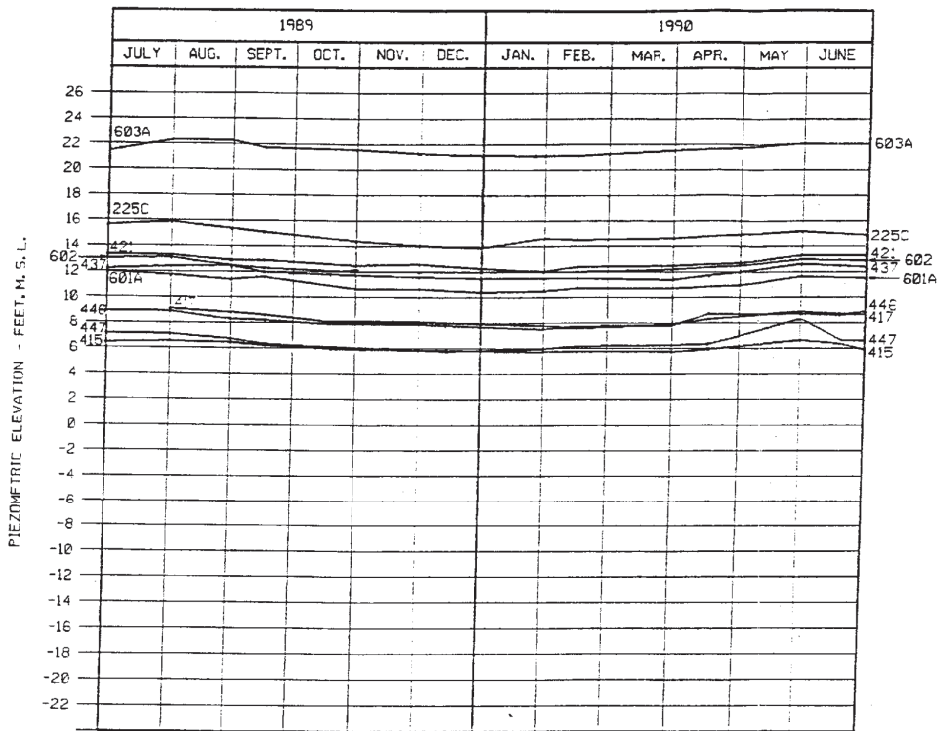
NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT WATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MACE-LP PUMP STATION WAS STARTED ON DECEMBER 27, 1978.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL LOWER SHALLOW
AQUIFER MONITORING DATA

Figure 2.5.C-21B Revision 1



NOTES:

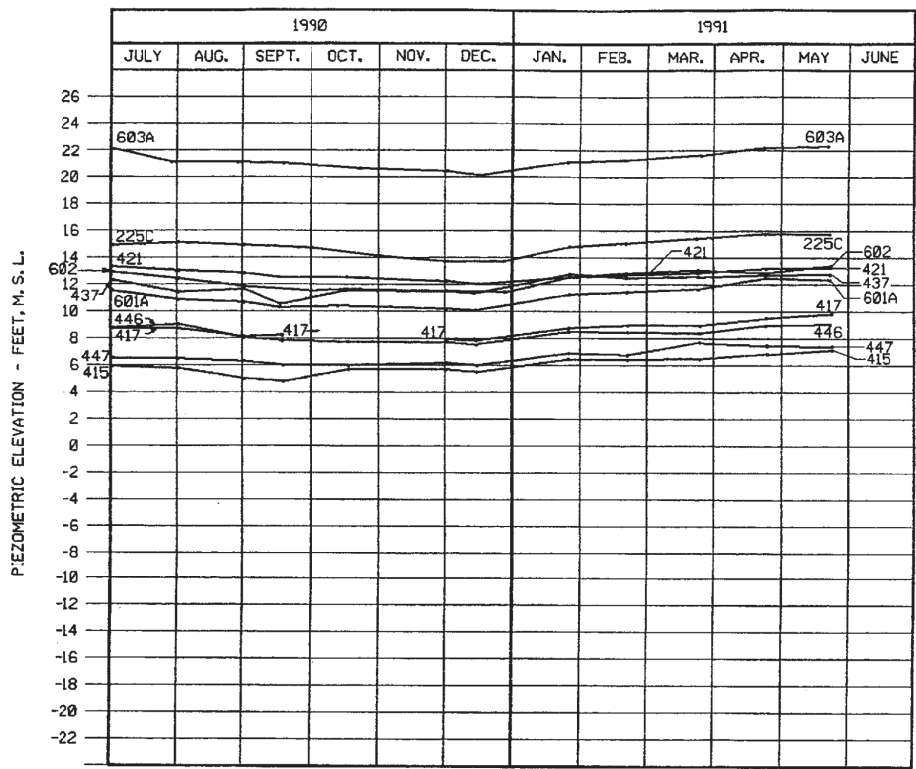
1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1975.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

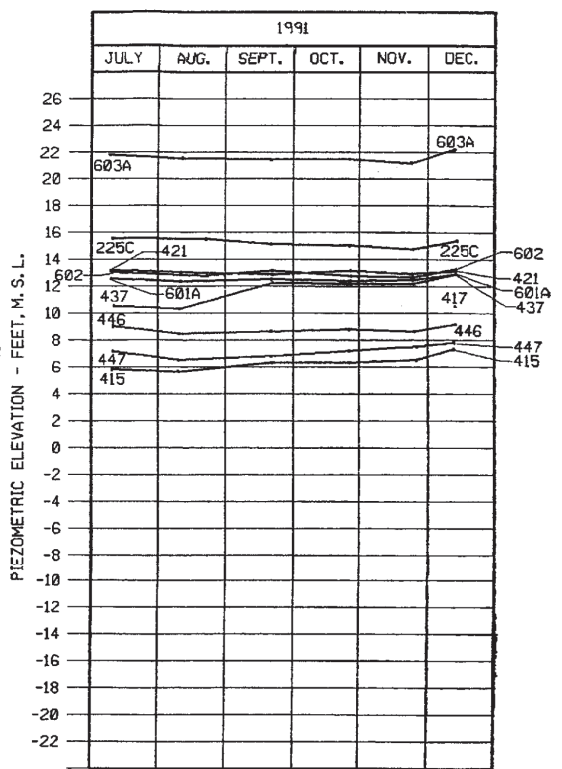
**REGIONAL LOWER SHALLOW
AQUIFER MONITORING DATA**

FIGURE 2.5.C-21C

REVISION 2



NO DATA AVAILABLE
JULY THRU
NOVEMBER FOR
417.
PLUGGED



NOTES:

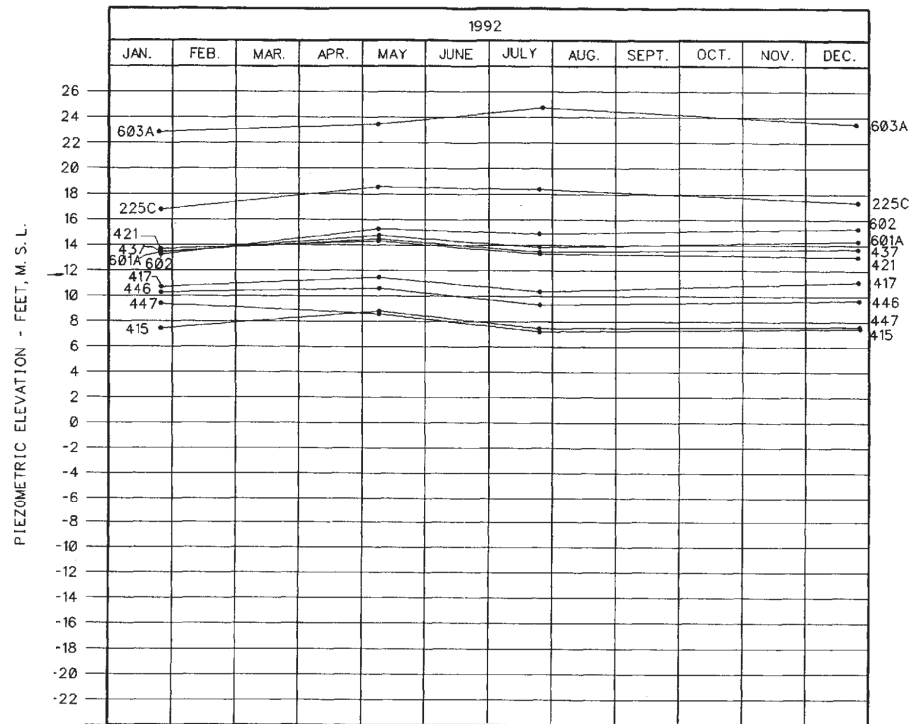
1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL LOWER SHALLOW
AQUIFER MONITORING DATA**

FIGURE 2.5.C-21D

REVISION 3



NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.
5. SEE FIGURE 2.5.C-21F FOR CONTINUATION 1993-1994.

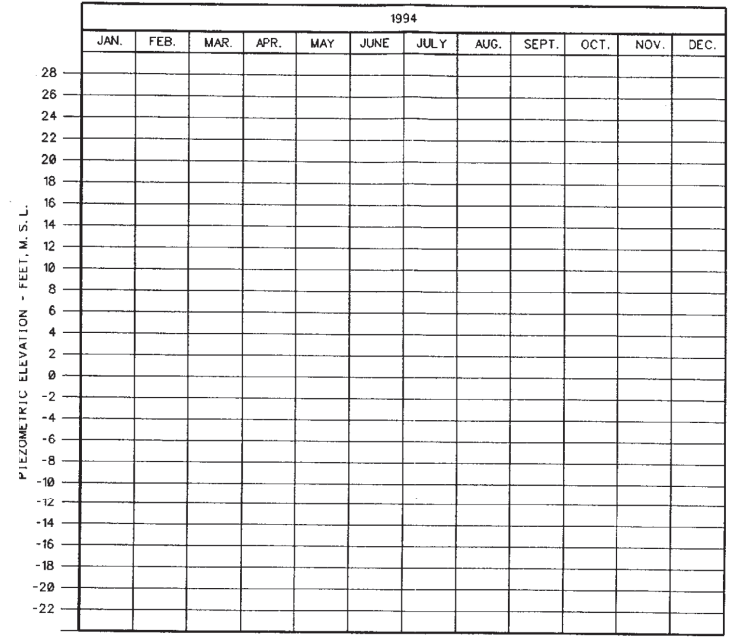
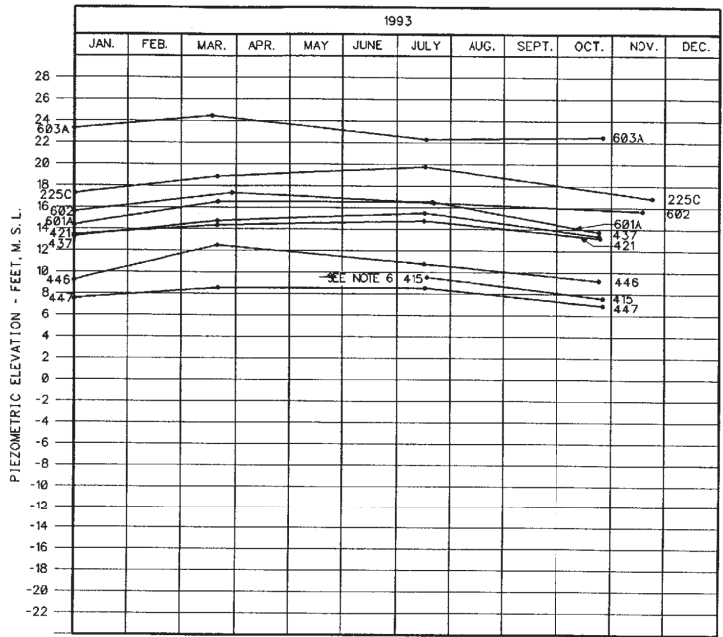
**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL LOWER SHALLOW
AQUIFER MONITORING DATA**

FIGURE 2.5.C-21E

REVISION 4

L0473.042



NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.
5. INST. 417 WAS PLUGGED WITH FOREIGN MATERIAL IN 1993.
6. INST. 415 WAS INACCESSIBLE FROM 1/93 TO 3/93.
7. CONTINUED FROM FIGURE 2.5.C-21E.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

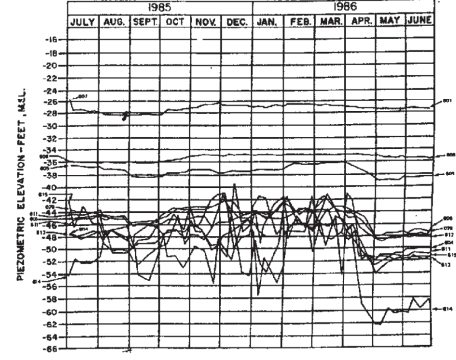
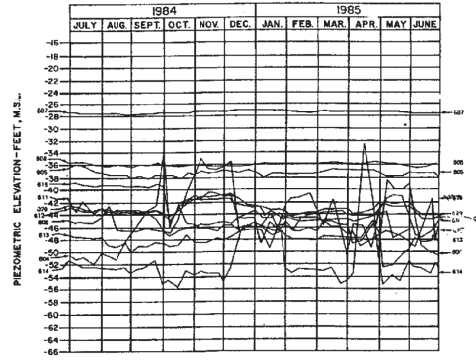
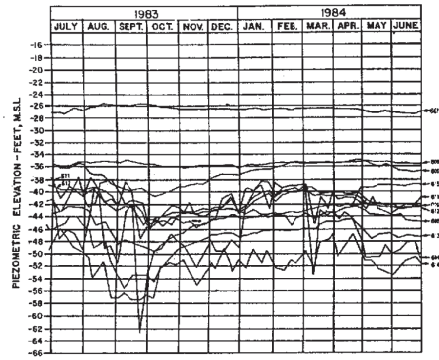
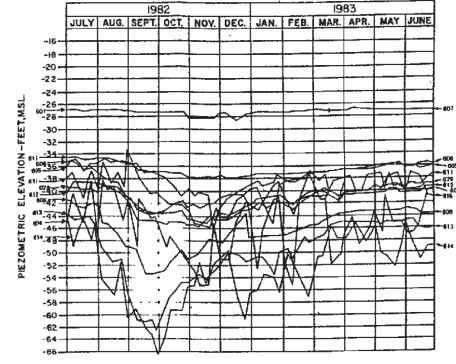
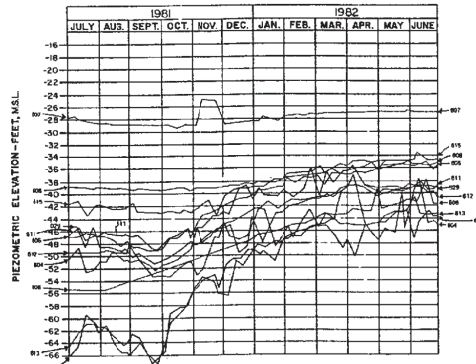
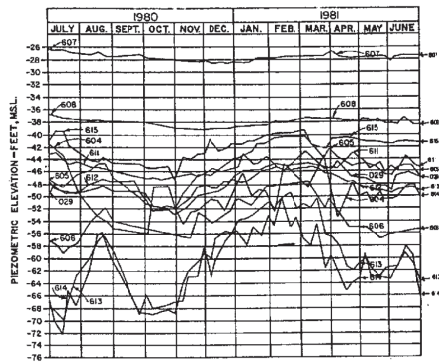
**REGIONAL LOWER SHALLOW
AQUIFER MONITORING DATA**

FIGURE 2.5.C-21F

Revision 4



L0572.041

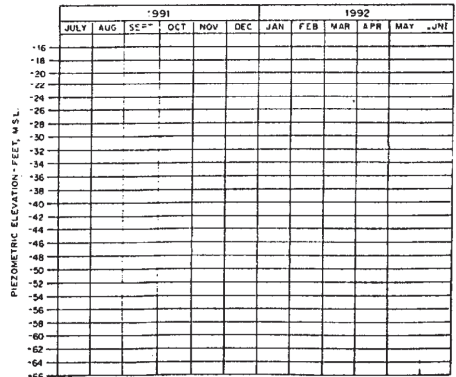
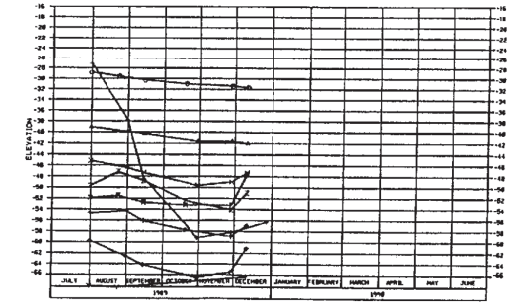
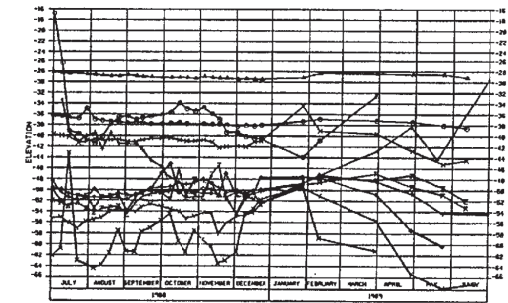
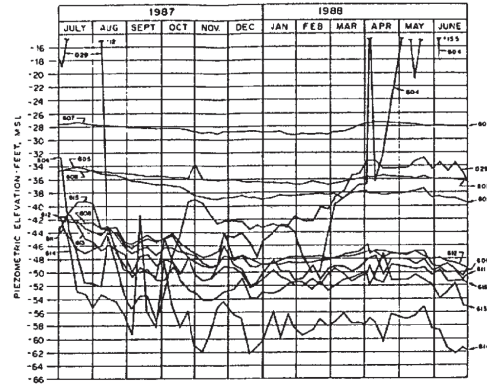
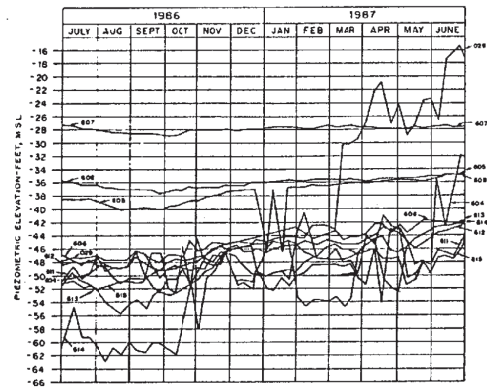


- NOTES:
- ① Refer To Figure 2.5.C-1B For Locations Of The Permanent Piezometers.
 - ② Site Preparation-Surface Drainage Was Started On September 22,1975.
 - ③ Plant Dewater Was Started On Nov.15,1975.
 - ④ Dewatering For Make-up Pump Station Was Started On December 27,1976.

**SOUTH TEXAS PROJECT
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REGIONAL DEEP AQUIFER
MONITORING DATA

Figure 2.5.C-22A Revision 0



LEGEND	Symbol	Instrument	Symbol	Instrument
	○	684-01	⊖	615-01
	△	687-01	⊕	613-01
	□	629-01	⊗	614-01
	◇	685-01	⊙	688-01
	◇	686-01		
	◇	612-01		
	◇	611-01		

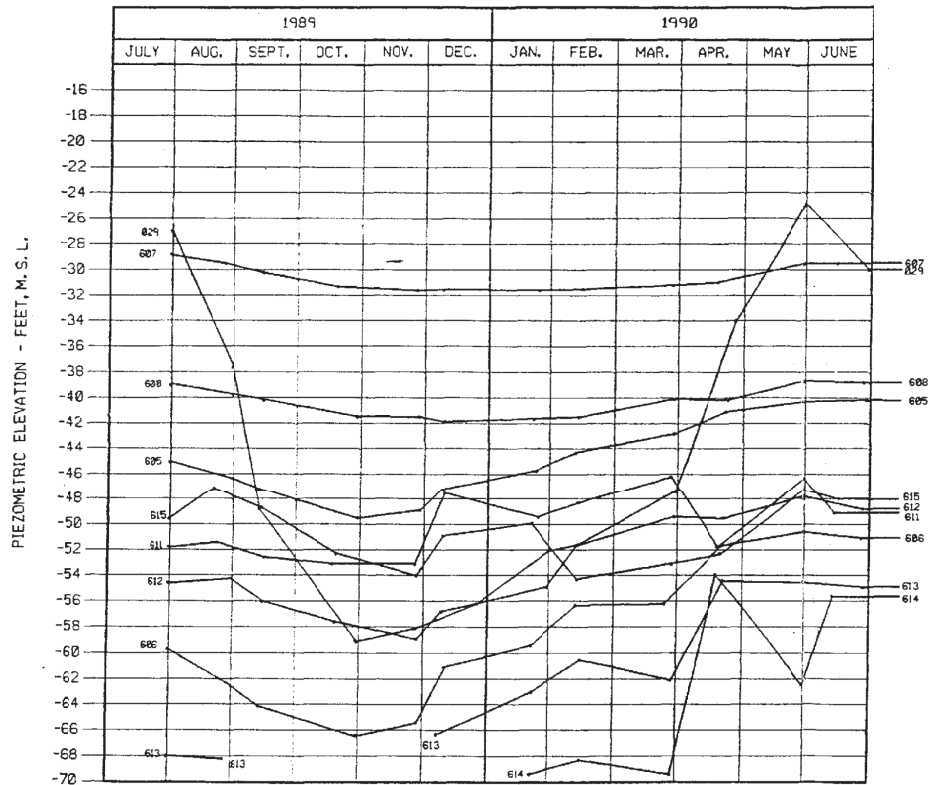
LEGEND	Symbol	Instrument	Symbol	Instrument
	○	687-01	⊖	615-01
	△	688-01	⊕	613-01
	□	629-01		
	◇	685-01		
	◇	686-01		
	◇	612-01		
	◇	611-01		

NOTES
 1 REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
 2 SITE PREPARATION - SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
 3 PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
 4 DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

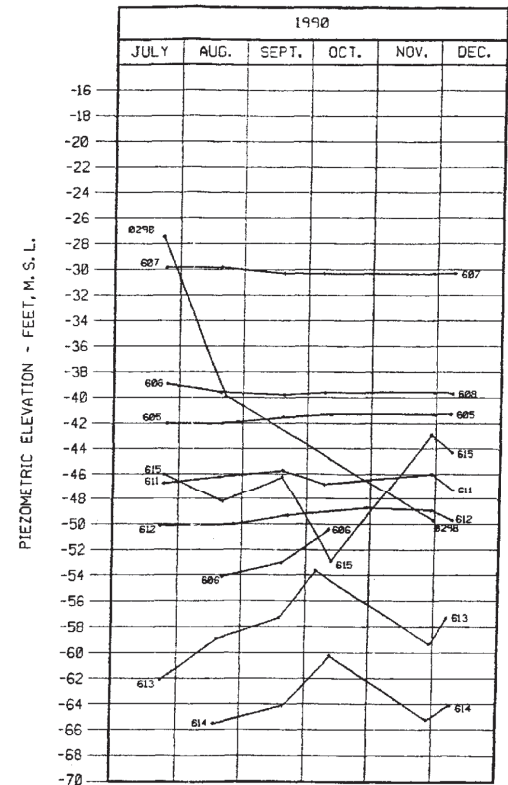
REGIONAL DEEP AQUIFER
 MONITORING DATA

Figure 2.5.C-22B Revision 1



NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

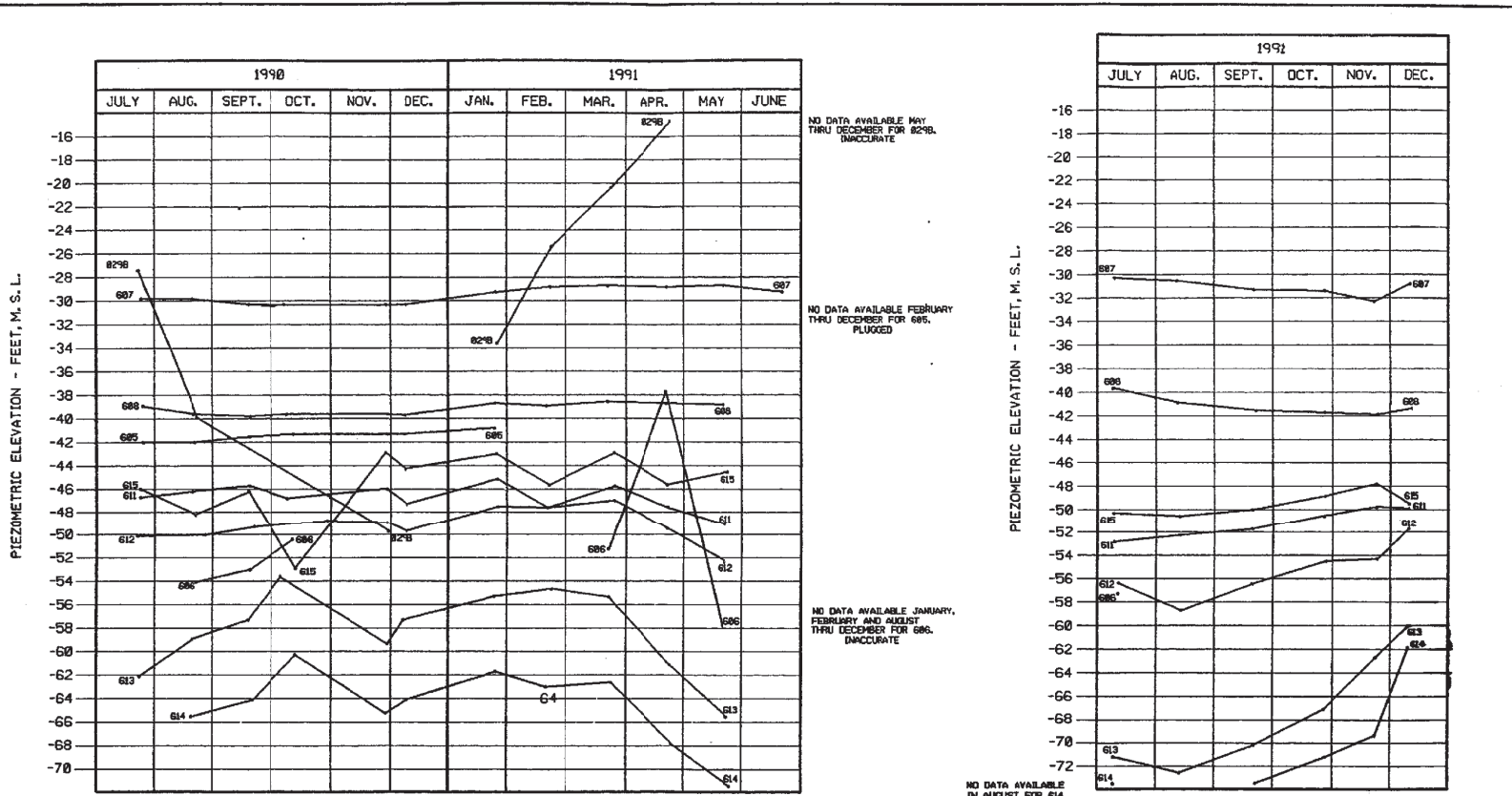


**SOUTH TEXAS PROJECT
UNITS 1 & 2**

**REGIONAL DEEP
AQUIFER MONITORING DATA**

FIGURE 2.5.C-22C

REVISION 2

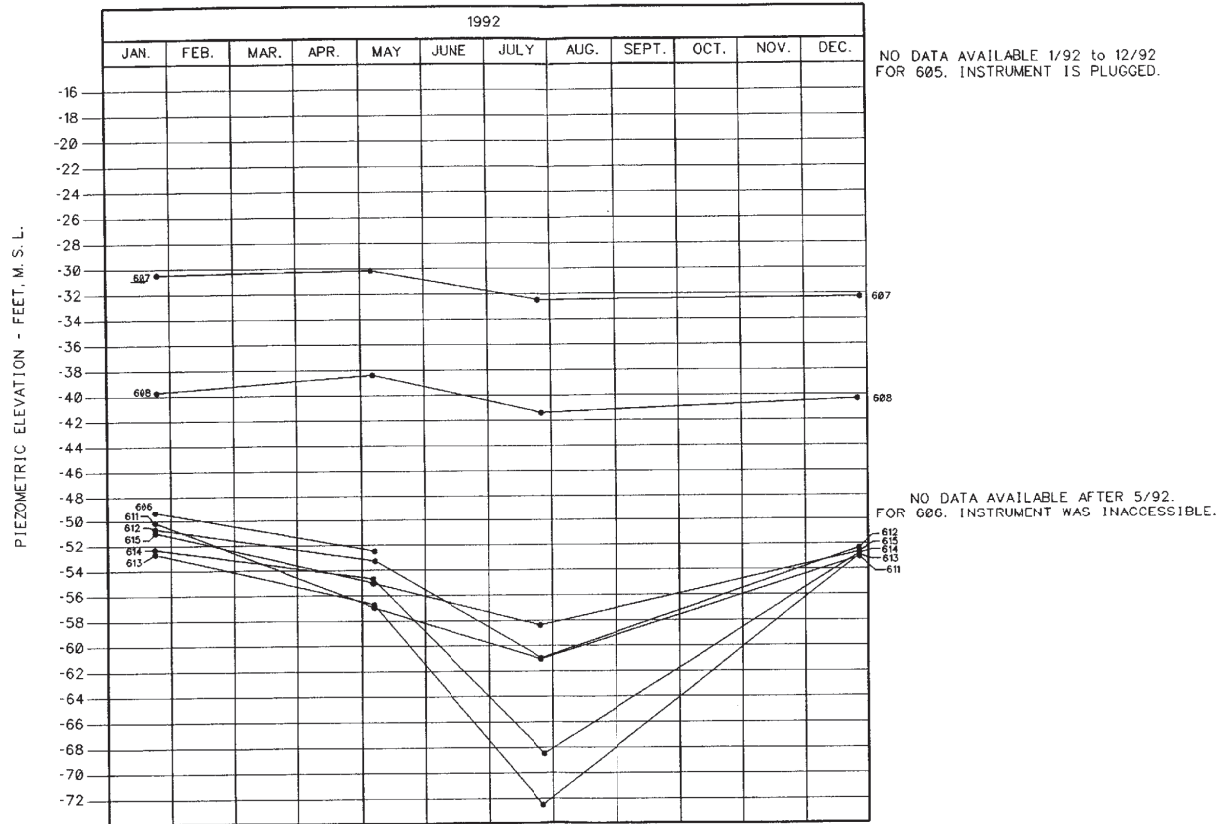


- NOTES:**
1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
 2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
 3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
 4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.

**SOUTH TEXAS PROJECT
UNITS 1 & 2**

REGIONAL DEEP
AQUIFER MONITORING DATA

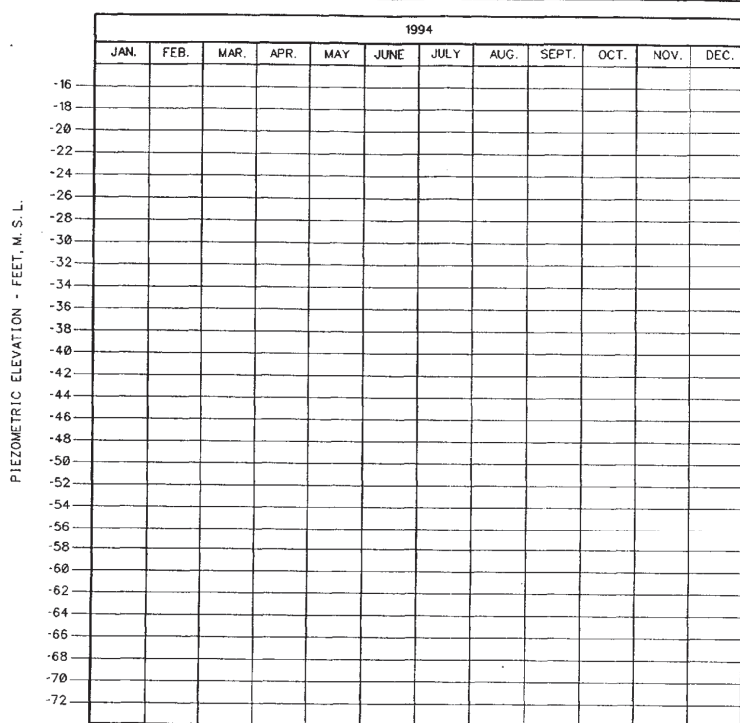
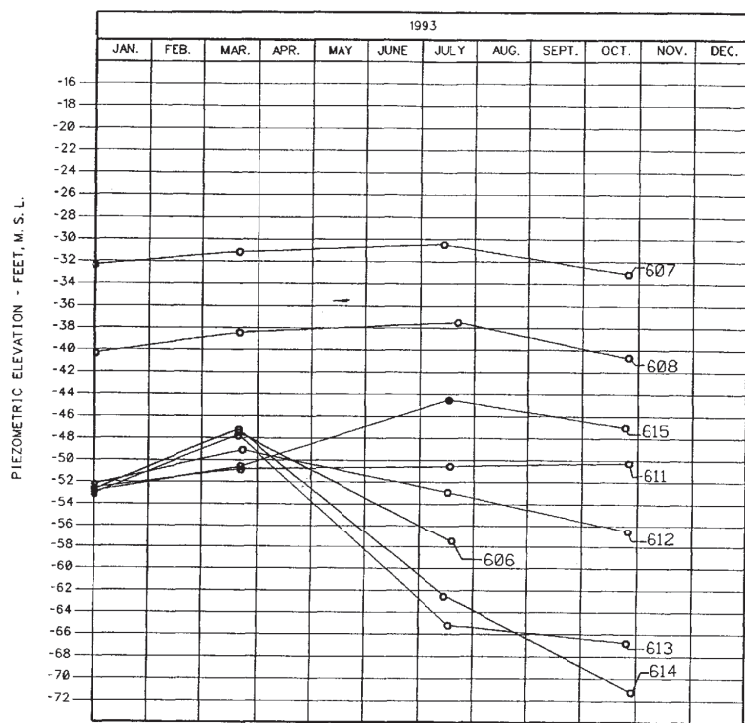
FIGURE 2.5.C-22D REVISION 3



NOTES:

1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
2. SITE PREPARATION-SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
4. DEWATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.
5. SEE FIGURE 2.5.C-22F FOR CONTINUATION 1993-1994.

SOUTH TEXAS PROJECT UNITS 1 & 2
REGIONAL DEEP AQUIFER MONITORING DATA
FIGURE 2.5.C-22E REVISION 4

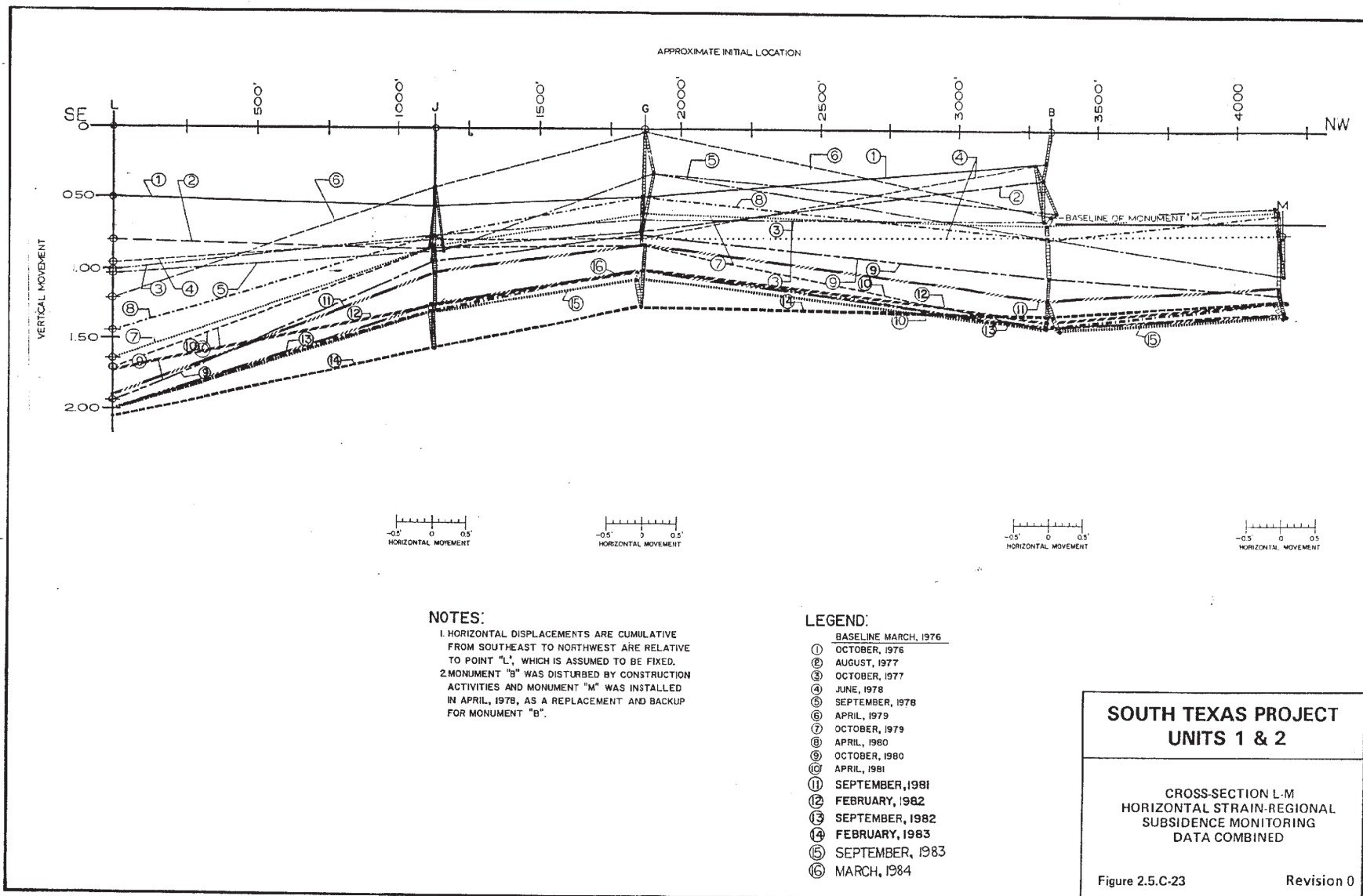


NOTES:
 1. REFER TO FIGURE 2.5.C-18 FOR LOCATIONS OF THE PERMANENT PIEZOMETERS.
 2. SITE PREPARATION SURFACE DRAINAGE WAS STARTED ON SEPTEMBER 22, 1975.
 3. PLANT DEWATER WAS STARTED ON NOVEMBER 15, 1975.
 4. DEMATERING FOR MAKE-UP PUMP STATION WAS STARTED ON DECEMBER 27, 1976.
 5. CONTINUED FROM FIGURE 2.5.C-22E.
 6. NO DATA AVAILABLE FROM 1/93 TO 12/93 FOR 606. INSTRUMENT IS PLUGGED.
 7. NO DATA AVAILABLE AFTER 7/93 FOR 606. INSTRUMENT WAS INACCESSIBLE.

SOUTH TEXAS PROJECT
 UNITS 1 & 2

REGIONAL DEEP
 AQUIFER MONITORING DATA

FIGURE 2.5.C-22F Revision 4



NOTES:

1. HORIZONTAL DISPLACEMENTS ARE CUMULATIVE FROM SOUTHEAST TO NORTHWEST ARE RELATIVE TO POINT "L", WHICH IS ASSUMED TO BE FIXED.
 2. MONUMENT "B" WAS DISTURBED BY CONSTRUCTION ACTIVITIES AND MONUMENT "M" WAS INSTALLED IN APRIL, 1978, AS A REPLACEMENT AND BACKUP FOR MONUMENT "B".

LEGEND:

- BASELINE MARCH, 1976
- ① OCTOBER, 1976
- ② AUGUST, 1977
- ③ OCTOBER, 1977
- ④ JUNE, 1978
- ⑤ SEPTEMBER, 1978
- ⑥ APRIL, 1979
- ⑦ OCTOBER, 1979
- ⑧ APRIL, 1980
- ⑨ OCTOBER, 1980
- ⑩ APRIL, 1981
- ⑪ SEPTEMBER, 1981
- ⑫ FEBRUARY, 1982
- ⑬ SEPTEMBER, 1982
- ⑭ FEBRUARY, 1983
- ⑮ SEPTEMBER, 1983
- ⑯ MARCH, 1984

**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

CROSS-SECTION L-M
 HORIZONTAL STRAIN-REGIONAL
 SUBSIDENCE MONITORING
 DATA COMBINED

Figure 2.5.C-23 Revision 0

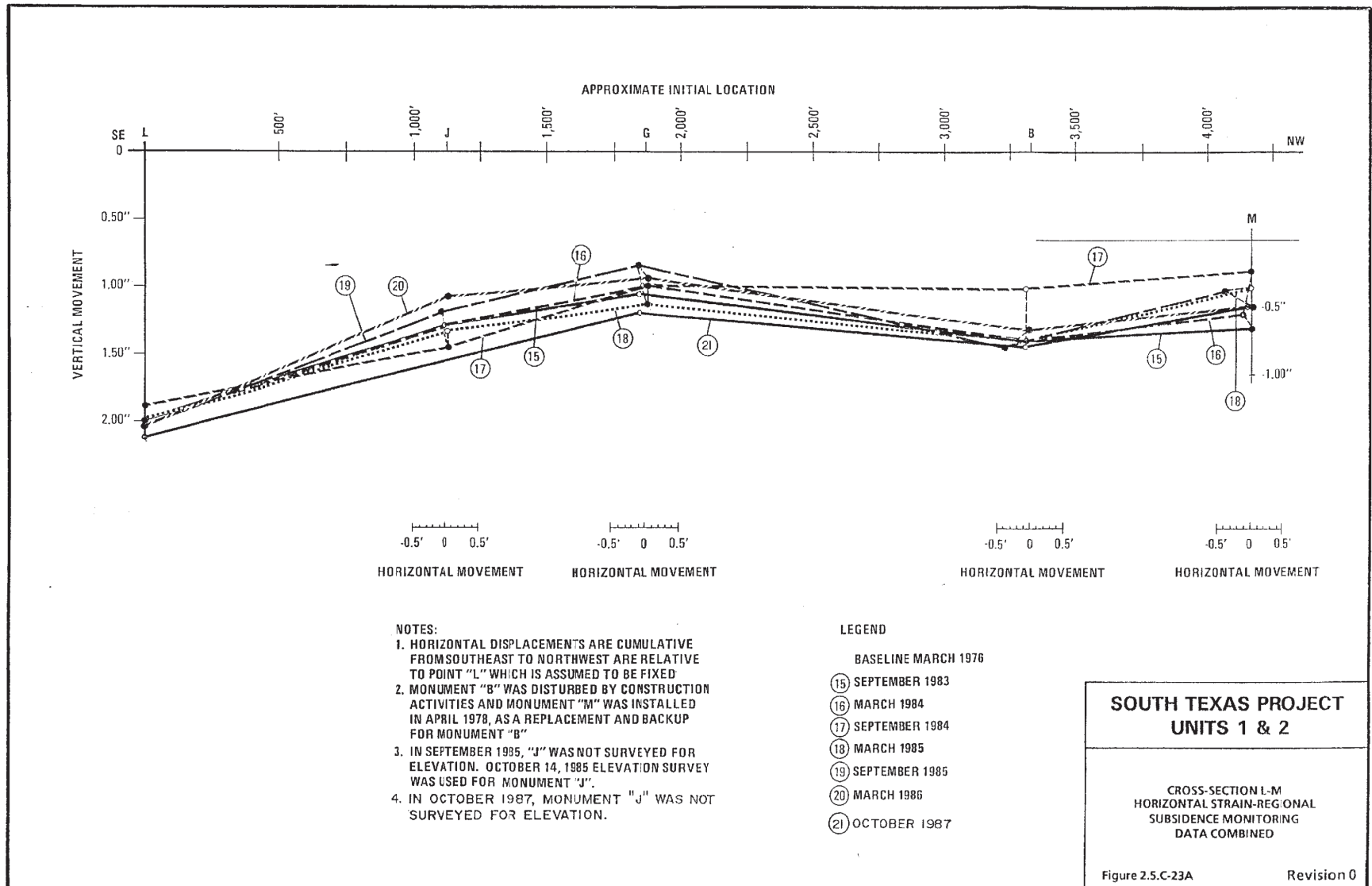
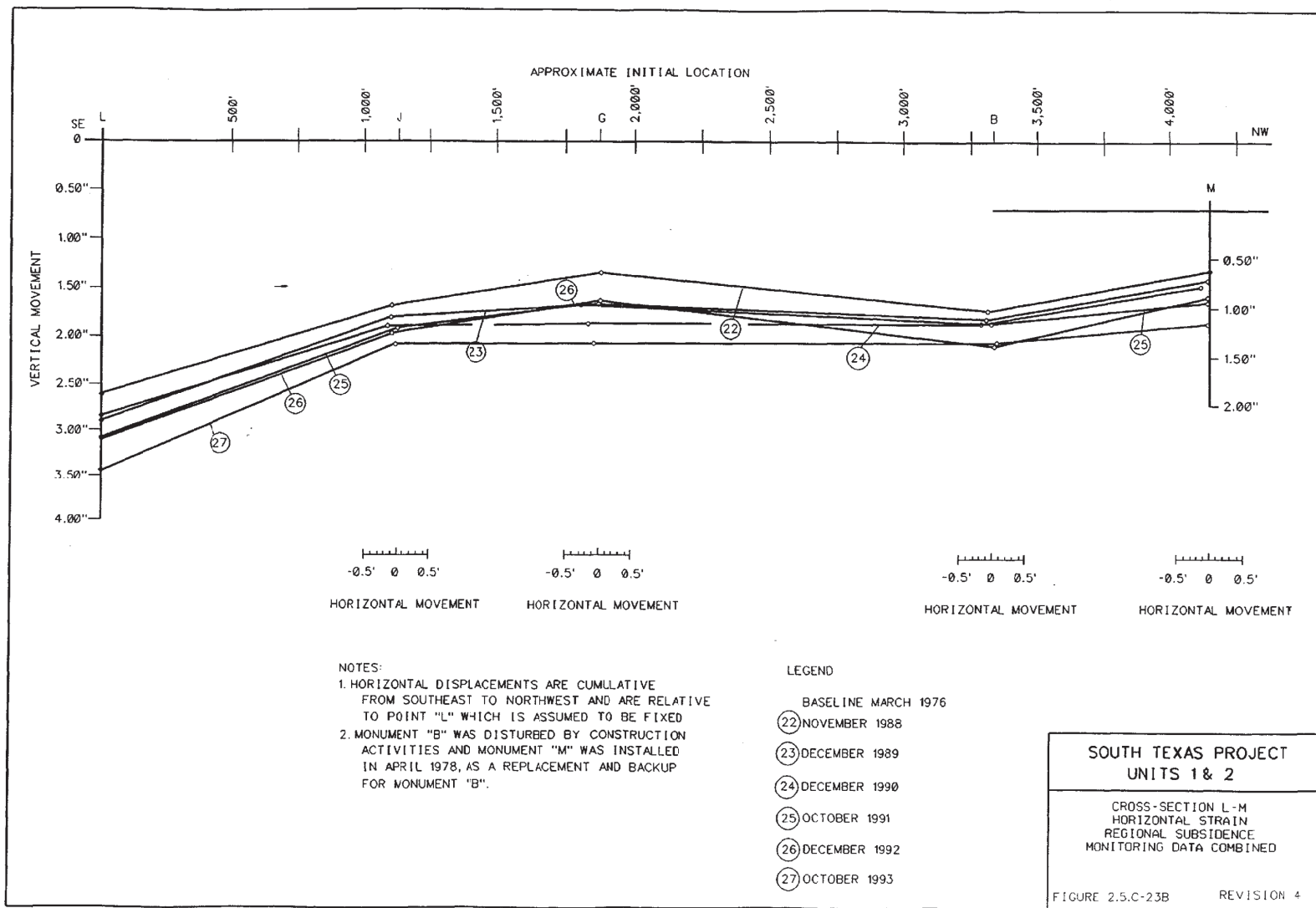
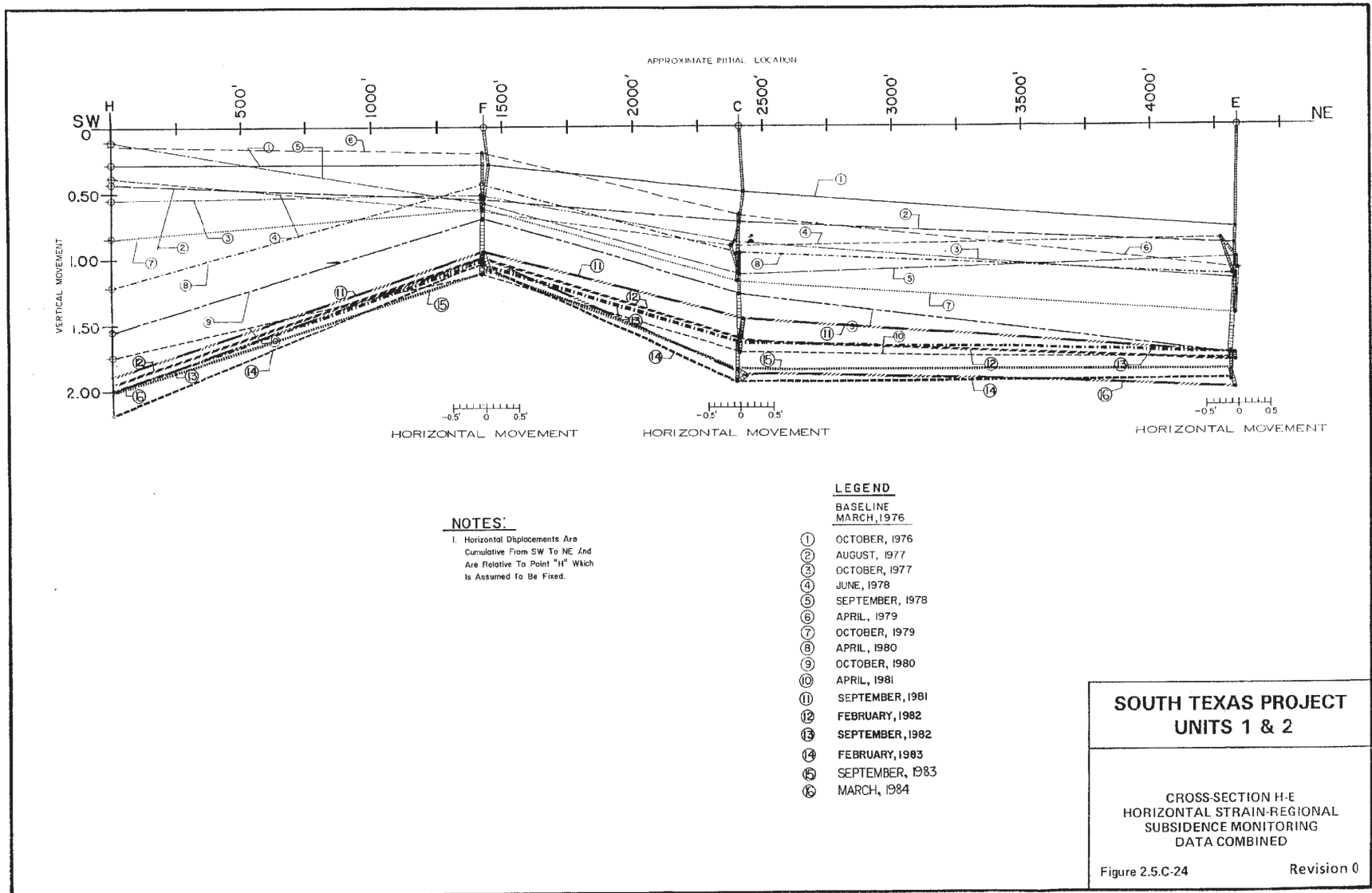
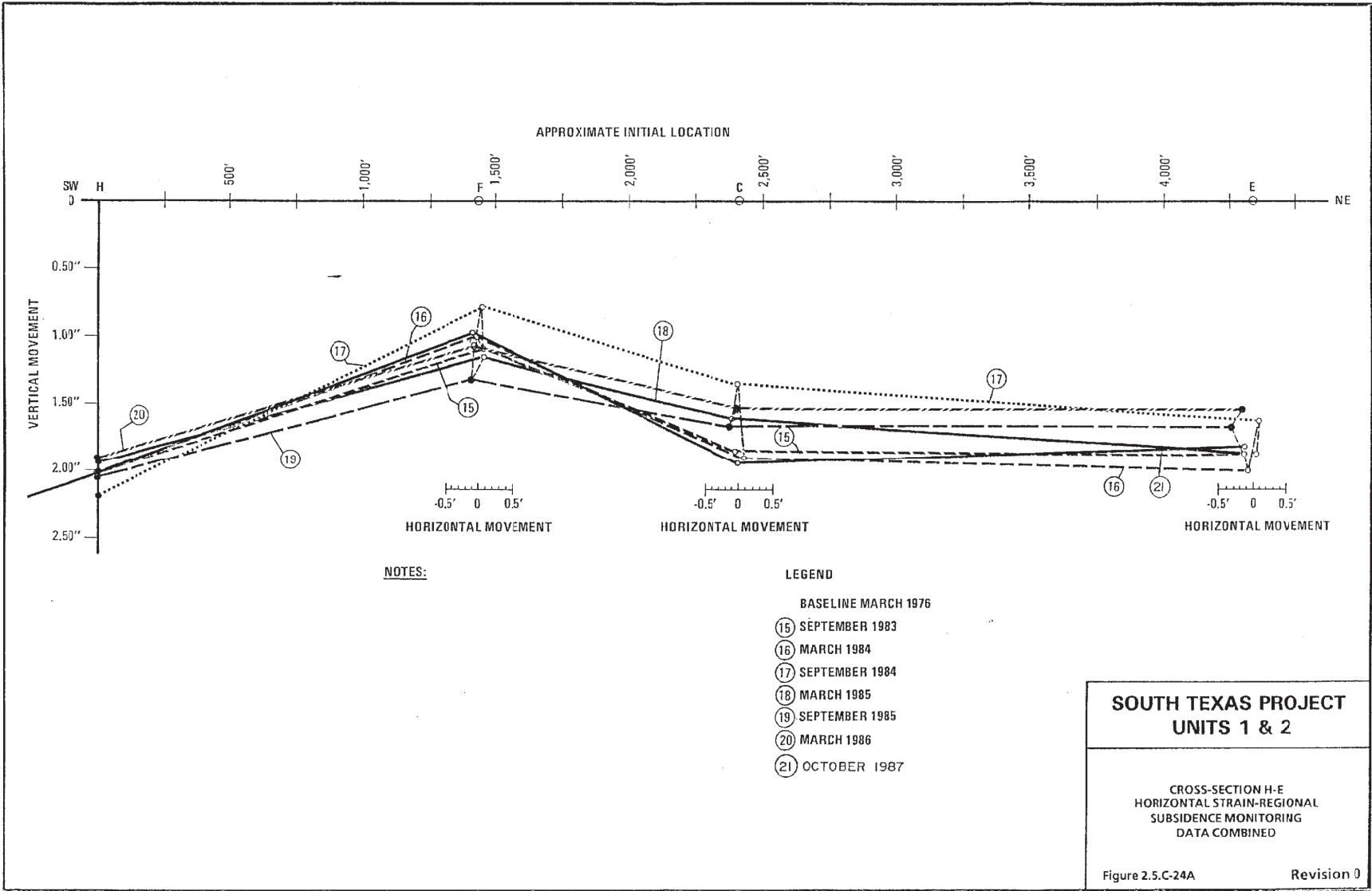


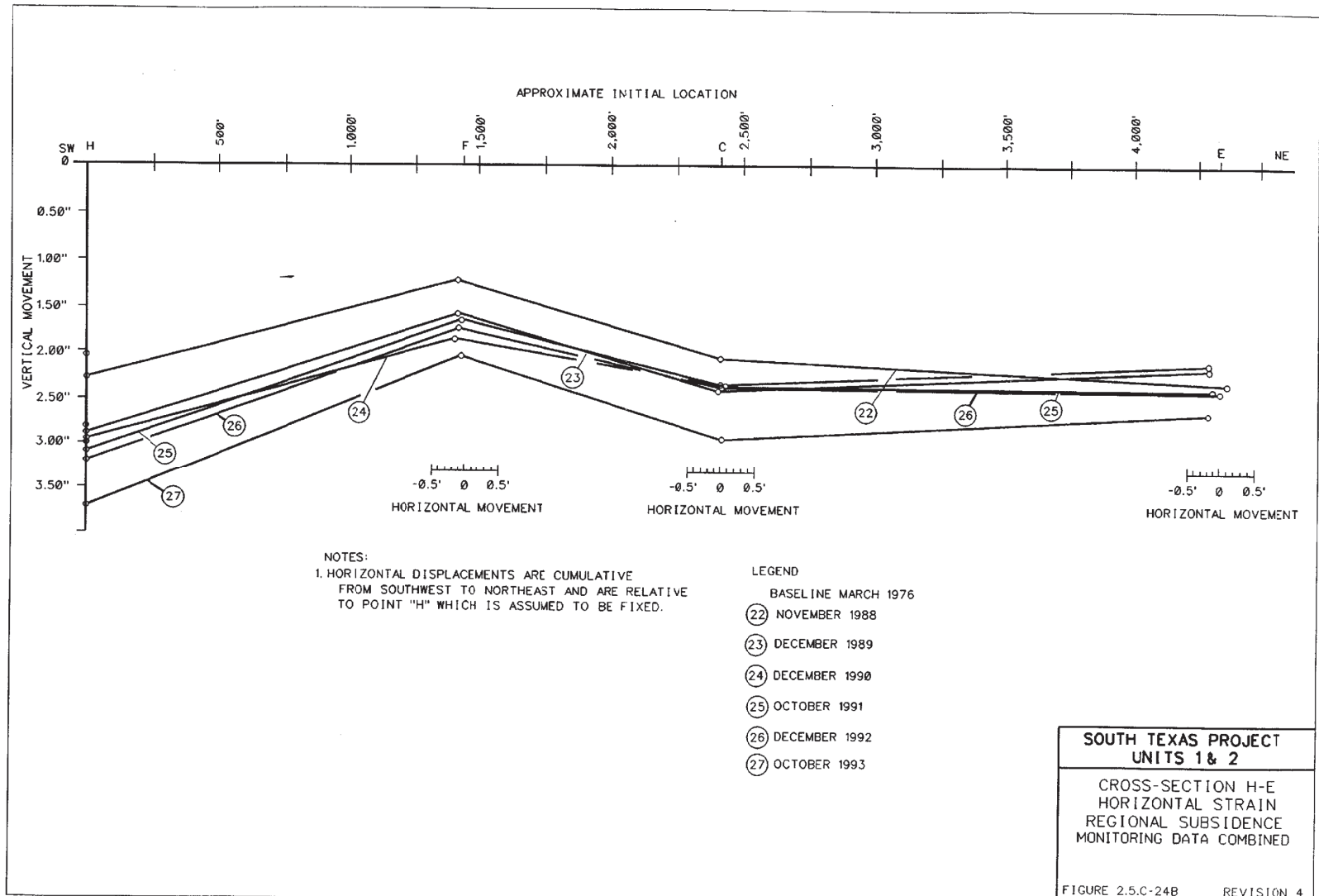
Figure 2.5.C-23A

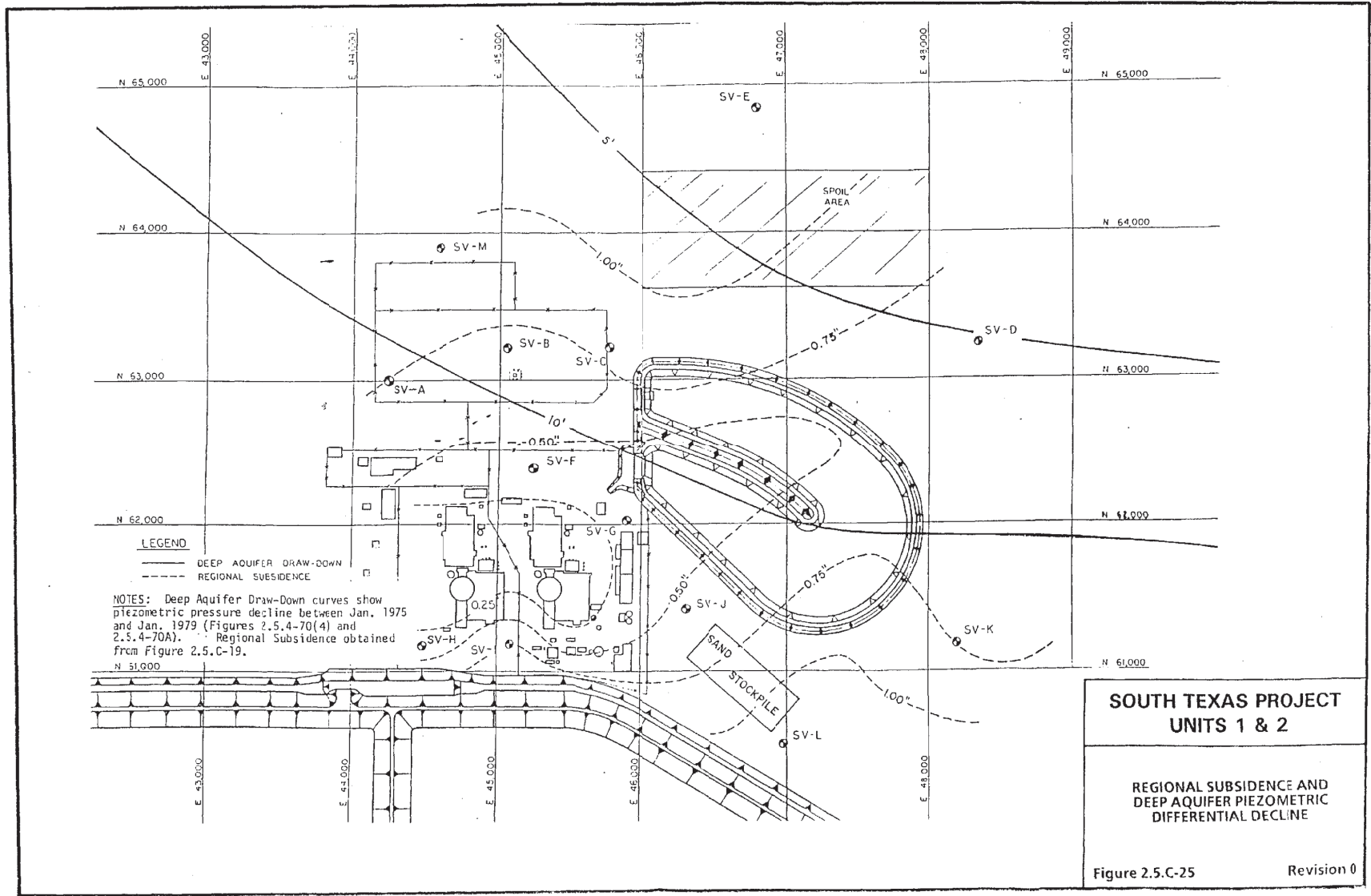
Revision 0

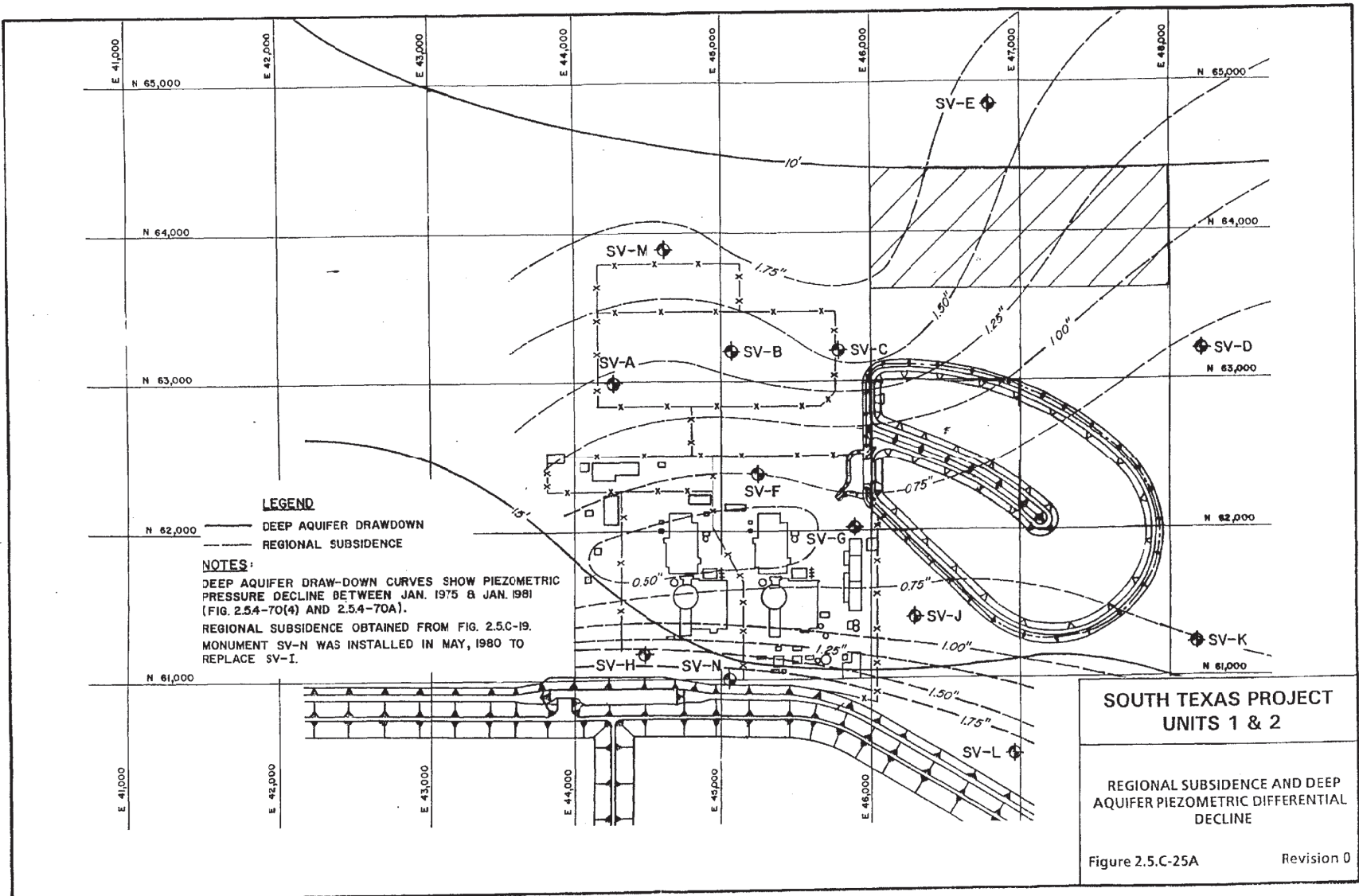












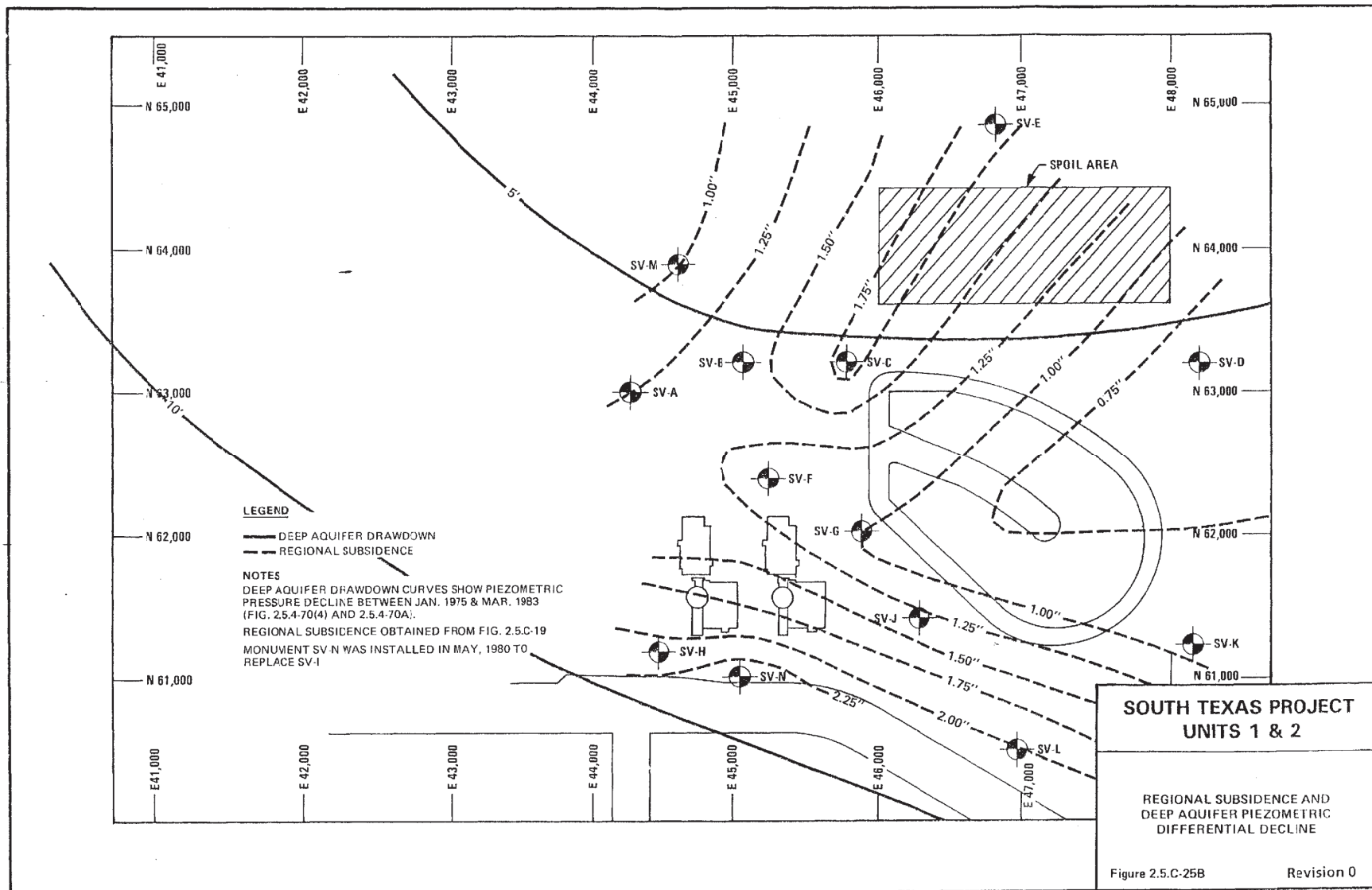
LEGEND
 ——— DEEP AQUIFER DRAWDOWN
 - - - REGIONAL SUBSIDENCE

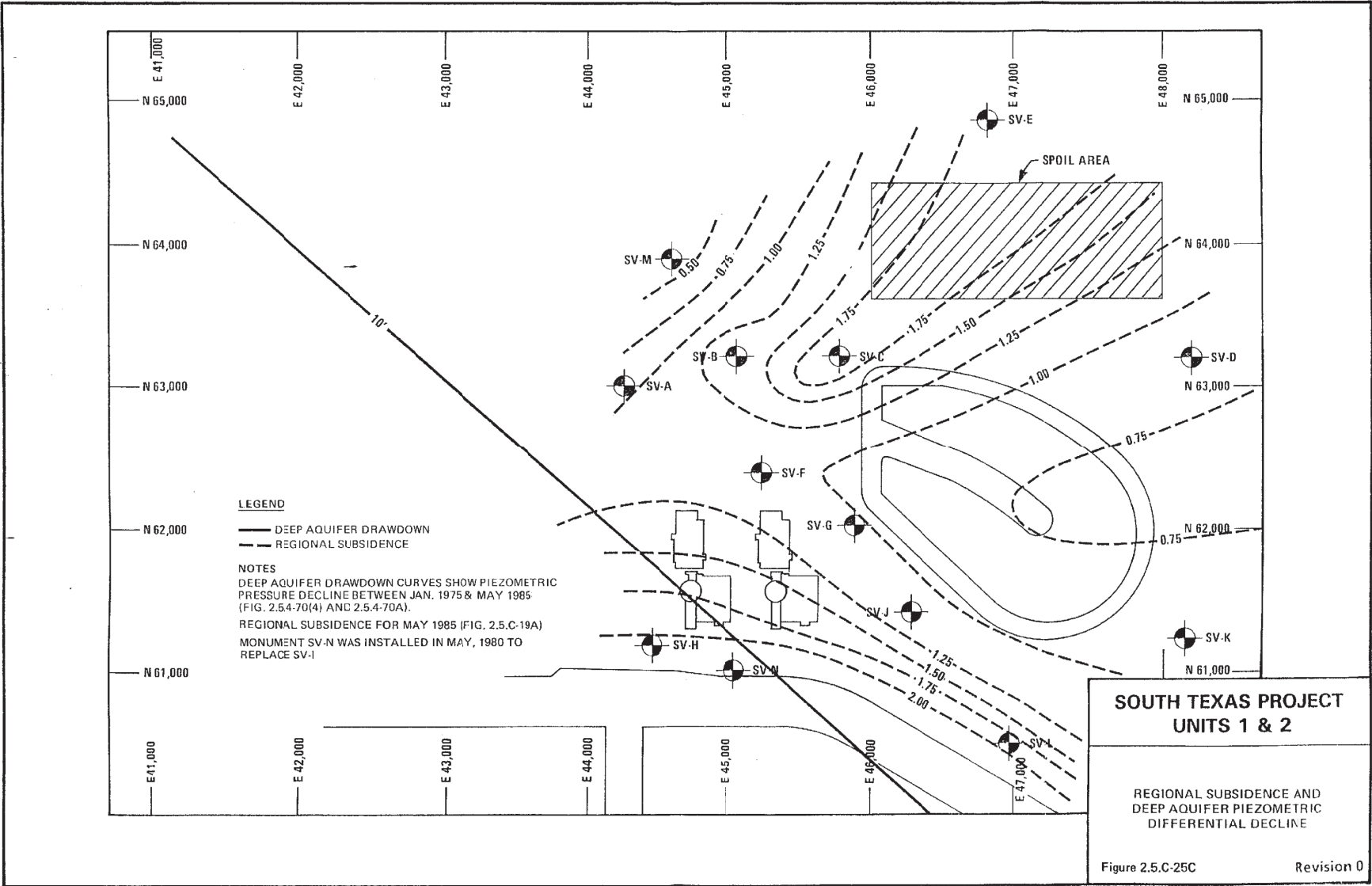
NOTES:
 DEEP AQUIFER DRAWD-DOWN CURVES SHOW PIEZOMETRIC PRESSURE DECLINE BETWEEN JAN. 1975 & JAN. 1981 (FIG. 2.5.4-70(4) AND 2.5.4-70A).
 REGIONAL SUBSIDENCE OBTAINED FROM FIG. 2.5.C-19.
 MONUMENT SV-N WAS INSTALLED IN MAY, 1980 TO REPLACE SV-I.

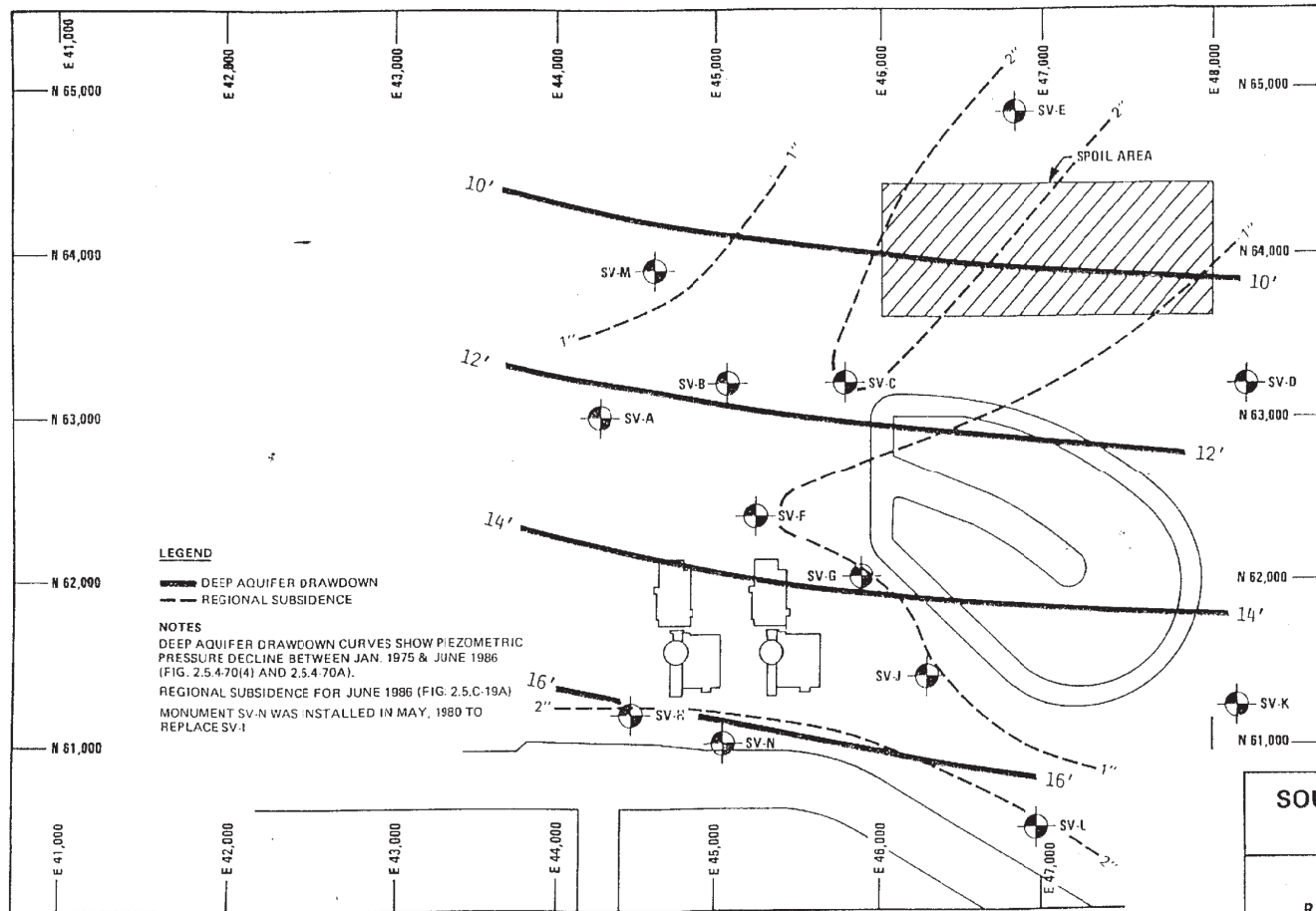
**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

REGIONAL SUBSIDENCE AND DEEP AQUIFER PIEZOMETRIC DIFFERENTIAL DECLINE

Figure 2.5.C-25A Revision 0



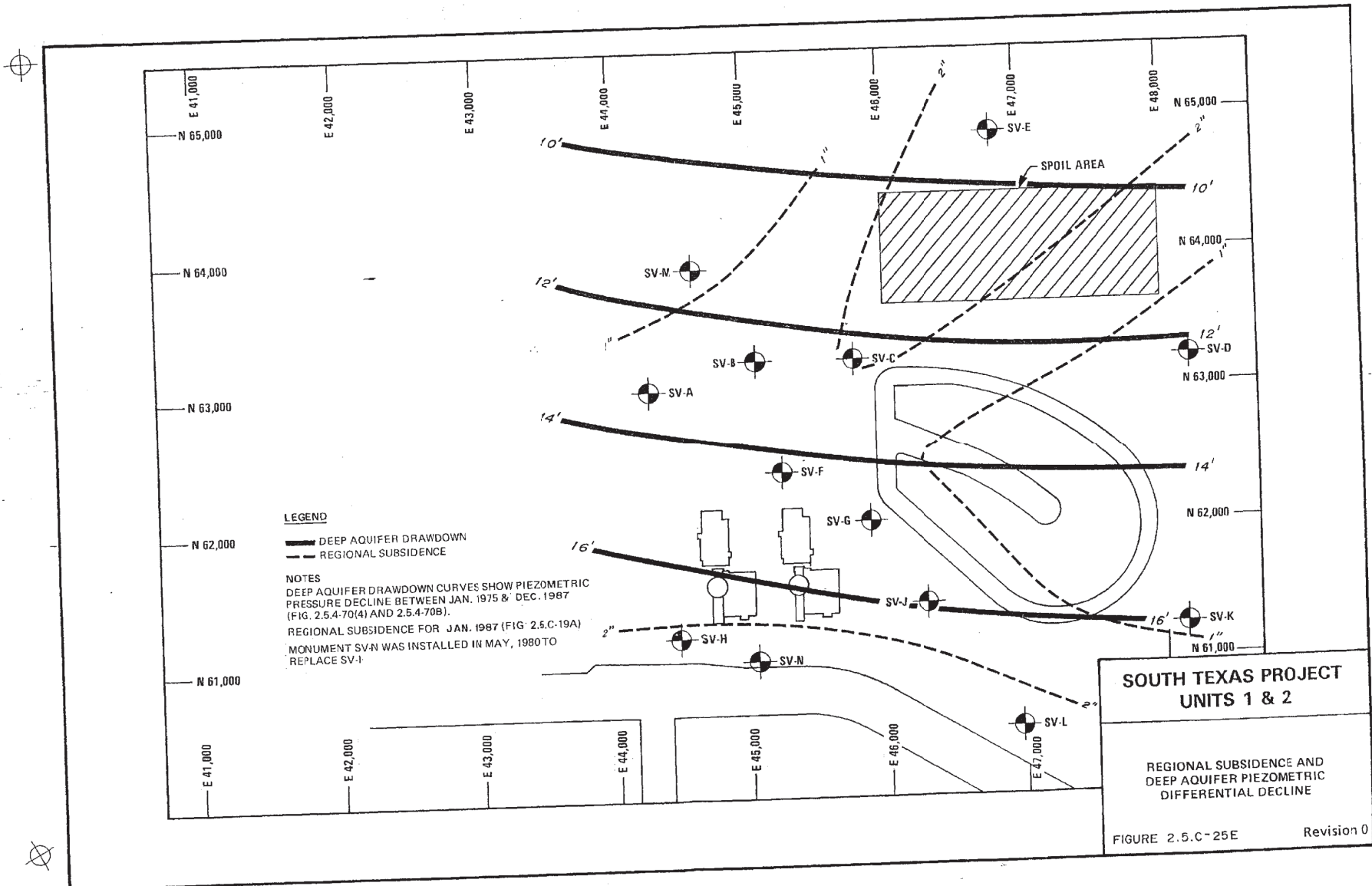




**SOUTH TEXAS PROJECT
 UNITS 1 & 2**

REGIONAL SUBSIDENCE AND
 DEEP AQUIFER PIEZOMETRIC
 DIFFERENTIAL DECLINE

Figure 2.5.C-25D Revision 0



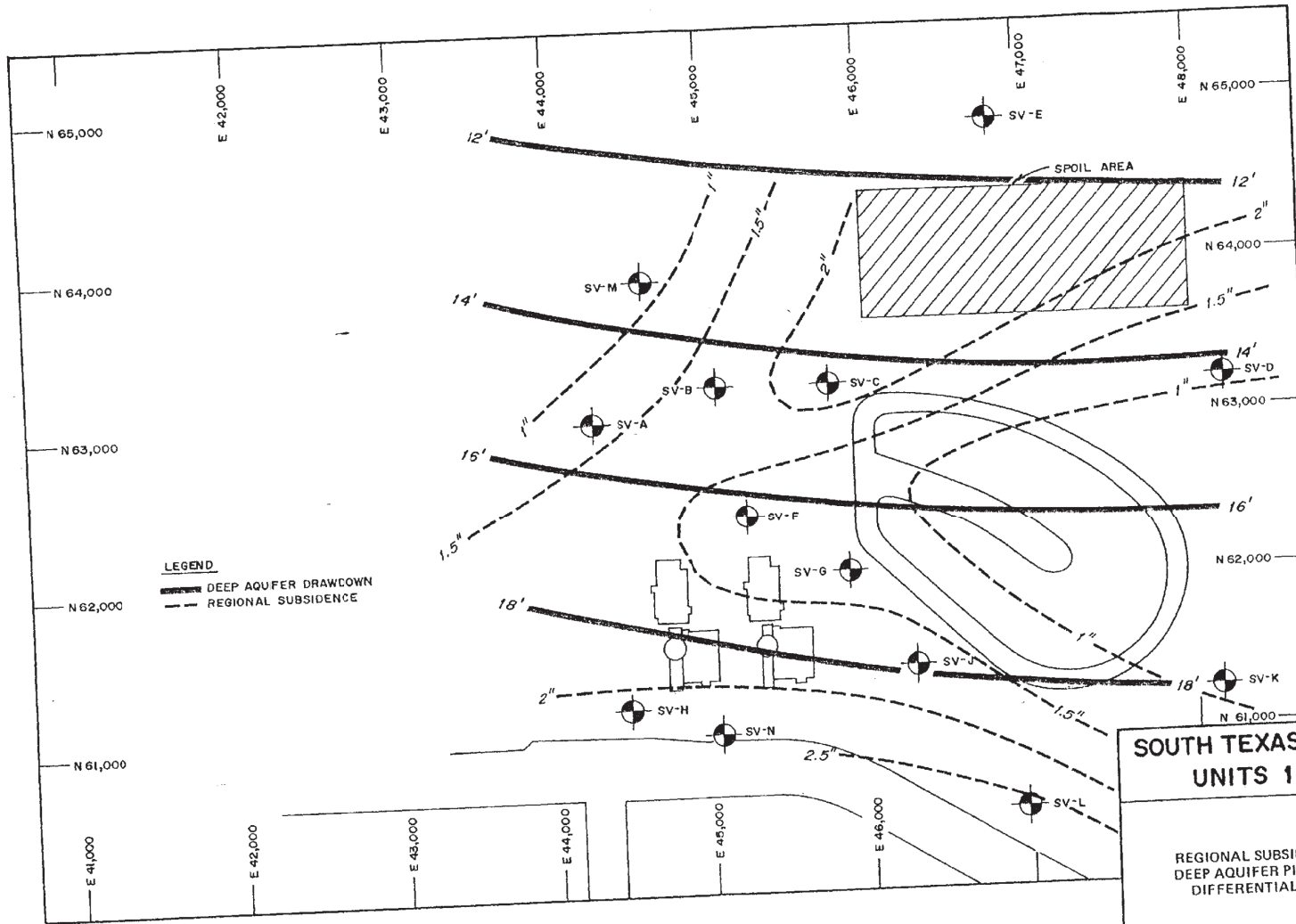
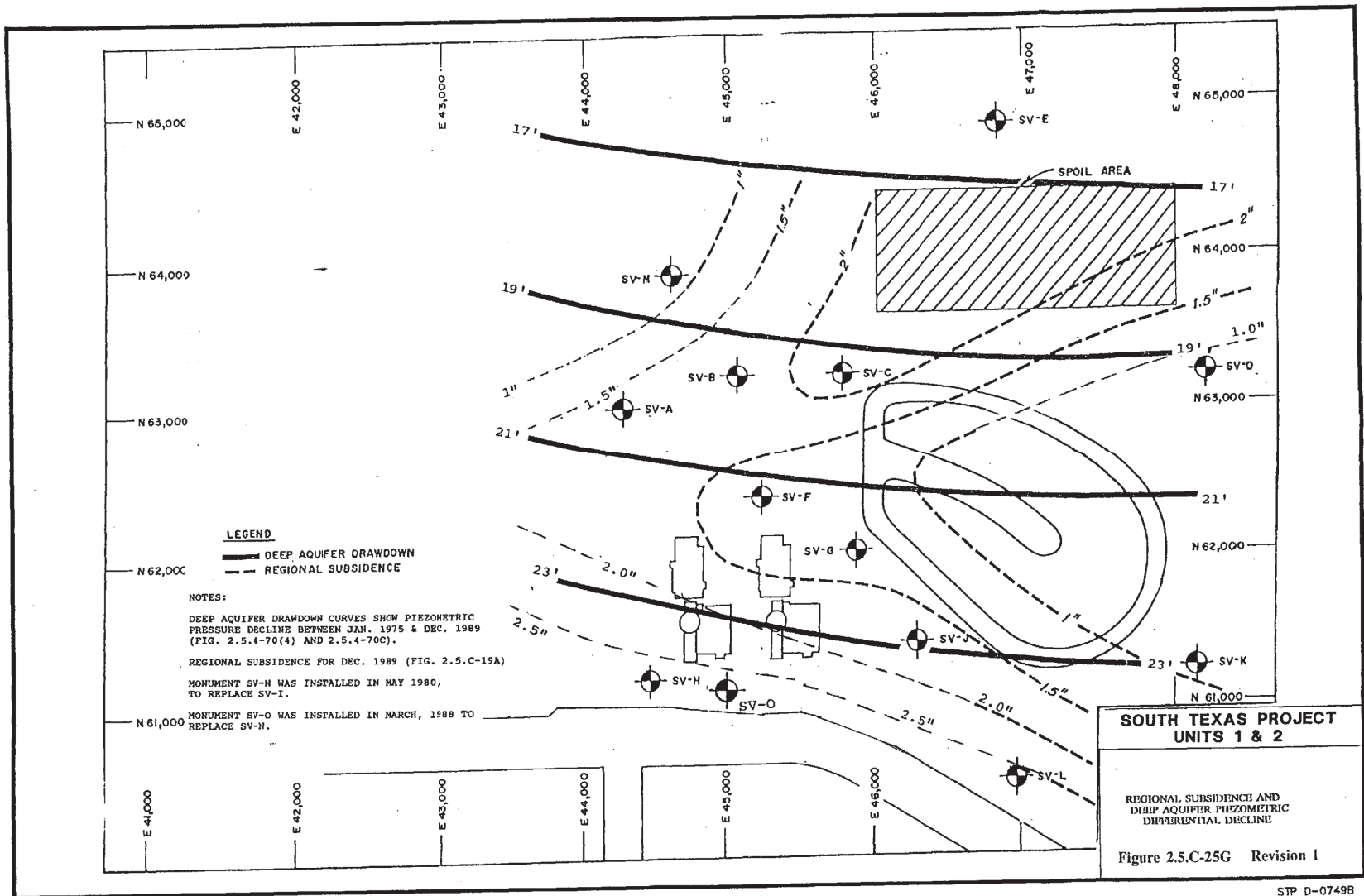
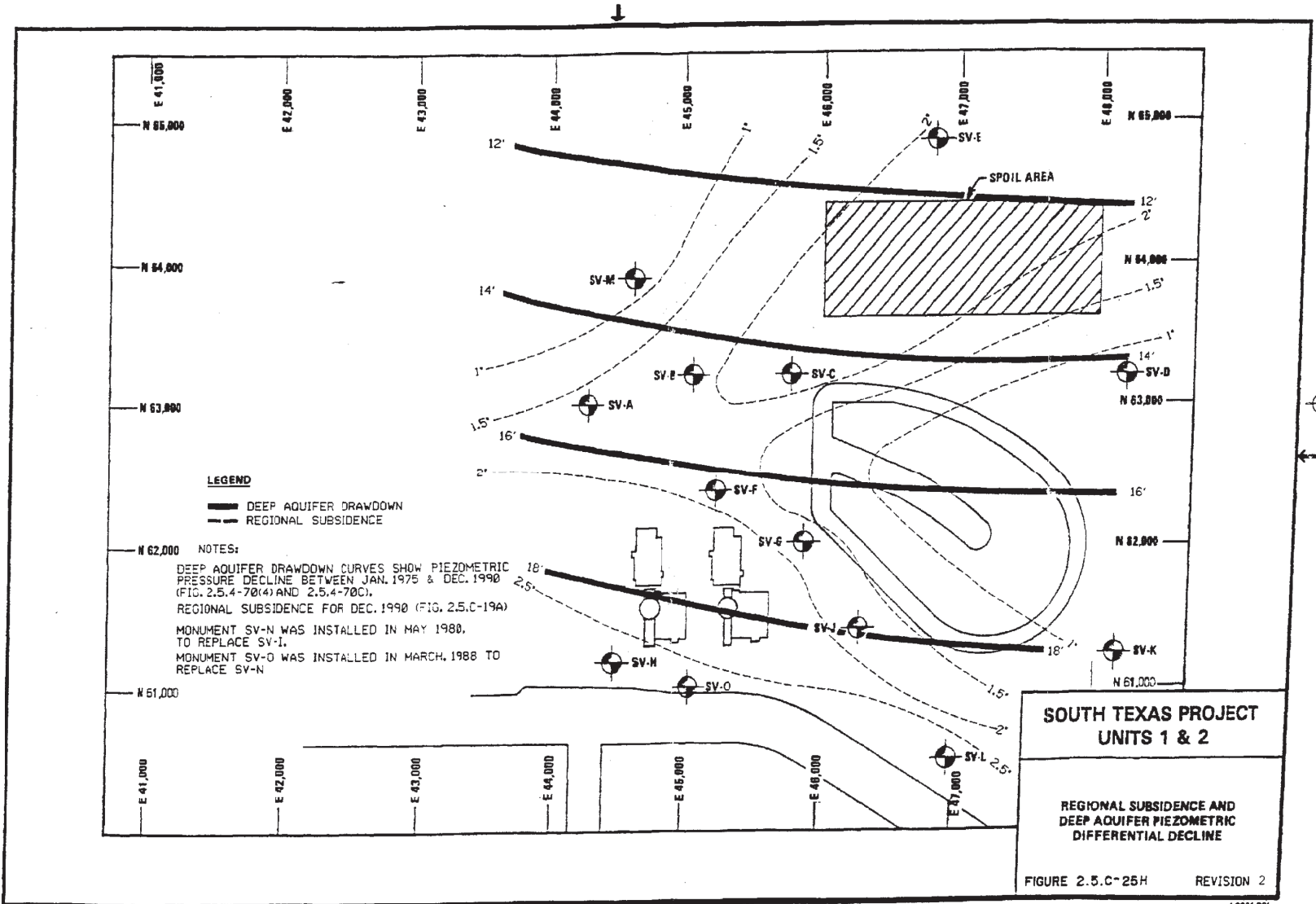


Figure 2.5.C-25F Revision 0





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