

**APPENDIX A
SOIL BORING LOGS**



SOIL BORING LOG
HDR Engineering, Inc.

Project Number:101650	Project Name: Florida Power and Light	Date Start:1/16/09
Boring Number: PW-1	Coordinates:25° 26'12.7306 N; 80°19'16.6207 W	Date End: 1/23/09
Elevation: 3.51' NAVD 88	Depth GW: 6.27	Date: 1/21/09
Geologist/Engineer: D.Daigle	Depth GW: 5.45	Date: 1/26/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks
1				Fill material (rock fragments, gravel, shell)			
2							
3		drill cuttings					
4							
5							
6							
7		drill cuttings					
8							
9	-5.49						
10	-6.49			Peat-dark brown, plant material, sl. moist	PT		
11				Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell casts, small voids; wet; (calcarenite)			
12		drill cuttings					
13							
14							
15							
16							
17		drill cuttings					
18							
19							
20							
21							
22		drill cuttings					
23							
24							
25							
26							
27		drill cuttings					
28							
29							
30							
31							
32	-28.49	drill cuttings					
33				Lt gray cemented sand and fine sand; cemented sand frags; wet			
34							
35							
36							
37		drill cuttings					
38							
39							
40							
41							
42	-38.49	drill cuttings					
43				Lt gray limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure still noted;			
44							
45							
46							
47				Total Depth 46'			
48							
49							
50							
51							
52							

BORING LOG
HDR Engineering, Inc.

Project Number:101650	Project Name: Florida Power and Light	Date Start:1/07/09
Boring Number: MW-1 IS	Coordinates:25°26'12.3058" N; 80°19'17.2599" W	Date End: 1/08/09
Elevation: 3.00' NAVD 88	Depth GW: 5.64	Date: 1/21/09
Geologist/Engineer: D.Daigle	Depth GW: 5.31	Date: 1/26/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks
1				Fill material (rock fragments, gravel, shell)			
2		drill cuttings					
3							
4							
5		SPT	5-4-4-5				
6							
7							
8	-5.0	drill cuttings					
9				Peat-dark brown, plant material, sl. moist	PT		
10	-7.0						
11		SPT	7-16-19-18	Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell molds, small voids; wet; (calcarenite)			
12							
13							
14							
15							
16		SPT	5-7-14-10				
17							
18							
19							
20							
21							
22		drill cuttings					
23							
24				mud loss			
25							
26							
27							
28							
29							
30							
31							
32		SPT	10-18-21-29				
33	-29	SPT	16-15-32-17	Lt gray cemented sand and fine sand; cemented sand frags;			
34							
35							
36				Lost drill bit in hole, move to new location			
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

BORING LOG
HDR Engineering, Inc.

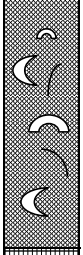
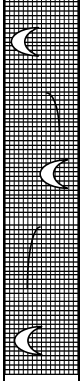
Project Number: 101650	Project Name: Florida Power and Light	Date Start: 1/07/09
Boring Number: MW-1	Coordinates: 25°26'12.2359" N; 80°19'17.3150" W	Date End: 1/23/09
Elevation: 3.00' NAVD 88	Depth GW: 5.64	Date: 1/21/09
Geologist/Engineer: D. Daigle	Depth GW: 5.31	Date: 1/26/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks
1				Fill material (rock fragments, gravel, shell)			
2		drill cuttings					
3							
4							
5		SPT	5-4-4-5				
6							
7							
8	-5.0	drill cuttings					
9				Peat-dark brown, plant material, sl. moist	PT		
10	-7.0						
11		SPT	7-16-19-18	Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell molds, small voids; wet; (calcarenite)			
12							
13							
14							
15							
16		SPT	5-7-14-10				
17							
18							
19							
20							
21							
22		drill cuttings					
23							
24				mud loss			
25							
26							
27							
28							
29							
30							
31							
32		SPT	10-18-21-29				
33	-29	SPT	16-15-32-17	Lt gray cemented sand and fine sand; cemented sand frags;			
34							
35							
36		drill cuttings					
37							
38							
39							
40							
41							
42		drill cuttings					
43	-41			Lt gray limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure still noted;			
44							
45							
46							
47							
48							
49							
50							

SOIL BORING LOG
HDR Engineering, Inc.

Project Number:101650	Project Name: Florida Power and Light	Date Start:1/07/09
Boring Number: MW-1	Coordinates:25°26'12.2359" N; 80°19'17.3150" W	Date End: 1/23/09
Elevation: 3.00' NAVD 88	Depth GW: 6.27	Date: 1/21/09
Geologist/Engineer: D.Daigle	Depth GW: 5.45	Date: 1/26/09

Drilling Method: Reverse Air

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks
51							
52		drill cuttings		Light gray sandy, fossiliferous limestone, fossil molds and shells; gastropods and pelcypods present; some yellow-brown calcite-replaced coral fragments;			
53							
54							
55							
56							
57		drill cuttings					
58							
59							
60							
61							
62		drill cuttings		light gray to white sandy limestone, some fossil shells, trace burrows;			
63							
64							
65							
66							
67		drill cuttings		more vugs and burrows noted			
68							
69							
70							
71							
72		drill cuttings					
73							
74							
75							
76							
77				Total Depth 75 feet			
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							

SOIL BORING LOG

HDR Engineering, Inc.

Project Number: 101650	Project Name: Florida Power and Light	Date Start: 1/7/09
Boring Number: MW-2	Coordinates: 25° 26' 16.9299 N; 80° 19' 07.6459 W	Date End: 1/28/09
Elevation: 4.41' NAVD 88	Depth GW: 9.36	Date: 2/10/09
Geologist/Engineer: D. Daigle	Depth GW: 9.61	Date: 2/20/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks	
1	-4.6	drill cuttings		Fill material (rock fragments, gravel, shell)				
2								
3								
4								
5								
6								
7								
8								
9								
10			SPT	4-5-5-8	Peat-dark brown, plant material, sl. moist	PT		
11								
12		drill cuttings		Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell casts, small voids; wet; (calcarenite); thin dolomite stringer at about 17';				
13								
14		SPT	55-35-50/5					
15								
16								
17								
18								
19								
20								
21								
22		drill cuttings						
23								
24								
25								
26				mud loss at 26' bls				
27		SPT	8-4-4-13					
28								
29								
30								
31								
32		drill cuttings						
33								
34								
35								
36								
37		drill cuttings		Lt gray calcareous cemented sand and fine sand; cemented sand frags; few shell frags; wet				
38								
39								
40								
41								
42		drill cuttings						
43								
44								
45								
46				Lt gray sandy limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure noted;				
47								
48								
49								
50								
51								
52				Total Depth 47'				

SOIL BORING LOG

HDR Engineering, Inc.

Project Number: 101650	Project Name: Florida Power and Light	Date Start: 1/8/09
Boring Number: MW-3	Coordinates: 25° 26' 10.2903 N; 80° 19' 36.8590 W	Date End: 2/3/09
Elevation: 2.87' NAVD 88	Depth GW: 7.67	Date: 2/11/09
Geologist/Engineer: D. Daigle	Depth GW: 8.27	Date: 2/20/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks	
1				Fill material (rock fragments, gravel, shell)				
2								
3		drill cuttings						
4								
5								
6								
7								
8								
9				Peat-dark brown, plant material, sl. moist				
10		SPT			PT			
11								
12		drill cuttings						
13								
14				Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell casts, small voids; wet; (calcarenite); thin dolomite stringer at about 15';				
15								
16		SPT						
17								
18								
19								
20		drill cuttings		mud loss 27'				
21								
22								
23		SPT						
24								
25								
26								
27								
28		drill cuttings						
29								
30								
31								
32		drill cuttings						
33								
34								
35								
36				Lt gray calcareous cemented sand and fine sand; cemented sand frags; few shell frags; wet				
37		drill cuttings						
38								
39				Lt gray sandy limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure noted;				
40								
41								
42		drill cuttings						
43								
44								
45				Total Depth 44'				
46								
47								
48								
49								
50								
51								
52								

SOIL BORING LOG
HDR Engineering, Inc.

Project Number:101650	Project Name: Florida Power and Light	Date Start:2/2/09
Boring Number: MW-4	Coordinates:25° 26'03.0608 N; 80°19' 36.4789 W	Date End: 1/28/09
Elevation: 4.43' NAVD 88	Depth GW: 8.20	Date: 4/1/09
Geologist/Engineer: D.Daigle	Depth GW: 8.14	Date: 4/10/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks	
1	-4.6	drill cuttings		Fill material (rock fragments, gravel, shell)				
2								
3								
4								
5								
6								
7								
8	-7.1	SPT	7-12-14-14	Peat-dark brown, plant material, sl. moist	PT			
9								
10								
11	-29.6	drill cuttings		Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell casts, small voids; wet; (calcarenite); thin dolomite stringer at about 17';				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21	-38.6	drill cuttings		mud loss 20'				
22								
23								
24								
25								
26	-38.6	drill cuttings		Lt gray calcareous cemented sand and fine sand; cemented sand frags; few shell frags; wet				
27								
28								
29	-38.6	drill cuttings		Lt gray sandy limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure noted;				
30								
31								
32								
33	-38.6	drill cuttings		Total Depth 47'				
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								

SOIL BORING LOG

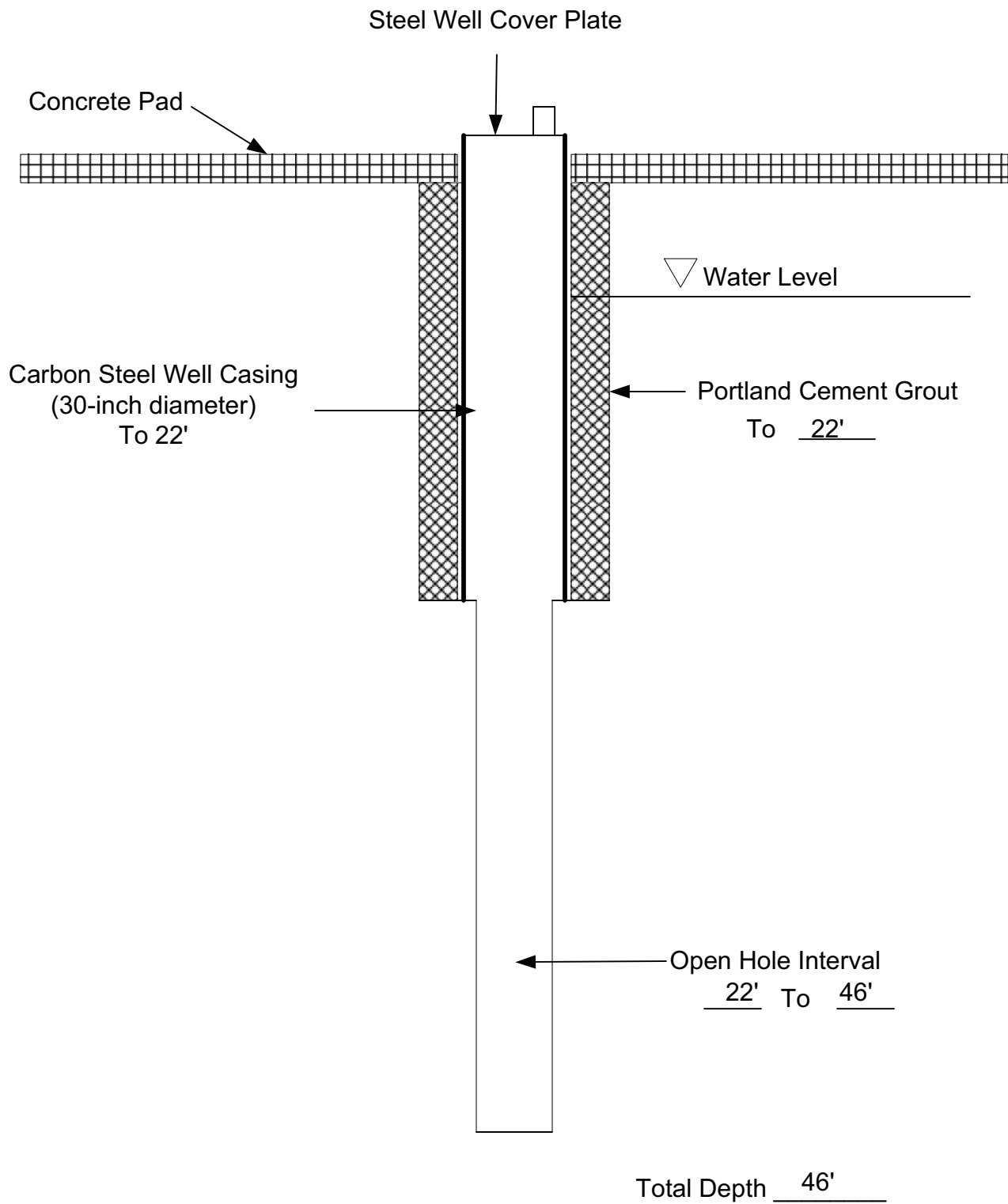
HDR Engineering, Inc.

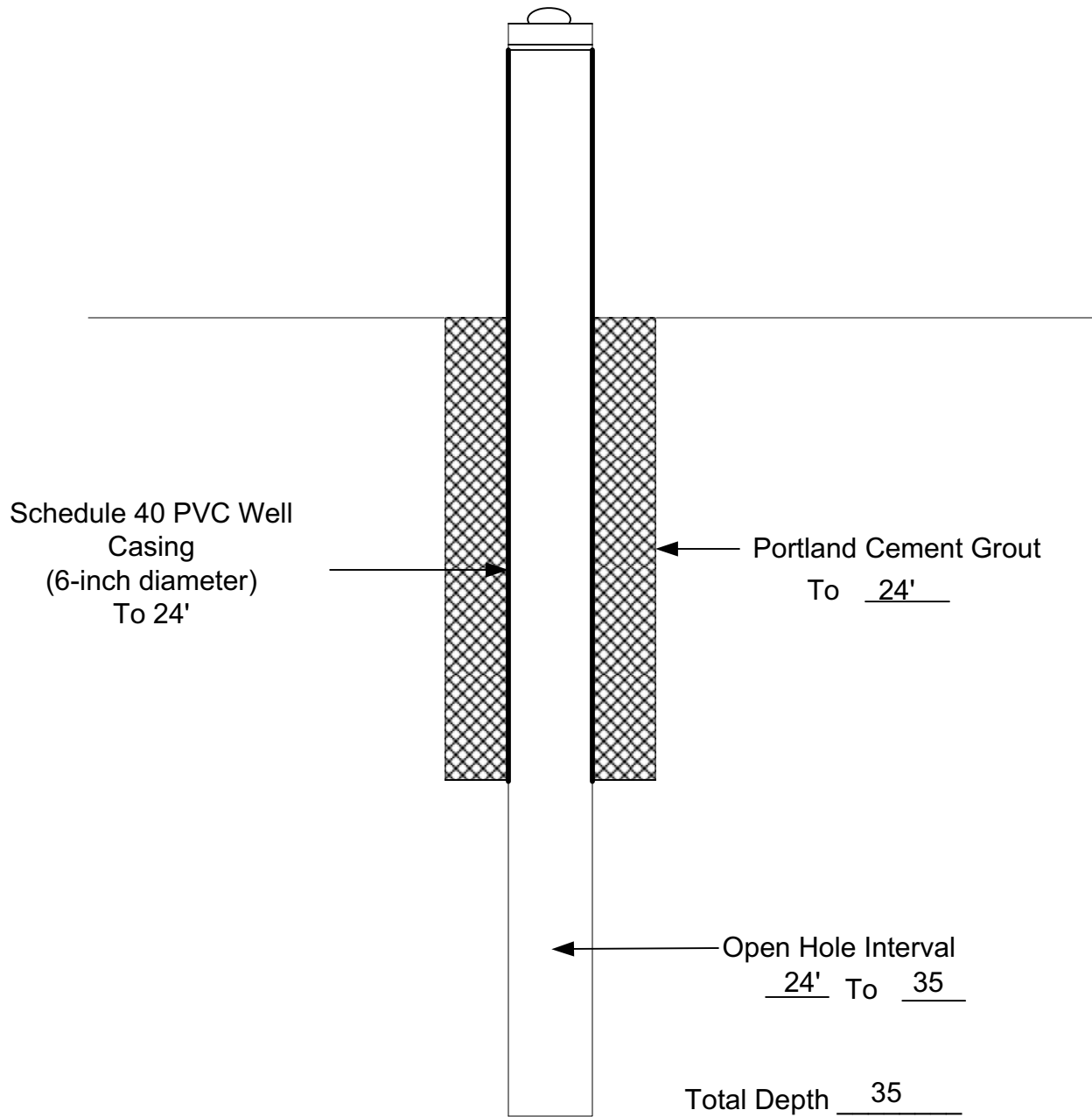
Project Number: 101650	Project Name: Florida Power and Light	Date Start: 1/8/09
Boring Number: MW-5	Coordinates: 25° 26' 22.7708 N; 80° 19' 43.9645 W	Date End: 2/4/09
Elevation: 2.86' NAVD 88	Depth GW: 5.03	Date: 2/11/09
Geologist/Engineer: D. Daigle	Depth GW: 6.42	Date: 2/20/09
Drilling Method: Reverse Air		

Depth (FT)	Elevation (FT NAVD 88)	Sample Type	Blows/6 inch	DESCRIPTION	USCS	Visual Log	Remarks
1				Fill material (rock fragments, gravel, shell)			
2							
3							
4		SPT		Peat-dark brown, plant material, sl. moist	PT		
5		drill cuttings					
6							
7							
8		SPT					
9		drill cuttings					
10							
11		SPT					
12		drill cuttings					
13							
14		SPT		Lt gray limestone, friable, sdy, few mollusk shells; some fossil shell casts, small voids; wet; (calcarenite); thin dolomite stringer at about 13;'			
15		drill cuttings					
16							
17		SPT		mud loss 26'			
18		drill cuttings					
19							
20		SPT					
21		drill cuttings					
22							
23		SPT					
24		drill cuttings					
25							
26		SPT					
27		drill cuttings					
28							
29		SPT					
30		drill cuttings					
31							
32		SPT					
33		drill cuttings					
34							
35		SPT					
36		drill cuttings					
37							
38		SPT		Lt gray sandy limestone and tan-yellow coral fragments; yellow-brown calcite replaced coral, coral structure noted;			
39		drill cuttings					
40							
41		SPT					
42		drill cuttings					
43				Total Depth 40'			
44							
45							
46							
47							
48							
49							
50							
51							
52							

APPENDIX B
WELL COMPLETION DIAGRAMS







**FPL Turkey Point APT
Monitoring Well Detail**

Well Cap

Well ID MW-1 DZ

TOC Elevation (6"): 5.74' NAVD 88
TOC Elevation (2"): 5.53' NAVD 88

Steel Protective Cover

Lock

Concrete Pad



Schedule 40 PVC Well Casing (6-inch diameter)

Portland Cement Grout

Production Interval (MW-1 DZ-PI)

Schedule 40 PVC Well Casing (2-inch diameter)

Portland Cement Grout To 60'

Bentonite Seal To 65'

Sand Pack 67' To 70'

Deep Zone (MW-1 DZ-Deep)

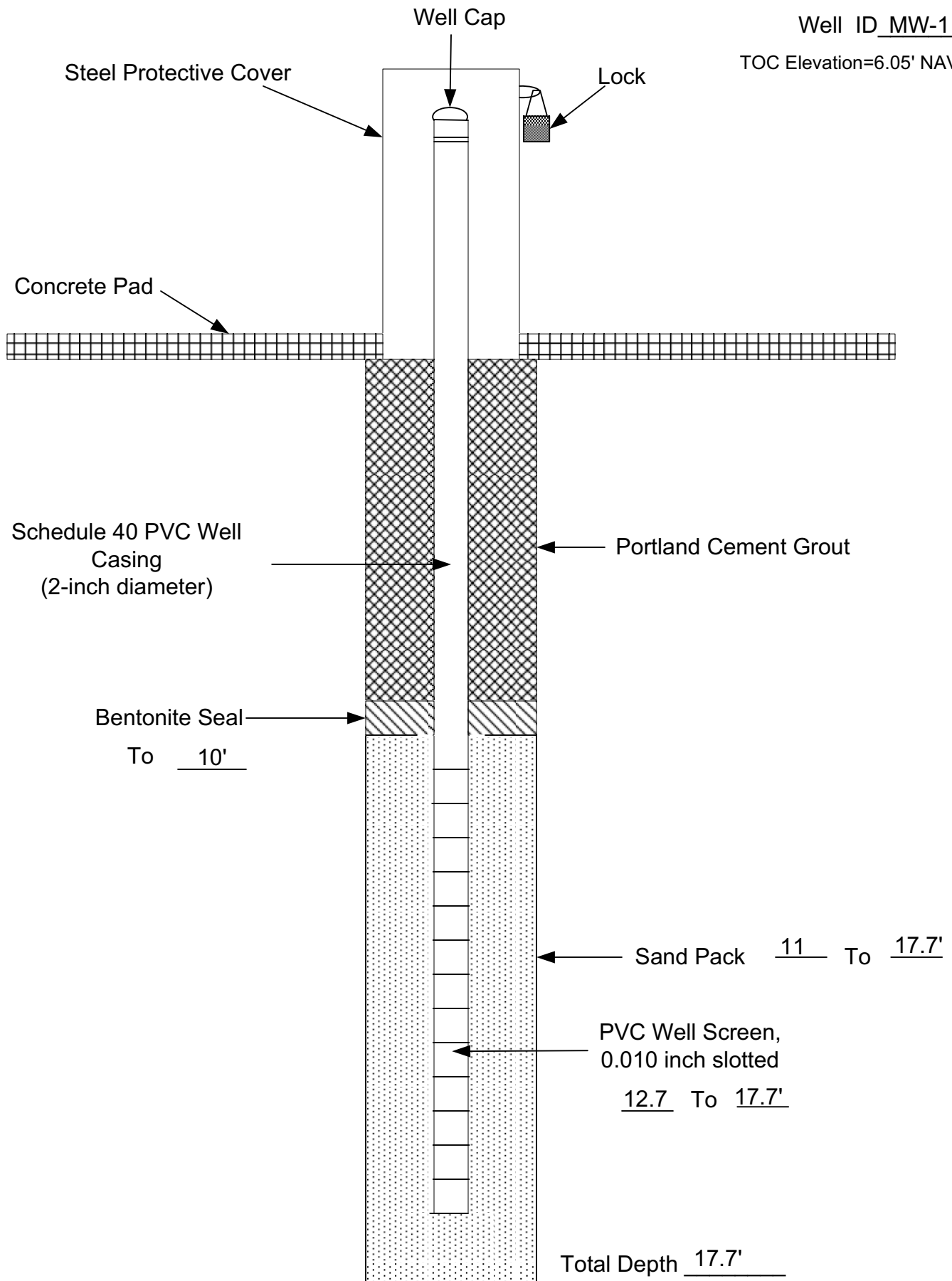
PVC Well Screen, 2-inch diameter, 0.010 inch slotted 70 To 75'

Total Depth 75'

**Florida Power and Light
Turkey Point APT
Dual Zone Monitoring Well Detail**

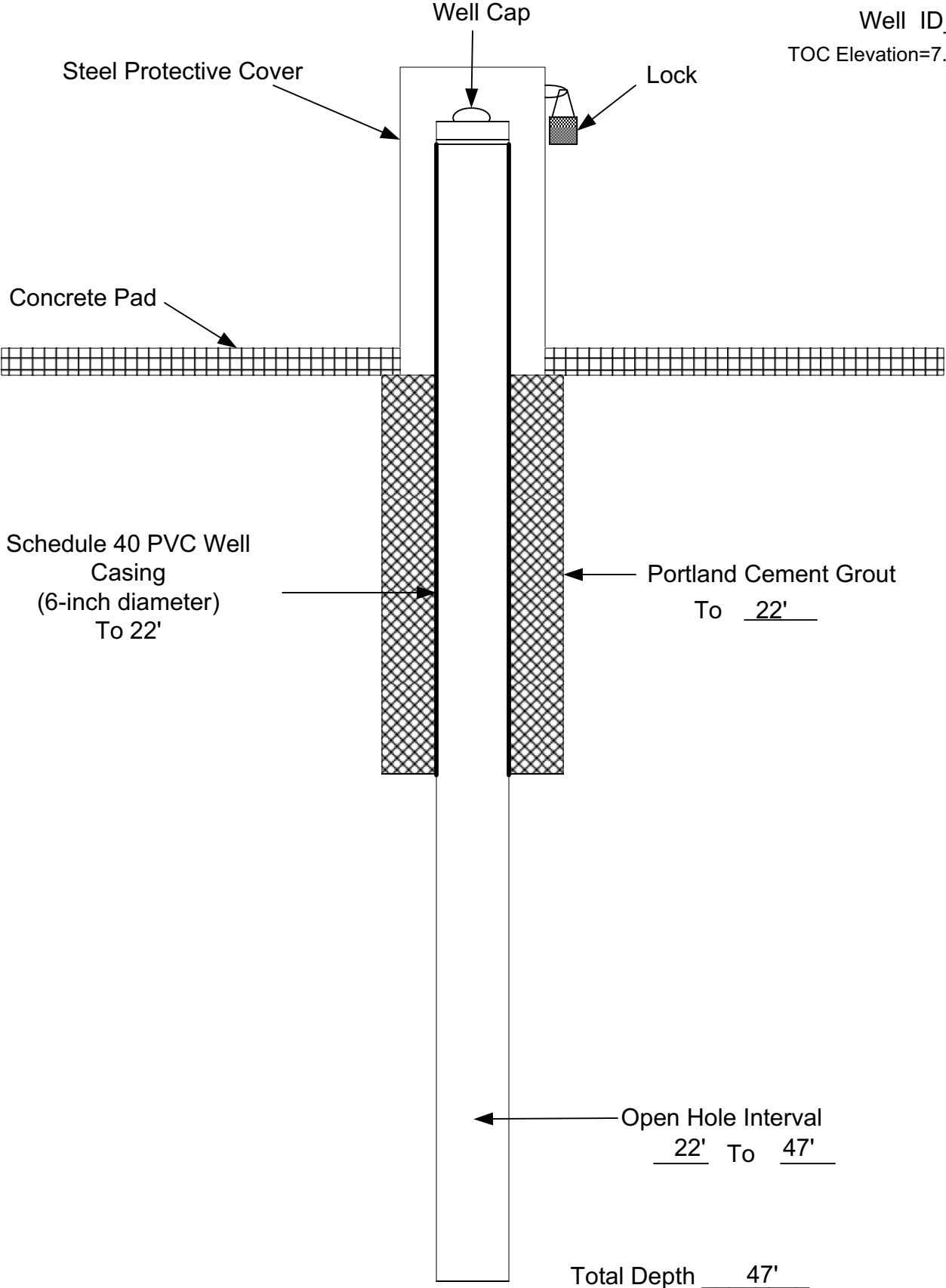
Well ID MW-1 SS

TOC Elevation=6.05' NAVD 88



**Florida Power and Light
Turkey Point APT
Monitoring Well Detail**

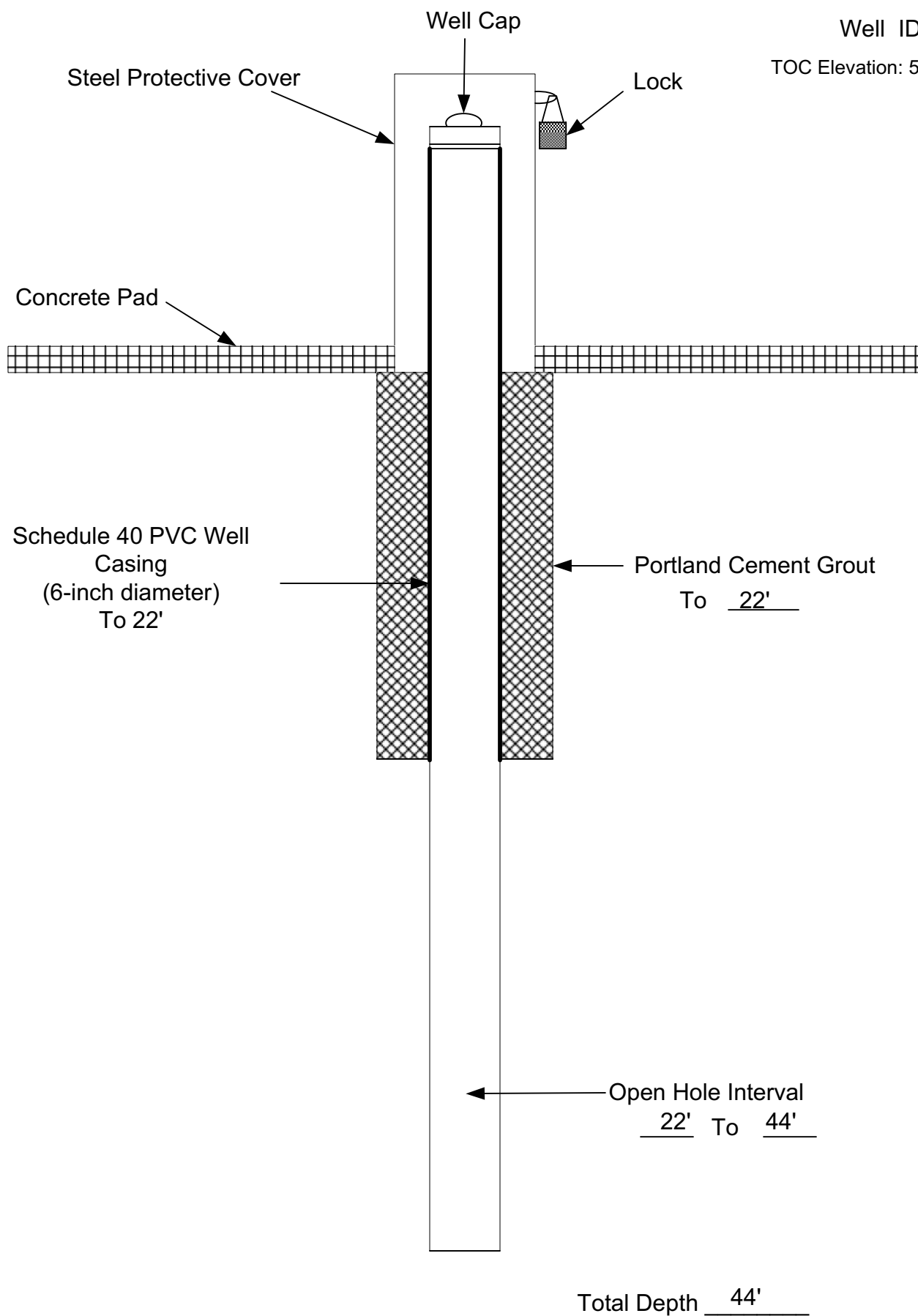
Well ID MW-2
TOC Elevation=7.61' NAVD 88



**FPL Turkey Point APT
Monitoring Well Detail**

Well ID MW-3

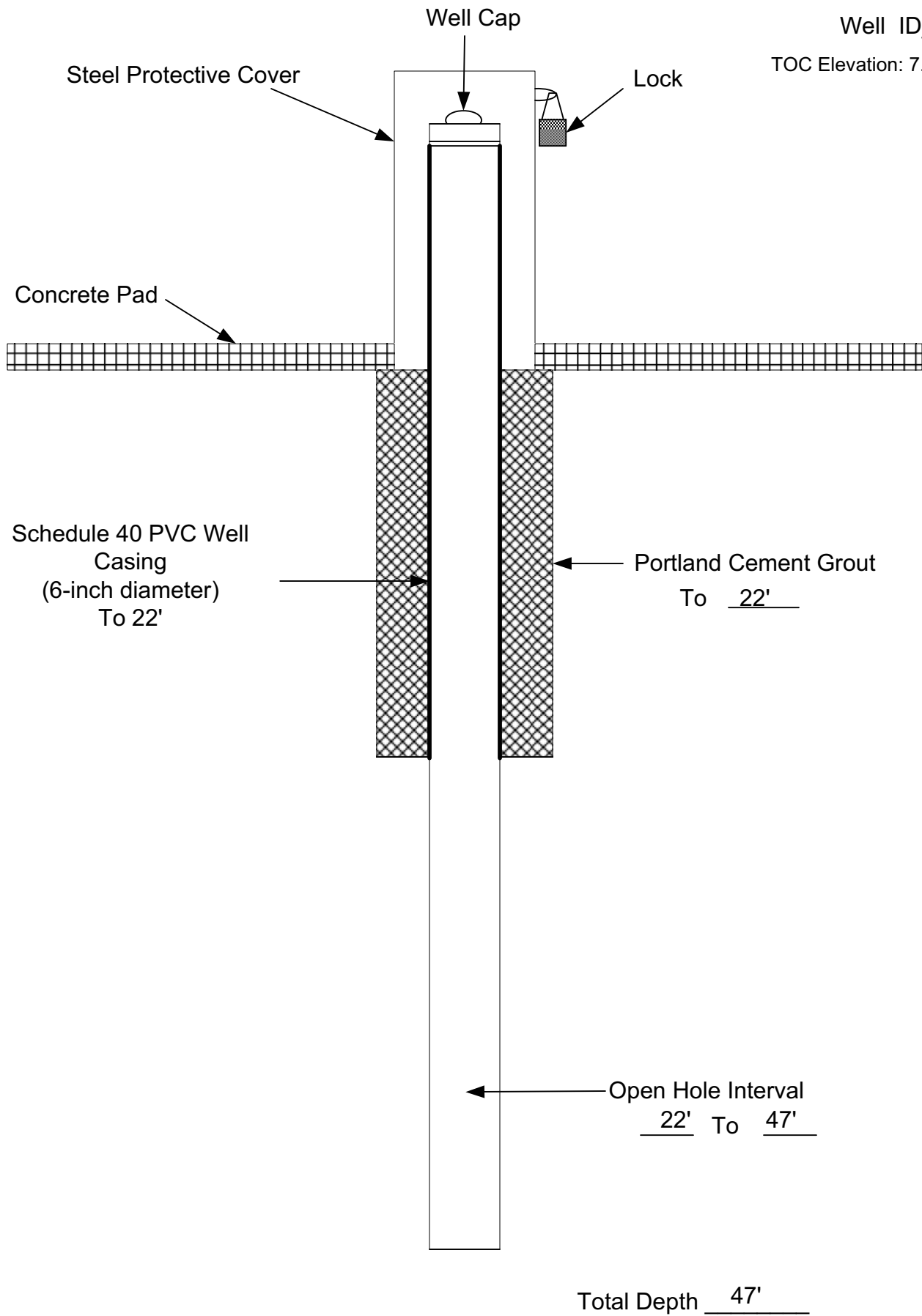
TOC Elevation: 5.78' NAVD 88



**FPL Turkey Point APT
Monitoring Well Detail**

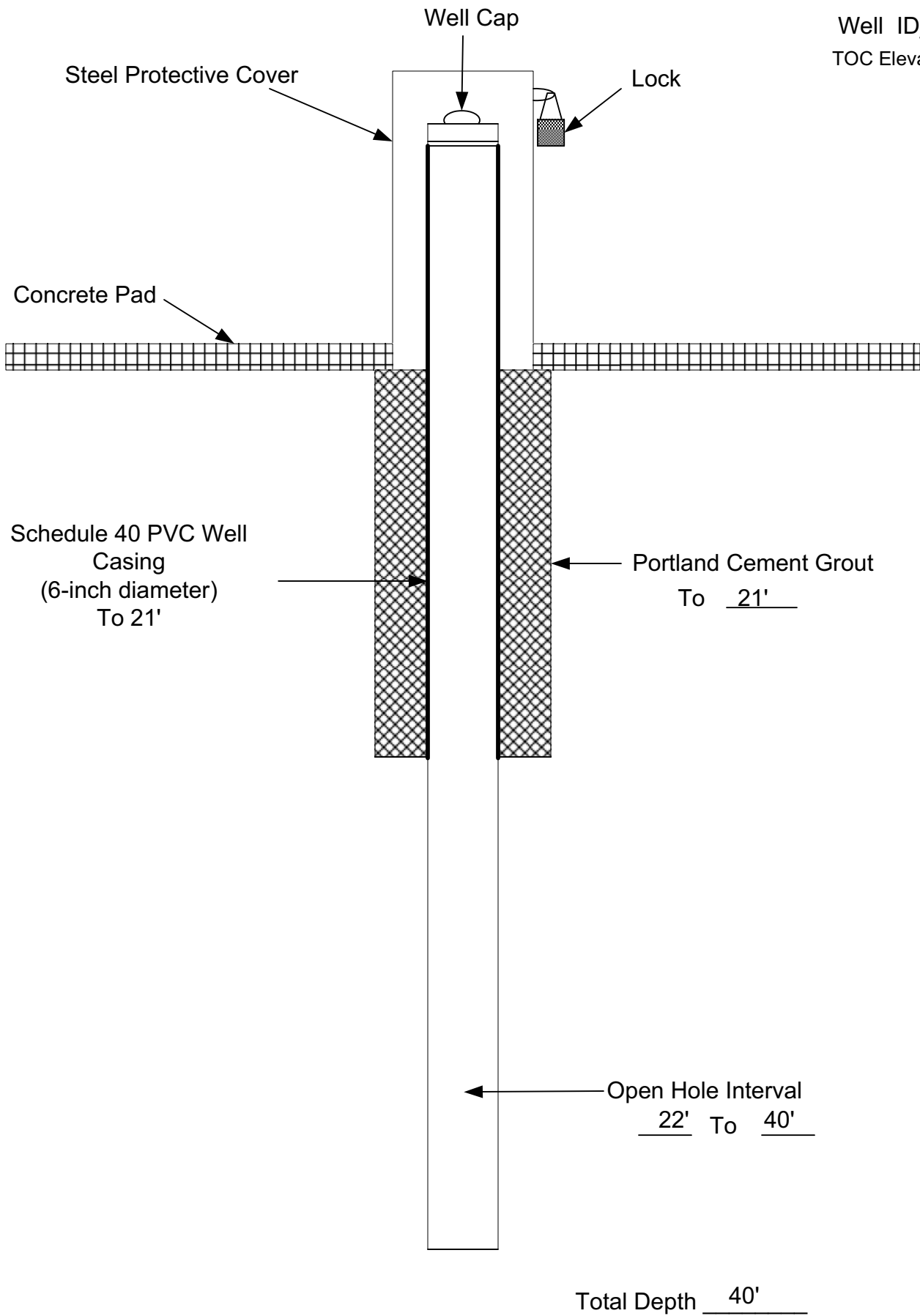
Well ID MW-4

TOC Elevation: 7.32' NAVD 88



**FPL Turkey Point APT
Monitoring Well Detail**

Well ID MW-5
TOC Elevation: 3.74



**FPL Turkey Point APT
Monitoring Well Detail**