

Drilling Log

Project Name Cessna						Boring No. D-16	
Project No. 85-141-4-001						Page 1 of 7	
Ground Elevation 1296.49			Location See Boring Location Plan			Total Footage 115.0'	
Drilling Type	Hole Size	Overburden Footage	Bedrock Footage	No. of Samples	No. Core Boxes	Depth To Water	Date Measured
Wash Bore	5"	115.0'	-0-	18	-0-	See Remarks	
Drilling Co. Layne Western Company Inc				Driller (s) R Crowl B. Blank			
Drilling Rig. ATV Mounted CME 750				Type of Penetration Test Standard			
Date 4.2.87		To		Field Observer (s) M Eversman			
Depth	Description	Class.	Blow Count	Recov.	Sample or Box No.	Remarks	
1	Dark Brown clay.					Begin drilling @ 1:00pm	
2							
3							
4							
5	Red Brown Clay. silty.						
6	Dry. v Hard Low Plasticity		6-6-10	18"	SS1		
7	Traces of fine sand.			18"			
8							
9							
10							
11	as above		4-7-10	18"	SS2		
12							
13							
14							

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						Date <u>4.2.87</u>	
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss	Box or Sample No.	Remarks	
15	Red Brown Clay. Silty. Sl. Sandy Moist Mod Soft Med Plasticity Sand is fine grained		6	18"	553		
16			5	18"			
17			7	18"			
18							
19							
20	Gray clay. Silty. Moist Mod Soft. Med Plasticity Traces of fine sand. Contains abundant fossils, roots and organic material		3	18"	554	Fossils are fragmented except for one perfect snail shell	
21			3	18"			
22			5	18"			
23							
24							
25	Gray Clay Silty. Wet. Soft, High Plasticity Trace of fine gravel		3	18"	555		
26			3	18"			
27			2	18"			
28							
29							
30	Brown Sand Fine Grained Saturated Well Sorted		17	18"	556		
31			18	18"			

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						Date 4.2.87	
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss	Box or Sample No.	Remarks	
32	Brown Sand. Fine Grained Saturated Well Sorted Dense				SS6		
33							
34							
35	Brown sand. as above.		16	18"			
36	Some coarse sand, med gravel present. Med. Dense		22	18"	SS7		
37			4				
38							
39							
40							
41	Brown sand. Fine to Medium Grained. Poorly Sorted. Saturated Coarsens downward. Medium Density		18	18"	SS8		
42			12	18"			
43							
44							
45	Yellow clay. Silty. Wet Mod Stiff. Med. Plasticity		6	18"			
46	Trace of cobble sized gravel at top of sample.		7	18"	SS9		
47			9				
48							

Drilling Log, continued

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Project Name						Cessna	Page 4 of 7
Project No.						85-141-4-001	Date 4.2.87
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss		Box or Sample No.	Remarks
49							
50							
51	Gray silt, moist. Med Plasticity, Mod Stiff. Trace of fine sand. Sand increases towards bottom		5 10 11	18" 18"		SS10	
52							Stopped drilling @ 4:30pm 4.2.87 Resumed drilling @ 7:45a 4.3.87
53							
54							
55	Lt. Gray silt. Moist to Wet Mod Stiff. Med Plasticity		11 13 13	18" 18"		SS11	
56	Med. Dense						
57							
58							
59							
60	Gray silt. Sandy. Moist to Wet Mod Stiff Low Plasticity		33 27 30+	15" 15"		SS12	Drove spoon 15"
61	Brown sand. Fine to Coarse grain Saturated 6" seam						
62	Gray silt. Sandy.						
63							
64							
65							

Drilling Log, continued

Project Name <i>Cessna</i>						Boring No. <i>0-16</i>	
Project No. <i>85-141-4-001</i>						Page <i>5</i> of <i>7</i>	
						Date <i>4.3.87</i>	
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss	Box or Sample No.	Remarks	
<i>65</i>	<i>Brown sand. Medium Coarse</i>		<i>50+</i>	<i>6"</i>	<i>SS13</i>		
<i>66</i>	<i>Grained. Well Sorted.</i>			<i>6"</i>			
<i>67</i>	<i>Saturated. V. Dense</i>						
<i>68</i>							
<i>69</i>							
<i>70</i>							
<i>71</i>	<i>as above</i>		<i>50+</i>	<i>6"</i>	<i>SS14</i>	<i>Drove spoon 6"</i>	
<i>72</i>							
<i>73</i>							
<i>74</i>							
<i>75</i>							
<i>76</i>					<i>SS15</i>		
<i>77</i>							
<i>78</i>							
<i>79</i>							
<i>80</i>	<i>Brown sand. Fine to Med</i>		<i>50+</i>	<i>6"</i>			
<i>81</i>	<i>Grained Poorly Sorted</i>				<i>SS15</i>	<i>Drove spoon 6"</i>	
<i>82</i>	<i>Saturated Some gravel</i>						

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						Date <u>4.3.87</u>	
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss	Box or Sample No.	Remarks	
83							
84							
85							
86							
87							
88							
89							
90							
91	Brown sand. Fine to Med Grained. Poorly sorted. Saturated. V Dense. Some gravel present.		42 45	12" 12"	SS16	Drove spoon 12"	
92							
93							
94							
95							
96							
97							
98							
99							

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						Date <u>4.3.87</u>	
Depth	Description	Log or Class	Blow Count	Core Recov. & Loss	Box or Sample No.	Remarks	
100	Brown sand. Fine to Med Grained. Poorly Sorted. Saturated. V. Dense Some gravel		40 50+	5" 12"	SS17	Drove spoon 12"	
101							
102							
103						No water level during drilling	
104							
105							
106							
107							
108							
109							
110	as above. Trace of clay		43 50+	5" 12"	SS18	Set 10' 2" Ø PVC monitoring screen to 115.0' Gravel Pack to 84' Bentonite Pellet Seal to 82' Grout to surface. Completed well installation 4.6.87	
111						Drove spoon > 12"	
112							
113							
114							
115	Gray Shale					Hard Drilling @ 115'	
Total Depth 115.0'						Completed drilling @ 12:08 p	

- LEGEND**
- ▲ SHALLOW WELL (APPROX. 30-45ft.)
 - INTERMEDIATE WELL (APPROX. 75ft.)
 - DEEP WELL (APPROX. 100-120ft.)
 - PRODUCTION WELL
 - TEMPORARY BORING

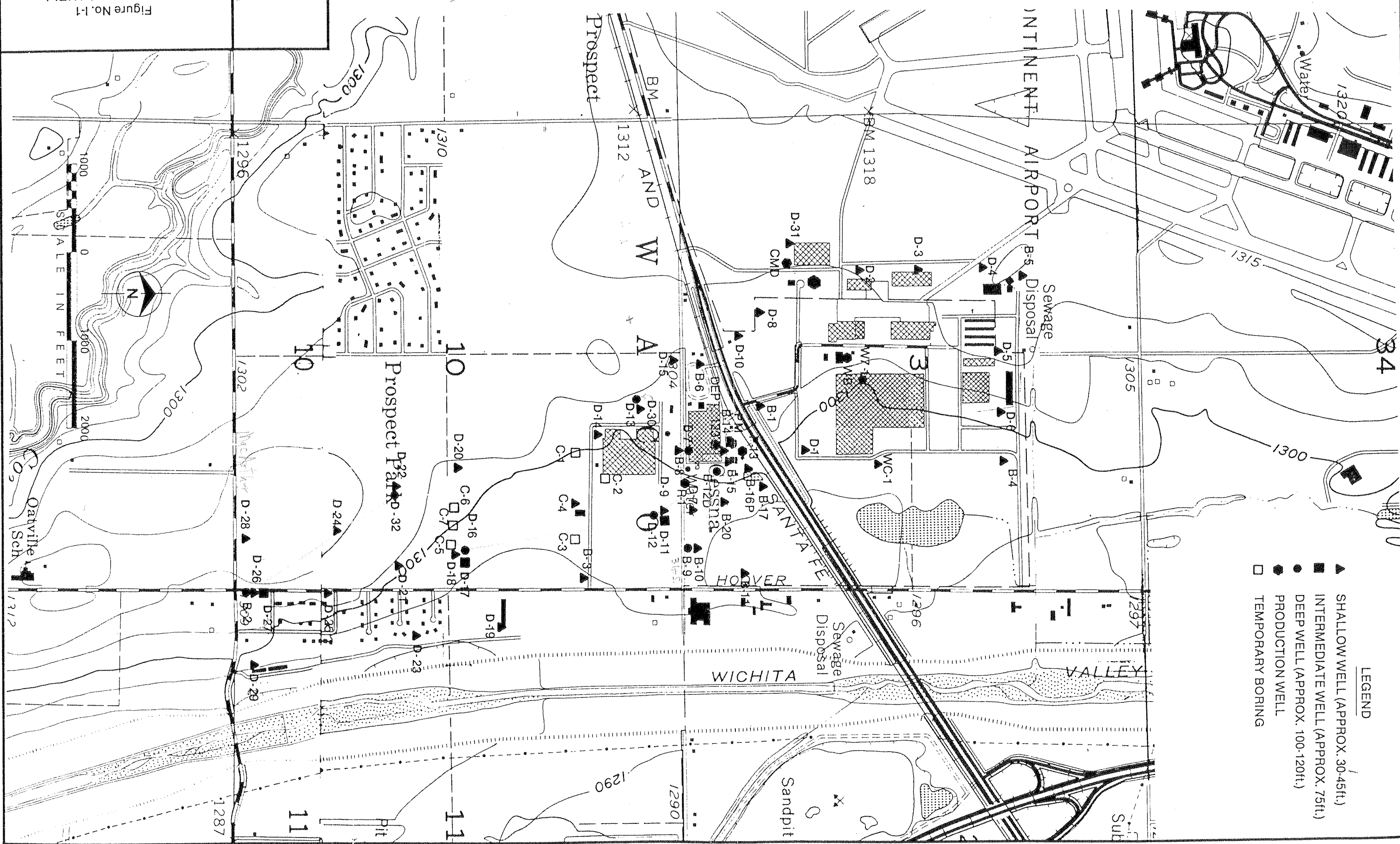


Figure No. I-1
MONITORING WELL
LOCATIONS

BUTTS & McDONNELL
ENGINEERS - ARCHITECTS - CONSULTANTS