PUMP TEST RECORD

THORPE WELL COMPANY, BOX 1376, DES MOINES, IOWA

For City Located at Storm Lake, Iowa

Make, Kind and Size of Power GMC Twin 260 HP

Bowl No. _____ Size _____ Stages 8

Column Setting 404 ft. Size 10" Shaft size 21/8 and 1 7/8

Static Level Before Pumping _____ After Pumping _____ Temperature _____

Date	Time	Engine R.P.M.	Pump R.P.M.	Pumping Level	Gallons Per. Min.	Temp. Discharge Description	Sand P.P.M. Volume
2/10/59	10:00	725	1200		1000	58° F	
	10:30	725	1200	304	1100		
	11:00	725	1200	304	1050		
	11:30	725	1200	304	1100		
	12:00	725	1200	304	1100	57 increase speed	
	12:30	775	1300	320	1300		
	1:00	775	1300	324	1290		
	1:30	775	1300				
	2:00	775	1300				
	2:30	775	1300				
	3:00	775	1300				
	3:30	775	1300				
2/13/59	10:00	900	1500	346	965	Cloudy	Static 292
	10:30	900	1500	353	930	58° F	
	11:00	900	1500	354	930	"	
	11:30	900	1500	354	930	"	
	12:00	900	1300	354	930	"	
	12:30	900	1500	357	930	"	
	1:00	900	1500	357	930	"	Increase speed 1:15
	1:30	975	1600	377	1100	"	

PUMP TEST RECORD (continued) Page 2

For City Located at Storm Lake, Iowa

Date	Time	Engine R.P.M.	Pump R.P.M.	Pumping Level	Gallons Per.Min.	Temp. Discharge Description	Sand P.P.M. Volume
2/13/59	2:00	975	1600	375	1075		
	2:30	975	1600	373	1050		
	3:00	975	1600	372	1032		
	3:30	975	1600	371	1025	Cloudy	
	4:00	975	1600	371	1025		
	4:30	975	1600	371	1025		Increased speed motor wide open
	5:00	1025	1650	378	1090		
	5:30	1025	1650	376	1090		
	6:00	1025	1650	376	1065		
	6:30	1020	1650	373	1065		
	7:00	1025	1650	373	1032		
	7:30	1025	1650	375	1065		
	8:00	1025	1650	373	1050		
	8:30	1025	1650	374	1032		
	9:00	1025	1650	375	1032		
	9:30	1025	1650	374	1032		
	10:00	1025	1650	374	1032		reduce speed
	10:30	950	1550	358	895		
	11:00	950	1550	356	895		
	11:30	950	1550	358	880		
	12:00	950	1550	356	895		
2/14/59	12:30	950	1550	356	895		
	1:00	950	1550	353	875		
	1:30	950	1550	351	860		
	2:00	950	1550	351	860		
	2:30	950	1550	351	860		
	3:00	950	1550	349	825		

For City Located at Storm Lake, Iowa

Date	Time	Engine R.P.M.	Pump R.P.M.	Pumping Level	Gallons Per.Min.	Temp. Discharge Description	Sand P.P.M. Volume
	3:30	950	1550	349	825		
	4:00	950	1550	348	825		
	4:30	950	1550	347	825		
	5:00	950	1550	347	825		
	5:30	950	1550	346	825		
	6:00	950	1550	344	825		
	6:30	950	1550	344	825		
	7:00	950	1550	344	825		
	7:30	950	1550	343	825		
	8:00	950	1550	341	825		
	9:00	950	1550	337	825		
	9:45						Shut Down

9-230

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____ District ____

STORM LAKE

1-28-59 300 HP GM 6 cyl Motor Pump Size 10 STAGES 8

	TIME	ENG RPM	PUMP RPM	PUMP LEVEL	GPM			AIR LINE	WT TOP OF		BOWLS STATIC	384 229
	10.30	—	—	—	600			CLEAR				
30	11 -	700	1200	304	625			CLOUDY	STOPPED		11:30	
90	12 -	700	1250	304	600			"				
120	12:30	750	1250	304	775			"				
150	1 -	"	"	299	750							
180	1:30	"	"	304	775							
210	2 -	"	"	"	"			"	57°			
240	2:30	"	"	"	"			"	"			
270	3 -	"	"	300	750			"		1%	SAND	
300	3:30	775	1300	324	"			"				
330	4 -	"	"	"	"			CLEARING				
360	4:30	"	"	"	"			"		57°		
390	5 -	"	"	323	"			"		"		
420	5:30	"		324	"			"				
450	6 -	"	"	"	"			"				
480	6:30	"	"	323	"			CLEAR		57°		
510	7 -	825	1325	356	NO READING					INCREASE	SPEED	
540	7:30	"	"	350	"	"				METER	BROKE	
570	8 -	"	"	"	1225					NEW	METER	
600	8:30	"	"	"	"			CLOUDY				
630	9 -	"	"	348	"			"				
660	9:30	"	"	346				"				
690	10 -	"	"	"				"				
720	10:30	"		"	1200							
750	11 -	"	"	"	"							
780	11:30	"		345	"				SHUT DOWN	FOR REPAIR		11:50
1-29 810	12:30	"	"	357	1300			CLOUDY				
870	1 -		1375	356	1250			"				
900	1:30	"	1325	354	1200			"				
930	2 -	"	"	356	"			"		57°	1/4 OF	1/2 SOME SAND
960	2:30	"	"	355	"							

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington _____ / District _____

		ENG RPM	PUMP RPM	PUMP LEVEL	GPM								
990	3—	825	1325	354	1200				CLEARING				
1020	3:30	"	"	"	"				"				
1050	4—	"	"	"	"				"				
1080	4:30	"	"	"	"				"				
1110	5—	"	"	"	"								
1140	5:30	"	"	350	"								
1170	6 -	"	"	"	"				INCREASE SPEED				
1200	6:30	900	1500	384	1700				CLOUDY				
1230	7—	"	"	"	"				"				
1260	7:30	825	1325	366	1250				"		DECREASE	SPEED	
1290	8—	"	"	361	"								
1320	8:30	"	"	357	"				"				
1350	9—	875	1400	375	1300								
1380	9:30	"	"	372	1250								
1410	10—	"	"	371	"								
1440	10:30	"	"	370									
1470	11—	"	"	369	"						SHUTDOWN		

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9-230

STATIC AIRLINE IN FT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington 229 STATIC
District

NIGHT

ELEV - 1400

TIME	TAPE HOLD	WET	W/L	DRAW DOWN	DISCH							
5-15			324	95	750			57°				
						65	SLOWED UP					
0						90				16	105	
15						92				18	106	
27						95				20	107	
40						95				25	109	
60						95				30	111	
1-20						95				39	114	
1-50						102						
2-05						180				12:30	AM	STARTED
2-15						118				030	60	
2-27						131				1—	60	
2-35						135	SHUT DOWN			1:30	60	SPEEDED UP
2-50						135				2:00	48	
3—						135				2:30	48	
3-20						120				3 00	48	
3-30						120				4.00	40	
3-40						118				5—	31	
3-50						115				6—	27	
4.10						112				7—	27	
4-25						110				8	27	
5—						105				9	27	
5:30						105				10	27	
6—						104				12	27	
6:30						103				14	27	
7—						102				16	28	
8—						100				18	28	
9						100				20	28	
10						101				25	28	
12						102				30	28	CLOUDY
14						104						1250

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9-230

Hot Clear N

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ..... District .....

Time												
15	45			4:40	112			22	101			
25	55			4:45	110			24	101			
35	65			4:55	109			26	102			
45	70			5-	108			28	104			
55	78			5:10	107			30	105			
1-	80			5:20	105			35	107			
1:10	82			5:30	105			40	109			
1:15	85			5:40	105			45	116			
1:28	88			5:47	102			50	111			
1:35	90			5:55	102			55	112			
1:40	90			6:05	101			60	113			
1:50	90			6:15	100			175	115			
2-	90			6:20	100			90	118			
2:10	90			6:30	100			105	120			
2:20	90			6:45	100			120	122			
2:30	90			6:50	100					GS		
2:35	95			7-	100					545		
2:45	100			9:30	99							
3-	104			8:-	99			1:45	265	8.41	56.59	
3:05	112			8:30	99							
3:10	128			9-	99							
3:15	120			9:30	99							
3:25	120			10-	99							
3:35	122			11-	99							
3:45	122			12	99							
3:50	122			13	99							
4-	120			14	100							
4:05	120			15	100							
4:12	118			16	100							
4:20	118			18	100							
4:30	115			20	100							

SHUT DOWN

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