

Paradise Homeowners' Association

Dale Pippitt President
P.O. Box 461
Twin Falls, ID 83303-0461

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MAY 16 2013

WATER RESOURCES
WESTERN REGION

May 14, 2013

State of Idaho
Department of Water Resources
Western Region
2735 Airport Way
Boise, ID 83705-5082

Attn: Vicky Music

Vickie,

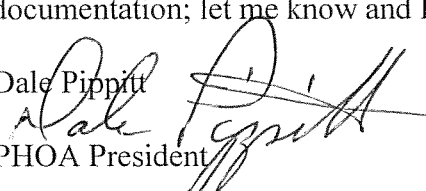
I decided to mail these copies to you rather than try to fax them. I could highlight the pump models and appropriate curves. I also copied the one plumbing diagram of the soaking pool and its plumbing that I didn't have an extra copy of when we met Monday.

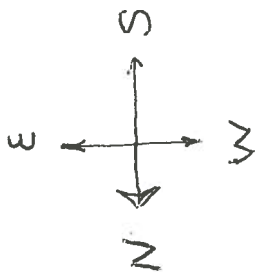
I did talk to the former president, he said he had taken the first two pumps out of the lower (hot water) pump house. We occasionally have to run as many as four pumps there to keep every thing from freezing. They were behind the door.

Thank you for your time. If you have any questions or need any other documentation; let me know and I'll try to provide it, if I can.

Dale Pippitt

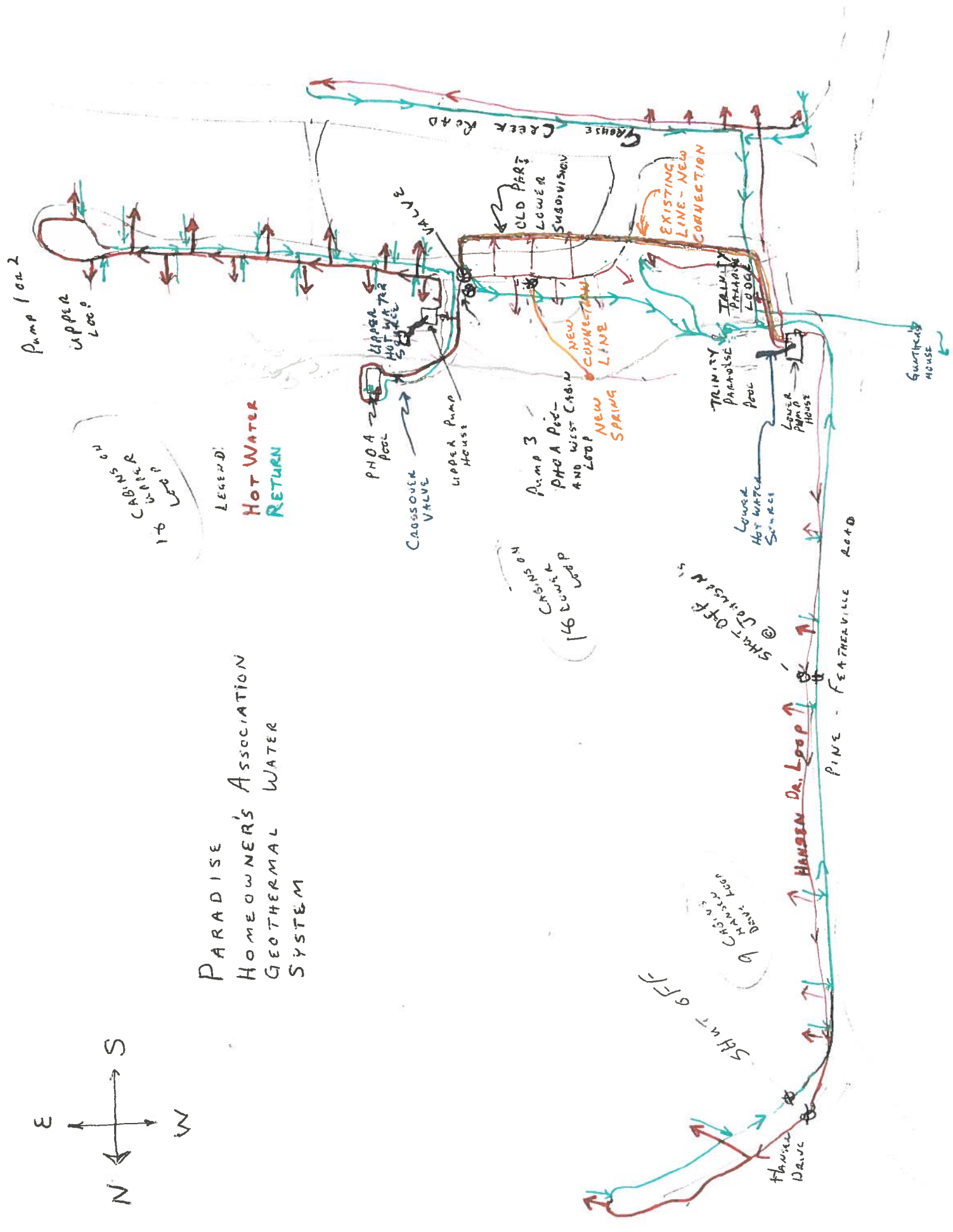
PHOA President

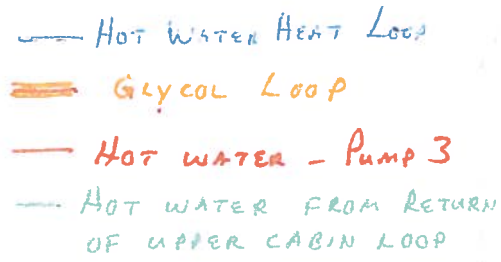


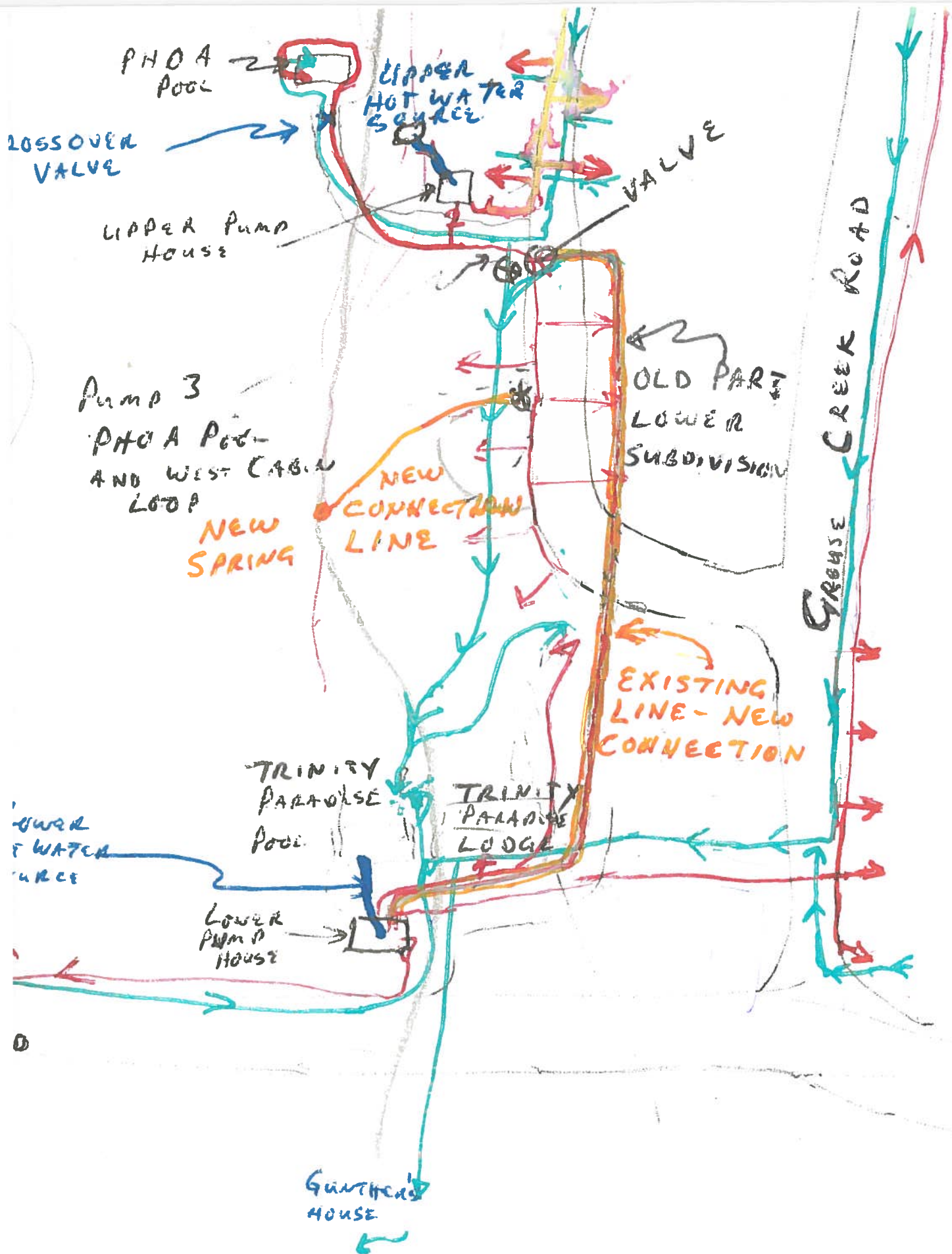


PARADISE HOMEOWNER'S ASSOCIATION GEOTHERMAL WATER SYSTEM

LEGEND:
HOT WATER
RETURN









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MAY 16 2013

WATER RESOURCES
WESTERN REGION

4" submersible pumps - 10, 15, 20, 30, and 50 gpm

20 Gallons per Minute

PUMP PERFORMANCE (Capacity in Gallons Per Minute)

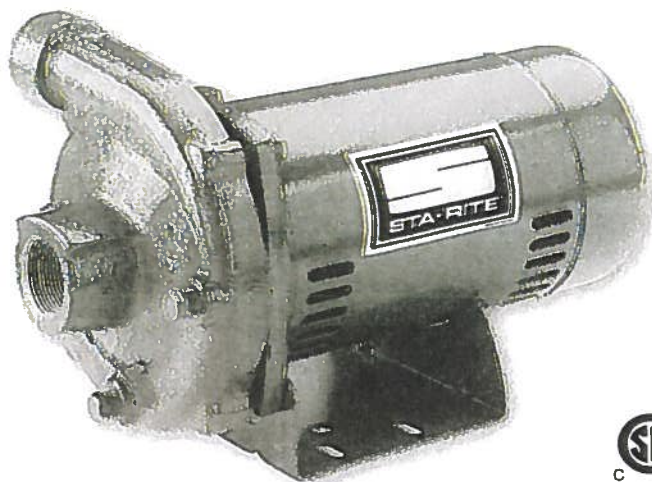
HP	PSI	TOTAL HEAD Pumping Depth in Feet																				Shut-Off Head							
		20	40	60	80	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	Feet	PSI	
3/4	0	—	—	29.2	26.9	23.5	19.0	13.7	1.8																		180	78	
	20	28.5	25.8	22.5	18.5	14.5	3.4																						
	30	25.2	22.0	18.3	13.9	4.5																							
	40	21.3	17.6	13.0	3.0																								
	50	17.2	11.4	1.8																									
	60	10.2																											
1	0	—	—	31.0	29.6	28.0	25.3	22.4	18.8	15.5																	251	109	
	20	30.5	29.2	27.4	25.1	22.8	19.5	16.1	10.1																				
	30	28.8	27.2	24.9	22.5	19.8	16.5	10.6																					
	40	27.0	24.5	22.0	19.4	16.8	11.6	2.6																					
	50	24.2	21.5	19.0	16.3	12.5	3.3																						
	60	21.3	18.6	16.0	11.1	3.7																							
1-1/2	0	—	—	—	30.9	29.8	28.2	26.4	24.0	21.6	16.4	5.4															323	140	
	20	—	30.5	29.4	28.2	26.8	24.4	22.0	19.5	16.8	6.8																		
	30	30.3	29.3	28.0	26.5	24.7	22.2	19.6	17.1	13.9																			
	40	29.1	27.8	26.2	24.3	22.3	19.8	17.3	14.2	8.0																			
	50	27.5	26.0	24.1	22.1	20.0	17.5	14.5	8.3																				
	60	25.6	23.9	21.9	19.8	17.5	14.8	9.1	2.2																				
2	0	—	—	—	31.5	30.7	29.7	28.6	27.3	26.0	23.2	20.2	16.2	8.5													420	275	
	20	—	31.3	30.5	29.7	28.8	27.5	26.1	24.9	23.4	20.6	16.7	9.5																
	30	31.1	30.3	29.5	28.7	27.6	26.2	25.0	23.5	22.1	19.1	13.8	4.8																
	40	30.2	29.4	28.5	27.5	26.4	25.1	23.7	22.2	20.8	17.2	10.1																	
	50	29.3	28.3	27.2	26.1	25.1	23.8	22.3	20.9	19.3	14.0	5.7																	
	60	28.1	27.1	26.0	25.0	23.9	22.4	21.0	19.4	17.3	10.8																		
3	0	—	—	—	—	31.9	31.1	30.6	29.7	29.0	27.2	25.3	23.5	21.3	19.1	16.0	11.3	3.6									605	349	
	20	—	—	31.7	31.1	30.7	29.9	29.1	28.3	27.3	25.4	23.6	21.6	19.3	16.1	12.0	5.0												
	30	—	32.0	31.0	30.6	29.9	29.2	28.5	27.4	26.6	24.8	22.7	20.6	18.1	14.5	9.0													
	40	31.6	31.0	30.5	29.8	29.2	28.6	27.5	26.7	25.5	23.8	21.7	19.6	16.8	12.5	5.3													
	50	30.9	30.0	29.7	29.1	28.6	27.6	26.7	25.6	24.9	22.8	20.8	18.5	15.0	9.5														
	60	30.3	29.6	29.1	28.5	27.7	26.8	25.7	24.9	23.9	21.8	19.8	16.9	12.7	5.6														
5	0	—	—	—	—	—	—	—	31.7	31.1	30.5	29.5	28.5	27.5	26.5	25.2	24.0	22.8	21.5	20.2	18.9	17.0	14.3	11.0	6.8	2.0		1005	476
	20	—	—	—	—	—	31.7	31.2	30.9	30.6	29.5	28.6	27.6	26.6	25.3	24.1	22.9	21.6	20.3	19.0	17.3	14.0	11.2	7.3	2.6				
	30	—	—	—	—	31.8	31.3	30.9	30.7	30.0	29.0	28.0	27.1	26.0	24.9	23.5	22.2	21.0	19.9	18.2	16.2	13.3	9.5	5.2					
	40	—	—	—	—	31.7	31.4	31.0	30.7	30.0	29.6	28.7	27.7	26.7	25.4	24.2	22.9	21.7	20.4	19.1	17.5	14.4	11.5	7.7	3.1				
	50	—	32.0	31.7	31.2	31.0	30.8	30.0	29.6	29.1	28.1	27.2	26.0	25.0	23.6	22.3	21.1	20.0	18.4	16.3	13.5	9.9	5.7						
	60	31.9	31.6	31.2	30.9	30.8	30.1	29.7	29.1	28.8	27.8	26.8	25.5	24.3	23.0	21.8	20.5	19.2	17.7	14.9	12.0	8.0	3.7						
HP	PSI	Pumping Depth in Feet															Shut-Off Head												
		200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	Feet	PSI											
7-1/2	0	—	—	—	—	28.7	27.3	25.7	24.3	23.1	21.5	19.9	16.4	11.3	4.1														
	20	—	—	—	—	28.3	26.7	25.3	23.7	22.3	20.8	18.9	14.7	8.5	1.3														
	30	—	—	—	—	28.0	26.5	25.1	23.5	22.1	20.6	18.3	13.4	7.0															
	40	—	—	—	29.2	27.5	26.3	24.7	23.3	21.7	20.2	17.3	12.1	5.3															
	50	—	—	—	28.7	27.3	25.7	24.5	22.7	21.3	19.7	16.0	10.6	3.6															
	60	—	—	—	28.4	26.9	25.5	24.3	22.5	21.0	19.3	15.1	9.5	2.1															
10	0	—	—	—	—	—	—	28.0	26.8	25.7	24.7	23.7	22.6	21.6	20.7	19.5	17.1												
	20	—	—	—	—	—	28.6	27.5	26.4	25.3	24.4	23.3	22.1	21.3	20.1	18.5	16.0												
	30	—	—	—	—	—	28.4	27.3	26.2	25.0	24.1	23.0	21.9	21.0	19.9	18.0	15.0												
	40	—	—	—	—	—	28.0	27.0	25.7	24.9	24.0	22.8	21.7	20.8	19.7	17.6	14.7												
	50	—	—	—	—	29.2	27.8	26.7	25.5	24.7	23.6	22.5	21.5	20.6	19.4	17.0	14.0												
	60	—	—	—	—	28.7	27.5	26.4	25.3	24.4	23.3	22.2	21.3	20.2	18.5	16.1	12.5												

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions. Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.



general purpose centrifugal pumps



The J/JB Series Pumps have a heavy-duty cast iron construction and are offered in high and medium head models, with Noryl® or silicon bronze impeller.

APPLICATIONS

- **Water systems and sprinkling...** for homes, farms and industry.

SPECIFICATIONS

Body and Seal Plate – Close-grained cast iron
Base – Steel 12 gauge
Impeller – J Series – Noryl
Impeller – JB Series – Silicon bronze
Shaft – 416 stainless steel
Mechanical Seal – Carbon/ceramic, Buna-N

J/JB SERIES

FEATURES

1/3 through 2-1/2 HP – High head and medium head models, with heavy-duty motors, easy service design and four-position discharge.

Drain Port – Provided for easy winterizing.

Medium Head Models – Deliver up to 110' of head with capacities to 140 GPM.

High Head Models – Deliver up to 140' of head with capacities to 90 GPM.

Easy Serviceability – All models include replaceable wear ring and feature back pull-out design.

J Series with Noryl Impellers – Abrasion-resistant for normal applications with working temperatures to 140°F.

JB Series with Silicon Bronze – JB pumps equipped with shaft seals rated for temperatures to 225°F.

ORDERING INFORMATION

HIGH HEAD

Catalog Number	Noryl® Impeller	Silicon Bronze Impeller	HP	Pipe Tapping Sizes		Motor Voltage	Phase	Approx. Wt. Lbs.
				Suct.	Disch.			
JHB	JBHB		1/3	1-1/4"	1"	115	1	38
JHC	JBHC		1/2	1-1/4"	1"	115/230	1	39
JHC3	JBHC3			1-1/4"	1"	208-230/460	3	39
JHD	JBHD		3/4	1-1/4"	1"	115/230	1	42
JHD3	JBHD3			1-1/4"	1"	208-230/460	3	42
JHE	JBHE		1	1-1/4"	1"	115/230	1	45
JHE3	JBHE3			1-1/4"	1"	208-230/460	3	45
JHF	JBHF		1-1/2	1-1/4"	1"	115/230	1	49
JHF3	JBHF3			1-1/4"	1"	208-230/460	3	49
JHG	JBHG		2	1-1/2"	1-1/4"	115/230	1	69
JHG3	JBHG3			1-1/2"	1-1/4"	208-230/460	3	69
JHHG	JBHHG		2-1/2	2"	1-1/2"	115/230	1	74
JHHG3	JBHHG3			2"	1-1/2"	208-230/460	3	74

MEDIUM HEAD

Catalog Number	Noryl® Impeller	Silicon Bronze Impeller	HP	Pipe Tapping Sizes		Motor Voltage	Phase	Approx. Wt. Lbs.
				Suct.	Disch.			
JMB	JBMB		1/3	1-1/4"	1"	115	1	38
JMC	JBMC		1/2	1-1/4"	1"	115/230	1	39
JMC3	JBMC3			1-1/4"	1"	208-230/460	3	39
JMD	JBMD		3/4	1-1/4"	1"	115/230	1	42
JMD3	JBMD3			1-1/4"	1"	208-230/460	3	42
JME	JBME		1	1-1/2"	1-1/4"	115/230	1	43
JME3	JBME3			1-1/2"	1-1/4"	208-230/460	3	43
JMF	JBMF		1-1/2	1-1/2"	1-1/4"	115/230	1	54
JMF3	JBMF3			1-1/2"	1-1/4"	208-230/460	3	54
JMG	JBMG		2	1-1/2"	1-1/4"	115/230	1	66
JMG3	JBMG3			1-1/2"	1-1/4"	208-230/460	3	66
—	JBMMG		2-1/2	2"	1-1/2"	115/230	1	74
—	JBMMG3			2"	1-1/2"	208-230/460	3	74

Noryl® is a registered trademark of General Electric Co. PRO-Source™ is a trademark of Pentair Water. In order to provide the best products possible, specifications are subject to change.



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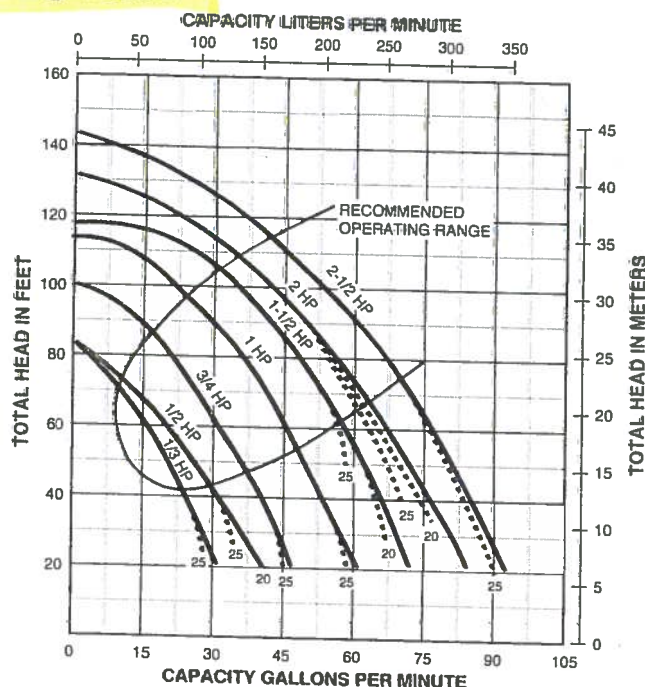
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WATER RESOURCES
WESTERN REGION

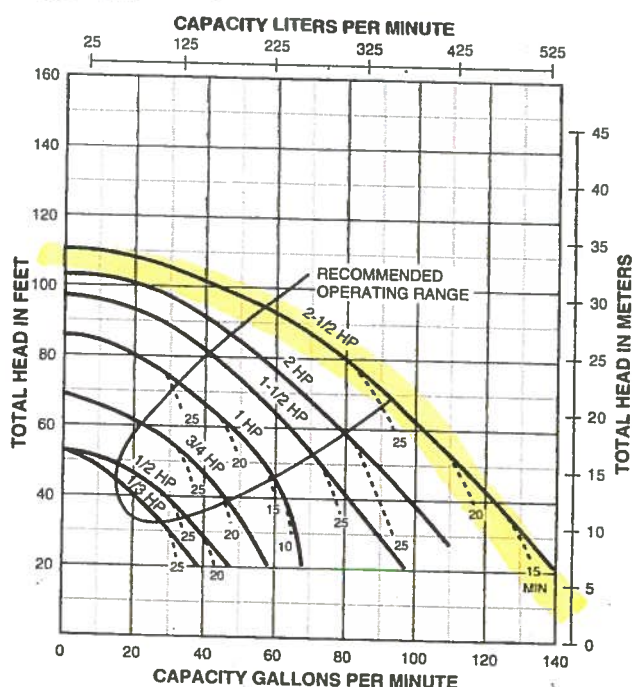
general purpose centrifugal pumps

PUMP PERFORMANCE

High Head



Medium Head



PUMP PERFORMANCE (Capacity in Gallons Per Minute)

HIGH HEAD

HP	Discharge Pressure		Dynamic Suction Lift				
	PSI	Feet Head	5'	10'	15'	20'	25'
1/3	10	23.1	—	26	24	22	20
	20	46.2	20	18	15	11	10
	30	69.3	6	—	—	—	—
1/2	10	23.1	—	34	32	29	26
	20	46.2	25	21	18	15	11
	30	69.3	10	—	—	—	—
3/4	10	23.1	—	—	42	39	37
	20	46.2	35	32	30	28	26
	30	69.3	24	22	19	15	10
1	20	46.2	48	46	45	43	40
	30	69.3	38	35	31	28	25
	40	92.4	23	20	15	—	—
1-1/2	20	46.2	62	60	58	55	52
	30	69.3	50	48	44	40	37
	40	92.4	37	32	29	22	—
2	20	46.2	71	68	66	62	60
	30	69.3	60	57	52	59	45
	40	92.4	45	40	36	31	24
2-1/2	50	115.5	22	15	—	—	—
	20	46.2	81	79	76	74	71
	30	69.3	69	67	63	60	56
2-1/2	40	92.4	56	51	47	44	38
	50	115.5	33	30	22	15	—

Tested and rated in accordance with Water Systems Council Standards.

NOTE: Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Pumps with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

NOTE: Dotted lines indicate performance reduction at high suction lift.