

NORTHWEST IRRIGATION

JULY 14, 2022

WISH-105554

CUSTOMER : TERRY HOCKERSMITH

LINDSAY GEN II - 90
11 TOWER - 1980.47 FT
SYSTEM 900 GPM @ 37 PSI

LEGAL : SECTION 15-11-32

SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 PSI REGULATORS
NO ENDGUN
ELEVATION 15 FT UP, 0 FT DOWN

1880 SOUTH RANGE AVENUE

COLBY, KANSAS 67701

(785)460-1880

WARRANTY

WATER APPLICATION UNIFORMITY OBTAINED WITH THIS SYSTEM CAN BE ADVERSELY AFFECTED BY MANY VARIABLES INCLUDING THE IMPROPER MAKEUP OR INSTALLATION OF THE SPRINKLER OR SPRAY NOZZLE PACKAGE, OBSTRUCTED NOZZLES, MAINTAINING INCORRECT PIVOT PRESSURE, UNFAVORABLE CLIMATIC CONDITIONS, TIGHT AND/OR SLOPING SOILS, IMPROPER END GUN ARC SETTINGS, ERRATIC AND IMPROPER OPERATING SPEED OF THE SYSTEM, POOR QUALITY OF WATER WITH ABRASIVES, CORROSIVES, AND/OR SOLIDS WHICH CAN CAUSE PLUGGING AND JAMMING, AS WELL AS INHERENT VARIABLES IN THE MANY COMPONENTS COMPRISING THE SYSTEM. THEREFORE WESTERN IRRIGATION SUPPLY HOUSE, INC., MAKES NO WARRANTY AS TO THE UNIFORMITY OF COVERAGE OBTAINED FROM THIS WATER APPLICATION PRINTOUT OTHER THAN ITS MATHEMATICAL ACCURACY.

IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ANY INCOMPATIBILITY EXISTS BETWEEN THE WATER DISTRIBUTION DEVICES AND THE CROP, THE SOIL, AND THE PHYSICAL STRUCTURE OF THE MECHANICAL MOVE SYSTEM. WESTERN IRRIGATION SUPPLY HOUSE, INC., THEREFORE, DISCLAIMS ANY LIABILITY FOR DAMAGES DUE TO FAILURE OF THE SYSTEM TO PERFORM AS CONTEMPLATED.

FIGURES PRESENTED ON THIS COMPUTER PRINTOUT ARE BASED ON THE FOLLOWING:

1. DATA FURNISHED TO WESTERN IRRIGATION SUPPLY HOUSE, INC., ON PIPE LENGTH, DIAMETER, SURFACE FINISH, OUTLET SPACINGS, WATER FLOW, PIVOT PRESSURE AND ALL OTHER APPLICABLE INFORMATION.
2. THERE IS 100% WATER APPLICATION EFFICIENCY (ZERO WIND VELOCITY AND NO EVAPORATION).
3. PIVOT PRESSURE IS MEASURED ON THE MAIN HORIZONTAL DISTRIBUTION PIPE JUST AFTER THE LAST ELBOW.
4. MAIN PIPE PRESSURE IS CALCULATED AS IF THE PIVOT IS ALWAYS ON LEVEL GROUND.
5. SPRINKLER OR SPRAY NOZZLE BASE PRESSURE MAY BE LESS THAN MAIN LINE PIPE PRESSURE DUE TO THE USE OF PRESSURE REGULATORS. WHERE DROP PIPES ARE USED THE STATIC HEAD IS ADDED TO AND FRICTION LOSS IS SUBTRACTED FROM THE MAIN LINE PIPE PRESSURE TO DETERMINE INLET PSI. REGULATORS ARE CONSIDERED MOUNTED AT THE SAME HEIGHT AS THE SPRINKLING DEVICE UNLESS NOTED.

LINDSAY GEN II - 90

JULY 14, 2022

WISH-105554

DEALER

NORTHWEST IRRIGATION
1880 SOUTH RANGE AVENUE
COLBY, KANSAS 67701

IRRIGATOR

TERRY HOCKERSMITH
SECTION 15-11-32

TOTAL TARGET GPM	900.00	FRICTION FACTOR USED	138	SPANS	LENGTH	PIPE I.D.
TOP OF PIVOT PRESSURE	37.00	TOTAL LENGTH	1980.47	1	181.60	6.395
NO ENDGUN		NUMBER OF TOWERS	11	5	179.00	6.395
NUMBER OF OUTLETS	277	NUMBER OF SPRINKLERS	264	1	135.00	6.395
				4	179.00	6.395
SENNINGER UP3 LDN SPRAY NOZZLES - CONCAVE 24 DEEP GROOVED PADS				OH	44.87	5.369
SENNINGER PSR-2 10 PSI SERIES REGULATORS					8.00	0.824
DROPS AVERAGE 10 FT OF .75 I.D. FLEXIBLE HOSE PLUS 24 INCH SCHEDULE 40 GALVANIZED WEIGHT						
ELEVATION IS 15 FT UP AND 0 FT DOWN						

CAUTIONS AND WARNINGS

1. Inadequate crop clearance and/or structural interference may cause poor water distribution, resulting in decreased uniformity and possible streaking.

2. Over watering at beginning of system due to practical limitations on smallest nozzle sizes available and/or allowable for proper operation.

3. This system designed for minimum pressure. Failure to deliver indicated pressure at the top of pivot point will adversely affect regulator and/or sprinkler/spray performance. Elevations, pipe sizes and type of drop pipe must be as shown.

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE					SPRK NO.	REG SIZE	PLUG NO.
1		2.92	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	1
2		7.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	2
3		15.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	3
4	22.59	22.59	0.16	0.59	36.34	11.40	LD NOZ	UP3	5	BEIGE		1	SPSR2-10	
5	7.34	29.93	0.10	0.59	36.07	11.40	LD NOZ	UP3	5	BEIGE		2	SPSR2-10	
6	7.33	37.26	0.13	0.59	35.82	11.40	LD NOZ	UP3	5	BEIGE		3	SPSR2-10	
7	7.50	44.76	0.15	0.59	35.57	11.40	LD NOZ	UP3	5	BEIGE		4	SPSR2-10	
8	7.00	51.76	0.17	0.59	35.36	11.40	LD NOZ	UP3	5	BEIGE		5	SPSR2-10	
9	7.50	59.26	0.20	0.59	35.15	11.40	LD NOZ	UP3	5	BEIGE		6	SPSR2-10	
10	7.33	66.59	0.22	0.59	34.96	11.40	LD NOZ	UP3	5	BEIGE		7	SPSR2-10	
11	7.34	73.93	0.25	0.59	34.79	11.40	LD NOZ	UP3	5	BEIGE		8	SPSR2-10	
12	7.33	81.26	0.27	0.59	34.63	11.40	LD NOZ	UP3	5	BEIGE		9	SPSR2-10	
13	7.50	88.76	0.29	0.59	34.49	11.40	LD NOZ	UP3	5	BEIGE		10	SPSR2-10	
14	7.00	95.76	0.32	0.59	34.37	11.40	LD NOZ	UP3	5	BEIGE		11	SPSR2-10	
15	7.50	103.26	0.35	0.59	34.26	11.40	LD NOZ	UP3	5	BEIGE		12	SPSR2-10	
16	7.33	110.59	0.37	0.59	34.17	11.40	LD NOZ	UP3	5	BEIGE		13	SPSR2-10	
17	7.34	117.93	0.39	0.59	34.10	11.40	LD NOZ	UP3	5	BEIGE		14	SPSR2-10	
18	7.33	125.26	0.42	0.59	34.04	11.40	LD NOZ	UP3	5	BEIGE		15	SPSR2-10	
19	7.50	132.76	0.44	0.59	33.99	11.40	LD NOZ	UP3	5	BEIGE		16	SPSR2-10	
20	7.00	139.76	0.46	0.59	33.97	11.40	LD NOZ	UP3	5	BEIGE		17	SPSR2-10	
21	7.50	147.26	0.50	0.59	33.96	11.40	LD NOZ	UP3	5	BEIGE		18	SPSR2-10	
22	7.33	154.59	0.52	0.59	33.97	11.40	LD NOZ	UP3	5	BEIGE		19	SPSR2-10	
23	7.34	161.93	0.54	0.59	33.99	11.40	LD NOZ	UP3	5	BEIGE		20	SPSR2-10	
24	7.33	169.26	0.57	0.59	34.03	11.40	LD NOZ	UP3	5	BEIGE		21	SPSR2-10	
25	7.50	176.76	0.71	0.72	33.96	11.40	LD NOZ	UP3	5.5	BEIGE		22	SPSR2-10	
TOWER 1	181.60	181.60												
26		182.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	4
27	10.00	186.76	0.74	0.72	33.79	11.40	LD NOZ	UP3	5.5	BEIGE		23	SPSR2-10	
28	7.50	194.26	0.66	0.72	33.56	11.40	LD NOZ	UP3	5.5	BEIGE		24	SPSR2-10	
29	7.33	201.59	0.67	0.72	33.28	11.40	LD NOZ	UP3	5.5	BEIGE		25	SPSR2-10	
30	7.34	208.93	0.70	0.72	33.01	11.40	LD NOZ	UP3	5.5	BEIGE		26	SPSR2-10	
31	7.33	216.26	0.73	0.72	32.76	11.40	LD NOZ	UP3	5.5	BEIGE		27	SPSR2-10	
32	7.50	223.76	0.74	0.72	32.52	11.40	LD NOZ	UP3	5.5	BEIGE		28	SPSR2-10	
33	7.00	230.76	0.76	0.72	32.31	11.40	LD NOZ	UP3	5.5	BEIGE		29	SPSR2-10	
34	7.50	238.26	0.80	0.85	32.11	11.40	LD NOZ	UP3	6	GOLD		30	SPSR2-10	
35	7.33	245.59	0.82	0.85	31.92	11.40	LD NOZ	UP3	6	GOLD		31	SPSR2-10	
36	7.34	252.93	0.84	0.85	31.75	11.40	LD NOZ	UP3	6	GOLD		32	SPSR2-10	
37	7.33	260.26	0.88	0.85	31.60	11.40	LD NOZ	UP3	6	GOLD		33	SPSR2-10	
38	7.50	267.76	0.88	0.85	31.46	11.40	LD NOZ	UP3	6	GOLD		34	SPSR2-10	
39	7.00	274.76	0.91	0.85	31.35	11.40	LD NOZ	UP3	6	GOLD		35	SPSR2-10	
40	7.50	282.26	0.95	1.00	31.24	11.40	LD NOZ	UP3	6.5	GOLD		36	SPSR2-10	
41	7.33	289.59	0.97	1.00	31.15	11.40	LD NOZ	UP3	6.5	GOLD		37	SPSR2-10	
42	7.34	296.93	0.99	1.00	31.08	11.40	LD NOZ	UP3	6.5	GOLD		38	SPSR2-10	
43	7.33	304.26	1.03	1.00	31.03	11.40	LD NOZ	UP3	6.5	GOLD		39	SPSR2-10	
44	7.50	311.76	1.03	1.00	30.99	11.40	LD NOZ	UP3	6.5	GOLD		40	SPSR2-10	
45	7.00	318.76	1.05	1.00	30.97	11.40	LD NOZ	UP3	6.5	GOLD		41	SPSR2-10	
46	7.50	326.26	1.10	1.16	30.97	11.40	LD NOZ	UP3	7	LIME		42	SPSR2-10	
47	7.33	333.59	1.11	1.16	30.98	11.40	LD NOZ	UP3	7	LIME		43	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE				SPRK NO.	REG SIZE	PLUG NO.
48	7.34	340.93	1.14	1.16	31.01	11.40	LD NOZ	UP3	7	LIME	44	SPSR2-10	
49	7.33	348.26	1.17	1.16	31.05	11.40	LD NOZ	UP3	7	LIME	45	SPSR2-10	
50	7.50	355.76	1.42	1.35	30.99	11.40	LD NOZ	UP3	7.5	LIME	46	SPSR2-10	
TOWER 2	179.00	360.60											
51		361.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	5
52	10.00	365.76	1.45	1.53	30.83	11.40	LD NOZ	UP3	8	LAVENDER	47	SPSR2-10	
53	7.50	373.26	1.26	1.35	30.60	11.40	LD NOZ	UP3	7.5	LIME	48	SPSR2-10	
54	7.33	380.59	1.27	1.35	30.33	11.40	LD NOZ	UP3	7.5	LIME	49	SPSR2-10	
55	7.34	387.93	1.29	1.35	30.06	11.40	LD NOZ	UP3	7.5	LIME	50	SPSR2-10	
56	7.33	395.26	1.33	1.35	29.82	11.40	LD NOZ	UP3	7.5	LIME	51	SPSR2-10	
57	7.50	402.76	1.33	1.35	29.59	11.40	LD NOZ	UP3	7.5	LIME	52	SPSR2-10	
58	7.00	409.76	1.35	1.35	29.39	11.40	LD NOZ	UP3	7.5	LIME	53	SPSR2-10	
59	7.50	417.26	1.41	1.35	29.19	11.40	LD NOZ	UP3	7.5	LIME	54	SPSR2-10	
60	7.33	424.59	1.42	1.35	29.01	11.40	LD NOZ	UP3	7.5	LIME	55	SPSR2-10	
61	7.34	431.93	1.44	1.53	28.85	11.40	LD NOZ	UP3	8	LAVENDER	56	SPSR2-10	
62	7.33	439.26	1.48	1.53	28.70	11.40	LD NOZ	UP3	8	LAVENDER	57	SPSR2-10	
63	7.50	446.76	1.47	1.53	28.57	11.40	LD NOZ	UP3	8	LAVENDER	58	SPSR2-10	
64	7.00	453.76	1.50	1.53	28.46	11.40	LD NOZ	UP3	8	LAVENDER	59	SPSR2-10	
65	7.50	461.26	1.55	1.53	28.36	11.40	LD NOZ	UP3	8	LAVENDER	60	SPSR2-10	
66	7.33	468.59	1.56	1.53	28.29	11.40	LD NOZ	UP3	8	LAVENDER	61	SPSR2-10	
67	7.34	475.93	1.59	1.53	28.22	11.40	LD NOZ	UP3	8	LAVENDER	62	SPSR2-10	
68	7.33	483.26	1.63	1.73	28.18	11.40	LD NOZ	UP3	8.5	LAVENDER	63	SPSR2-10	
69	7.50	490.76	1.62	1.53	28.15	11.40	LD NOZ	UP3	8	LAVENDER	64	SPSR2-10	
70	7.00	497.76	1.64	1.73	28.13	11.40	LD NOZ	UP3	8.5	LAVENDER	65	SPSR2-10	
71	7.50	505.26	1.70	1.73	28.14	11.40	LD NOZ	UP3	8.5	LAVENDER	66	SPSR2-10	
72	7.33	512.59	1.71	1.73	28.16	11.40	LD NOZ	UP3	8.5	LAVENDER	67	SPSR2-10	
73	7.34	519.93	1.73	1.73	28.20	11.40	LD NOZ	UP3	8.5	LAVENDER	68	SPSR2-10	
74	7.33	527.26	1.78	1.73	28.25	11.40	LD NOZ	UP3	8.5	LAVENDER	69	SPSR2-10	
75	7.50	534.76	2.13	2.16	28.20	11.38	LD NOZ	UP3	9.5	GREY	70	SPSR2-10	
TOWER 3	179.00	539.60											
76		540.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	6
77	10.00	544.76	2.16	2.16	28.05	11.38	LD NOZ	UP3	9.5	GREY	71	SPSR2-10	
78	7.50	552.26	1.86	1.93	27.83	11.40	LD NOZ	UP3	9	GREY	72	SPSR2-10	
79	7.33	559.59	1.87	1.93	27.57	11.40	LD NOZ	UP3	9	GREY	73	SPSR2-10	
80	7.34	566.93	1.89	1.93	27.31	11.40	LD NOZ	UP3	9	GREY	74	SPSR2-10	
81	7.33	574.26	1.94	1.93	27.08	11.40	LD NOZ	UP3	9	GREY	75	SPSR2-10	
82	7.50	581.76	1.92	1.93	26.86	11.40	LD NOZ	UP3	9	GREY	76	SPSR2-10	
83	7.00	588.76	1.94	1.93	26.66	11.40	LD NOZ	UP3	9	GREY	77	SPSR2-10	
84	7.50	596.26	2.01	1.93	26.48	11.40	LD NOZ	UP3	9	GREY	78	SPSR2-10	
85	7.33	603.59	2.01	1.93	26.31	11.40	LD NOZ	UP3	9	GREY	79	SPSR2-10	
86	7.34	610.93	2.04	1.93	26.16	11.40	LD NOZ	UP3	9	GREY	80	SPSR2-10	
87	7.33	618.26	2.08	2.16	26.02	11.38	LD NOZ	UP3	9.5	GREY	81	SPSR2-10	
88	7.50	625.76	2.06	2.16	25.90	11.38	LD NOZ	UP3	9.5	GREY	82	SPSR2-10	
89	7.00	632.76	2.09	2.16	25.80	11.38	LD NOZ	UP3	9.5	GREY	83	SPSR2-10	
90	7.50	640.26	2.16	2.16	25.72	11.38	LD NOZ	UP3	9.5	GREY	84	SPSR2-10	
91	7.33	647.59	2.16	2.16	25.65	11.38	LD NOZ	UP3	9.5	GREY	85	SPSR2-10	
92	7.34	654.93	2.18	2.16	25.60	11.38	LD NOZ	UP3	9.5	GREY	86	SPSR2-10	
93	7.33	662.26	2.23	2.16	25.56	11.38	LD NOZ	UP3	9.5	GREY	87	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE				SPRK NO.	REG SIZE	PLUG NO.
94	7.50	669.76	2.21	2.16	25.54	11.38	LD NOZ UP3 9.5	GREY			88	SPSR2-10	
95	7.00	676.76	2.23	2.16	25.54	11.38	LD NOZ UP3 9.5	GREY			89	SPSR2-10	
96	7.50	684.26	2.31	2.39	25.56	11.36	LD NOZ UP3 10	TURQUOISE			90	SPSR2-10	
97	7.33	691.59	2.31	2.39	25.59	11.36	LD NOZ UP3 10	TURQUOISE			91	SPSR2-10	
98	7.34	698.93	2.33	2.39	25.64	11.36	LD NOZ UP3 10	TURQUOISE			92	SPSR2-10	
99	7.33	706.26	2.38	2.39	25.71	11.36	LD NOZ UP3 10	TURQUOISE			93	SPSR2-10	
100	7.50	713.76	2.84	2.89	25.67	11.31	LD NOZ UP3 11	YELLOW			94	SPSR2-10	
TOWER 4	179.00	718.60											
101		719.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	7
102	10.00	723.76	2.88	2.89	25.53	11.31	LD NOZ UP3 11	YELLOW			95	SPSR2-10	
103	7.50	731.26	2.46	2.39	25.33	11.36	LD NOZ UP3 10	TURQUOISE			96	SPSR2-10	
104	7.33	738.59	2.46	2.39	25.08	11.36	LD NOZ UP3 10	TURQUOISE			97	SPSR2-10	
105	7.34	745.93	2.49	2.39	24.84	11.36	LD NOZ UP3 10	TURQUOISE			98	SPSR2-10	
106	7.33	753.26	2.54	2.63	24.61	11.34	LD NOZ UP3 10.5	TURQUOISE			99	SPSR2-10	
107	7.50	760.76	2.51	2.39	24.40	11.36	LD NOZ UP3 10	TURQUOISE			100	SPSR2-10	
108	7.00	767.76	2.53	2.63	24.22	11.34	LD NOZ UP3 10.5	TURQUOISE			101	SPSR2-10	
109	7.50	775.26	2.61	2.63	24.05	11.34	LD NOZ UP3 10.5	TURQUOISE			102	SPSR2-10	
110	7.33	782.59	2.61	2.63	23.89	11.34	LD NOZ UP3 10.5	TURQUOISE			103	SPSR2-10	
111	7.34	789.93	2.63	2.63	23.76	11.34	LD NOZ UP3 10.5	TURQUOISE			104	SPSR2-10	
112	7.33	797.26	2.69	2.63	23.63	11.34	LD NOZ UP3 10.5	TURQUOISE			105	SPSR2-10	
113	7.50	804.76	2.65	2.63	23.53	11.34	LD NOZ UP3 10.5	TURQUOISE			106	SPSR2-10	
114	7.00	811.76	2.68	2.63	23.44	11.34	LD NOZ UP3 10.5	TURQUOISE			107	SPSR2-10	
115	7.50	819.26	2.76	2.89	23.37	11.31	LD NOZ UP3 11	YELLOW			108	SPSR2-10	
116	7.33	826.59	2.76	2.63	23.32	11.34	LD NOZ UP3 10.5	TURQUOISE			109	SPSR2-10	
117	7.34	833.93	2.78	2.89	23.28	11.31	LD NOZ UP3 11	YELLOW			110	SPSR2-10	
118	7.33	841.26	2.84	2.89	23.26	11.31	LD NOZ UP3 11	YELLOW			111	SPSR2-10	
119	7.50	848.76	2.80	2.89	23.25	11.31	LD NOZ UP3 11	YELLOW			112	SPSR2-10	
120	7.00	855.76	2.82	2.89	23.27	11.31	LD NOZ UP3 11	YELLOW			113	SPSR2-10	
121	7.50	863.26	2.91	2.89	23.30	11.31	LD NOZ UP3 11	YELLOW			114	SPSR2-10	
122	7.33	870.59	2.90	2.89	23.34	11.31	LD NOZ UP3 11	YELLOW			115	SPSR2-10	
123	7.34	877.93	2.93	2.89	23.41	11.31	LD NOZ UP3 11	YELLOW			116	SPSR2-10	
124	7.33	885.26	2.98	2.89	23.49	11.31	LD NOZ UP3 11	YELLOW			117	SPSR2-10	
125	7.50	892.76	3.55	3.44	23.46	11.26	LD NOZ UP3 12	RED			118	SPSR2-10	
TOWER 5	179.00	897.60											
126		898.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	8
127	10.00	902.76	3.59	3.73	23.35	11.23	LD NOZ UP3 12.5	RED			119	SPSR2-10	
128	7.50	910.26	3.07	3.15	23.16	11.28	LD NOZ UP3 11.5	YELLOW			120	SPSR2-10	
129	7.33	917.59	3.06	3.15	22.92	11.28	LD NOZ UP3 11.5	YELLOW			121	SPSR2-10	
130	7.34	924.93	3.08	3.15	22.70	11.28	LD NOZ UP3 11.5	YELLOW			122	SPSR2-10	
131	7.33	932.26	3.14	3.15	22.49	11.28	LD NOZ UP3 11.5	YELLOW			123	SPSR2-10	
132	7.50	939.76	3.10	3.15	22.30	11.28	LD NOZ UP3 11.5	YELLOW			124	SPSR2-10	
133	7.00	946.76	3.12	3.15	22.13	11.28	LD NOZ UP3 11.5	YELLOW			125	SPSR2-10	
134	7.50	954.26	3.21	3.15	21.97	11.28	LD NOZ UP3 11.5	YELLOW			126	SPSR2-10	
135	7.33	961.59	3.21	3.15	21.83	11.28	LD NOZ UP3 11.5	YELLOW			127	SPSR2-10	
136	7.34	968.93	3.23	3.16	21.71	11.28	LD NOZ UP3 11.5	YELLOW			128	SPSR2-10	
137	7.33	976.26	3.29	3.16	21.60	11.28	LD NOZ UP3 11.5	YELLOW			129	SPSR2-10	
138	7.50	983.76	3.24	3.16	21.51	11.28	LD NOZ UP3 11.5	YELLOW			130	SPSR2-10	
139	7.00	990.76	3.27	3.16	21.44	11.28	LD NOZ UP3 11.5	YELLOW			131	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE					SPRK NO.	REG SIZE	PLUG NO.
140	7.50	998.26	3.37	3.44	21.39	11.26	LD NOZ	UP3	12	RED		132	SPSR2-10	
141	7.33	1005.59	3.35	3.44	21.35	11.26	LD NOZ	UP3	12	RED		133	SPSR2-10	
142	7.34	1012.93	3.38	3.44	21.33	11.26	LD NOZ	UP3	12	RED		134	SPSR2-10	
143	7.33	1020.26	3.44	3.44	21.32	11.26	LD NOZ	UP3	12	RED		135	SPSR2-10	
144	7.50	1027.76	3.39	3.44	21.33	11.26	LD NOZ	UP3	12	RED		136	SPSR2-10	
145	7.00	1034.76	3.41	3.44	21.36	11.26	LD NOZ	UP3	12	RED		137	SPSR2-10	
146	7.50	1042.26	3.51	3.44	21.41	11.26	LD NOZ	UP3	12	RED		138	SPSR2-10	
147	7.33	1049.59	3.50	3.44	21.47	11.26	LD NOZ	UP3	12	RED		139	SPSR2-10	
148	7.34	1056.93	3.52	3.44	21.55	11.26	LD NOZ	UP3	12	RED		140	SPSR2-10	
149	7.33	1064.26	3.59	3.73	21.65	11.23	LD NOZ	UP3	12.5	RED		141	SPSR2-10	
150	7.50	1071.76	4.27	4.34	21.64	11.17	LD NOZ	UP3	13.5	WHITE		142	SPSR2-10	
TOWER 6	179.00	1076.60												
151		1077.59	-	-	-	-	-	-	-	-	-	-	-	9
152	10.00	1081.76	4.30	4.34	21.55	11.17	LD NOZ	UP3	13.5	WHITE		143	SPSR2-10	
153	7.50	1089.26	3.67	3.73	21.31	11.23	LD NOZ	UP3	12.5	RED		144	SPSR2-10	
154	7.33	1096.59	3.66	3.73	21.09	11.23	LD NOZ	UP3	12.5	RED		145	SPSR2-10	
155	7.34	1103.93	3.68	3.73	20.88	11.23	LD NOZ	UP3	12.5	RED		146	SPSR2-10	
156	7.33	1111.26	3.74	3.73	20.71	11.23	LD NOZ	UP3	12.5	RED		147	SPSR2-10	
157	7.50	1118.76	3.68	3.73	20.55	11.23	LD NOZ	UP3	12.5	RED		148	SPSR2-10	
158	7.00	1125.76	3.71	3.73	20.42	11.23	LD NOZ	UP3	12.5	RED		149	SPSR2-10	
159	7.50	1133.26	3.82	3.73	20.32	11.23	LD NOZ	UP3	12.5	RED		150	SPSR2-10	
160	7.33	1140.59	3.80	3.73	20.24	11.23	LD NOZ	UP3	12.5	RED		151	SPSR2-10	
161	7.34	1147.93	3.83	3.73	20.18	11.23	LD NOZ	UP3	12.5	RED		152	SPSR2-10	
162	7.33	1155.26	3.89	4.03	20.15	11.20	LD NOZ	UP3	13	WHITE		153	SPSR2-10	
163	7.50	1162.76	3.83	3.73	20.14	11.23	LD NOZ	UP3	12.5	RED		154	SPSR2-10	
164	7.00	1169.76	3.85	3.73	20.15	11.23	LD NOZ	UP3	12.5	RED		155	SPSR2-10	
165	7.50	1177.26	3.97	4.03	20.19	11.20	LD NOZ	UP3	13	WHITE		156	SPSR2-10	
166	7.33	1184.59	3.95	4.03	20.26	11.20	LD NOZ	UP3	13	WHITE		157	SPSR2-10	
167	7.34	1191.93	3.97	4.03	20.35	11.20	LD NOZ	UP3	13	WHITE		158	SPSR2-10	
168	7.33	1199.26	4.04	4.03	20.46	11.20	LD NOZ	UP3	13	WHITE		159	SPSR2-10	
169	7.50	1206.76	4.80	4.66	20.53	11.13	LD NOZ	UP3	14	BLUE		160	SPSR2-10	
TOWER 7	135.00	1211.60												
170		1212.59	-	-	-	-	-	-	-	-	-	-	-	10
171	10.00	1216.76	4.84	4.99	20.46	11.10	LD NOZ	UP3	14.5	BLUE		161	SPSR2-10	
172	7.50	1224.26	4.12	4.03	20.30	11.20	LD NOZ	UP3	13	WHITE		162	SPSR2-10	
173	7.33	1231.59	4.11	4.03	20.09	11.20	LD NOZ	UP3	13	WHITE		163	SPSR2-10	
174	7.34	1238.93	4.13	4.03	19.90	11.20	LD NOZ	UP3	13	WHITE		164	SPSR2-10	
175	7.33	1246.26	4.20	4.34	19.72	11.17	LD NOZ	UP3	13.5	WHITE		165	SPSR2-10	
176	7.50	1253.76	4.13	4.03	19.56	11.20	LD NOZ	UP3	13	WHITE		166	SPSR2-10	
177	7.00	1260.76	4.16	4.03	19.42	11.20	LD NOZ	UP3	13	WHITE		167	SPSR2-10	
178	7.50	1268.26	4.28	4.34	19.29	11.17	LD NOZ	UP3	13.5	WHITE		168	SPSR2-10	
179	7.33	1275.59	4.25	4.34	19.18	11.17	LD NOZ	UP3	13.5	WHITE		169	SPSR2-10	
180	7.34	1282.93	4.28	4.34	19.09	11.17	LD NOZ	UP3	13.5	WHITE		170	SPSR2-10	
181	7.33	1290.26	4.35	4.34	19.01	11.17	LD NOZ	UP3	13.5	WHITE		171	SPSR2-10	
182	7.50	1297.76	4.28	4.34	18.95	11.17	LD NOZ	UP3	13.5	WHITE		172	SPSR2-10	
183	7.00	1304.76	4.30	4.34	18.91	11.17	LD NOZ	UP3	13.5	WHITE		173	SPSR2-10	
184	7.50	1312.26	4.42	4.34	18.89	11.17	LD NOZ	UP3	13.5	WHITE		174	SPSR2-10	
185	7.33	1319.59	4.40	4.34	18.88	11.17	LD NOZ	UP3	13.5	WHITE		175	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE					SPRK NO.	REG SIZE	PLUG NO.
186	7.34	1326.93	4.42	4.34	18.89	11.17	LD NOZ	UP3	13.5	WHITE		176	SPSR2-10	
187	7.33	1334.26	4.50	4.34	18.91	11.17	LD NOZ	UP3	13.5	WHITE		177	SPSR2-10	
188	7.50	1341.76	4.42	4.34	18.95	11.17	LD NOZ	UP3	13.5	WHITE		178	SPSR2-10	
189	7.00	1348.76	4.45	4.34	19.01	11.17	LD NOZ	UP3	13.5	WHITE		179	SPSR2-10	
190	7.50	1356.26	4.57	4.66	19.09	11.13	LD NOZ	UP3	14	BLUE		180	SPSR2-10	
191	7.33	1363.59	4.55	4.66	19.18	11.13	LD NOZ	UP3	14	BLUE		181	SPSR2-10	
192	7.34	1370.93	4.57	4.66	19.29	11.13	LD NOZ	UP3	14	BLUE		182	SPSR2-10	
193	7.33	1378.26	4.65	4.66	19.42	11.13	LD NOZ	UP3	14	BLUE		183	SPSR2-10	
194	7.50	1385.76	5.52	5.68	19.44	10.98	LD NOZ	UP3	15.5	DK BROWN		184	SPSR2-10	
TOWER 8	179.00	1390.60												
195		1391.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	11
196	10.00	1395.76	5.55	5.68	19.39	10.98	LD NOZ	UP3	15.5	DK BROWN		185	SPSR2-10	
197	7.50	1403.26	4.73	4.66	19.25	11.13	LD NOZ	UP3	14	BLUE		186	SPSR2-10	
198	7.33	1410.59	4.70	4.66	19.06	11.13	LD NOZ	UP3	14	BLUE		187	SPSR2-10	
199	7.34	1417.93	4.73	4.66	18.88	11.13	LD NOZ	UP3	14	BLUE		188	SPSR2-10	
200	7.33	1425.26	4.80	4.66	18.72	11.13	LD NOZ	UP3	14	BLUE		189	SPSR2-10	
201	7.50	1432.76	4.72	4.66	18.57	11.13	LD NOZ	UP3	14	BLUE		190	SPSR2-10	
202	7.00	1439.76	4.75	4.66	18.45	11.13	LD NOZ	UP3	14	BLUE		191	SPSR2-10	
203	7.50	1447.26	4.88	4.99	18.34	11.10	LD NOZ	UP3	14.5	BLUE		192	SPSR2-10	
204	7.33	1454.59	4.85	4.99	18.24	11.10	LD NOZ	UP3	14.5	BLUE		193	SPSR2-10	
205	7.34	1461.93	4.87	4.99	18.17	11.10	LD NOZ	UP3	14.5	BLUE		194	SPSR2-10	
206	7.33	1469.26	4.95	4.99	18.11	11.10	LD NOZ	UP3	14.5	BLUE		195	SPSR2-10	
207	7.50	1476.76	4.86	4.99	18.07	11.10	LD NOZ	UP3	14.5	BLUE		196	SPSR2-10	
208	7.00	1483.76	4.89	4.99	18.04	11.10	LD NOZ	UP3	14.5	BLUE		197	SPSR2-10	
209	7.50	1491.26	5.02	4.99	18.03	11.10	LD NOZ	UP3	14.5	BLUE		198	SPSR2-10	
210	7.33	1498.59	4.99	4.99	18.04	11.10	LD NOZ	UP3	14.5	BLUE		199	SPSR2-10	
211	7.34	1505.93	5.02	4.99	18.06	11.10	LD NOZ	UP3	14.5	BLUE		200	SPSR2-10	
212	7.33	1513.26	5.10	4.99	18.11	11.10	LD NOZ	UP3	14.5	BLUE		201	SPSR2-10	
213	7.50	1520.76	5.01	4.99	18.17	11.10	LD NOZ	UP3	14.5	BLUE		202	SPSR2-10	
214	7.00	1527.76	5.03	4.99	18.24	11.10	LD NOZ	UP3	14.5	BLUE		203	SPSR2-10	
215	7.50	1535.26	5.17	5.34	18.33	11.04	LD NOZ	UP3	15	DK BROWN		204	SPSR2-10	
216	7.33	1542.59	5.14	4.99	18.44	11.10	LD NOZ	UP3	14.5	BLUE		205	SPSR2-10	
217	7.34	1549.93	5.16	4.99	18.57	11.10	LD NOZ	UP3	14.5	BLUE		206	SPSR2-10	
218	7.33	1557.26	5.25	5.34	18.71	11.04	LD NOZ	UP3	15	DK BROWN		207	SPSR2-10	
219	7.50	1564.76	6.22	6.40	18.75	10.85	LD NOZ	UP3	16.5	ORANGE		208	SPSR2-10	
TOWER 9	179.00	1569.60												
220		1570.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	12
221	10.00	1574.76	6.26	6.40	18.72	10.85	LD NOZ	UP3	16.5	ORANGE		209	SPSR2-10	
222	7.50	1582.26	5.33	5.34	18.59	11.04	LD NOZ	UP3	15	DK BROWN		210	SPSR2-10	
223	7.33	1589.59	5.29	5.34	18.42	11.04	LD NOZ	UP3	15	DK BROWN		211	SPSR2-10	
224	7.34	1596.93	5.32	5.34	18.25	11.04	LD NOZ	UP3	15	DK BROWN		212	SPSR2-10	
225	7.33	1604.26	5.40	5.34	18.11	11.04	LD NOZ	UP3	15	DK BROWN		213	SPSR2-10	
226	7.50	1611.76	5.30	5.34	17.98	11.04	LD NOZ	UP3	15	DK BROWN		214	SPSR2-10	
227	7.00	1618.76	5.33	5.34	17.87	11.04	LD NOZ	UP3	15	DK BROWN		215	SPSR2-10	
228	7.50	1626.26	5.47	5.34	17.77	11.04	LD NOZ	UP3	15	DK BROWN		216	SPSR2-10	
229	7.33	1633.59	5.44	5.34	17.70	11.04	LD NOZ	UP3	15	DK BROWN		217	SPSR2-10	
230	7.34	1640.93	5.47	5.34	17.63	11.04	LD NOZ	UP3	15	DK BROWN		218	SPSR2-10	
231	7.33	1648.26	5.55	5.68	17.59	10.98	LD NOZ	UP3	15.5	DK BROWN		219	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE				SPRK NO.	REG SIZE	PLUG NO.
276	7.50	1976.47	5.11	4.99	17.38	11.10	LD NOZ	UP3	14.5	BLUE	263	SPSR2-10	
277	4.00	1980.47	4.96	4.99	17.29	11.10	LD NOZ	UP3	14.5	BLUE	264	SPSR2-10	
OVERHANG	52.87	1980.47											

TOTAL GPM = 900.65

GPA = 3.18

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 15.00 PSI

WITH GRADUATED ELEVATION OF 15.00 FT THE INLET PRESSURE IS 15.23 PSI FOR SPRINKLER 264

THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	PERCENT DEVIATION	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME		
							36 HR	48 HR	60 HR
1	2.38	7.56	13.04	72%	5.48	0.012	0.44	0.58	0.73
2	7.00	22.26	22.19	0%	3.17	0.007	0.25	0.34	0.42
3	11.62	36.95	36.98	0%	3.18	0.007	0.25	0.34	0.42
4	16.24	51.65	51.38	-1%	3.16	0.007	0.25	0.34	0.42
5	20.86	66.35	65.65	-1%	3.15	0.007	0.25	0.33	0.42
6	25.49	81.04	80.51	-1%	3.16	0.007	0.25	0.34	0.42
7	22.28	70.84	70.27	-1%	3.15	0.007	0.25	0.33	0.42
8	33.59	106.82	105.85	-1%	3.15	0.007	0.25	0.33	0.42
9	38.22	121.52	120.65	-1%	3.16	0.007	0.25	0.33	0.42
10	42.84	136.21	134.45	-1%	3.14	0.007	0.25	0.33	0.42
11	47.46	150.91	149.67	-1%	3.15	0.007	0.25	0.33	0.42
OVERHANG	14.90	47.38	50.03	6%	3.36	0.007	0.27	0.36	0.45
TOTAL	282.88	899.50	900.65		3.18				

SUMMARY OF SPRINKLERS

- 21 LD NOZ UP3 5 BEIGE
- 8 LD NOZ UP3 5.5 BEIGE
- 6 LD NOZ UP3 6 GOLD
- 6 LD NOZ UP3 6.5 GOLD
- 4 LD NOZ UP3 7 LIME
- 9 LD NOZ UP3 7.5 LIME
- 9 LD NOZ UP3 8 LAVENDER
- 6 LD NOZ UP3 8.5 LAVENDER
- 9 LD NOZ UP3 9 GREY
- 11 LD NOZ UP3 9.5 GREY
- 8 LD NOZ UP3 10 TURQUOISE
- 9 LD NOZ UP3 10.5 TURQUOISE
- 11 LD NOZ UP3 11 YELLOW
- 12 LD NOZ UP3 11.5 YELLOW
- 10 LD NOZ UP3 12 RED
- 13 LD NOZ UP3 12.5 RED
- 10 LD NOZ UP3 13 WHITE
- 15 LD NOZ UP3 13.5 WHITE
- 11 LD NOZ UP3 14 BLUE
- 17 LD NOZ UP3 14.5 BLUE
- 13 LD NOZ UP3 15 DK BROWN
- 13 LD NOZ UP3 15.5 DK BROWN
- 16 LD NOZ UP3 16 ORANGE
- 11 LD NOZ UP3 16.5 ORANGE
- 3 LD NOZ UP3 17 DK GREEN
- 2 LD NOZ UP3 17.5 DK GREEN
- 1 LD NOZ UP3 18 PURPLE

13 PLUGS

SUMMARY OF REGULATORS

264 SPSR2-10

TOTAL OF 264 REGULATORS

NOZZLE POSITION CHART

LD NOZ UP3 5 BEIGE	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
LD NOZ UP3 5.5 BEIGE	22, 23, 24, 25, 26, 27, 28, 29
LD NOZ UP3 6 GOLD	30, 31, 32, 33, 34, 35
LD NOZ UP3 6.5 GOLD	36, 37, 38, 39, 40, 41
LD NOZ UP3 7 LIME	42, 43, 44, 45
LD NOZ UP3 7.5 LIME	46, 48, 49, 50, 51, 52, 53, 54, 55
LD NOZ UP3 8 LAVENDER	47, 56, 57, 58, 59, 60, 61, 62, 64
LD NOZ UP3 8.5 LAVENDER	63, 65, 66, 67, 68, 69
LD NOZ UP3 9 GREY	72, 73, 74, 75, 76, 77, 78, 79, 80
LD NOZ UP3 9.5 GREY	70, 71, 81, 82, 83, 84, 85, 86, 87, 88, 89
LD NOZ UP3 10 TURQUOISE	90, 91, 92, 93, 96, 97, 98, 100
LD NOZ UP3 10.5 TURQUOISE	99, 101, 102, 103, 104, 105, 106, 107, 109
LD NOZ UP3 11 YELLOW	94, 95, 108, 110, 111, 112, 113, 114, 115, 116, 117
LD NOZ UP3 11.5 YELLOW	120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131
LD NOZ UP3 12 RED	118, 132, 133, 134, 135, 136, 137, 138, 139, 140
LD NOZ UP3 12.5 RED	119, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 154, 155
LD NOZ UP3 13 WHITE	153, 156, 157, 158, 159, 162, 163, 164, 166, 167
LD NOZ UP3 13.5 WHITE	142, 143, 165, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179
LD NOZ UP3 14 BLUE	160, 180, 181, 182, 183, 186, 187, 188, 189, 190, 191
LD NOZ UP3 14.5 BLUE	161, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 205, 206, 263, 264
LD NOZ UP3 15 DK BROWN	204, 207, 210, 211, 212, 213, 214, 215, 216, 217, 218, 220, 221
LD NOZ UP3 15.5 DK BROWN	184, 185, 219, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231
LD NOZ UP3 16 ORANGE	234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 250
LD NOZ UP3 16.5 ORANGE	208, 209, 249, 251, 252, 253, 254, 255, 258, 259, 260
LD NOZ UP3 17 DK GREEN	232, 261, 262
LD NOZ UP3 17.5 DK GREEN	233, 256
LD NOZ UP3 18 PURPLE	257

NORTHWEST IRRIGATION

1880 SOUTH RANGE AVENUE
COLBY, KANSAS 67701

JULY 14, 2022
WISH-105554
TERRY HOCKERSMITH
SECTION 15-11-32
900 GPM @ 37 PSI

LINDSAY GEN II - 90
SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 PSI REGULATORS
.75 I.D. FLEXIBLE HOSE
NO ENDGUN

Rotation time at 100% = 18.19 Hours Or 1091 minutes

Installation Chart

Page 1

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
1	PLUG				9		54	7.5	PSR210	17		110	11	PSR210	5		164	13	PSR210	13		220	15	PSR210
2	PLUG				10		55	7.5	PSR210	18		111	11	PSR210	6		165	13.5	PSR210	14		221	15	PSR210
3	PLUG				11		56	8	PSR210	19		112	11	PSR210	7		166	13	PSR210	15		222	15.5	PSR210
4		1	5	PSR210	12		57	8	PSR210	20		113	11	PSR210	8		167	13	PSR210	16		223	15.5	PSR210
5		2	5	PSR210	13		58	8	PSR210	21		114	11	PSR210	9		168	13.5	PSR210	17		224	15.5	PSR210
6		3	5	PSR210	14		59	8	PSR210	22		115	11	PSR210	10		169	13.5	PSR210	18		225	15.5	PSR210
7		4	5	PSR210	15		60	8	PSR210	23		116	11	PSR210	11		170	13.5	PSR210	19		226	15.5	PSR210
8		5	5	PSR210	16		61	8	PSR210	24		117	11	PSR210	12		171	13.5	PSR210	20		227	15.5	PSR210
9		6	5	PSR210	17		62	8	PSR210	25		118	12	PSR210	13		172	13.5	PSR210	21		228	15.5	PSR210
10		7	5	PSR210	18		63	8.5	PSR210		TOWER 5				14		173	13.5	PSR210	22		229	15.5	PSR210
11		8	5	PSR210	19		64	8	PSR210	1	PLUG				15		174	13.5	PSR210	23		230	15.5	PSR210
12		9	5	PSR210	20		65	8.5	PSR210	2		119	12.5	PSR210	16		175	13.5	PSR210	24		231	15.5	PSR210
13		10	5	PSR210	21		66	8.5	PSR210	3		120	11.5	PSR210	17		176	13.5	PSR210	25		232	17	PSR210
14		11	5	PSR210	22		67	8.5	PSR210	4		121	11.5	PSR210	18		177	13.5	PSR210		TOWER 10			
15		12	5	PSR210	23		68	8.5	PSR210	5		122	11.5	PSR210	19		178	13.5	PSR210	1	PLUG			
16		13	5	PSR210	24		69	8.5	PSR210	6		123	11.5	PSR210	20		179	13.5	PSR210	2		233	17.5	PSR210
17		14	5	PSR210	25		70	9.5	PSR210	7		124	11.5	PSR210	21		180	14	PSR210	3		234	16	PSR210
18		15	5	PSR210		TOWER 3				8		125	11.5	PSR210	22		181	14	PSR210	4		235	16	PSR210
19		16	5	PSR210	1	PLUG				9		126	11.5	PSR210	23		182	14	PSR210	5		236	16	PSR210
20		17	5	PSR210	2		71	9.5	PSR210	10		127	11.5	PSR210	24		183	14	PSR210	6		237	16	PSR210
21		18	5	PSR210	3		72	9	PSR210	11		128	11.5	PSR210	25		184	15.5	PSR210	7		238	16	PSR210
22		19	5	PSR210	4		73	9	PSR210	12		129	11.5	PSR210		TOWER 8				8		239	16	PSR210
23		20	5	PSR210	5		74	9	PSR210	13		130	11.5	PSR210	1	PLUG				9		240	16	PSR210
24		21	5	PSR210	6		75	9	PSR210	14		131	11.5	PSR210	2		185	15.5	PSR210	10		241	16	PSR210
25		22	5.5	PSR210	7		76	9	PSR210	15		132	12	PSR210	3		186	14	PSR210	11		242	16	PSR210
1	TOWER 1				8		77	9	PSR210	16		133	12	PSR210	4		187	14	PSR210	12		243	16	PSR210
2	PLUG				9		78	9	PSR210	17		134	12	PSR210	5		188	14	PSR210	13		244	16	PSR210
3		23	5.5	PSR210	10		79	9	PSR210	18		135	12	PSR210	6		189	14	PSR210	14		245	16	PSR210
4		24	5.5	PSR210	11		80	9	PSR210	19		136	12	PSR210	7		190	14	PSR210	15		246	16	PSR210
5		25	5.5	PSR210	12		81	9.5	PSR210	20		137	12	PSR210	8		191	14	PSR210	16		247	16	PSR210
6		26	5.5	PSR210	13		82	9.5	PSR210	21		138	12	PSR210	9		192	14.5	PSR210	17		248	16	PSR210
7		27	5.5	PSR210	14		83	9.5	PSR210	22		139	12	PSR210	10		193	14.5	PSR210	18		249	16.5	PSR210
8		28	5.5	PSR210	15		84	9.5	PSR210	23		140	12	PSR210	11		194	14.5	PSR210	19		250	16	PSR210
9		29	5.5	PSR210	16		85	9.5	PSR210	24		141	12.5	PSR210	12		195	14.5	PSR210	20		251	16.5	PSR210
10		30	6	PSR210	17		86	9.5	PSR210	25		142	13.5	PSR210	13		196	14.5	PSR210	21		252	16.5	PSR210
11		31	6	PSR210	18		87	9.5	PSR210		TOWER 6				14		197	14.5	PSR210	22		253	16.5	PSR210
12		32	6	PSR210	19		88	9.5	PSR210	1	PLUG				15		198	14.5	PSR210	23		254	16.5	PSR210
13		33	6	PSR210	20		89	9.5	PSR210	2		143	13.5	PSR210	16		199	14.5	PSR210	24		255	16.5	PSR210
14		34	6	PSR210	21		90	10	PSR210	3		144	12.5	PSR210	17		200	14.5	PSR210	25		256	17.5	PSR210
15		35	6	PSR210	22		91	10	PSR210	4		145	12.5	PSR210	18		201	14.5	PSR210		TOWER 11			
16		36	6.5	PSR210	23		92	10	PSR210	5		146	12.5	PSR210	19		202	14.5	PSR210	1		257	18	PSR210
17		37	6.5	PSR210	24		93	10	PSR210	6		147	12.5	PSR210	20		203	14.5	PSR210	2		258	16.5	PSR210
18		38	6.5	PSR210	25		94	11	PSR210	7		148	12.5	PSR210	21		204	15	PSR210	3		259	16.5	PSR210
19		39	6.5	PSR210		TOWER 4				8		149	12.5	PSR210	22		205	14.5	PSR210	4		260	16.5	PSR210
20		40	6.5	PSR210	1	PLUG				9		150	12.5	PSR210	23		206	14.5	PSR210	5		261	17	PSR210
21		41	6.5	PSR210	2		95	11	PSR210	10		151	12.5	PSR210	24		207	15	PSR210	6		262	17	PSR210
22		42	7	PSR210	3		96	10	PSR210	11		152	12.5	PSR210	25		208	16.5	PSR210	7		263	14.5	PSR210
23		43	7	PSR210	4		97	10	PSR210	12		153	13	PSR210		TOWER 9				8		264	14.5	PSR210
24		44	7	PSR210	5		98	10	PSR210	13		154	12.5	PSR210	1	PLUG								
25		45	7	PSR210	6		99	10.5	PSR210	14		155	12.5	PSR210	2		209	16.5	PSR210					
	TOWER 2	46	7.5	PSR210	7		100	10	PSR210	15		156	13	PSR210	3		210	15	PSR210					
1	PLUG				8		101	10.5	PSR210	16		157	13	PSR210	4		211	15	PSR210					
2		47	8	PSR210	9		102	10.5	PSR210	17		158	13	PSR210	5		212	15	PSR210					
3		48	7.5	PSR210	10		103	10.5	PSR210	18		159	13	PSR210	6		213	15	PSR210					
4		49	7.5	PSR210	11		104	10.5	PSR210	19		160	14	PSR210	7		214	15	PSR210					
5		50	7.5	PSR210	12		105	10.5	PSR210		TOWER 7				8		215	15	PSR210					
6		51	7.5	PSR210	13		106	10.5	PSR210	1	PLUG				9		216	15	PSR210					
7		52	7.5	PSR210	14		107	10.5	PSR210	2		161	14.5	PSR210	10		217	15	PSR210					
8		53	7.5	PSR210	15		108	11	PSR210	3		162	13	PSR210	11		218	15	PSR210					
					16		109	10.5	PSR210	4		163	13	PSR210	12		219	15.5	PSR210					

NORTHWEST IRRIGATION

1880 SOUTH RANGE AVENUE
COLBY, KANSAS 67701

LINDSAY GEN II - 90
SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 PSI REGULATORS
.75 I.D. FLEXIBLE HOSE
NO ENDGUN

JULY 14, 2022
WISH-105554
TERRY HOCKERSMITH
SECTION 15-11-32
900 gpm @ 37 psi

Rotation time at 100% = 18.19 Hours Or 1091 minutes

Nozzle Difference

Previous chart: WISH-85148 1000 gpm @ 42 psi
Current chart: WISH-105554 900 gpm @ 37 psi

<u>Nozzle Type and Size</u>	<u>Difference</u>	<u>Previous WISH Printouts</u>
LD NOZ UP3 5.5 BEIGE	5	WISH-85148 1000 gpm @ 42 PSI NOVEMBER 04, 2016
LD NOZ UP3 7.5 LIME	5	WISH-85141 1000 gpm @ 40 PSI NOVEMBER 02, 2016
LD NOZ UP3 9 GREY	5	
LD NOZ UP3 9.5 GREY	2	
LD NOZ UP3 10.5 TURQUOISE	3	
LD NOZ UP3 11 YELLOW	1	
LD NOZ UP3 11.5 YELLOW	1	
LD NOZ UP3 12 RED	2	
LD NOZ UP3 12.5 RED	2	
LD NOZ UP3 13.5 WHITE	6	
LD NOZ UP3 14.5 BLUE	6	
LD NOZ UP3 15.5 DK BROWN	1	
LD NOZ UP3 16 ORANGE	2	
Total:	41	

PRECIPITATION CHART FOR FULL CIRCLE

WISH-105554

JULY 14, 2022

DEALER - NORTHWEST IRRIGATION

IRRIGATOR - TERRY HOCKERSMITH

FIELD NO - SECTION 15-11-32

TOTAL LENGTH PIPE = 1980.47 SYSTEM PRESSURE = 37 PSI
GPM UNDER PIPE = 900.65 TOTAL GPM = 900.65
ACRES UNDER PIPE = 282.88
RANGE OF ENDGUN = .00 RUN FOR MINIMUM PRESSURE
GPM OF ENDGUN = .00
ACRES UNDER ENDGUN = .00

MOTOR SIZE (HP) = 3/4
LOADED MOTOR RPM = 1750
CENTER GEAR BOX RATIO = 40
WHEEL GEAR BOX RATIO = 50
TIRE SIZE = NFTrax
LAST TOWER SPEED (FPM) = 11.10

PRECIPITATION BASED

% TIMER BASED

PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.13	100.00	18.19 - 1091(min)	100.00	.13	18.19 - 1091(min)
.20	63.97	28.43	90.00	.14	20.21
.25	51.17	35.54	80.00	.16	22.73
.30	42.64	42.64	70.00	.18	25.98
.40	31.98	56.86	60.00	.21	30.31
.50	25.59	71.07	50.00	.26	36.37
.60	21.32	85.29	45.00	.28	40.41
.70	18.28	99.50	40.00	.32	45.46
.75	17.06	106.61	35.00	.37	51.96
.80	15.99	113.72	30.00	.43	60.62
.90	14.21	127.93	25.00	.51	72.74
1.00	12.79	142.15	20.00	.64	90.93
1.25	10.23	177.68	15.00	.85	121.24
1.50	8.53	213.22	10.00	1.28	181.85
1.75	7.31	248.76	5.00	2.56	363.71

CAUTION: The relationship between precipitation rate, timer setting, and hours per revolution provided above are theoretical numbers based on the data list at the top of the page. Actual precipitation rates may vary due to the following field and machine conditions: wind drift; evaporation; tire slippage, tire loaded radius; drive train efficiency; elevation changes; soil type. Due to these varying field and machine conditions the above chart should be used as a guide only.