The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

WATER WELL REPORT

STATE OF OREGON well #15

(Please type or print)

WATER RESOURCES DEPT SALEM, OREGON

(Do not write above this line)

State Well No. 16S/43E-7aC

State Permit No.

(1) OWNER:

Name Gum Creek Farms, Inc.

Address c/o Heid Eros.
Jamieson, Or. 97909

(2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) CASING INSTALLED:

Threaded ☐ Welded ☒

12 3/4" Diam. from +1 ft. to 286 ft. Gage .318

" Diam. from ft. to ft. Gage

" Diam. from ft. to ft. Gage

(6) PERFORATIONS:

Perforated? ☒ Yes ☐ No.

Type of perforator used Factory

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

(7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name

Type Model No.

Diam. Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☑ No If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

" " "

" " "

Bailer test 20 gal./min. with 0 ft. drawdown after 1 hrs.

Artesian flow g.p.m.

Temperature of water 68 Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Well seal—Material used Portland Cement

Well sealed from land surface to 18 ft.

Diameter of well bore to bottom of seal 16 in.

Diameter of well bore below seal 12 in.

Number of sacks of cement used in well seal 24 sacks

How was cement grout placed? with grout pump

Was a drive shoe used? ☒ Yes ☐ No Plugs Size: location ft.

Did any strata contain unusable water? ☐ Yes ☑ No

Type of water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☑ No Size of gravel:

Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County Malheur Driller's well number 80-28

SW ¼ NE ¼ Section 7 T. 16S R. 43E W.M.

Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.

Depth at which water was first found 270 ft.

Static level 91 ft. below land surface. Date 10/8/80

Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 12"

Depth drilled ~~366~~ 396' Depth of completed well 348 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Top soil	0	3	
Clay, fine, brown & boulders	3	9	
Gravel, fine	9	12	
Clay, fine, brown	12	25	
Sandstone, brown, hard	25	170	
Clay, blue, fine w/sand streaks	170	270	
Clay, blue & sand, gray, fine, water bearing	270	348	91
Clay, blue, hard	348	396	91

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Work started 9/20 19 80 Completed 10/19 1980

Date well drilling machine moved off of well 10/20 1980

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] Herbert N. Bowman Date 11-20, 1980
(Drilling Machine Operator)

Drilling Machine Operator's License No. 1406

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name PIONEER WATER DEVELOPMENT, INC.
(Person, firm or corporation) (Type or print)

Address Rt. 3 Box 493 Ontario, Or. 97914

[Signed] [signature]
(Water Well Contractor)

Contractor's License No. 148 Date 11-15, 1980

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

NW 1/4 SW 1/4

well # 17 #

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

(START CARD) # W-47701

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number L06223
Name Gum Creek Farms Inc.
Address 5070 S. Rd. K
City Vale State Or. Zip 97918

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:
[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger
[ ] Other

(4) PROPOSED USE:
[ ] Domestic [ ] Community [ ] Industrial [X] Irrigation
[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval [ ] Yes [X] No Depth of Completed Well ____ ft.
Explosives used [ ] Yes [X] No Type ____ Amount ____

HOLE Diameter	From	To	Material	SEAL From	To	Sacks or pounds
20	0	18	Bentonite	0	18	54 sacks
14	18	370				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[ ] Other Dry
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	16	+1	18	.250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 18 ft.

(7) PERFORATIONS/SCREENS:
[ ] Perforations Method ____
[ ] Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour
[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
700	146 ft.		12 1 hr.

Temperature of water 74 Depth Artesian Flow Found ____
Was a water analysis done? [ ] Yes By whom ____
Did any strata contain water not suitable for intended use? [ ] Too little
[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other ____
Depth of strata: 30 ft.

(9) LOCATION OF WELL by legal description:
County Malhuer Latitude ____ Longitude ____
Township 16 S. N or S Range 43 E E or W. WM.
Section 7 S W. 1/4 N W. 1/4
Tax Lot 900 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 14 th. Ave West

(10) STATIC WATER LEVEL:
96 ft ft. below land surface. # Date 9-26-96
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 132 ft.

From	To	Estimated Flow Rate	SWL
330 ft.	360 ft.	800 g.p.m.	96

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Soil	0	4	
Brn clay	4	8	
Brn. clay brn. gravel(med.)	8	12	
Brn. clay	12	132	
Blue clay gry. sand(fine)	132	170	96
Blue clay	170	330	96
Blue-gry. sand blue clay	330	360	96
Gry. clay	360	370	96

RECEIVED
DEC 2 1 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 9-12-96 Completed 10-17-96

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 1308
Signed Herbert H. Bowman Date 10-18-96

SECOND COPY CONTRACTOR THIRD COPY CUSTOMER

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

(START CARD) # 47681

(1) OWNER:

Well Number: #18

Name Gum Creek Farms Inc.

Address 5070 S. Rd. K

City Vale State Or. Zip 97918

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☒ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 360 ft.

Explosives used Yes ☐ No ☒ Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
20	0	19	Bentonite	0	19	22 sacks
16	19	358				

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other Dry

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from 0 ft. to 358 ft. Size of gravel 1/4

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	16	+1	19	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	12	0	358	.203	☒	☐	☒	☐
					☐	☐	☐	☐

Final location of shoe(s) ____

(7) PERFORATIONS/SCREENS:

☒ Perforations Method torch

☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
200	350	1/8x4	700	12		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
400	85		8 hrs.

Temperature of water 64* Depth Artesian Flow Found ____

Was a water analysis done? ☐ Yes By whom ____

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other no

Depth of strata: 80

(9) LOCATION OF WELL by legal description:

County Malhuer Latitude ____ Longitude ____

Township 16 S. N or S. Range 43 E. E or W. WM.

Section 7 N.W. ¼ N.W. ¼

Tax Lot ____ Lot ____ Block ____ Subdivision ____

Street Address of Well (or nearest address) 14 th. ave. W.

Jamieson Or. 97909

(10) STATIC WATER LEVEL:

215 ft. below land surface. Date 7-15-93

Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:

Depth at which water was first found 285

From	To	Estimated Flow Rate	SWL
285	360	500 g.p.m.	215

(12) WELL LOG:

Ground elevation ____

Material	From	To	SWL
Soil	0	4	
Brn. clay	4	7	
Brn.clay brn.gravel(large)	7	12	
Brn.clay	12	285	
Brn.clay brn.sand(fine)	285	340	215
Brn.sand(med)	340	360	215

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 6-20-93 Completed 8-10-93

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number ____

Signed ____ Date ____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1302

Signed [signature] Date 9-3-93

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

(START CARD) # 47695 1

(1) OWNER:

Well Number: 19

Name Gum Creek Farms

Address 5070 S. Rd. K

City Vale Or. State Or. Zip 97918

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☒ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 310 ft.

Explosives used Yes ☐ No ☒ Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
~~16~~	~~0~~	~~25~~	~~Bentonite~~	~~0~~	~~25~~	~~2100lbs.~~
~~12~~	~~25~~	~~310~~				

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other Dry

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	12	+1	283	.318	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 283

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Torch

☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
123	283	1/8-3-96	0	12		☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
700	64		1 hr.

Temperature of water 68 Depth Artesian Flow Found ____

Was a water analysis done? no ☐ Yes By whom ____

Did any strata contain water not suitable for intended use? no ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____

Depth of strata: ____

(9) LOCATION OF WELL by legal description:

County Malhuer Latitude ____ Longitude ____

Township 16S S. N or S, Range 43 E. E or W, WM.

Section 7. S.W. ¼ N.W. ¼

Tax Lot 900 Lot ____ Block ____ Subdivision ____

Street Address of Well (or nearest address) 14 th. Ave.W Jamieson Or. 97909

(10) STATIC WATER LEVEL:

86 ft. below land surface. Date 3-12-96

Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:

Depth at which water was first found 125 ft.

From	To	Estimated Flow Rate	SWL
210	310 +	700 +	86

(12) WELL LOG:

Ground elevation ____

Material	From	To	SWL
Soil	0	6	
Brn. clay	6	8	
Brn.clay-brn.gravel(large)	8	12	
Brn.&blk.gravel(large)	12	16	
Brn. clay	16	125	
Brn. clay-brn.sand(med.)	125	160	8
Blue clay	160	210	86
Blue clay-blue sand(fine)	210	310	86

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 3-4-96 Completed 4-12-96

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number ____

Signed ____ Date ____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1308

Signed [illegible] Date 4-27-96

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

W-17048

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

well # 20

(START CARD) # _____

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number L06224

Name Gum Creek Farms Ink.

Address 5070 S. Rd. K

City Vale State Or. Zip 97918

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger

[ ] Other _____

(4) PROPOSED USE:

[ ] Domestic [ ] Community [ ] Industrial [X] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well _____ ft.

Explosives used [ ] Yes [X] No Type _____ Amount _____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
~~20~~	~~0~~	~~19~~	~~Bentonite~~	~~0~~	~~19~~	~~38 sacks~~
~~16~~	~~19~~	~~310~~				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[ ] Other Dry

Backfill placed from _____ ft. to _____ ft. Material _____

Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	16	+1	19	318	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 19 ft.

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method _____

[ ] Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
800	70 ft.		12 hr.

Temperature of water 78° Depth Artesian Flow Found _____

Was a water analysis done? [ ] Yes By whom _____

Did any strata contain water not suitable for intended use? No [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

County Malheur Latitude _____ Longitude _____

Township 16 s. N or S Range 43 e. E or W. WM.

Section 7 S.W. 1/4 N.W. 1/4

Tax Lot 900 Lot _____ Block _____ Subdivision _____

Street Address of Well (or nearest address) 14 th. Ave.

(10) STATIC WATER LEVEL:

140 ft. below land surface. Date 10-30-96

Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 140 ft.

From	To	Estimated Flow Rate	SWL
250	310	1000 g.p.m.	108

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
~~Soil~~	0	6	
~~Brn. clay~~	6	140	
~~Blue clay~~	140	250	108
~~Blue clay-blue sand(fine)~~	250	310	108

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Date started 10-28-96 Completed 11-19-96

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number _____

Signed _____ Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1308

Signed Herbert H. Bowman Date 12-3-96

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

ANNUAL WATER USE REPORTS

USER ID 7011

Oregon Water Resources Department
October 1999 through September 2000
Annual Water Use - Monthly Quantities Form

2000

Facility ☞ POD-ID ✏	WELL #15 47860	WELL #17 47861	WELL #18 47862	WELL #19 47863	WELL #20 47864
October - 1999					
November - 1999					
December - 1999					
January - 2000					
February - 2000					
March - 2000					
April - 2000	16.9 AF	29.0 AF	6.2 AF	30.8 AF	13.8 AF
May - 2000	25.9	37.7	7.9	29.2	16.8
June - 2000	26.2	44.4	13.1	34.1	26.5
July - 2000	23.0	39.5	11.5	24.7	22.7
August - 2000	18.1	41.9	6.3	30.0	18.0
September - 2000	5.5	9.8	0.4	12.4	5.3
TOTAL *	115.6 AF	202.4 AF	45.4 AF	161.3 AF	103.0 AF

* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: FLOW METER. If use is irrigation, total number acres irrigated 234

I certify this information is true and accurate to the best of my knowledge.

Kenneth Jensen
Signature

FARM OPERATOR
Title

Reporting Entity

1-12-01
Date

RECEIVED
DEC 21 2000
WATER RESOURCES
SALEM

KENNETH JENSEN
Name - Please Print

Please complete and mail to: Water Resources Department; Water Use Reporting Program;
158 12th Street NE; Salem, OR 97310-0210

2000 2001

Oregon Water Resources Department
October 2000 through September 2001
Annual Water Use - Monthly Quantities Form

Facility ☞ / POD-ID ☜	WELL #15 47860	WELL #17 47861	WELL #18 47862	WELL #19 47863	WELL #20 47864
October - 2000	0				0
November - 2000					
December - 2000					
January - 2001					
February - 2001					
March - 2001	6				0
April - 2001	14.8 AF	23.1 AF	19.5 AF	17.5 AF	20.8 AF
May - 2001	27.8	34.7	30.2	25.1	39.7
June - 2001	26.7	68.5	49.2	53.0	61.7
July - 2001	25.4	65.8	45.5	50.9	54.8
August - 2001	22.3	78.7	71.0	58.9	58.0
September - 2001	11.8	44.6	18.6	95.0	49.6
TOTAL *	128.8 AF	315.4 AF	233.0 AF	300.4 AF	283.6 AF

* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: FLOW METER. If use is irrigation, total number acres irrigated 424

I certify this information is true and accurate to the best of my knowledge.

Signature	Title	Reporting Entity	Date
Kenneth Jensen	FARM OPERATOR		1-30-02

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

2001

Oregon Water Resources Department
October 2001 through September 2002
Annual Water Use - Monthly Quantities Form

2002

WRD

Facility ☞ / POD-ID ✏	WELL #15 47860	WELL #17 47861	WELL #18 47862	WELL #19 47863	WELL #20 47864
October - 2001	11.5 AF	18.7 AF	2.1 AF	21.4 AF	9.7 AF
November - 2001	0				2
December - 2001					
January - 2002					
February - 2002					
March - 2002	0				6
April - 2002	11.0	23.0	7.4	18.1	11.8
May - 2002	23.4	64.0	31.8	54.6	22.8
June - 2002	25.0	75.3	65.4	59.9	61.6
July - 2002	23.8	73.1	56.5	54.4	49.7
August - 2002	23.4	68.8	54.5	52.1	47.5
September - 2002	11.7	26.3	48.8	29.9	29.5
TOTAL *	129.8	349.2	266.5	290.4	232.6

* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: FLOW METER. If use is irrigation, total number acres irrigated 424

I certify this information is true and accurate to the best of my knowledge.

Kenneth Jenson — Signature

FARM OPERATOR — Title

Reporting Entity

1-31-03 — Date

KENNETH JENSEN — Name - Please Print

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Please complete and mail to: Water Resources Department; Water Use Reporting Program; 158 12th Street NE; Salem, OR 97310-0210

2002

Oregon Water Resources Department
October 2002 through September 2003
Annual Water Use - Monthly Quantities Form

USER-ID _____

2003

Facility ☞ / POD-ID ✏	WELL #15 / 47860	WELL #17 / 47861	WELL #18 / 47862	WELL #19 / 47863	WELL #20 / 47864
October - 2002	Ø	15.1 AF	17.2 AF	23.0 AF	6.2 AF
November - 2002					
December - 2002					
January - 2003					
February - 2003					
March - 2003					
April - 2003	Ø	40.5	18.4	36.6	2.6
May - 2003	Ø	60.8	30.0	53.5	4.7
June - 2003	18.7	66.0	48.6	50.7	83.5
July - 2003	7.4	63.4	44.8	51.9	74.1
August - 2003	Ø	71.6	61.9	54.3	49.8
September - 2003	Ø	74.5	62.9	54.1	18.0
TOTAL *	26.1	391.9	283.8	324.1	238.9

* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: FLOW METER. If use is irrigation, total number acres irrigated 424

I certify this information is true and accurate to the best of my knowledge.

Kenneth Jensen — Signature
FARM OPERATOR — Title
_____ — Reporting Entity
1-26-04 — Date

KENNETH JENSEN — Name - Please Print

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Please complete and mail to: Water Resources Department; Water Use Reporting Program; 725 Summer Street NE, Suite A; Salem, OR 97301-1271

2003 Oregon Water Resources Department 2004

October 2003 through September 2004
Annual Water Use - Monthly Quantities Form

USER-ID 2011

Facility ☞ POD-ID ✏	WELL #15 47860	WELL #17 47861	WELL #18 47862	WELL #19 47863	WELL #20 47864
October - 2003	0 AF	21.4 AF	4.8 AF	18.0 AF	23.6 AF
November - 2003					
December - 2003					
January - 2004	0	0	0	0	0
February - 2004					
March - 2004					
April - 2004	19.1	42.8	14.3	10.3	29.5
May - 2004	44.5	78.6	28.5	23.1	64.8
June - 2004	14.2	61.5	34.6	40.8	54.7
July - 2004	0	67.9	41.3	55.0	42.8
August - 2004	0	69.2	39.4	50.6	18.0
September - 2004	0	64.0	6.0	42.6	38.7
TOTAL *	77.7 AF	405.5 AF	168.8 AF	240.4 AF	272.0 AF

* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: FLOW METER. If use is irrigation, total number acres irrigated 424

I certify this information is true and accurate to the best of my knowledge.

Kenneth Jensen — Signature

FARM OPERATOR — Title

Reporting Entity

12-16-04 — Date

KENNETH JENSEN — Name - Please Print

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Please complete and mail to: Water Resources Department; Water Use Reporting Program; 725 Summer Street NE; Suite A, Salem, OR 97301-1271, or Fax 503-986-0902.

STATIC WATER MEASUREMENTS

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

Name & Address:
GUM CREEK FARMS INC
WILLIAM HEAD
5070 S. RD K
VALE OR 97918

RE: Required Water Level Report for Well(s) on Permit: G - 13533

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. *Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.* We strongly recommend that you photocopy a blank copy of this form for use in subsequent years to comply with the permit requirements. Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Owner's Well Name or Number (if any): #15
Well ID (number on tag attached to casing, if present):
Well Log Startcard Number (if listed on well log):
Well Depth: 342 Casing Diameter: 12"
Date Drilled: 10-8-1980 Driller: ~~[illegible]~~ PIONEER WATER DEVELOPMENT INC.

Show all water rights listing this well:
Application Number(s): G 14461
Permit Number(s): G 13533

Date of Measurement: 3-31-99
Description of Measuring Point (e.g. 3/4" access port in sanitary seal): 1½" ACCESS PORT

Static Water Level above (below) (circle one) Measuring Point: 112.0 feet or airline pressure ____ psi
Measuring Point Distance (above) below (circle one) Land Surface: 1.0 feet or airline length ____ feet
Static Water Level above / (below) (circle one) Land Surface: 111.0 feet
Shut-in Pressure (if flowing artesian well): ____ psi

Water-Level Status When Measured: Static X Pumping ___ Recovering ___
Length of Time Well was Idle Before Measurement: 5 months
Method of Measurement: E-tape ✓ Airline ___ Other (specify) ____
Calculation/Comments (show all work):

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person Making Measurement (print): HERB BOWMAN
Signature of Person Making Measurement: Herbert H. Bowman
Organization: BOWMAN DRILLING Daytime phone number: 541 473 2508

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

Name & Address:
GUM CREEK FARMS INC
WILLIAM HEAD
5070 S. R.I K
VALE OR 97918

RE: Required Water Level Report for Well(s) on Permit: G - 13533

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. *Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.* We strongly recommend that you photocopy a blank copy of this form for use in subsequent years to comply with the permit requirements. Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Owner's Well Name or Number (if any): #17
Well ID (number on tag attached to casing, if present): L 06223
Well Log Startcard Number (if listed on well log): W - 47701
Well Depth: 370' Casing Diameter: 16"
Date Drilled: 10-17-96 Driller: HERBERT BOWMAN

Show all water rights listing this well:
Application Number(s): G - 14461
Permit Number(s): G - 13533

Date of Measurement: 3-31-99
Description of Measuring Point (e.g. 3/4" access port in sanitary seal): 1½" ACCESS PORT

Static Water Level above / (below) (circle one) Measuring Point: 105.4 feet or airline pressure ____ psi
Measuring Point Distance (above) / below (circle one) Land Surface: 1.0 feet or airline length ____ feet
Static Water Level above / (below) (circle one) Land Surface: 104.4 feet
Shut-in Pressure (if flowing artesian well): ____ psi

Water-Level Status When Measured: Static ✓ Pumping ___ Recovering ___
Length of Time Well was Idle Before Measurement: 5 months
Method of Measurement: E-tape ✓ Airline ___ Other (specify) ____
Calculation/Comments (show all work): ____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person Making Measurement (print): HERB BOWMAN
Signature of Person Making Measurement: Herbert H. Bowman
Organization: BOWMAN DRILLING Daytime phone number: 541 473 2508

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

Name & Address:
GUM CREEK FARMS INC
WILLIAM HEAD
5070 S. RT K
VALE OR 97918

RE: Required Water Level Report for Well(s) on Permit: G - 13533

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. *Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.* We strongly recommend that you photocopy a blank copy of this form for use in subsequent years to comply with the permit requirements. Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Owner's Well Name or Number (if any): #18
Well ID (number on tag attached to casing, if present):
Well Log Startcard Number (if listed on well log): 47681
Well Depth: 360' Casing Diameter: 16"
Date Drilled: 8-10-93 Driller: HERBERT BOWMAN

Show all water rights listing this well:
Application Number(s): G-14461
Permit Number(s): G 13533

Date of Measurement: 3-31-99
Description of Measuring Point (e.g. 3/4" access port in sanitary seal): 1/4" ACCESS PORT

Static Water Level above / below (circle one) Measuring Point: 224.7 feet or airline pressure psi
Measuring Point Distance above / below (circle one) Land Surface: 1.0 feet or airline length feet
Static Water Level above / below (circle one) Land Surface: 223.7 feet
Shut-in Pressure (if flowing artesian well): psi

Water-Level Status When Measured: Static V Pumping Recovering
Length of Time Well was Idle Before Measurement: 5 MONTHS
Method of Measurement: E-tape V Airline Other (specify)
Calculation/Comments (show all work):

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person Making Measurement (print): HERB BOWMAN
Signature of Person Making Measurement: Herbert H. Bowman
Organization: BOWMAN DRILLING Daytime phone number: 541 473 2508

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Departme
Commerce Buildi
158 12th Street N
Salem, OR 97310-02
(503) 378-37
FAX (503) 378-81

Name & Address:
GUM CREEK FARMS INC
WILLIAM HEAD
5070 S. RD K
VALE OR 97918

RE: Required Water Level Report for Well(s) on Permit: G - 13533

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. *Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.* We strongly recommend that you photocopy a blank copy of this form for use in subsequent years to comply with the permit requirements. Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Owner's Well Name or Number (if any): #19
Well ID (number on tag attached to casing, if present):
Well Log Startcard Number (if listed on well log): 47695
Well Depth: 310' Casing Diameter: 12"
Date Drilled: 4-12-96 Driller: HERBERT BOWMAN

Show all water rights listing this well:
Application Number(s): G-14461
Permit Number(s): G-13533

Date of Measurement: 3-31-99
Description of Measuring Point (e.g. 3/4" access port in sanitary seal): 1½ ACCESS PORT

Static Water Level above / below (circle one) Measuring Point: 97.8 feet or airline pressure psi
Measuring Point Distance above / below (circle one) Land Surface: 1-0 feet or airline length feet
Static Water Level above / below (circle one) Land Surface: 96.8 feet
Shut-in Pressure (if flowing artesian well): psi

Water-Level Status When Measured: Static ✓ Pumping Recovering
Length of Time Well was Idle Before Measurement: 5 months
Method of Measurement: E-tape ✓ Airline Other (specify)
Calculation/Comments (show all work):

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.
Person Making Measurement (print): HERB BOWMAN
Signature of Person Making Measurement: Herbert N. Bowman
Organization: BOWMAN DRILLING Daytime phone number: 541 473 2508

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Departme
Commerce Buildi
158 12th Street I
Salem, OR 97310-0
(503) 378-3
FAX (503) 378-8

Name & Address:
GUM CREEK FARMS INC
WILLIAM HEAD
5070 S. R.I K
VALE OR 97918

RE: Required Water Level Report for Well(s) on Permit: G - 13533

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. *Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.* We strongly recommend that you photocopy a blank copy of this form for use in subsequent years to comply with the permit requirements. Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Owner's Well Name or Number (if any): # 20
Well ID (number on tag attached to casing, if present): L 06224
Well Log Startcard Number (if listed on well log): W-17048
Well Depth: 310' Casing Diameter: 16"
Date Drilled: 11-19-96 Driller: HERBERT BOWMAN

Show all water rights listing this well:
Application Number(s): G - 14461
Permit Number(s): G - 13533

Date of Measurement: 3-31-99
Description of Measuring Point (e.g. 3/4" access port in sanitary seal): 1½" ALUM PORT

Static Water Level above / (below) (circle one) Measuring Point: 109.9 feet or airline pressure ____ psi
Measuring Point Distance (above) / below (circle one) Land Surface: 1.0 feet or airline length ____ feet
Static Water Level above / (below) (circle one) Land Surface: 108.9 feet
Shut-in Pressure (if flowing artesian well): ____ psi

Water-Level Status When Measured: Static V Pumping ___ Recovering ___
Length of Time Well was Idle Before Measurement: 5 months
Method of Measurement: E-tape V Airline ___ Other (specify) ____
Calculation/Comments (show all work): ____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person Making Measurement (print): HERB BOWMAN
Signature of Person Making Measurement: Herbert H. Bowman
Organization: BOWMAN DRILLING Daytime phone number: 541 473 2508

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 1

Listed on water right as: WELL 15 16.00S43.00E 7NWSW

Legal location: 2655 FEET SOUTH & 116 FEET EAST FROM NW CORNER, SECTION 7

Well log ID (if any, in our records): **MALH 226**

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):

Original owner of well (owner name on well log): ~~Gum~~ GUM CREEK FARMS INC

Owner's well name or number (if any): #15

Well ID (number on tag attached to casing, if present): _____

Well log startcard number (if listed on well log): _____

Well depth: 342 Casing diameter: 12"

Date drilled: 10-8-1980 driller: PIONEER WATER DEVELOPMENT INC.

Show all water rights listing this well:

Application number(s): G 14461

Permit number(s): G 13533

Certificate number(s): _____

Date of measurement: 3-31-00

Description of measuring point (e.g. 3/4" access port in sanitary seal): 1 1/2 ACCESS PORT

Static water level **above** / **below** (circle one) measuring point: 121.1 feet or airline pressure _____ psi

Measuring point distance **above** / **below** (circle one) land surface: 1.0 feet or airline length _____ feet

Static water level **above** / **below** (circle one) land surface: 120.1 feet

Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape X Airline ____ Other(specify): _____

Water-level status when measured: Static X Pumping ____ Recovering ____ Flowing ____

Length of time well was idle before measurement: 6 MONTHS

Calculation / comments (show all work; use back or extra sheet if necessary): _____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): John G Tucker

Signature of measurer: John G Tucker

Company: Willamette Drilling Inc.

License number (CWRE, RG, Well Constructor): _____

Daytime phone number: 541 473-2803 Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 2

Listed on water right as: WELL 17 16.00S43.00E 7NWSW

Legal location: 2828 FEET SOUTH & 1097 FEET EAST FROM NW CORNER, SECTION 7

Well log ID (if any, in our records): **MALH 50388**

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):

Original owner of well (owner name on well log): GUM CREEK FARMS INC
Owner's well name or number (if any): #17
Well ID (number on tag attached to casing, if present): L 06223
Well log startcard number (if listed on well log): W-47701
Well depth: 370 Casing diameter: 16"
Date drilled: 10-17-96 driller: HERBERT BOWMAN

Show all water rights listing this well:

Application number(s): G-14461
Permit number(s): G-13533
Certificate number(s):

Date of measurement: 12-31-00
Description of measuring point (e.g. 3/4" access port in sanitary seal): 1½ ACCESS PORT

Static water level **above** / **below** (circle one) measuring point: 112.1 feet or airline pressure _____ psi
Measuring point distance **above** / **below** (circle one) land surface: 1.0 feet or airline length _____ feet
Static water level **above** / **below** (circle one) land surface: 111.1 feet
Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape V Airline ____ Other(specify): _____
Water-level status when measured: Static V Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 6 months.
Calculation / comments (show all work; use back or extra sheet if necessary): _____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): JOHN G. TUCKE
Signature of measurer: John G. Tucke
Company: _____
License number (CWRE, RG, Well Constructor): _____
Daytime phone number: _____ Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207 or toll free (within Oregon only) at 1-800-624-3199

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 3

Listed on water right as: WELL 18 16.00S43.00E 7NWNW

Legal location: 769 FEET SOUTH & 32 FEET EAST FROM NW CORNER, SECTION 7

Well log ID (if any, in our records): **MALH 2926**

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):

Original owner of well (owner name on well log): GUM CREEK FARMS INC

Owner's well name or number (if any): #18

Well ID (number on tag attached to casing, if present): _____

Well log startcard number (if listed on well log): 47681

Well depth: 360' Casing diameter: 16"

Date drilled: 8-10-93 driller: HERBERT BOWMAN

Show all water rights listing this well:

Application number(s): G-14461 _____ _____ _____ _____

Permit number(s): G-13533 _____ _____ _____ _____

Certificate number(s): _____ _____ _____ _____ _____

Date of measurement: 3-31-00

Description of measuring point (e.g. 3/4" access port in sanitary seal): 1/2 ACCESS PORT.

Static water level **above** / **below** (circle one) measuring point: 229.5 feet or airline pressure _____ psi

Measuring point distance **above** / **below** (circle one) land surface: 1.0 feet or airline length _____ feet

Static water level **above** / **below** (circle one) land surface: 228.5 feet

Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): _____

Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____

Length of time well was idle before measurement: 6 months.

Calculation / comments (show all work; use back or extra sheet if necessary): _____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): JOHN G TUCKER

Signature of measurer: John G Tucker

Company: _____

License number (CWRE, RG, Well Constructor): _____

Daytime phone number: _____ Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199

Oregon

John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 4

Listed on water right as: WELL 19 16.00S43.00E 7SWNW

Legal location: 2286 FEET SOUTH & 24 FEET EAST FROM NW CORNER, SECTION 7

Well log ID (if any, in our records): **MALH 50143**

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):

Original owner of well (owner name on well log): GUM CREEK FARMS INC

Owner's well name or number (if any): #19

Well ID (number on tag attached to casing, if present): _____

Well log startcard number (if listed on well log): 47695

Well depth: 310 Casing diameter: 12"

Date drilled: 4-12-96 driller: HERBERT BOWMAN

Show all water rights listing this well:

Application number(s): G14461

Permit number(s): G-13533

Certificate number(s): _____

Date of measurement: 3-31-00

Description of measuring point (e.g. 3/4" access port in sanitary seal): 1½ ACCESS PORT.

Static water level **above** / **below** (circle one) measuring point: 108.7 feet or airline pressure _____ psi

Measuring point distance **above** / **below** (circle one) land surface: 1.0 feet or airline length _____ feet

Static water level **above** / **below** (circle one) land surface: 107.7 feet

Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): _____

Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____

Length of time well was idle before measurement: 6 months.

Calculation / comments (show all work; use back or extra sheet if necessary): _____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): JOHN G. TUCKER

Signature of measurer: John G Tucker

Company: _____

License number (CWRE, RG, Well Constructor): _____

Daytime phone number: _____ Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207, or toll free (within Oregon only) at 1-800-624-3199.

Oregon
John A. Kitzhaber, M.D., Governor

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 5

Listed on water right as: WELL 20 16.00S43.00E 7SWNW

Legal location: 1588 FEET SOUTH & 50 FEET EAST FROM NW CORNER, SECTION 7

Well log ID (if any, in our records): **MALH 50414**

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit which requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** Place any additional information on an attached sheet of paper. We also recommend that you keep a copy of all measurement reports for your records. All measurements should be made to the nearest tenth of a foot or to the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT

(Complete one form for each well)

Well Identification (provide as much of the following information as possible):

Original owner of well (owner name on well log): GUM CREEK FARMS INC
Owner's well name or number (if any): #20
Well ID (number on tag attached to casing, if present): L 06224
Well log startcard number (if listed on well log): W-17048
Well depth: 310' Casing diameter: 16"
Date drilled: 11-19-96 driller: HERBERT BOWMAN

Show all water rights listing this well:

Application number(s): G-14461
Permit number(s): G-13533
Certificate number(s):

Date of measurement: 3-31-00
Description of measuring point (e.g. 3/4" access port in sanitary seal): 1½ ACCESS PORT

Static water level **above** / **below** (circle one) measuring point: 120.7 feet or airline pressure _____ psi
Measuring point distance **above** / **below** (circle one) land surface: 1.0 feet or airline length _____ feet
Static water level **above** / **below** (circle one) land surface: 119.7 feet
Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): _____
Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 6 months.
Calculation / comments (show all work; use back or extra sheet if necessary): _____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): John G Tucker
Signature of measurer: John G Tucker
Company: _____
License number (CWRE, RG, Well Constructor): _____
Daytime phone number: _____ Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at 503-378-8455 ext. 207 or toll free (within Oregon only) at 1-800-624-3199

Oregon Water Resources Department
PERMIT CONDITION WATER-LEVEL REPORTING FORM

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 1 Application G 14461

Listed on water right as: WELL 15 Well log ID (if any, in our records): MALH 226 Priority date: 2/18/1997
Location: In the NW quarter of the SW quarter of Section 7, Township 16S, Range 43E
2655 FEET SOUTH & 116 FEET EAST FROM NW CORNER, SECTION 7

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit that requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** We recommend that you keep a copy of all measurement reports for your records. All measurements should be made to at least the nearest tenth of a foot or the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT
(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Original owner of well (owner name on well log): GUM CRAIK FARMS INC
Owner's well name or number (if any): # 15
Well ID (number on tag attached to casing, if present):
Well log startcard number (if listed on well log):
Well depth: 342 Casing diameter: 12
Date drilled: 10-8-1980 Driller: PIONEER WATER DEVELOPMENT INC

When did water use begin under this permit from this well? Date: Month/Yr. MAY 100

Show all water rights listing this well:
Application number(s): G-14461
Permit number(s): G-13533
Certificate number(s):

Date of measurement: 3-30-01
Description of measuring point (e.g. 1 1/4" port pipe on north side): 1½" ACCESS PORT

Static water level **above / below** (circle one) measuring point: 123.9 feet, or airline pressure ____ psi
Measuring point distance **above / below** (circle one) land surface: 1.0 feet, or airline length ____ feet
Static water level **above / below** (circle one) land surface: 122.9 feet
Shut-in pressure (if flowing artesian well): ____ psi

Method of measurement: E-tape X Airline ____ Other(specify): ____
Water-level status when measured: Static X Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 5 mo.
Calculation / comments (show all work; use back or extra sheet if necessary):

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.
Person making measurement (print): John G. Tucker
Signature of measurer: John G. Tucker
Company: Willow Creek Drilling
License number (CWRE, RG, PE, WWC, Pump Installer): 116560 - 1485
Daytime phone number: 541 473-2803 Email address:

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have any questions about this notice, please call the Ground Water/Hydrology Section of the Department at 503- 378-8455 ext. 289, or toll free (within Oregon only) at 1-800-624-3199. Return this Form to 158 12th St. NE, Salem, OR 97310-4172.

Oregon Water Resources Department
PERMIT CONDITION WATER-LEVEL REPORTING FORM

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 2 Application G 14461

Listed on water right as: WELL 17 Well log ID (if any, in our records): MALH 50388 Priority date: 2/18/1997
Location: In the NW quarter of the SW quarter of Section 7, Township 16S, Range 43E
2828 FEET SOUTH & 1097 FEET EAST FROM NW CORNER, SECTION 7

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit that requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** We recommend that you keep a copy of all measurement reports for your records. All measurements should be made to at least the nearest tenth of a foot or the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT
(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Original owner of well (owner name on well log): Gum Creek Farms Inc
Owner's well name or number (if any): #17
Well ID (number on tag attached to casing, if present): L 06 223
Well log startcard number (if listed on well log): W - 47701
Well depth: 370 Casing diameter: 16"
Date drilled: 10-17-96 Driller: Herbert Bowman

When did water use begin under this permit from this well? Date: Month/Yr. MAY / 2000
Show all water rights listing this well:
Application number(s): G-14461
Permit number(s): G 13533
Certificate number(s):

Date of measurement: 3-30-01
Description of measuring point (e.g. 1 1/4" port pipe on north side): 1 1/2 ACCESS PORT

Static water level **above / below** (circle one) measuring point: 118.9 feet, or airline pressure ____ psi
Measuring point distance **above / below** (circle one) land surface: 1.0 feet, or airline length ____ feet
Static water level **above / below** (circle one) land surface: 117.9 feet
Shut-in pressure (if flowing artesian well): ____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): ____
Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 5 months
Calculation / comments (show all work; use back or extra sheet if necessary): ____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.
Person making measurement (print): John C Tuckness
Signature of measurer: John C Tuckness
Company: Willamette Drain
License number (CWRE, RG, PE, WWC, Pump Installer): 10540 / 1485
Daytime phone number: 541 473 2803 Email address: ____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have any questions about this notice, please call the Ground Water/Hydrology Section of the Department at 503-378-8455 ext. 289, or toll free (within Oregon only) at 1-800-624-3199. **Return this Form to 158 12th St. NE, Salem, OR 97310-4172.**

Oregon Water Resources Department
PERMIT CONDITION WATER-LEVEL REPORTING FORM

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 3 Application G 14461

Listed on water right as: WELL 18 Well log ID (if any, in our records): MALH 2926 Priority date: 2/18/1997

Location: In the NW quarter of the NW quarter of Section 7, Township 16S, Range 43E
769 FEET SOUTH & 32 FEET EAST FROM NW CORNER, SECTION 7

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit that requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** We recommend that you keep a copy of all measurement reports for your records. All measurements should be made to at least the nearest tenth of a foot or the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT
(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Original owner of well (owner name on well log): GUM CREEK FARMS INC.
Owner's well name or number (if any): #18
Well ID (number on tag attached to casing, if present):
Well log startcard number (if listed on well log): 47681
Well depth: 360' Casing diameter: 16"
Date drilled: 8-10-93 Driller: HERBERT BOWMAN

When did water use begin under this permit from this well? Date: Month/Yr. MAY/ 2000
Show all water rights listing this well:
Application number(s): G 14461
Permit number(s): G 13533
Certificate number(s):

Date of measurement: 3-30-01
Description of measuring point (e.g. 1 1/4" port pipe on north side): 1/2 ACCESS PORT

Static water level **above / below** (circle one) measuring point: 233.7 feet, or airline pressure _____ psi
Measuring point distance **above / below** (circle one) land surface: 1.0 feet, or airline length _____ feet
Static water level **above / below** (circle one) land surface: 232.7 feet
Shut-in pressure (if flowing artesian well): _____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): _____
Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 5 Months
Calculation / comments (show all work; use back or extra sheet if necessary):

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.
Person making measurement (print): John G. Tucker
Signature of measurer: John G. Tucker
Company: Willamette Survey
License number (CWRE, RG, PE, WWC, Pump Installer): 16560 / 1485
Daytime phone number: _____ Email address: _____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have any questions about this notice, please call the Ground Water/Hydrology Section of the Department at 503-378-8455 ext. 289, or toll free (within Oregon only) at 1-800-624-3199. **Return this Form to 158 12th St. NE, Salem, OR 97310-4172.**

Oregon Water Resources Department
PERMIT CONDITION WATER-LEVEL REPORTING FORM

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 4 Application G 14461

Listed on water right as: WELL 19 Well log ID (if any, in our records): MALH 50143 Priority date: 2/18/1997

Location: In the SW quarter of the NW quarter of Section 7, Township 16S, Range 43E
2286 FEET SOUTH & 24 FEET EAST FROM NW CORNER, SECTION 7

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit that requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** We recommend that you keep a copy of all measurement reports for your records. All measurements should be made to at least the nearest tenth of a foot or the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT
(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Original owner of well (owner name on well log): GUM CREEK FARMS INC.
Owner's well name or number (if any): #19
Well ID (number on tag attached to casing, if present):
Well log startcard number (if listed on well log): 47695
Well depth: 310 Casing diameter: 12"
Date drilled: 4-12-96 Driller: HERBERT BOWMAN

When did water use begin under this permit from this well? Date: Month/Yr. MAY / 2000

Show all water rights listing this well:
Application number(s): G 14461
Permit number(s): G 13533
Certificate number(s):

Date of measurement: 3-30-01
Description of measuring point (e.g. 1 1/4" port pipe on north side): 1 1/2 ACCESS PORT

Static water level **above / below** (circle one) measuring point: 114.5 feet, or airline pressure ____ psi
Measuring point distance **above / below** (circle one) land surface: 1.0 feet, or airline length ____ feet
Static water level **above / below** (circle one) land surface: 113.5 feet
Shut-in pressure (if flowing artesian well): ____ psi

Method of measurement: E-tape V Airline ____ Other(specify): ____
Water-level status when measured: Static V Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 5 months
Calculation / comments (show all work; use back or extra sheet if necessary):

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.
Person making measurement (print): John G-Tuck-
Signature of measurer: John G Tuck
Company: Whitlow Creek
License number (CWRE, RG, PE, WWC, Pump Installer): 11656O / 1485
Daytime phone number: Email address:

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have any questions about this notice, please call the Ground Water/Hydrology Section of the Department at 503- 378-8455 ext. 289, or toll free (within Oregon only) at 1-800-624-3199. **Return this Form to 158 12th St. NE, Salem, OR 97310-4172.**

Oregon Water Resources Department
PERMIT CONDITION WATER-LEVEL REPORTING FORM

RE: Required Water Level Report for a Well on Permit G 13533 Certificate 0 Pod 5 Application G 14461

Listed on water right as: WELL 20 Well log ID (if any, in our records): MALH 50414 Priority date: 2/18/1997

Location: In the SW quarter of the NW quarter of Section 7, Township 16S, Range 43E
1588 FEET SOUTH & 50 FEET EAST FROM NW CORNER, SECTION 7

GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE OR 97918

Our records indicate that you are the holder of a groundwater permit that requires that you periodically measure and report static water levels in your well(s). If you are no longer the holder of this permit or no longer have an interest in it, please contact our department. **Consult your permit to determine the required times for measuring and reporting, as well as any requirements regarding who may make the measurements.** We recommend that you keep a copy of all measurement reports for your records. All measurements should be made to at least the nearest tenth of a foot or the nearest inch (e.g. 10.2 feet or 10 feet 3 inches).

MEASUREMENT REPORT
(Complete one form for each well)

Well Identification (provide as much of the following information as possible):
Original owner of well (owner name on well log): GUM CREEK FARMS INC
Owner's well name or number (if any): #20
Well ID (number on tag attached to casing, if present): L 06 224
Well log startcard number (if listed on well log): W-17048
Well depth: 310' Casing diameter: 16'
Date drilled: 11-19-96 Driller: HERBERT BOWMAN

When did water use begin under this permit from this well? Date: Month/Yr. MAY/2000

Show all water rights listing this well:
Application number(s): G 14461
Permit number(s): G 13533
Certificate number(s):

Date of measurement: 3-30-01
Description of measuring point (e.g. 1 1/4" port pipe on north side): 1 1/2 ACCESS PORT

Static water level **above / below** (circle one) measuring point: 124.9 feet, or airline pressure ____ psi
Measuring point distance **above / below** (circle one) land surface: 1.0 feet, or airline length ____ feet
Static water level **above / below** (circle one) land surface: 123.9 feet
Shut-in pressure (if flowing artesian well): ____ psi

Method of measurement: E-tape ✓ Airline ____ Other(specify): ____
Water-level status when measured: Static ✓ Pumping ____ Recovering ____ Flowing ____
Length of time well was idle before measurement: 5 months
Calculation / comments (show all work; use back or extra sheet if necessary): ____

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Person making measurement (print): John G Tucker
Signature of measurer: John G Tucker
Company: Willowcreek Surveying Inc.
License number (CWRE, RG, PE, WWC, Pump Installer): 11660 / 1485
Daytime phone number: ____ Email address: ____

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

If you have any questions about this notice, please call the Ground Water/Hydrology Section of the Department at 503-378-8455 ext. 289, or toll free (within Oregon only) at 1-800-624-3199. **Return this Form to 158 12th St. NE, Salem, OR 97310-4172.**

PUMP TESTS

Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: GUM CREEK FARMS INC.
Address: 5070 S Rd K.
County: MALHEUR
City: VALE State: OR Zip: 97918
Original owner (from well log): GUM CREEK FARMS INC

Well Location:
Township: 16 S (N/S) Range: 43 E (E/W)
Section: 7 ¼: ___ 1/16: ___ 1/64: ___.
Well depth: 396' Date drilled: 10/19/1980
Owners well no. (if any): 15
POD ID: 47860

Water Right Information:
Application: G-14461 Permit: G-13533 Certificate: ___
Is this well listed on more than one water right? NO ☐ Yes If yes, list additional water rights below:
Application: ___ Permit: ___ Certificate: ___
Application: ___ Permit: ___ Certificate: ___

Pump Test:
Test Conducted by: KENNETH JENSEN Well Owner? ☑ Yes
Company: GUM CREEK FARMS INC
Address: 5070 S. Rd K. Date of Test: 12-13-2004
City: VALE State: OR Zip: 97918.
Daytime phone: 541 473-3135

Method of discharge measurement (see our brochure for acceptable methods): FLOW METER
Method of water-level measurement (pick one or enter other method used): ELECTRIC LINE
Length of air line (if used): ___.

Pump type (pick one or enter other method used): LINESHAFT TURBINE
Was the pump test conducted during normal use of the well? ☒ Yes Note: ___

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☐ Yes Note: ___
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: ___

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: ___ ft Approx. elevation difference: ___ ft

Well elevation is ___ surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) TOP OF PORT 1½ PIPE

Measuring point distance ABOVE land surface 1.0 feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
7:35	144.7 FT	143.7 FT
7:55	144.7	143.7
8:15	144.7	143.7

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
8:37	600 gpm	gpm
9:35	425	gpm
10:35	425	gpm
11:35	425	gpm
12:35	425	gpm

Time pump turned on: Date 12-13-2004 Time 8:35 AM
Time pump turned off: Date 12-13-2004 Time 12:35 PM
Total pumping time: 4 hours 0 minutes

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: Kenneth Jensen

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Oregon Water Resources Department

PUMP TEST DATA SHEET

Page _____ of _____

Application: G-14461 Permit: G-13533 Certificate: _____ Pod_Id: 47860

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-13-04	8:35	0	144.7	143.7	
	8:37	2	158.2	157.2	
	8:39	4	159.3	158.3	
	8:41	6	160.3	159.3	
	8:43	8	161.3	160.3	
	8:45	10	161.8	160.8	
	8:50	15	162.8	161.8	
	8:55	20	163.0	162.0	
	9:00	25	163.2	162.2	
	9:05	30	163.3	162.3	
	9:20	45	163.5	162.5	
	9:35	60	163.6	162.6	
	9:50	75	163.7	162.7	
	10:05	90	163.8	162.8	
	10:20	105	163.8	162.8	
	10:35	120	163.8	162.8	
	10:50	135	163.8	162.8	
	11:05	150	163.8	162.8	
	11:20	165	163.8	162.8	
	11:35	180	163.8	162.8	
	11:50	195	163.8	162.8	
	12:05	210	163.8	162.8	
	12:20	225	163.8	162.8	
	12:35	240	163.8	162.8	

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-13-04	12:35	0	163.8	162.8	
	12:37	2	154.6	153.6	
	12:39	4	153.6	152.6	
	12:41	6	153.3	152.3	
	12:43	8	152.7	151.7	
	12:45	10	152.0	151.0	
	12:50	15	151.0	150.0	
	12:55	20	150.6	149.6	
	13:00	25	150.1	149.1	
	13:05	30	149.4	148.4	
	13:20	45	148.5	147.5	
	13:35	60	147.5	146.5	
	13:50	75	146.7	145.7	
	14:05	90	146.1	145.1	

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: GUM CREEK FARMS INC.
Address: 5070 S. RD K.
County: MALHEUR
City: VALE State: OR Zip: 97918
Original owner (from well log): GUM CREEK FARMS INC.

Well Location:
Township: 16 S (N/S) Range: 43 E (E/W)
Section: ___ ¼: ___ 1/16: ___ 1/64: ___.
Well depth: 370 Date drilled: 10-17-96
Owners well no. (if any): 17
POD ID: 47861

Water Right Information:
Application: G-14461 Permit: G-13533 Certificate: ___
Is this well listed on more than one water right? ☐ Yes If yes, list additional water rights below:
Application: ___ Permit: ___ Certificate: ___
Application: ___ Permit: ___ Certificate: ___

Pump Test:
Test Conducted by: KENNETH JENSEN Well Owner? ☑ Yes
Company: GUM CREEK FARMS INC.
Address: 5070 SRD K. Date of Test: 11-11-2004
City: VALE State: OR Zip: 97918.
Daytime phone: 541 473-3135

Method of discharge measurement (see our brochure for acceptable methods): FLOW METER
Method of water-level measurement (pick one or enter other method used): ELECTRIC LINE
Length of air line (if used): ___.

Pump type (pick one or enter other method used): LINESHAFT TURBINE
Was the pump test conducted during normal use of the well? ☒ Yes Note: ___

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☐ Yes Note: ___
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: ___

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: ___ ft Approx. elevation difference: ___ ft

Well elevation is ___ surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) TOP OF PORT 1½ P. DE

Measuring point distance ABOVE land surface 1.0 feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
9:20	138.2	137.2
9:40	138.2	137.2
10:00	138.2	137.2

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
10:22	800	gpm
10:20	640	gpm
12:20	625	gpm
13:20	610	gpm
14:20	610	gpm

Time pump turned on: Date 10-11-2004 Time 10:20 am
Time pump turned off: Date 11-11-2004 Time 14:20
Total pumping time: 4 hours 0 minutes

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: Kenneth Jensen

Oregon Water Resources Department

PUMP TEST DATA SHEET

Page _____ of _____

Application: G-14461 Permit: G-13533 Certificate: _____ Pod_Id: 47861

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
11-11-04	10:20	0	138.2	137.2	
	10:22	2	164.8	163.8	
	10:24	4	172.1	171.1	
	10:26	6	178.0	177.0	
	10:28	8	182.9	181.9	
	10:30	10	186.5	185.5	
	10:35	15	192.5	191.5	
	10:40	20	197.0	196.0	
	10:45	25	199.9	198.9	
	10:50	30	202.5	201.5	
	11:05	45	207.0	206.0	
	11:20	60	209.8	208.8	
	11:35	75	211.4	210.4	
	11:50	90	212.8	211.8	
	12:05	105	214.1	213.1	
	12:20	120	215.0	214.0	
	12:35	135	215.8	214.8	
	12:50	150	216.3	215.3	
	13:05	165	216.7	215.7	
	13:20	180	216.9	215.9	
	13:35	195	217.3	216.3	
	13:50	210	217.6	216.6	
	14:05	225	217.9	216.9	
	14:20	240	218.2	217.2	

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
11-11-04	14:20	0	218.2	217.2	
	14:22	2	197.5	196.5	
	14:24	4	191.8	190.8	
	14:26	6	187.3	186.3	
	14:28	8	183.6	182.6	
	14:30	10	180.4	179.4	
	14:35	15	174.8	173.8	
	14:40	20	170.6	169.6	
	14:45	25	167.5	166.5	
	14:50	30	165.7	164.7	
	15:05	45	160.0	159.0	
	15:20	60	156.6	155.6	
	15:35	75	153.0	152.0	
	15:50	90	151.0	150.0	
	16:05	105	149.5	148.5	
	16:20	120	148.3	147.3	
	16:35	135	147.2	146.2	
	16:50	150	146.4	145.4	
	16:55	155	146.1	145.1	

Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: GUM CREEK FARMS INC
Address: 5070 S. Rd K.
County: MALHEUR
City: VALE State: OR Zip: 97918
Original owner (from well log): GUM CREEK FARMS INC

Well Location:
Township: 16 S (N/S) Range: 43 E (E/W)
Section: ___ ¼: ___ 1/16: ___ 1/64: ___.
Well depth: 360' Date drilled: 8-10-93
Owners well no. (if any): 18
POD ID: 47862

Water Right Information:
Application: G-14461 Permit: G-13533 Certificate: ___
Is this well listed on more than one water right? ☐ Yes If yes, list additional water rights below:
Application: ___ Permit: ___ Certificate: ___
Application: ___ Permit: ___ Certificate: ___

Pump Test:
Test Conducted by: KENNETH JENSEN Well Owner? ☐ Yes
Company: GUM CREEK FARMS INC.
Address: 5070 S. Rd K Date of Test: 12-2-2004
City: VALE State: OR Zip: 97918.
Daytime phone: 541 473-3135

Method of discharge measurement (see our brochure for acceptable methods): FLOW METER
Method of water-level measurement (pick one or enter other method used): ELECTRIC LINE
Length of air line (if used): ___.

Pump type (pick one or enter other method used): LINE SHAFT TURBINE
Was the pump test conducted during normal use of the well? ☐ Yes Note: ___

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☒ Yes Note: ___
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: ___

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: ___ ft Approx. elevation difference: ___ ft

Well elevation is ___ surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) TOP OF PART 1 1/2 PIPE

Measuring point distance ABOVE land surface 1.0 feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
8:30	242.2	241.2
8:50	242.2	241.2
9:10	242.2	241.2

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
9:32	600	gpm
10:30	460	gpm
11:30	460	gpm
12:30	450	gpm
13:30	450	gpm

Time pump turned on: Date 12-2-2004 Time 9:30
Time pump turned off: Date 12-2-2004 Time 1:30
Total pumping time: 4 hours 0 minutes

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: Kenneth Jensen

Oregon Water Resources Department

PUMP TEST DATA SHEET

Page _____ of _____

Application: G-14461 Permit: G-13533 Certificate: _____ Pod_Id: 47862

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-2-04	9:30	0	242.2	241.2	
	9:32	2	264.5	263.5	
	9:34	4	270.4	269.4	
	9:36	6	274.1	273.1	
	9:38	8	277.2	276.2	
	9:40	10	279.7	278.7	
	9:45	15	283.1	282.1	
	9:50	20	285.2	284.2	
	9:55	25	286.9	285.9	
	10:00	30	288.2	287.2	
	10:15	45	291.1	290.1	
	10:30	60	293.5	292.5	
	10:45	75	295.3	294.3	
	11:00	90	296.9	295.9	
	11:15	105	298.3	297.3	
	11:30	120	299.4	298.4	
	11:45	135	300.1	299.1	
	12:00	150	300.7	299.7	
	12:15	165	301.2	300.2	
	12:30	180	301.6	300.6	
	12:45	195	302.0	301.0	
	13:00	210	302.1	301.1	
	13:15	225	302.2	301.2	
	13:30	240	302.2	301.2	

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-2-04	13:30	0	302.2	301.2	
	13:32	2	283.1	282.1	
	13:34	4	279.2	278.2	
	13:36	6	276.1	275.1	
	13:38	8	273.5	272.5	
	13:40	10	271.3	270.3	
	13:45	15	267.4	266.4	
	13:50	20	264.5	263.5	
	13:55	25	262.4	261.4	
	14:00	30	261.0	260.0	
	14:15	45	257.2	256.2	
	14:30	60	254.7	253.7	
	14:45	75	252.6	251.6	
	15:00	90	251.0	250.0	
	15:15	105	250.0	249.0	
	15:30	120	249.2	248.2	
	15:45	135	248.4	247.4	
	16:00	150	247.9	246.9	

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Additional forms can be obtained from our web site at: http://www.wrd.state.or.us

OWRD 2/9/2000

Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: GUM CREEK FARMS INC.
Address: 5070 S. Rd K.
County: MALHEUR
City: VALE State: OR Zip: 97918
Original owner (from well log): GUM CREEK FARMS INC.

Well Location:
Township: 16 S (N/S) Range: 43 E (E/W)
Section: ____ ¼: ____ 1/16: ____ 1/64: ____.
Well depth: 310' Date drilled: 4-12-96
Owners well no. (if any): 19
POD ID: 47863

Water Right Information:
Application: G-14421 Permit: G-13533 Certificate: ____
Is this well listed on more than one water right? ☐ Yes If yes, list additional water rights below:
Application: ____ Permit: ____ Certificate: ____
Application: ____ Permit: ____ Certificate: ____

Pump Test:
Test Conducted by: KENNETH JANSEN Well Owner? ☐ Yes
Company: GUM CREEK FARMS INC
Address: 5070 S. Rd K. Date of Test: 10-29-2004
City: VALE State: OR Zip: 97918.
Daytime phone: 541 473-3135

Method of discharge measurement (see our brochure for acceptable methods): FLOW METER
Method of water-level measurement (pick one or enter other method used): ELECTRIC LINE
Length of air line (if used): ____.

Pump type (pick one or enter other method used): LINE SHAFT TURBINE
Was the pump test conducted during normal use of the well? ☐ Yes Note: ____

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☒ Yes Note: ____
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: ____

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: ____ ft Approx. elevation difference: ____ ft

Well elevation is ____ surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) TOP OF PORT 1½" PIPE

Measuring point distance ABOVE land surface 1.0 feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
8:10	139.6	138.6
8:30	139.6	138.6
8:50	139.6	138.6

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
9:12	460	gpm
10:10	400	gpm
11:10	390	gpm
12:10	390	gpm
13:10	390	gpm

Time pump turned on: Date 10-29-2004 Time 9:10
Time pump turned off: Date 10-29-2004 Time 13:15
Total pumping time: 4 hours 5 minutes

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: Kenneth Jansen

Oregon Water Resources Department

PUMP TEST DATA SHEET

Page _____ of _____

Application: G-14461 Permit: G-13533 Certificate: _____ Pod_Id: 47863

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
10-29-04	9:10	0	139.6	138.6	
	9:12	2	159.2	158.2	
	9:14	4	162.7	161.7	
	9:16	6	164.1	163.1	
	9:18	8	165.0	164.0	
	9:20	10	165.6	164.6	
	9:25	15	167.0	166.0	
	9:30	20	167.7	166.7	
	9:35	25	168.3	167.3	
	9:40	30	169.0	168.0	
	9:55	45	169.9	168.9	
	10:10	60	170.5	169.5	
	10:25	75	170.9	169.9	
	10:40	90	171.3	170.3	
	10:55	105	171.6	170.6	
	11:10	120	171.8	170.8	
	11:25	135	172.1	171.1	
	11:40	150	172.3	171.3	
	11:55	165	172.3	171.3	
	12:10	180	172.3	171.3	
	12:25	195	172.3	171.3	
	12:40	210	172.3	171.3	
	12:55	225	172.3	171.3	
	13:10	240	172.3	171.3	

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
10-29-04	13:15	0	172.3	171.3	
	13:17	2	150.7		
	13:19	4	150.3		
	13:21	6	149.4		
	13:23	8	148.6		
	13:25	10	147.8		
	13:30	15	146.3		
	13:35	20	145.5		
	13:40	25	144.8		
	13:45	30	144.0		
	14:00	45	142.7		
	14:15	60	141.9		
	14:30	75			

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Additional forms can be obtained from our web site at: http://www.wrd.state.or.us

OWRD 2/9/2000

Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: GUM CREEK FARMS INC.
Address: 5070 S. Rd K.
County: MALHEUR
City: VALE State: OR Zip: 97918
Original owner (from well log): _____

Well Location:
Township: 16 S (N/S) Range: 43 E (E/W)
Section: ____ ¼: ____ 1/16: ____ 1/64: ____.
Well depth: _____ Date drilled: _____
Owners well no. (if any): 7
POD ID: _____

Water Right Information:
Application: G-14461 Permit: G-13533 Certificate: _____
Is this well listed on more than one water right? ☐ Yes If yes, list additional water rights below:
Application: _____ Permit: _____ Certificate: _____
Application: _____ Permit: _____ Certificate: _____

Pump Test:
Test Conducted by: KENNETH JENSEN Well Owner? ☐ Yes
Company: GUM CREEK FARMS INC.
Address: 5070 S. Rd K Date of Test: 12-19-2004
City: VALE State: OR Zip: 97918.
Daytime phone: 541 473-3135

Method of discharge measurement (see our brochure for acceptable methods): FLOW METER
Method of water-level measurement (pick one or enter other method used): ELECTRIC LINE
Length of air line (if used): _____.

Pump type (pick one or enter other method used): SUB. TURBINE
Was the pump test conducted during normal use of the well? ☒ Yes Note: _____

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☐ Yes Note: _____
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: _____

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: _____ ft Approx. elevation difference: _____ ft

Well elevation is _____ surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) TOP OF PORT 1½" PIPE

Measuring point distance ABOVE land surface 1.0 feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
9:35	139.3	138.3
~~10:55~~	139.3	138.3
10:15	139.3	138.3

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
10:37	500	GPM
11:35	350	gpm
12:35	350	gpm
13:35	325	gpm
14:35	325	gpm

Time pump turned on: Date 12-19-2004 Time 10:35
Time pump turned off: Date 12-19-2004 Time 14:35
Total pumping time: 4 hours 0 minutes

RECEIVED
DEC 21 2007
WATER RESOURCES DEPT
SALEM, OREGON

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: Kenneth Jensen

Oregon Water Resources Department

PUMP TEST DATA SHEET

Page _____ of _____

Application: G-14461 Permit: G-13533 Certificate: _____ Pod_Id: _____

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-19-04	10:35	0	139.3	138.3	
	10:37	2	169.3	168.3	
	10:39	4	181.6	180.6	
	10:41	6	190.2	189.2	
	10:43	8	195.3	194.3	
	10:45	10	198.6	197.6	
	10:50	15	204.0	203.0	
	10:55	20	209.7	208.7	
	11:00	25	213.0	212.0	
	11:05	30	215.9	214.9	
	11:20	45	220.9	219.9	
	11:35	60	223.3	222.3	
	11:50	75	224.5	223.5	
	12:05	90	225.8	224.8	
	12:20	105	226.9	225.9	
	12:35	120	228.0	227.0	
	12:50	135	229.0	228.0	
	13:05	150	229.8	228.8	
	13:20	165	230.5	229.5	
	13:35	180	231.1	230.1	
	13:50	195	231.6	230.6	
	14:05	210	232.0	231.0	
	14:20	225	232.5	231.5	
	14:35	240	233.0	232.0	

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
12-19-04	14:35	0	233.0	232.0	
	14:37	2	213.3	212.3	
	14:39	4	206.0	205.0	
	14:41	6	202.7	201.7	
	14:43	8	199.6	198.6	
	14:45	10	196.9	195.9	
	14:50	15	190.6	189.6	
	14:55	20	185.9	184.9	
	15:00	25	181.3	180.3	
	15:05	30	177.3	176.3	
	15:20	45	168.3	167.3	
	15:35	60	162.2	161.2	
	15:50	75	158.2	157.2	
	16:05	90	155.3	154.3	
	16:20	105	152.8	151.8	
	16:35	120	151.3	150.3	
	16:50	135	150.1	149.1	
	17:05	150	149.0	148.0	
	17:20	165	148.2	147.2	

Additional forms can be obtained from our web site at: http://www.wrd.state.or.us

OWRD 2/9/2000

PIVOT DESIGN CALC'S.

AGRI LINES IRRIGATION

PART CIRCLE - 138° PIVIOT BY CREEK

OCTOBER 16, 2000	WISHNW-5973
CUSTOMER : GUM CREEK	2000 LINDSAY GEN II - 90 9 TOWER - 1614.47 FT SYSTEM 550 GPM @ 30 PSI
P.O. NO. : 36386 JOB NO. : LEGAL : CROP :	NELSON R3000 ROTATORS NELSON 15 PSI REGULATORS NELSON P85AS 11/32 TB ELEVATION 0 FT UP, 20 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

GUM CREEK

36386

				SPANS	LENGTH	PIPE I.D.
TOTAL TARGET GPM	550.00	FRICTION FACTOR USED	138	1	159.60	6.395
PIVOT PRESSURE	30.00	TOTAL LENGTH	1614.47	1	157.00	6.395
ENDGUN TARGET GPM	48.83	NUMBER OF TOWERS	9	7	179.00	5.369
NUMBER OF OUTLETS	225	NUMBER OF SPRINKLERS	107	OH	44.87	5.369

NELSON R3000 ROTATORS - D6 PURPLE PLATES
NELSON BLUE TOP 15 PSI INTEGRAL SERIES REGULATORS
DROPS AVERAGE 7.5 FT OF .75 I.D. FLEXIBLE HOSE WITH EXTERNAL POLYWEIGHTS®
ELEVATION IS 0 FT UP AND 20 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.

								NO.	SIZE	NO.	LENGTH
1		3.70									
2		7.76								1	
3		15.26								2	
4		22.59								3	
5	29.93	29.93	0.32	1.36	29.79	16.68	R3000 14 LIME			4	
6		37.26						1	NNB15LF		126 ~~96~~
7		44.76								5	
8	21.83	51.76	0.44	1.36	29.64	16.64	R3000 14 LIME			6	
9		59.26						2	NNB15LF		138 ~~96~~
10		66.59								7	
11	22.00	73.76	0.62	1.36	29.49	16.58	R3000 14 LIME			8	
12		81.26						3	NNB15LF		144 ~~102~~
13		88.59								9	
14	22.17	95.93	0.81	1.35	29.33	16.52	R3000 14 LIME			10	
15		103.26						4	NNB15LF		144 ~~102~~
16		110.76								11	
17	21.83	117.76	0.99	1.35	29.18	16.47	R3000 14 LIME			12	
18		125.26						5	NNB15LF		138 ~~96~~
19		132.59								13	
20	22.17	139.93	0.98	1.35	29.03	16.47	R3000 14 LIME			14	126
21		147.26						6	NNB15LF		~~120~~ 84
22	14.83	154.76	0.96	1.35	28.93	16.47	R3000 14 LIME			15	
TOWER 1	159.60	159.60						7	NNB15LF		114 ~~72~~
23		160.59									
24		164.76								16	
25	17.50	172.26	1.05	1.35	28.81	16.44	R3000 14 LIME			17	
26		179.59						8	NNB15LF		120 ~~78~~
27	14.67	186.93	1.05	1.35	28.71	16.44	R3000 14 LIME			18	
28		194.26						9	NNB15LF		132 ~~90~~
29	14.83	201.76	1.13	1.35	28.61	16.42	R3000 14 LIME			19	
30		208.76						10	NNB15LF		138 ~~96~~
31	14.50	216.26	1.19	1.35	28.52	16.39	R3000 14 LIME			20	
32		223.59						11	NNB15LF		144 ~~102~~
33	14.50	230.76	1.29	1.35	28.42	16.36	R3000 14 LIME			21	
34		238.26						12	NNB15LF		144 ~~102~~
35	14.83	245.59	1.38	1.35	28.32	16.34	R3000 14 LIME			22	
36		252.93						13	NNB15LF		144 ~~102~~
37	14.67	260.26	1.44	1.35	28.22	16.32	R3000 14 LIME			23	
38		267.76						14	NNB15LF		144 ~~102~~
39	14.50	274.76	1.53	1.57	28.13	16.29	R3000 15 LIME/LAV			24	
40		282.26						15	NNB15LF		138 ~~96~~
41	14.83	289.59	1.62	1.57	28.03	16.26	R3000 15 LIME/LAV			25	
42		296.93						16	NNB15LF		132 ~~90~~
43	14.67	304.26	1.87	1.78	27.94	16.19	R3000 16 LAVENDER			26	
44		311.76						17	NNB15LF		120 78
TOWER 2	157.00	316.60								27	
		PIPE ID CHANGES FROM 6.395 TO 5.369									
45		317.59								28	

46	17.50	321.76	1.98	2.00	27.67	16.15	R3000 17 LAV/GRAY	18	NNB15LF		114 ~~72~~
47		329.26								29	
48	14.83	336.59	1.89	1.78	27.45	16.17	R3000 16 LAVENDER	19	NNB15LF		126 ~~84~~
49		343.93								30	
50	14.67	351.26	1.95	2.00	27.23	16.15	R3000 17 LAV/GRAY	20	NNB15LF		132 ~~90~~
51		358.76								31	
52	14.50	365.76	2.04	2.00	27.02	16.12	R3000 17 LAV/GRAY	21	NNB15LF		138 ~~96~~
53		373.26								32	
54	14.83	380.59	2.14	2.22	26.80	16.08	R3000 18 GRAY	22	NNB15LF		144 ~~102~~
55		387.93								33	
56	14.67	395.26	2.19	2.21	26.59	16.06	R3000 18 GRAY	23	NNB15LF		144 ~~102~~
57		402.76								34	
58	14.50	409.76	2.29	2.21	26.38	16.03	R3000 18 GRAY	24	NNB15LF		144 ~~102~~
59		417.26								35	
60	14.83	424.59	2.38	2.49	26.16	15.99	R3000 19 GRAY/TURQ	25	NNB15LF		144 ~~102~~
61		431.93								36	
62	14.67	439.26	2.44	2.49	25.95	15.97	R3000 19 GRAY/TURQ	26	NNB15LF		138 ~~96~~
63		446.76								37	
64	14.50	453.76	2.53	2.48	25.75	15.93	R3000 19 GRAY/TURQ	27	NNB15LF		132 ~~90~~
65		461.26								38	
66	14.83	468.59	2.63	2.77	25.54	15.90	R3000 20 TURQUOISE	28	NNB15LF		126 ~~84~~
67		475.93								39	
68	14.67	483.26	2.96	2.99	25.34	15.80	R3000 21 TURQ/YEL	29	NNB15LF		120 ~~78~~
69		490.76								40	
TOWER 3	179.00	495.60									
70		496.59								41	
71	17.50	500.76	3.07	2.98	25.10	15.76	R3000 21 TURQ/YEL	30	NNB15LF		114 72
72		508.26								42	
73	14.83	515.59	2.89	2.99	24.90	15.81	R3000 21 TURQ/YEL	31	NNB15LF		126 84
74		522.93								43	
75	14.67	530.26	2.94	2.99	24.70	15.79	R3000 21 TURQ/YEL	32	NNB15LF		132 90
76		537.76								44	
77	14.50	544.76	3.04	2.98	24.51	15.76	R3000 21 TURQ/YEL	33	NNB15LF		138 96
78		552.26								45	
79	14.83	559.59	3.14	2.98	24.32	15.72	R3000 21 TURQ/YEL	34	NNB15LF		144 102
80		566.93								46	
81	14.67	574.26	3.19	3.30	24.13	15.70	R3000 22 YELLOW	35	NNB15LF		144 102
82		581.76								47	
83	14.50	588.76	3.29	3.30	23.94	15.67	R3000 22 YELLOW	36	NNB15LF		144 102
84		596.26								48	
85	14.83	603.59	3.39	3.30	23.76	15.64	R3000 22 YELLOW	37	NNB15LF		144 102
86		610.93								49	
87	14.67	618.26	3.43	3.30	23.58	15.62	R3000 22 YELLOW	38	NNB15LF		138 96
88		625.76								50	
89	14.50	632.76	3.53	3.57	23.40	15.58	R3000 23 YEL/RED	39	NNB15LF		132 90
90		640.26								51	
91	14.83	647.59	3.64	3.56	23.22	15.55	R3000 23 YEL/RED	40	NNB15LF		124 84
92		654.93								52	

NO.	OUTLET	TO PIVOT	NEED	DEL.	PSI	PSI	NOZZLE SIZE	NO.	SIZE	NO.	LENGTH
93	14.67	662.26	4.06	3.92	23.04	15.43	R3000 24 RED	41	NNB15LF		120 78
94		669.76								53	
TOWER 4	179.00	674.60									
95		675.59								54	
96	17.50	679.76	4.18	4.23	22.84	15.41	R3000 25 RED/WHITE	42	NNB15LF		114 72
97		687.26								55	
98	14.83	694.59	3.90	3.92	22.67	15.46	R3000 24 RED	43	NNB15LF		126 84
99		701.93								56	
100	14.67	709.26	3.94	3.92	22.50	15.44	R3000 24 RED	44	NNB15LF		132 90
101		716.76								57	
102	14.50	723.76	4.04	3.91	22.34	15.42	R3000 24 RED	45	NNB15LF		138 96
103		731.26								58	
104	14.83	738.59	4.15	4.23	22.17	15.40	R3000 25 RED/WHITE	46	NNB15LF		144 102
105		745.93								59	
106	14.67	753.26	4.18	4.22	22.02	15.39	R3000 25 RED/WHITE	47	NNB15LF		144 102
107		760.76								60	
108	14.50	767.76	4.29	4.22	21.86	15.38	R3000 25 RED/WHITE	48	NNB15LF		144 102
109		775.26								61	
110	14.83	782.59	4.40	4.22	21.71	15.37	R3000 25 RED/WHITE	49	NNB15LF		144 102
111		789.93								62	
112	14.67	797.26	4.43	4.58	21.56	15.36	R3000 26 WHITE	50	NNB15LF		138 96
113		804.76								63	
114	14.50	811.76	4.53	4.58	21.41	15.35	R3000 26 WHITE	51	NNB15LF		132 90
115		819.26								64	
116	14.83	826.59	4.64	4.58	21.26	15.34	R3000 26 WHITE	52	NNB15LF		126 84
117		833.93								65	
118	14.67	841.26	5.16	5.34	21.12	15.29	R3000 28 BLUE	53	NNB15LF		120 78
119		848.76								66	
TOWER 5	179.00	853.60									
120		854.59								67	
121	17.50	858.76	5.28	5.34	20.96	15.27	R3000 28 BLUE	54	NNB15LF		114 72
122		866.26								68	
123	14.83	873.59	4.90	4.91	20.82	15.30	R3000 27 WHITE/BLUE	55	NNB15LF		126 84
124		880.93								69	
125	14.67	888.26	4.93	4.91	20.69	15.30	R3000 27 WHITE/BLUE	56	NNB15LF		132 90
126		895.76								70	
127	14.50	902.76	5.04	4.91	20.56	15.28	R3000 27 WHITE/BLUE	57	NNB15LF		138 96
128		910.26								71	
129	14.83	917.59	5.15	5.34	20.44	15.27	R3000 28 BLUE	58	NNB15LF		144 102
130		924.93								72	
131	14.67	932.26	5.17	5.34	20.31	15.27	R3000 28 BLUE	59	NNB15LF		144 102
132		939.76								73	
133	14.50	946.76	5.28	5.33	20.20	15.25	R3000 28 BLUE	60	NNB15LF		144 102
134		954.26								74	
135	14.83	961.59	5.39	5.33	20.08	15.24	R3000 28 BLUE	61	NNB15LF		144 102
136		968.93								75	
137	14.67	976.26	5.42	5.33	19.97	15.24	R3000 28 BLUE	62	NNB15LF		138 96
138		983.76								76	

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.	DROP LENGTH
139	14.50	990.76	5.53	5.70	19.86	15.22	R3000 29 BLUE/DK BRN	63	NNB15LF		132 90
140		998.26								77	
141	14.83	1005.59	5.64	5.70	19.75	15.21	R3000 29 BLUE/DK BRN	64	NNB15LF		126 84
142		1012.93								78	
143	14.67	1020.26	6.24	6.09	19.64	15.16	R3000 30 DK BROWN	65	NNB15LF		120 78
144		1027.76								79	
TOWER 6	179.00	1032.60									
145		1033.59								80	
146	17.50	1037.76	6.38	6.44	19.52	15.14	R3000 31 DK BRN/ORN	66	NNB15LF		114 72
147		1045.26								81	
148	14.83	1052.59	5.90	6.10	19.43	15.19	R3000 30 DK BROWN	67	NNB15LF		126 84
149		1059.93								82	
150	14.67	1067.26	5.92	6.10	19.33	15.18	R3000 30 DK BROWN	68	NNB15LF		132 90
151		1074.76								83	
152	14.50	1081.76	6.03	6.09	19.24	15.17	R3000 30 DK BROWN	69	NNB15LF		138 96
153		1089.26								84	
154	14.83	1096.59	6.14	6.09	19.15	15.16	R3000 30 DK BROWN	70	NNB15LF		144 102
155		1103.93								85	
156	14.67	1111.26	6.15	6.09	19.07	15.15	R3000 30 DK BROWN	71	NNB15LF		144 102
157		1118.76								86	
158	14.50	1125.76	6.27	6.44	18.99	15.14	R3000 31 DK BRN/ORN	72	NNB15LF		144 102
159		1133.26								87	
160	14.83	1140.59	6.39	6.44	18.91	15.13	R3000 31 DK BRN/ORN	73	NNB15LF		144 102
161		1147.93								88	
162	14.67	1155.26	6.39	6.44	18.84	15.13	R3000 31 DK BRN/ORN	74	NNB15LF		138 96
163		1162.76								89	
164	14.50	1169.76	6.51	6.43	18.76	15.12	R3000 31 DK BRN/ORN	75	NNB15LF		132 90
165		1177.26								90	
166	14.83	1184.59	6.63	6.43	18.69	15.10	R3000 31 DK BRN/ORN	76	NNB15LF		126 84
167		1191.93								91	
168	14.67	1199.26	7.33	7.36	18.63	15.05	R3000 33 ORN/DK GRN	77	NNB15LF		120 78
169		1206.76								92	
TOWER 7	179.00	1211.60									
170		1212.59								93	
171	17.50	1216.76	7.47	7.36	18.55	15.03	R3000 33 ORN/DK GRN	78	NNB15LF		114 72
172		1224.26								94	
173	14.83	1231.59	6.90	6.91	18.49	15.08	R3000 32 ORANGE	79	NNB15LF		126 84
174		1238.93								95	
175	14.67	1246.26	6.91	6.91	18.44	15.08	R3000 32 ORANGE	80	NNB15LF		132 90
176		1253.76								96	
177	14.50	1260.76	7.03	6.90	18.38	15.06	R3000 32 ORANGE	81	NNB15LF		138 96
178		1268.26								97	
179	14.83	1275.59	7.15	7.36	18.33	15.05	R3000 33 ORN/DK GRN	82	NNB15LF		144 102
180		1282.93								98	
181	14.67	1290.26	7.15	7.36	18.28	15.05	R3000 33 ORN/DK GRN	83	NNB15LF		144 102
182		1297.76								99	
183	14.50	1304.76	7.26	7.36	18.24	15.04	R3000 33 ORN/DK GRN	84	NNB15LF		144 102
184		1312.26								100	

NO.	OUTLET	TO PIVOT	NEED	DEL.	PSI	PSI	NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
185	14.83	1319.59	7.38	7.36	18.19	15.03	R3000 33 ORN/DK GRN	85	NNB15LF		144 102
186		1326.93								101	
187	14.67	1334.26	7.38	7.35	18.15	15.02	R3000 33 ORN/DK GRN	86	NNB15LF		138 96
188		1341.76								102	
189	14.50	1348.76	7.50	7.35	18.12	14.99	R3000 33 ORN/DK GRN	87	NNB15LF		132 90
190		1356.26								103	
191	14.83	1363.59	7.64	7.80	18.08	14.98	R3000 34 DK GREEN	88	NNB15LF		126 84
192		1370.93								104	
193	14.67	1378.26	8.41	8.61	18.05	14.87	R3000 36 PURPLE	89	NNB15LF		120 78
194		1385.76								105	
TOWER 8	179.00	1390.60									
195		1391.59								106	
196	17.50	1395.76	8.54	8.63	18.01	14.94	R3000 36 PURPLE	90	NNB15HF		114 72
197		1403.26								107	
198	14.83	1410.59	7.87	7.82	17.98	15.05	R3000 34 DK GREEN	91	NNB15HF		126 84
199		1417.93								108	
200	14.67	1425.26	7.87	7.82	17.96	15.04	R3000 34 DK GREEN	92	NNB15HF		132 90
201		1432.76								109	
202	14.50	1439.76	8.00	7.81	17.94	15.02	R3000 34 DK GREEN	93	NNB15HF		138 96
203		1447.26								110	
204	14.83	1454.59	8.14	8.23	17.92	14.99	R3000 35 DK GRN/PUR	94	NNB15HF		144 102
205		1461.93								111	
206	14.67	1469.26	8.12	8.23	17.90	14.99	R3000 35 DK GRN/PUR	95	NNB15HF		144 102
207		1476.76								112	
208	14.50	1483.76	8.24	8.22	17.88	14.97	R3000 35 DK GRN/PUR	96	NNB15HF		144 102
209		1491.26								113	
210	14.83	1498.59	8.37	8.22	17.87	14.95	R3000 35 DK GRN/PUR	97	NNB15HF		144 102
211		1505.93								114	
212	14.67	1513.26	8.37	8.22	17.85	14.95	R3000 35 DK GRN/PUR	98	NNB15HF		138 96
213		1520.76								115	
214	14.50	1527.76	8.53	8.63	17.84	14.92	R3000 36 PURPLE	99	NNB15HF		132 90
215		1535.26								116	
216	14.83	1542.59	8.64	8.62	17.83	14.91	R3000 36 PURPLE	100	NNB15HF		126 84
217		1549.93								117	
218	14.67	1557.26	9.28	9.18	17.82	14.81	R3000 37 PUR/BLK	101	NNB15HF		120 78
219		1564.76								118	
TOWER 9	179.00	1569.60									
220	16.71	1573.97	7.25	7.38	17.82	15.13	R3000 33 ORN/DK GRN	102	NNB15HF	114	72
221	7.50	1581.47	4.44	4.62	17.81	15.58	R3000 26 WHITE	103	NNB15HF		72
222	7.33	1588.80	4.37	4.25	17.81	15.59	R3000 25 RED/WHITE	104	NNB15HF		72
223	7.34	1596.14	4.43	4.25	17.81	15.58	R3000 25 RED/WHITE	105	NNB15HF		72
224	7.33	1603.47	4.59	4.61	17.81	15.56	R3000 26 WHITE	106	NNB15HF		72
225	7.50	1610.97	4.49	4.62	17.81	15.57	R3000 26 WHITE	107	NNB15HF		72

)VERHANG 44.87 1614.47 49.05 ENDGUN (2)NELSON P85AS 11/32 TB

)OOSTER PUMP AT END ADDS 34.47 PSI TO PIPE PRESSURE FOR A PRESSURE OF 52.28 PSI
'RICTION LOSS THROUGH ENDGUN VALVE IS 0.53 PSI - ENDGUN PRESSURE IS 51.75 PSI

TOTAL GPM = 550.34
GPA = 2.67

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 19.40 PSI FOR SPRINKLER 99
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME 36 HR	48 HR	60 HR
1	1.84	4.90	9.48	5.16	0.011	0.41	0.55	0.68
2	5.39	14.38	14.36	2.66	0.006	0.21	0.28	0.35
3	10.49	27.95	27.64	2.64	0.006	0.21	0.28	0.35
4	15.11	40.28	39.16	2.59	0.006	0.21	0.27	0.34
5	19.73	52.60	51.96	2.63	0.006	0.21	0.28	0.35
6	24.35	64.92	64.23	2.64	0.006	0.21	0.28	0.35
7	28.97	77.24	76.46	2.64	0.006	0.21	0.28	0.35
8	33.59	89.56	88.64	2.64	0.006	0.21	0.28	0.35
9	38.22	101.88	99.64	2.61	0.006	0.21	0.28	0.35
)VERHANG	10.30	27.47	29.73	2.89	0.006	0.23	0.31	0.38
ENDGUN	10.58	48.83	49.05	4.63				
TOTAL	198.57	550.00	550.34	2.77				

SUMMARY OF SPRINKLERS

14	R3000 14 LIME
2	R3000 15 LIME/LAV
2	R3000 16 LAVENDER
3	R3000 17 LAV/GRAY
3	R3000 18 GRAY
3	R3000 19 GRAY/TURQ
1	R3000 20 TURQUOISE

SUMMARY OF DROPS

14	72 IN DROP
9	78 IN DROP
15	84 IN DROP
17	90 IN DROP
18	96 IN DROP
34	102 IN DROP

SUMMARY OF REGULATORS

89	NNB15LF
18	NNB15HF

AGRI LINES IRRIGATION

OCTOBER 28, 2003

CUSTOMER : GUM CREEK FARM INC.

P.O. NO. : 49034
JOB NO. :
LEGAL : 4 TOWER - HIGH PROFILE
CROP :

WISHNW-11117

2003 ~~LINDSAY GEN II - 90~~
4 TOWER - 785.47 FT
SYSTEM 355 GPM @ 35 PSI

NELSON S3000 SPINNERS
NELSON 15 PSI REGULATORS
DUAL NELSON P85AS 11/32 TB
ELEVATION 0 FT UP, 0 FT DOWN

Full circle
That covers
old pond

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

2003 LINDSAY GEN II - 90

OCTOBER 28, 2003

WISHNW-11117

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

GUM CREEK FARM INC.
4 TOWER - HIGH PROFILE
49034

TOTAL TARGET GPM	355.00
PIVOT PRESSURE	35.00
ENDGUN TARGET GPM	37.84
NUMBER OF OUTLETS	109

FRICTION FACTOR USED	138
TOTAL LENGTH	785.47
NUMBER OF TOWERS	4
NUMBER OF SPRINKLERS	69

SPANS	LENGTH	PIPE I.D.
1	181.60	6.395
3	179.00	5.369
OH	44.87	5.369
	22.00	3.806

NELSON S3000 SPINNERS - D6 PURPLE PLATES
NELSON BLUE TOP 15 LF INTEGRAL SERIES REGULATORS
DROPS AVERAGE 11 FT OF .75 I.D. SURELINE FLEXIBLE HOSE WITH INTEGRAL POLYWEIGHTS®
ELEVATION IS 0 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.

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.	DROP LENGTH
										1	
1		3.59								2	
2		7.76								3	
3		15.26									
4	22.59	22.59	0.33	1.02	34.93	16.79	S3000 12 GOLD	1	NNB15LF		126
5		29.93								4	
6	14.67	37.26	0.55	1.01	34.88	16.72	S3000 12 GOLD	2	NNB15LF		132
7		44.76								5	
8	14.50	51.76	0.77	1.01	34.84	16.65	S3000 12 GOLD	3	NNB15LF		138
9		59.26								6	
10	14.83	66.59	0.99	1.01	34.79	16.57	S3000 12 GOLD	4	NNB15LF		144
11		73.93								7	
12	14.67	81.26	1.20	1.19	34.75	16.51	S3000 13 GOLD/LIME	5	NNB15LF		144
13		88.76								8	
14	14.50	95.76	1.42	1.35	34.71	16.43	S3000 14 LIME	6	NNB15LF		144
15		103.26								9	
16	14.83	110.59	1.65	1.58	34.66	16.36	S3000 15 LIME/LAV	7	NNB15LF		144
17		117.93								10	
18	14.67	125.26	1.85	1.78	34.62	16.29	S3000 16 LAVENDER	8	NNB15LF		138
19		132.76								11	
20	14.50	139.76	2.08	2.01	34.57	16.22	S3000 17 LAV/GRAY	9	NNB15LF		132
21		147.26								12	
22	14.83	154.59	2.31	2.22	34.53	16.14	S3000 18 GRAY	10	NNB15LF		126
23		161.93								13	
24	14.67	169.26	2.77	2.78	34.49	15.99	S3000 20 TURQUOISE	11	NNB15LF		120
25		176.76								14	
TOWER 1	181.60	181.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
										15	
26		182.59								0	
27	17.50	186.76	3.05	3.00	34.37	15.90	S3000 21 TURQ/YEL	12	NNB15LF		114
28		194.26								16	
29	14.83	201.59	3.01	3.00	34.27	15.91	S3000 21 TURQ/YEL	13	NNB15LF		126
30		208.93								17	
31	14.67	216.26	3.20	3.32	34.18	15.85	S3000 22 YELLOW	14	NNB15LF		132
32		223.76								18	
33	14.50	230.76	3.43	3.31	34.09	15.77	S3000 22 YELLOW	15	NNB15LF		138
34		238.26								19	
35	14.83	245.59	3.67	3.58	34.00	15.70	S3000 23 YEL/RED	16	NNB15LF		144
36		252.93								20	
37	14.67	260.26	3.85	3.94	33.91	15.64	S3000 24 RED	17	NNB15LF		144
38		267.76								21	
39	14.50	274.76	4.08	3.93	33.82	15.58	S3000 24 RED	18	NNB15LF		144
40		282.26								22	
41	14.83	289.59	4.33	4.25	33.73	15.56	S3000 25 RED/WHITE	19	NNB15LF		144
42		296.93								23	
43	14.67	304.26	4.50	4.61	33.65	15.54	S3000 26 WHITE	20	NNB15LF		138
44		311.76								24	
45	14.50	318.76	4.74	4.61	33.57	15.51	S3000 26 WHITE	21	NNB15LF		132

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.	DROP LENGTH
46		326.26								25	
47	14.83	333.59	4.99	4.94	33.49	15.49	S3000 27 WHITE/BLUE	22	NNB15LF		126
48		340.93								26	
49	14.67	348.26	5.69	5.74	33.42	15.42	S3000 29 BLUE/DK BRN	23	NNB15LF		120
50		355.76								27	
TOWER 2	179.00	360.60									
51		361.59								28	
52	17.50	365.76	5.99	6.14	33.33	15.39	S3000 30 DK BROWN	24	NNB15LF		114
53		373.26								29	
54	14.83	380.59	5.69	5.74	33.26	15.42	S3000 29 BLUE/DK BRN	25	NNB15LF		126
55		387.93								30	
56	14.67	395.26	5.84	5.74	33.19	15.40	S3000 29 BLUE/DK BRN	26	NNB15LF		132
57		402.76								31	
58	14.50	409.76	6.09	6.14	33.12	15.38	S3000 30 DK BROWN	27	NNB15LF		138
59		417.26								32	
60	14.83	424.59	6.35	6.49	33.06	15.35	S3000 31 DK BRN/ORN	28	NNB15LF		144
61		431.93								33	
62	14.67	439.26	6.49	6.48	33.00	15.34	S3000 31 DK BRN/ORN	29	NNB15LF		144
63		446.76								34	
64	14.50	453.76	6.74	6.96	32.94	15.31	S3000 32 ORANGE	30	NNB15LF		144
65		461.26								35	
66	14.83	468.59	6.99	6.96	32.89	15.29	S3000 32 ORANGE	31	NNB15LF		144
67		475.93								36	
68	14.67	483.26	7.13	6.95	32.84	15.28	S3000 32 ORANGE	32	NNB15LF		138
69		490.76								37	
70	14.50	497.76	7.40	7.41	32.79	15.25	S3000 33 ORN/DK GRN	33	NNB15LF		132
71		505.26								38	
72	14.83	512.59	7.66	7.87	32.74	15.22	S3000 34 DK GREEN	34	NNB15LF		126
73		519.93								39	
74	14.67	527.26	5.89	5.73	32.70	15.40	S3000 29 BLUE/DK BRN	35	NNB15LF		120
75	7.50	534.76	4.74	4.61	32.68	15.51	S3000 26 WHITE	36	NNB15LF		114
TOWER 3	179.00	539.60									
76		540.59								40	
77	10.00	544.76	4.83	4.94	32.65	15.50	S3000 27 WHITE/BLUE	37	NNB15LF		114
78	7.50	552.26	4.15	4.25	32.63	15.57	S3000 25 RED/WHITE	38	NNB15LF		120
79	7.33	559.59	4.15	4.25	32.61	15.57	S3000 25 RED/WHITE	39	NNB15LF		126
80	7.34	566.93	4.21	4.25	32.60	15.56	S3000 25 RED/WHITE	40	NNB15LF		126
81	7.33	574.26	4.31	4.25	32.58	15.55	S3000 25 RED/WHITE	41	NNB15LF		132
82	7.50	581.76	4.27	4.25	32.56	15.56	S3000 25 RED/WHITE	42	NNB15LF		132
83	7.00	588.76	4.32	4.25	32.55	15.55	S3000 25 RED/WHITE	43	NNB15LF		138
84	7.50	596.26	4.48	4.61	32.53	15.53	S3000 26 WHITE	44	NNB15LF		138
85	7.33	603.59	4.48	4.61	32.52	15.54	S3000 26 WHITE	45	NNB15LF		144
86	7.34	610.93	4.53	4.61	32.51	15.53	S3000 26 WHITE	46	NNB15LF		144
87	7.33	618.26	4.63	4.61	32.50	15.52	S3000 26 WHITE	47	NNB15LF		144
88	7.50	625.76	4.58	4.61	32.48	15.52	S3000 26 WHITE	48	NNB15LF		144
89	7.00	632.76	4.63	4.61	32.47	15.52	S3000 26 WHITE	49	NNB15LF		144

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.	DROP LENGTH
90	7.50	640.26	4.79	4.94	32.46	15.50	S3000 27 WHITE/BLUE	50	NNB15LF		144
91	7.33	647.59	4.79	4.94	32.45	15.50	S3000 27 WHITE/BLUE	51	NNB15LF		144
92	7.34	654.93	4.84	4.94	32.44	15.50	S3000 27 WHITE/BLUE	52	NNB15LF		144
93	7.33	662.26	4.94	4.94	32.43	15.49	S3000 27 WHITE/BLUE	53	NNB15LF		138
94	7.50	669.76	4.88	4.94	32.42	15.49	S3000 27 WHITE/BLUE	54	NNB15LF		138
95	7.00	676.76	4.93	4.94	32.42	15.49	S3000 27 WHITE/BLUE	55	NNB15LF		132
96	7.50	684.26	5.10	4.94	32.41	15.47	S3000 27 WHITE/BLUE	56	NNB15LF		132
97	7.33	691.59	5.11	4.94	32.40	15.47	S3000 27 WHITE/BLUE	57	NNB15LF		126
98	7.34	698.93	5.18	5.37	32.40	15.47	S3000 28 BLUE	58	NNB15LF		126
99	7.33	706.26	5.27	5.37	32.39	15.46	S3000 28 BLUE	59	NNB15LF		120
100	7.50	713.76	6.00	6.14	32.39	15.39	S3000 30 DK BROWN	60	NNB15LF		114
TOWER 4	179.00	718.60									
101	9.21	722.97	6.05	6.14	32.38	15.38	S3000 30 DK BROWN	61	NNB15LF		114
102	7.50	730.47	5.42	5.37	32.38	15.44	S3000 28 BLUE	62	NNB15LF		114
103	7.33	737.80	5.42	5.37	32.37	15.44	S3000 28 BLUE	63	NNB15LF		120
104	7.34	745.14	5.48	5.37	32.37	15.44	S3000 28 BLUE	64	NNB15LF		120
105	7.33	752.47	5.62	5.74	32.37	15.42	S3000 29 BLUE/DK BRN	65	NNB15LF		120
106	7.50	759.97	5.58	5.74	32.37	15.43	S3000 29 BLUE/DK BRN	66	NNB15LF		126
		PIPE ID CHANGES FROM 5.369 TO 3.806									
107	7.17	767.14	5.52	5.37	32.36	15.43	S3000 28 BLUE	67	NNB15LF		126
108	7.33	774.47	5.71	5.74	32.35	15.41	S3000 29 BLUE/DK BRN	68	NNB15LF		126
109	7.33	781.80	5.83	5.74	32.34	15.40	S3000 29 BLUE/DK BRN	69	NNB15LF		126
DRAIN-SANDTRAP			3.75	3.89			F SPRAY 10 TURQ				
OVERHANG	66.87	785.47		38.31	ENDGUN		(2)NELSON P85AS 11/32 TB				

THERE IS NO BOOSTER PUMP
FRICTION LOSS THROUGH ENDGUN VALVE IS 0.32 PSI - ENDGUN PRESSURE IS 32.02 PSI

TOTAL GPM = 355.60
GPA = 7.04

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 35.73 PSI FOR SPRINKLER 34
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

ACRES	GPM	AVERAGE IN. PER HR	AVERAGE IN. DELIVERED FOR

					UNDER SPAN	36 HR	REVOLUTION TIME 48 HR	60 HR
1	2.38	16.75	16.95	7.13	0.016	0.57	0.76	0.94
2	7.00	49.30	48.22	6.89	0.015	0.55	0.73	0.91
3	11.62	81.86	83.21	7.16	0.016	0.57	0.76	0.95
4	16.24	114.41	114.47	7.05	0.016	0.56	0.75	0.93
OVERHANG	7.25	51.09	50.55	6.97	0.015	0.55	0.74	0.92
ENDGUN	4.62	37.84	38.31	8.28				
TOTAL	49.12	351.25	351.71	7.16				

SUMMARY OF SPRINKLERS

4	S3000 12 GOLD
1	S3000 13 GOLD/LIME
1	S3000 14 LIME
1	S3000 15 LIME/LAV
1	S3000 16 LAVENDER
1	S3000 17 LAV/GRAY
1	S3000 18 GRAY
1	S3000 20 TURQUOISE
2	S3000 21 TURQ/YEL
2	S3000 22 YELLOW
1	S3000 23 YEL/RED
2	S3000 24 RED
7	S3000 25 RED/WHITE
9	S3000 26 WHITE
10	S3000 27 WHITE/BLUE
6	S3000 28 BLUE
8	S3000 29 BLUE/DK BRN
4	S3000 30 DK BROWN
2	S3000 31 DK BRN/ORN
3	S3000 32 ORANGE
1	S3000 33 ORN/DK GRN
1	S3000 34 DK GREEN
40	PLUGS

SUMMARY OF DROPS

7	114 IN DROP
8	120 IN DROP
14	126 IN DROP
10	132 IN DROP
10	138 IN DROP
20	144 IN DROP

TOTAL OF 69 DROPS

SUMMARY OF REGULATORS

69 NNB15LF

TOTAL OF 69 REGULATORS

7 85.5 44.30

40'

825.3 49.72

851 52.2

7.7 AC

54 gpm Fan

AGRI LINES IRRIGATION

SEPTEMBER 14, 2004	WISHNW-12820
CUSTOMER : JENSEN / GUMCREEK	2004 LINDSAY GEN II - 90 8 TOWER - 1413.47 FT SYSTEM 1005 GPM @ 35 PSI
P.O. NO. : 52655 JOB NO. : LEGAL : HIGH PROFILE - 8 TOWER CROP :	NELSON R3000 ROTATORS NELSON 15 PSI REGULATORS NO ENDGUN ELEVATION 0 FT UP, 0 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

2004 LINDSAY GEN II - 90

SEPTEMBER 14, 2004

WISHNW-12820

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

JENSEN / GUMCREEK
HIGH PROFILE - 8 TOWER
52655

TOTAL TARGET GPM	1005.00
PIVOT PRESSURE	35.00
NO ENDGUN	
NUMBER OF OUTLETS	197

FRICTION FACTOR USED	138
TOTAL LENGTH	1413.47
NUMBER OF TOWERS	8
NUMBER OF SPRINKLERS	151

SPANS	LENGTH	PIPE I.D.
1	159.60	7.782
3	157.00	7.782
1	157.00	6.395
1	179.00	6.395
2	179.00	5.369
OH	44.87	5.369
	44.00	3.806

NELSON R3000 ROTATORS - D6 RED PLATES
NELSON BLUE TOP 15 LF INTEGRAL SERIES REGULATORS
DROPS AVERAGE 12 FT OF .75 I.D. SURELINE FLEXIBLE HOSE WITH EXTERNAL POLYWEIGHTS®
BOOMBACKS AND OFFSETS AS SHOWN
ELEVATION IS 0 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.	DROP LENGTH
1		3.70								1	
2		7.76								2	
3		15.26								3	
4		22.59								4	
5	29.93	29.93	0.43	1.36	34.75	16.76	R3000 14 LIME	1	NNB15LF		144
6		37.26								5	
7	14.83	44.76	0.66	1.36	34.63	16.69	R3000 14 LIME	2	NNB15LF		150
8		51.76								6	
9	14.50	59.26	0.86	1.36	34.51	16.62	R3000 14 LIME	3	NNB15LF		156
10		66.59								7	
11	14.50	73.76	1.08	1.35	34.40	16.54	R3000 14 LIME	4	NNB15LF		156
12		81.26								8	
13	14.83	88.59	1.31	1.35	34.28	16.47	R3000 14 LIME	5	NNB15LF		156
14		95.93								9	
15	14.67	103.26	1.51	1.58	34.16	16.40	R3000 15 LIME/LAV	6	NNB15LF		156
16		110.76								10	
17	14.50	117.76	1.73	1.78	34.04	16.33	R3000 16 LAVENDER	7	NNB15LF		150
18		125.26								11	
19	14.83	132.59	1.96	2.01	33.92	16.25	R3000 17 LAV/GRAY	8	NNB15LF		144
20		139.93								12	
21	14.67	147.26	2.38	2.50	33.80	16.11	R3000 19 GRAY/TURQ	9	NNB15LF		132
22		154.76								13	
TOWER 1	159.60	159.60									
23		160.59								14	
24	17.50	164.76	2.65	2.78	33.66	16.02	R3000 20 TURQUOISE	10	NNB15LF		126
25		172.26								15	
26	14.83	179.59	2.65	2.78	33.54	16.02	R3000 20 TURQUOISE	11	NNB15LF		138
27		186.93								16	
28	14.67	194.26	2.83	2.78	33.43	15.96	R3000 20 TURQUOISE	12	NNB15LF		144
29		201.76								17	
30	14.50	208.76	3.06	2.99	33.31	15.89	R3000 21 TURQ/YEL	13	NNB15LF		150
31		216.26								18	
32	14.83	223.59	3.30	3.32	33.20	15.81	R3000 22 YELLOW	14	NNB15LF		156
33		230.76								19	
34	14.67	238.26	3.50	3.59	33.08	15.75	R3000 23 YEL/RED	15	NNB15LF		156
35		245.59								20	
36	14.67	252.93	3.73	3.58	32.97	15.67	R3000 23 YEL/RED	16	NNB15LF		156
37		260.26								21	
38	14.83	267.76	3.93	3.94	32.86	15.61	R3000 24 RED	17	NNB15LF		150
39		274.76								22	
40	14.50	282.26	4.12	4.25	32.75	15.57	R3000 25 RED/WHITE	18	NNB15LF		144

OUTLET NO.	DIST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
45		317.59								25	
46		321.76								26	
47	17.50	329.26	5.29	5.37	32.39	15.46	R3000 28 BLUE	21	NNB15LF		132
48		336.59								27	
49	14.67	343.93	5.07	4.94	32.29	15.48	R3000 27 WHITE/BLUE	22	NNB15LF		144
50		351.26								28	
51	14.83	358.76	5.26	5.37	32.18	15.46	R3000 28 BLUE	23	NNB15LF		150
52		365.76								29	
53	14.50	373.26	5.41	5.37	32.07	15.44	R3000 28 BLUE	24	NNB15LF		156
54		380.59								30	
55	14.50	387.76	5.69	5.74	31.97	15.42	R3000 29 BLUE/DK BRN	25	NNB15LF		156
56		395.26								31	
57	14.83	402.59	5.94	6.14	31.87	15.39	R3000 30 DK BROWN	26	NNB15LF		156
58		409.93								32	
59	14.67	417.26	6.09	6.14	31.76	15.38	R3000 30 DK BROWN	27	NNB15LF		156
60		424.76								33	
61	14.50	431.76	6.33	6.48	31.66	15.35	R3000 31 DK BRN/ORN	28	NNB15LF		150
62		439.26								34	
63	14.83	446.59	6.59	6.48	31.56	15.33	R3000 31 DK BRN/ORN	29	NNB15LF		144
64		453.93								35	
65	14.67	461.26	7.43	7.41	31.47	15.24	R3000 33 ORN/DK GRN	30	NNB15LF		132
66		468.76								36	
TOWER 3	157.00	473.60									
67		474.59								37	
68	17.50	478.76	7.73	7.87	31.35	15.22	R3000 34 DK GREEN	31	NNB15LF		126
69		486.26								38	
70	14.83	493.59	7.28	7.41	31.25	15.26	R3000 33 ORN/DK GRN	32	NNB15LF		138
71		500.93								39	
72	14.67	508.26	7.41	7.41	31.16	15.25	R3000 33 ORN/DK GRN	33	NNB15LF		144
73		515.76								40	
74	14.50	522.76	7.66	7.87	31.07	15.22	R3000 34 DK GREEN	34	NNB15LF		150
75		530.26								41	
76	14.83	537.59	7.92	7.86	30.98	15.20	R3000 34 DK GREEN	35	NNB15LF		156
77		544.76								42	
78	14.67	552.26	6.05	6.14	30.89	15.38	R3000 30 DK BROWN	36	NNB15LF		156
79	7.33	559.59	4.10	4.25	30.85	15.57	R3000 25 RED/WHITE	37	NNB15LF		156
80	7.34	566.93	4.16	4.25	30.80	15.56	R3000 25 RED/WHITE	38	NNB15LF		156
81	7.33	574.26	4.25	4.25	30.76	15.55	R3000 25 RED/WHITE	39	NNB15LF		156
82	7.50	581.76	4.21	4.25	30.71	15.55	R3000 25 RED/WHITE	40	NNB15LF		150
83	7.00	588.76	4.27	4.25	30.67	15.55	R3000 25 RED/WHITE	41	NNB15LF		150
84	7.50	596.26	4.42	4.24	30.63	15.53	R3000 25 RED/WHITE	42	NNB15LF		144
85	7.33	603.59	4.42	4.24	30.59	15.53	R3000 25 RED/WHITE	43	NNB15LF		144
86	7.34	610.93	4.48	4.61	30.55	15.53	R3000 26 WHITE	44	NNB15LF		138
87	7.33	618.26	4.58	4.61	30.51	15.52	R3000 26 WHITE	45	NNB15LF		132
88	7.50	625.76	5.48	5.37	30.47	15.43	R3000 28 BLUE	46	NNB15LF		126
TOWER 4	157.00	630.60									

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.	DROP LENGTH
		PIPE ID CHANGES FROM 7.782 TO 6.395									
89		631.59								43	
90	10.00	635.76	5.55	5.74	30.33	15.41	R3000 29 BLUE/DK BRN	47	NNB15LF		BB
91	7.50	643.26	4.77	4.60	30.22	15.50	R3000 26 WHITE	48	NNB15LF		132
92	7.33	650.59	4.77	4.60	30.12	15.50	R3000 26 WHITE	49	NNB15LF		138
93	7.34	657.93	4.82	4.94	30.02	15.49	R3000 27 WHITE/BLUE	50	NNB15LF		144
94	7.33	665.26	4.93	4.94	29.92	15.48	R3000 27 WHITE/BLUE	51	NNB15LF		144
95	7.50	672.76	4.87	4.94	29.82	15.49	R3000 27 WHITE/BLUE	52	NNB15LF		150
96	7.00	679.76	4.93	4.94	29.73	15.48	R3000 27 WHITE/BLUE	53	NNB15LF		150
97	7.50	687.26	5.09	4.93	29.63	15.46	R3000 27 WHITE/BLUE	54	NNB15LF		156
98	7.33	694.59	5.03	4.94	29.54	15.47	R3000 27 WHITE/BLUE	55	NNB15LF		156
99	7.17	701.76	5.15	4.93	29.45	15.46	R3000 27 WHITE/BLUE	56	NNB15LF		156
100	7.50	709.26	5.26	5.37	29.35	15.45	R3000 28 BLUE	57	NNB15LF		156
101	7.33	716.59	5.26	5.37	29.26	15.45	R3000 28 BLUE	58	NNB15LF		156
102	7.34	723.93	5.31	5.37	29.17	15.44	R3000 28 BLUE	59	NNB15LF		156
103	7.33	731.26	5.42	5.37	29.09	15.43	R3000 28 BLUE	60	NNB15LF		156
104	7.50	738.76	5.35	5.37	29.00	15.44	R3000 28 BLUE	61	NNB15LF		150
105	7.00	745.76	5.41	5.37	28.91	15.43	R3000 28 BLUE	62	NNB15LF		150
106	7.50	753.26	5.58	5.74	28.83	15.41	R3000 29 BLUE/DK BRN	63	NNB15LF		144
107	7.33	760.59	5.58	5.74	28.74	15.41	R3000 29 BLUE/DK BRN	64	NNB15LF		144
108	7.34	767.93	5.63	5.74	28.66	15.41	R3000 29 BLUE/DK BRN	65	NNB15LF		138
109	7.33	775.26	5.74	5.73	28.58	15.40	R3000 29 BLUE/DK BRN	66	NNB15LF		132
110	7.50	782.76	6.85	6.95	28.50	15.25	R3000 32 ORANGE	67	NNB15LF		BB
TOWER 5	157.00	787.60									
111		788.59								44	
112	10.00	792.76	6.92	6.94	28.39	15.24	R3000 32 ORANGE	68	NNB15LF		BB
113	7.50	800.26	5.93	6.13	28.31	15.34	R3000 30 DK BROWN	69	NNB15LF		OS
114	7.33	807.59	5.92	5.72	28.24	15.34	R3000 29 BLUE/DK BRN	70	NNB15LF		OS
115	7.34	814.93	5.97	6.13	28.16	15.33	R3000 30 DK BROWN	71	NNB15LF		OS
116	7.33	822.26	6.09	6.12	28.09	15.32	R3000 30 DK BROWN	72	NNB15LF		OS
117	7.50	829.76	6.01	6.13	28.02	15.33	R3000 30 DK BROWN	73	NNB15LF		OS
118	7.00	836.76	6.06	6.12	27.95	15.32	R3000 30 DK BROWN	74	NNB15LF		OS
119	7.50	844.26	6.25	6.12	27.88	15.30	R3000 30 DK BROWN	75	NNB15LF		OS
120	7.33	851.59	6.24	6.12	27.81	15.30	R3000 30 DK BROWN	76	NNB15LF		OS
121	7.34	858.93	6.29	6.12	27.74	15.29	R3000 30 DK BROWN	77	NNB15LF		OS
122	7.33	866.26	6.42	6.47	27.68	15.28	R3000 31 DK BRN/ORN	78	NNB15LF		OS
123	7.50	873.76	6.33	6.47	27.61	15.28	R3000 31 DK BRN/ORN	79	NNB15LF		OS
124	7.00	880.76	6.38	6.47	27.55	15.28	R3000 31 DK BRN/ORN	80	NNB15LF		OS
125	7.50	888.26	6.58	6.46	27.49	15.26	R3000 31 DK BRN/ORN	81	NNB15LF		OS
126	7.33	895.59	6.56	6.46	27.43	15.26	R3000 31 DK BRN/ORN	82	NNB15LF		OS
127	7.34	902.93	6.62	6.46	27.37	15.25	R3000 31 DK BRN/ORN	83	NNB15LF		OS
128	7.33	910.26	6.74	6.94	27.31	15.23	R3000 32 ORANGE	84	NNB15LF		OS
129	7.50	917.76	6.65	6.46	27.25	15.24	R3000 31 DK BRN/ORN	85	NNB15LF		OS
130	7.00	924.76	6.70	6.46	27.20	15.24	R3000 31 DK BRN/ORN	86	NNB15LF		OS
131	7.50	932.26	6.91	6.94	27.14	15.21	R3000 32 ORANGE	87	NNB15LF		OS
132	7.33	939.59	6.89	6.94	27.08	15.21	R3000 32 ORANGE	88	NNB15LF		OS
133	7.34	946.93	6.94	6.94	27.03	15.21	R3000 32 ORANGE	89	NNB15LF		OS

OU T NO.	ST OUTLET	DIS CE TO PIVOT	M NEED	PM DEL.	PE PSI	NOZ PSI	SPR ER EL A NOZZLE SIZE	SPR NO.	REG SIZE	PL NO.	DRO LENGTH
134	7.33	954.26	7.07	6.93	26.98	15.19	R3000 32 ORANGE	90	NNB15LF		OS
135	7.50	961.76	8.42	8.25	26.93	15.07	R3000 35 DK GRN/PUR	91	NNB15LF		BB
TOWER 6	179.00	966.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
136		967.59	- - -	- - -	- - -	- - -	- - -	- - -	- - -	45	
137	10.00	971.76	8.50	8.67	26.77	15.06	R3000 36 PURPLE	92	NNB15LF		BB
138	7.50	979.26	7.26	7.39	26.66	15.17	R3000 33 ORN/DK GRN	93	NNB15LF		OS
139	7.33	986.59	7.23	7.39	26.55	15.17	R3000 33 ORN/DK GRN	94	NNB15LF		OS
140	7.34	993.93	7.28	7.39	26.45	15.16	R3000 33 ORN/DK GRN	95	NNB15LF		OS
141	7.33	1001.26	7.42	7.39	26.35	15.15	R3000 33 ORN/DK GRN	96	NNB15LF		OS
142	7.50	1008.76	7.31	7.39	26.24	15.15	R3000 33 ORN/DK GRN	97	NNB15LF		OS
143	7.00	1015.76	7.36	7.39	26.15	15.15	R3000 33 ORN/DK GRN	98	NNB15LF		OS
144	7.50	1023.26	7.58	7.38	26.05	15.12	R3000 33 ORN/DK GRN	99	NNB15LF		OS
145	7.33	1030.59	7.55	7.38	25.96	15.12	R3000 33 ORN/DK GRN	100	NNB15LF		OS
146	7.34	1037.93	7.61	7.84	25.87	15.12	R3000 34 DK GREEN	101	NNB15LF		OS
147	7.33	1045.26	7.74	7.84	25.79	15.10	R3000 34 DK GREEN	102	NNB15LF		OS
148	7.50	1052.76	7.62	7.84	25.70	15.11	R3000 34 DK GREEN	103	NNB15LF		OS
149	7.00	1059.76	7.67	7.84	25.63	15.10	R3000 34 DK GREEN	104	NNB15LF		OS
150	7.50	1067.26	7.90	7.83	25.55	15.08	R3000 34 DK GREEN	105	NNB15LF		OS
151	7.33	1074.59	7.87	7.83	25.47	15.08	R3000 34 DK GREEN	106	NNB15LF		OS
152	7.34	1081.93	7.92	7.83	25.40	15.08	R3000 34 DK GREEN	107	NNB15LF		OS
153	7.33	1089.26	8.07	8.25	25.33	15.06	R3000 35 DK GRN/PUR	108	NNB15LF		OS
154	7.50	1096.76	7.94	7.83	25.26	15.07	R3000 34 DK GREEN	109	NNB15LF		OS
155	7.00	1103.76	7.99	7.83	25.19	15.06	R3000 34 DK GREEN	110	NNB15LF		OS
156	7.50	1111.26	8.23	8.24	25.13	15.04	R3000 35 DK GRN/PUR	111	NNB15LF		OS
157	7.33	1118.59	8.19	8.24	25.07	15.04	R3000 35 DK GRN/PUR	112	NNB15LF		OS
158	7.34	1125.93	8.25	8.24	25.01	15.04	R3000 35 DK GRN/PUR	113	NNB15LF		OS
159	7.33	1133.26	8.39	8.24	24.95	15.02	R3000 35 DK GRN/PUR	114	NNB15LF		OS
160	7.50	1140.76	9.98	9.72	24.90	14.84	R3000 38 BLACK	115	NNB15LF		BB
TOWER 7	179.00	1145.60									
161		1146.59	- - -	- - -	- - -	- - -	- - -	- - -	- - -	46	
162	10.00	1150.76	10.06	10.25	24.83	14.82	R3000 39 BLK/DTURQ	116	NNB15LF		BB
163	7.50	1158.26	8.58	8.65	24.78	15.00	R3000 36 PURPLE	117	NNB15LF		OS
164	7.33	1165.59	8.54	8.65	24.74	15.00	R3000 36 PURPLE	118	NNB15LF		OS
165	7.34	1172.93	8.59	8.65	24.69	14.99	R3000 36 PURPLE	119	NNB15LF		OS
166	7.33	1180.26	8.74	8.64	24.65	14.98	R3000 36 PURPLE	120	NNB15LF		OS
167	7.50	1187.76	8.60	8.65	24.61	14.99	R3000 36 PURPLE	121	NNB15LF		OS
168	7.00	1194.76	8.65	8.65	24.57	14.98	R3000 36 PURPLE	122	NNB15LF		OS
169	7.50	1202.26	8.90	8.64	24.54	14.96	R3000 36 PURPLE	123	NNB15LF		OS
170	7.33	1209.59	8.87	8.64	24.50	14.96	R3000 36 PURPLE	124	NNB15LF		OS
171	7.34	1216.93	8.93	9.22	24.47	14.95	R3000 37 PUR/BLK	125	NNB15LF		OS
172	7.33	1224.26	9.07	9.22	24.44	14.93	R3000 37 PUR/BLK	126	NNB15LF		OS
173	7.50	1231.76	8.92	8.64	24.42	14.95	R3000 36 PURPLE	127	NNB15LF		OS
174	7.00	1238.76	8.98	9.22	24.39	14.94	R3000 37 PUR/BLK	128	NNB15LF		OS
175	7.50	1246.26	9.23	9.21	24.37	14.91	R3000 37 PUR/BLK	129	NNB15LF		OS
176	7.33	1253.59	9.19	9.21	24.34	14.92	R3000 37 PUR/BLK	130	NNB15LF		OS

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.	DROP LENGTH
177	7.34	1260.93	9.24	9.21	24.32	14.91	R3000 37 PUR/BLK	131	NNB15LF		OS
178	7.33	1268.26	9.40	9.21	24.30	14.89	R3000 37 PUR/BLK	132	NNB15LF		OS
179	7.50	1275.76	9.25	9.21	24.29	14.91	R3000 37 PUR/BLK	133	NNB15LF		OS
180	7.00	1282.76	9.30	9.21	24.27	14.90	R3000 37 PUR/BLK	134	NNB15LF		OS
181	7.50	1290.26	9.57	9.73	24.26	14.86	R3000 38 BLACK	135	NNB15LF		OS
182	7.33	1297.59	9.52	9.73	24.24	14.87	R3000 38 BLACK	136	NNB15LF		OS
183	7.34	1304.93	9.56	9.73	24.23	14.87	R3000 38 BLACK	137	NNB15LF		OS
184	7.33	1312.26	9.70	9.72	24.22	14.85	R3000 38 BLACK	138	NNB15LF		OS
185	7.50	1319.76	11.00	10.72	24.21	14.68	R3000 40 DK TURQ	139	NNB15HF		BB
TOWER 8	179.00	1324.60									
186	9.21	1328.97	11.09	11.35	24.20	14.67	R3000 41 DTURQ/MUS	140	NNB15HF		BB
187	7.50	1336.47	9.88	9.69	24.20	14.77	R3000 38 BLACK	141	NNB15HF		OS
188	7.33	1343.80	9.85	9.70	24.19	14.77	R3000 38 BLACK	142	NNB15HF		OS
189	7.34	1351.14	9.92	9.69	24.19	14.76	R3000 38 BLACK	143	NNB15HF		OS
190	7.33	1358.47	10.11	10.22	24.18	14.74	R3000 39 BLK/DTURQ	144	NNB15HF		OS
191	7.50	1365.97	10.04	10.22	24.18	14.74	R3000 39 BLK/DTURQ	145	NNB15HF		OS
		PIPE ID CHANGES FROM 5.369 TO 3.806									
192	7.17	1373.14	9.94	9.69	24.17	14.76	R3000 38 BLACK	146	NNB15HF		OS
193	7.33	1380.47	10.16	10.22	24.16	14.73	R3000 39 BLK/DTURQ	147	NNB15HF		OS
194	7.33	1387.80	10.20	10.22	24.15	14.73	R3000 39 BLK/DTURQ	148	NNB15HF		OS
195	7.34	1395.14	10.25	10.23	24.15	14.78	R3000 39 BLK/DTURQ	149	NNB15HF		144
196	7.33	1402.47	10.30	10.23	24.15	14.78	R3000 39 BLK/DTURQ	150	NNB15HF		144
197	7.33	1409.80	11.00	10.74	24.15	14.73	R3000 40 DK TURQ	151	NNB15HF		144
	DRAIN-SANDTRAP		3.28	3.36			F SPRAY 10 TURQ				
OVERHANG	88.87	1413.47									

TOTAL GPM = 1005.38
GPA = 6.95

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 20.51 PSI FOR SPRINKLER 140
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME 36 HR	48 HR	60 HR

1	4	7	36	.08	0.01[illegible]	.83	0.85	1.06
2	5.39	37.49	39.18	7.27	0.016	0.58	0.77	0.96
3	8.95	62.20	59.43	6.64	0.015	0.53	0.70	0.88
4	12.50	86.92	88.85	7.11	0.016	0.57	0.75	0.94
5	16.06	111.64	111.60	6.95	0.015	0.55	0.74	0.92
6	22.65	157.44	156.32	6.90	0.015	0.55	0.73	0.92
7	27.27	189.57	189.18	6.94	0.015	0.55	0.74	0.92
8	31.89	221.70	220.60	6.92	0.015	0.55	0.73	0.92
OVERHANG	17.55	122.00	122.21	6.96	0.015	0.55	0.74	0.92
TOTAL	144.09	1001.72	1002.02	6.95				

SUMMARY OF SPRINKLERS

5	R3000 14 LIME
1	R3000 15 LIME/LAV
1	R3000 16 LAVENDER
1	R3000 17 LAV/GRAY
1	R3000 19 GRAY/TURQ
3	R3000 20 TURQUOISE
1	R3000 21 TURQ/YEL
1	R3000 22 YELLOW
2	R3000 23 YEL/RED
1	R3000 24 RED
9	R3000 25 RED/WHITE
4	R3000 26 WHITE
9	R3000 27 WHITE/BLUE
10	R3000 28 BLUE
7	R3000 29 BLUE/DK BRN
11	R3000 30 DK BROWN
10	R3000 31 DK BRN/ORN
7	R3000 32 ORANGE
11	R3000 33 ORN/DK GRN
12	R3000 34 DK GREEN
6	R3000 35 DK GRN/PUR
10	R3000 36 PURPLE
9	R3000 37 PUR/BLK
9	R3000 38 BLACK
7	R3000 39 BLK/DTURQ
2	R3000 40 DK TURQ
1	R3000 41 DTURQ/MUS
46	PLUGS

SUMMARY OF DROPS

4	126 IN DROP
6	132 IN DROP
6	138 IN DROP
16	144 IN DROP
13	150 IN DROP
23	156 IN DROP
83	OS

TOTAL OF 151 DROPS

SUMMARY OF REGULATORS

138	NNB15LF
13	NNB15HF

TOTAL OF 151 REGULATORS

AGRI LINES IRRIGATION

HAMMACK #1

OCTOBER ~~02, 2000~~

CUSTOMER : MK FARMS

P.O. NO. : 36294
JOB NO. :
LEGAL :
CROP :

~~WISHNW-5940~~

2000 LINDSAY GEN II - 90
6 TOWER - 1121.47 FT
SYSTEM 700 GPM @ 38 PSI

NELSON R3000 ROTATORS
NELSON 15 PSI REGULATORS
NELSON P85AS 3/8 TB
ELEVATION 0 FT UP, 0 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

00 LINDSAY . II - 90 OCTOBER 02, 2000 WISHNVV-

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

MK FARMS

36294

				SPANS	LENGTH	PIPE I.D.
OTAL TARGET GPM	700.00	FRICTION FACTOR USED	138	1	181.60	6.395
VOT PRESSURE	38.00	TOTAL LENGTH	1121.47	5	179.00	6.395
NDGUN TARGET GPM	63.96	NUMBER OF TOWERS	6	OH	44.87	5.369
UMBER OF OUTLETS	156	NUMBER OF SPRINKLERS	88			

ELSON R3000 ROTATORS - D6 PURPLE PLATES
ELSON BLUE TOP 15 PSI INTEGRAL SERIES REGULATORS
ROPS AVERAGE 11 FT OF .75 I.D. FLEXIBLE HOSE WITH EXTERNAL POLYWEIGHTS®
ACO OFFSETS AS SHOWN
ELEVATION IS 0 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.

OUTLET NO.	[illegible]	[illegible]LET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	P[illegible] PSI	[illegible]ZLE PSI	RINI[illegible] LA[illegible]AN[illegible] NOZZLE SIZE	[illegible]PRK NO.	[illegible]EG SIZE	PLU[illegible] NO.	DRO[illegible] GTH
1			3.59								1	
2			7.76								2	
3			15.26								3	
4			22.59								4	
5		29.93	29.93	0.84	1.36	37.67	16.65	R3000 14 LIME	1	NNB15LF		126
6			37.26								5	
7			44.76								6	
8		21.83	51.76	1.15	1.35	37.43	16.55	R3000 14 LIME	2	NNB15LF		138
9			59.26								7	
10			66.59								8	
11		22.1[illegible]	73.93	1.64	1.58	37.19	16.38	R3000 15 LIME/LAV	3	NNB15LF		144
12			81.26								9	
13			88.76								10	
14		21.83	95.76	1.74	1.79	36.96	16.35	R3000 16 LAVENDER	4	NNB15LF		144
15			103.26								11	
16		14.83	110.59	1.65	1.58	36.80	16.38	R3000 15 LIME/LAV	5	NNB15LF		144
17			117.93								12	
18		14.67	125.26	1.85	1.78	36.64	16.31	R3000 16 LAVENDER	6	NNB15LF		138
19			132.76								13	
20		14.50	139.76	2.07	2.01	36.49	16.24	R3000 17 LAV/GRAY	7	NNB15LF		132
21			147.26								14	
22		14.83	154.59	2.30	2.22	36.33	16.16	R3000 18 GRAY	8	NNB15LF		126
23			161.93								15	
24		14.67	169.26	2.[illegible]6	2.[illegible]8	36.17	16.01	R3000 20 TURQUOISE	9	NNB15LF		120
25			176.[illegible]								16	
TOWER 1		181.60	181.60									
26			182.59								17	
27		17.50	186.76	3.04	3.00	35.99	15.91	R3000 21 TURQ/YEL	10	NNB15LF		114
28			194.26								18	
29		14.83	201.59	3.01	3.00	35.84	15.93	R3000 21 TURQ/YEL	11	NNB15LF		126
30			208.93								19	
31		14.67	216.26	3.19	3.32	35.69	15.86	R3000 22 YELLOW	12	NNB15LF		132
32			223.76								20	
33		14.50	230.76	3.42	3.31	35.54	15.79	R3000 22 YELLOW	13	NNB15LF		138
34			238.26								21	
35		14.83	245.59	3.66	3.58	35.39	15.71	R3000 23 YEL/RED	14	NNB15LF		144
36			252.93								22	
37		14.67	260.26	3.84	3.94	35.24	15.65	R3000 24 RED	15	NNB15LF		144
38			267.76								23	
39		14.50	274.76	4.07	3.93	35.10	15.59	R3000 24 RED	16	NNB15LF		144
40			282.26								24	
41		14.83	289.59	4.32	4.25	34.95	15.56	R3000 25 RED/WHITE	17	NNB15LF		144
42			296.93								25	
43		14.67	304.26	4.49	4.61	34.81	15.54	R3000 26 WHITE	18	NNB15LF		138
44			311.76								26	
45		14.50	318.76	4.73	4.61	34.67	15.52	R3000 26 WHITE	19	NNB15LF		132
46			326.26								27	
47		14.83	333.59	4.97	4.94	34.53	15.49	R3000 27 WHITE/BLUE	20	NNB15LF		126

OUTLET NO.	LET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PSI	NOZZLE PSI	SPRINKLER AND NOZZLE SIZE	SPRI NO.	REG SIZE	PLOT NO.	DRIP LENGTH
48		340.93								28	
49	14.67	348.26	5.68	5.74	34.40	15.43	R3000 29 BLUE/DK BRN	21	NNB15LF		120
50		355.76								29	
OWER 2	179.00	360.60									
51		361.59								30	
52	17.50	365.76	5.97	6.14	34.24	15.40	R3000 30 DK BROWN	22	NNB15LF		114
53		373.26								31	
54	14.83	380.59	5.67	5.74	34.10	15.42	R3000 29 BLUE/DK BRN	23	NNB15LF		126
55		387.93								32	
56	14.67	395.26	5.83	5.74	33.97	15.41	R3000 29 BLUE/DK BRN	24	NNB15LF		132
57		402.76								33	
58	14.50	409.76	6.08	6.14	33.85	15.38	R3000 30 DK BROWN	25	NNB15LF		138
59		417.26								34	
60	14.83	424.59	6.33	6.49	33.72	15.36	R3000 31 DK BRN/ORN	26	NNB15LF		144
61		431.93								35	
62	14.67	439.26	6.47	6.48	33.60	15.34	R3000 31 DK BRN/ORN	27	NNB15LF		144
63		446.76								36	
64	14.50	453.76	6.72	6.96	33.48	15.32	R3000 32 ORANGE	28	NNB15LF		144
65		461.26								37	
66	14.83	468.59	6.98	6.96	33.36	15.29	R3000 32 ORANGE	29	NNB15LF		144
67		475.93								38	
68	14.67	483.26	7.12	6.95	33.25	15.28	R3000 32 ORANGE	30	NNB15LF		138
69		490.76								39	
70	14.50	497.76	7.38	7.41	33.13	15.25	R3000 33 ORN/DK GRN	31	NNB15LF		132
71		505.26								40	
72	14.83	512.59	7.64	7.41	33.02	15.23	R3000 33 ORN/DK GRN	32	NNB15LF		126
73		519.93								41	
74	14.67	527.26	7.88	8.70	32.92	15.18	R3000 36 PURPLE	33	NNB15LF		120
75		534.76								42	
OWER 3	179.00	539.60									
76		540.59								43	
77	17.50	544.76	8.89	8.67	32.79	15.07	R3000 36 PURPLE	34	NNB15HF		114
78		552.26								44	
79	14.83	559.59	8.34	8.27	32.69	15.15	R3000 35 DK GRN/PUR	35	NNB15HF		126
80		566.93								45	
81	14.67	574.26	8.47	8.27	32.59	15.13	R3000 35 DK GRN/PUR	36	NNB15HF		132
82		581.76								46	
83	14.50	588.76	8.73	8.67	32.50	15.09	R3000 36 PURPLE	37	NNB15HF		138
84		596.26								47	
85	14.83	603.59	9.01	9.25	32.40	15.04	R3000 37 PUR/BLK	38	NNB15HF		144
86		610.93								48	
87	14.67	618.26	9.12	9.25	32.31	15.02	R3000 37 PUR/BLK	39	NNB15HF		144
88		625.76								49	
89	14.50	632.76	9.38	9.23	32.23	14.98	R3000 37 PUR/BLK	40	NNB15HF		144
90		640.26								50	
91	14.83	647.59	9.66	9.75	32.14	14.94	R3000 38 BLACK	41	NNB15HF		144
92		654.93								51	
93	14.67	662.26	9.76	9.74	32.06	14.92	R3000 38 BLACK	42	NNB15HF		138

…ET NO.	…AST …ET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.	DRO… LEN…
94		669.76								52	
95	14.50	676.76	10.03	9.73	31.99	14.88	R3000 38 BLACK	43	NNB15HF		132
96		684.26								53	
97	14.83	691.59	10.32	10.79	31.91	14.85	R3000 40 DK TURQ	44	NNB15HF		126
98		698.93								54	
99	14.67	706.26	11.49	11.91	31.84	14.75	R3000 42 MUSTARD	45	NNB15HF		120
00		713.76								55	
…WER 4	179.00	718.60									
101		719.59								56	
102	17.50	723.76	11.80	11.90	31.76	14.72	R3000 42 MUSTARD	46	NNB15HF		114
103		731.26								57	
104	14.83	738.59	10.99	10.76	31.69	14.79	R3000 40 DK TURQ	47	NNB15HF		126
105		745.93								58	
106	14.67	753.26	11.09	10.76	31.63	14.78	R3000 40 DK TURQ	48	NNB15HF		132
107		760.76								59	
108	14.50	767.76	11.38	11.91	31.57	14.76	R3000 42 MUSTARD	49	NNB15HF		138
109		775.26								60	
110	14.83	782.59	11.65	11.90	31.52	14.73	R3000 42 MUSTARD	50	NNB15HF		144
111		789.93								61	
112	14.67	797.26	11.72	11.90	31.46	14.73	R3000 42 MUSTARD	51	NNB15HF		144
113		804.76								62	
114	14.50	811.76	12.00	11.89	31.41	14.70	R3000 42 MUSTARD	52	NNB15HF		144
115		819.26								63	
116	14.83	826.59	12.29	11.88	31.37	14.68	R3000 42 MUSTARD	53	NNB15HF		144
117		833.93								64	
118	14.67	841.26	12.39	11.88	31.32	14.67	R3000 42 MUSTARD	54	NNB15HF		138
119		848.76								65	
120	14.50	855.76	12.69	13.01	31.28	14.65	R3000 44 MAROON	55	NNB15HF		132
121		863.26								66	
122	14.83	870.59	12.97	13.00	31.24	14.62	R3000 44 MAROON	56	NNB15HF		126
123		877.93								67	
124	14.67	885.26	9.89	9.72	31.21	14.86	R3000 38 BLACK	57	NNB15HF		OS
125	7.50	892.76	7.90	7.85	31.19	15.17	R3000 34 DK GREEN	58	NNB15HF		OS
…OWER 5	179.00	897.60									
126		898.59								68	
127	10.00	902.76	7.98	7.85	31.17	15.16	R3000 34 DK GREEN	59	NNB15HF		OS
128	7.50	910.26	6.83	6.97	31.15	15.34	R3000 32 ORANGE	60	NNB15HF		OS
129	7.33	917.59	6.80	6.97	31.14	15.34	R3000 32 ORANGE	61	NNB15HF		OS
130	7.34	924.93	6.85	6.97	31.12	15.33	R3000 32 ORANGE	62	NNB15HF		OS
131	7.33	932.26	6.98	6.96	31.11	15.31	R3000 32 ORANGE	63	NNB15HF		OS
132	7.50	939.76	6.88	6.97	31.10	15.33	R3000 32 ORANGE	64	NNB15HF		OS
133	7.00	946.76	6.93	6.96	31.09	15.32	R3000 32 ORANGE	65	NNB15HF		OS
134	7.50	954.26	7.14	6.96	31.08	15.29	R3000 32 ORANGE	66	NNB15HF		OS
135	7.33	961.59	7.12	6.96	31.07	15.29	R3000 32 ORANGE	67	NNB15HF		OS
136	7.34	968.93	7.19	6.95	31.06	15.28	R3000 32 ORANGE	68	NNB15HF		OS
137	7.33	976.26	7.33	7.41	31.05	15.26	R3000 33 ORN/DK GRN	69	NNB15HF		OS
138	7.50	983.76	7.22	7.42	31.04	15.27	R3000 33 ORN/DK GRN	70	NNB15HF		OS
139	7.00	990.76	7.26	7.42	31.03	15.27	R3000 33 ORN/DK GRN	71	NNB15HF		OS

OUTLET NO.	S... LET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.	DRG. NGTH
140	7.50	998.26	7.47	7.41	31.02	15.23	R3000 33 ORN/DK GRN	72	NNB15HF		OS
141	7.33	1005.59	7.45	7.41	31.01	15.24	R3000 33 ORN/DK GRN	73	NNB15HF		OS
142	7.34	1012.93	7.51	7.41	31.01	15.23	R3000 33 ORN/DK GRN	74	NNB15HF		OS
143	7.33	1020.26	7.65	7.86	31.00	15.21	R3000 34 DK GREEN	75	NNB15HF		OS
144	7.50	1027.76	7.52	7.41	30.99	15.23	R3000 33 ORN/DK GRN	76	NNB15HF		OS
145	7.00	1034.76	7.58	7.40	30.99	15.22	R3000 33 ORN/DK GRN	77	NNB15HF		OS
146	7.50	1042.26	7.82	7.86	30.98	15.18	R3000 34 DK GREEN	78	NNB15HF		OS
147	7.33	1049.59	7.79	7.86	30.98	15.18	R3000 34 DK GREEN	79	NNB15HF		OS
148	7.34	1056.93	7.84	7.86	30.98	15.18	R3000 34 DK GREEN	80	NNB15HF		OS
149	7.33	1064.26	7.97	7.85	30.97	15.16	R3000 34 DK GREEN	81	NNB15HF		OS
150	7.50	1071.76	9.07	9.24	30.97	14.98	R3000 37 PUR/BLK	82	NNB15HF		OS
OWER	179.00	1076.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
151	9.21	1080.97	9.11	9.24	30.96	15.01	R3000 37 PUR/BLK	83	NNB15HF		114
152	7.50	1088.47	8.12	8.28	30.95	15.17	R3000 35 DK GRN/PUR	84	NNB15HF		114
153	7.33	1095.80	8.05	7.86	30.95	15.18	R3000 34 DK GREEN	85	NNB15HF		114
154	7.34	1103.14	8.16	8.27	30.95	15.16	R3000 35 DK GRN/PUR	86	NNB15HF		114
155	7.33	1110.47	8.25	8.27	30.94	15.14	R3000 35 DK GRN/PUR	87	NNB15HF		114
156	7.50	1117.97	8.20	8.27	30.94	15.15	R3000 35 DK GRN/PUR	88	NNB15HF		114
VERHANG	44.87	1121.47	63.80		ENDGUN		(2)NELSON P85AS 3/8 TB				

BOOSTER PUMP AT END ADDS 32.86 PSI TO PIPE PRESSURE FOR A PRESSURE OF 63.80 PSI
FRICTION LOSS THROUGH ENDGUN VALVE IS 0.88 PSI - ENDGUN PRESSURE IS 62.92 PSI

TOTAL GPM = 700.00
GPA = 7.01

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 30.58 PSI FOR SPRINKLER 42
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	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	16 68	16.45	6.91	0.015	0.55	0.73	0.92
2	7.00	49 08	48.24	6.89	0.015	0.55	0.73	0.91

2	11.62	81.49	81.11	6.90	.015	.3	.74	0.93
4	.24	113.90	113.00	6.[illegible]				
5	.6	146.30	148.38	7.11	0.016	0.57	0.75	
6	25.49	178.71	178.30	7.00	0.015	0.56	0.74	
ERHANG	7.11	49.88	50.19	7.06	0.016	0.56	0.75	0.94
OGUN	8.09	63.96	63.80	7.89				
TAL	98.79	700.00	700.00	7.09				

UMMARY OF SPRINKLERS

	R3000 14 LIME
	R3000 15 LIME/LAV
	R3000 16 LAVENDER
	R3000 17 LAV/GRAY
	R3000 18 GRAY
	R3000 20 TURQUOISE
	R3000 21 TURQ/YEL
	R3000 22 YELLOW
	R3000 23 YEL/RED
2	R3000 24 RED
	R3000 25 RED/WHITE
2	R3000 26 WHITE
1	R3000 27 WHITE/BLUE
8	R3000 29 BLUE/DK BRN
2	R3000 30 DK BROWN
2	R3000 31 DK BRN/ORN
12	R3000 32 ORANGE
10	R3000 33 ORN/DK GRN
8	R3000 34 DK GREEN
6	R3000 35 DK GRN/PUR
3	R3000 36 PURPLE
5	R3000 37 PUR/BLK
4	R3000 38 BLACK
3	R3000 40 DK TURQ
8	R3000 42 MUSTARD
2	R3000 44 MAROON
68	PLUGS

SUMMARY OF DROPS

10	114 IN DROP
4	120 IN DROP
10	126 IN DROP
9	132 IN DROP
10	138 IN DROP
19	144 IN DROP
26	OS

TOTAL OF 88 DROPS

SUMMARY OF REGULATORS

33	NNB15LF
55	NNB15HF

TOTAL OF 88 REGULATORS

Hammack #2

AGRI LINES IRRIGATION

SEPTEMBER 04, 2002	WISHNW-9096
CUSTOMER : WILLIAM HEID	2002 LINDSAY GEN II - 90 6 TOWER - 1121.47 FT SYSTEM 630 GPM @ 41 PSI
P.O. NO. : 43000 JOB NO. : LEGAL : 6 TOWER - HIGH PROFILE CROP :	NELSON S3000 SPINNERS NELSON 15 & 10 PSI REGULATORS NO ENDGUN ELEVATION 0 FT UP, 0 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

2002 LINDSAY GEN II - 90 SEPTEMBER 04, 2002 WISHNW-9096

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

WILLIAM HEID
6 TOWER - HIGH PROFILE
43000

TOTAL TARGET GPM	630.00	FRICTION FACTOR USED	138	SPANS	LENGTH	PIPE I.D.
PIVOT PRESSURE	41.00	TOTAL LENGTH	1121.47	1	181.60	6.395
NO ENDGUN		NUMBER OF TOWERS	6	5	179.00	5.369
NUMBER OF OUTLETS	156	NUMBER OF SPRINKLERS	113			
				OH	44.87	5.369

NELSON S3000 SPINNERS - D6 PURPLE PLATES TO POSITION 59
NELSON S3000 SPINNERS - D8 YELLOW PLATES BALANCE
NELSON BLUE TOP 15 & 10 LF INTEGRAL SERIES REGULATORS
DROPS AVERAGE 10.8 FT OF .75 I.D. SURELINE FLEXIBLE HOSE WITH INTEGRAL POLYWEIGHTS®
IACO OFFSETS AS SHOWN
ELEVATION IS 0 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 . Mixing of two or more different sprinkler types usually results in pattern variances at the point where the sprinklers mix, due to differences in water pattern and distance of throw.

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.	DROP LENGTH
1		3.59								1	
2		7.76								2	
3		15.26								3	
4	22.59	22.59	0.45	1.02	40.80	16.81	S3000 12 GOLD	1	NNB15LF		126
5		29.93								4	
6	14.67	37.26	0.54	1.02	40.67	16.78	S3000 12 GOLD	2	NNB15LF		132
7		44.76								5	
8	14.50	51.76	0.76	1.01	40.54	16.71	S3000 12 GOLD	3	NNB15LF		138
9		59.26								6	
10	14.83	66.59	0.98	1.01	40.40	16.63	S3000 12 GOLD	4	NNB15LF		144
11		73.93								7	
12	14.67	81.26	1.18	1.19	40.27	16.56	S3000 13 GOLD/LIME	5	NNB15LF		144
13		88.76								8	
14	14.50	95.76	1.40	1.35	40.14	16.49	S3000 14 LIME	6	NNB15LF		144
15		103.26								9	
16	14.83	110.59	1.62	1.58	40.01	16.41	S3000 15 LIME/LAV	7	NNB15LF		144
17		117.93								10	
18	14.67	125.26	1.82	1.78	39.88	16.34	S3000 16 LAVENDER	8	NNB15LF		138
19		132.76								11	
20	14.50	139.76	2.04	2.01	39.76	16.27	S3000 17 LAV/GRAY	9	NNB15LF		138
21		147.26								12	
22	14.83	154.59	2.27	2.22	39.63	16.19	S3000 18 GRAY	10	NNB15LF		132
23		161.93								13	
24	14.67	169.26	2.72	2.78	39.50	16.04	S3000 20 TURQUOISE	11	NNB15LF		120
25		176.76								14	
TOWER 1	181.60	181.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
26		182.59								15	
27	17.50	186.76	2.99	3.00	39.15	15.94	S3000 21 TURQ/YEL	12	NNB15LF		120
28		194.26								16	
29	14.83	201.59	2.95	3.00	38.86	15.95	S3000 21 TURQ/YEL	13	NNB15LF		126
30		208.93								17	
31	14.67	216.26	3.13	3.00	38.57	15.89	S3000 21 TURQ/YEL	14	NNB15LF		132
32		223.76								18	
33	14.50	230.76	3.37	3.32	38.29	15.82	S3000 22 YELLOW	15	NNB15LF		138
34		238.26								19	
35	14.83	245.59	3.60	3.58	38.00	15.74	S3000 23 YEL/RED	16	NNB15LF		144
36		252.93								20	
37	14.67	260.26	3.77	3.95	37.72	15.68	S3000 24 RED	17	NNB15LF		144
38		267.76								21	
39	14.50	274.76	4.01	3.94	37.45	15.60	S3000 24 RED	18	NNB15LF		144
40		282.26								22	
41	14.83	289.59	4.25	4.25	37.17	15.58	S3000 25 RED/WHITE	19	NNB15LF		144
42		296.93								23	
43	14.67	304.26	4.41	4.25	36.90	15.56	S3000 25 RED/WHITE	20	NNB15LF		138
44		311.76								24	
45	14.50	318.76	4.65	4.61	36.64	15.54	S3000 26 WHITE	21	NNB15LF		138
46		326.26								25	

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.	DROP LENGTH
47	14.83	333.59	4.89	4.94	36.37	15.51	S3000 27 WHITE/BLUE	22	NNB15LF		132
48		340.93								26	
49	14.67	348.26	5.58	5.74	36.11	15.44	S3000 29 BLUE/DK BRN	23	NNB15LF		120
50		355.76								27	
TOWER 2	179.00	360.60									
51		361.59								28	
52	17.50	365.76	5.87	5.74	35.81	15.41	S3000 29 BLUE/DK BRN	24	NNB15LF		120
53		373.26								29	
54	14.83	380.59	5.58	5.74	35.56	15.44	S3000 29 BLUE/DK BRN	25	NNB15LF		126
55		387.93								30	
56	14.67	395.26	5.73	5.74	35.32	15.42	S3000 29 BLUE/DK BRN	26	NNB15LF		132
57		402.76								31	
58	14.50	409.76	5.97	6.14	35.08	15.40	S3000 30 DK BROWN	27	NNB15LF		138
59		417.26								32	
60	14.83	424.59	6.22	6.13	34.84	15.37	S3000 30 DK BROWN	28	NNB15LF		144
61		431.93								33	
62	14.67	439.26	6.37	6.49	34.62	15.36	S3000 31 DK BRN/ORN	29	NNB15LF		144
63		446.76								34	
64	14.50	453.76	6.61	6.48	34.39	15.33	S3000 31 DK BRN/ORN	30	NNB15LF		144
65		461.26								35	
66	14.83	468.59	6.87	6.96	34.17	15.31	S3000 32 ORANGE	31	NNB15LF		144
67		475.93								36	
68	14.67	483.26	7.00	6.96	33.96	15.29	S3000 32 ORANGE	32	NNB15LF		138
69		490.76								37	
70	14.50	497.76	7.25	7.42	33.75	15.27	S3000 33 ORN/DK GRN	33	NNB15LF		138
71		505.26								38	
72	14.83	512.59	7.51	7.41	33.55	15.24	S3000 33 ORN/DK GRN	34	NNB15LF		132
73		519.93								39	
74	14.67	527.26	7.93	7.86	33.35	15.20	S3000 34 DK GREEN	35	NNB15LF		120
75		534.76								40	
TOWER 3	179.00	539.60									
76		540.59								41	
77	17.50	544.76	6.74	6.96	33.12	15.32	S3000 32 ORANGE	36	NNB15LF		118
78	7.50	552.26	4.07	3.93	33.03	15.58	S3000 24 RED	37	NNB15LF		120
79	7.33	559.59	4.08	3.93	32.93	15.58	S3000 24 RED	38	NNB15LF		126
80	7.34	566.93	4.14	4.25	32.84	15.57	S3000 25 RED/WHITE	39	NNB15LF		132
81	7.33	574.26	4.24	4.25	32.76	15.56	S3000 25 RED/WHITE	40	NNB15LF		132
82	7.50	581.76	4.19	4.25	32.67	15.56	S3000 25 RED/WHITE	41	NNB15LF		138
83	7.00	588.76	4.25	4.25	32.58	15.56	S3000 25 RED/WHITE	42	NNB15LF		138
84	7.50	596.26	4.40	4.24	32.50	15.54	S3000 25 RED/WHITE	43	NNB15LF		138
85	7.33	603.59	4.40	4.24	32.41	15.54	S3000 25 RED/WHITE	44	NNB15LF		144
86	7.34	610.93	4.46	4.61	32.33	15.54	S3000 26 WHITE	45	NNB15LF		144
87	7.33	618.26	4.56	4.61	32.25	15.53	S3000 26 WHITE	46	NNB15LF		144
88	7.50	625.76	4.51	4.61	32.17	15.53	S3000 26 WHITE	47	NNB15LF		144
89	7.00	632.76	4.56	4.61	32.10	15.53	S3000 26 WHITE	48	NNB15LF		144
90	7.50	640.26	4.72	4.61	32.02	15.51	S3000 26 WHITE	49	NNB15LF		144
91	7.33	647.59	4.72	4.61	31.95	15.51	S3000 26 WHITE	50	NNB15LF		144
92	7.34	654.93	4.78	4.94	31.88	15.50	S3000 27 WHITE/BLUE	51	NNB15LF		144

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.	DROP LENGTH
93	7.33	662.26	4.88	4.94	31.80	15.49	S3000 27 WHITE/BLUE	52	NNB15LF		138
94	7.50	669.76	4.83	4.94	31.73	15.50	S3000 27 WHITE/BLUE	53	NNB15LF		138
95	7.00	676.76	4.88	4.94	31.67	15.49	S3000 27 WHITE/BLUE	54	NNB15LF		138
96	7.50	684.26	5.04	4.94	31.60	15.48	S3000 27 WHITE/BLUE	55	NNB15LF		132
97	7.33	691.59	5.04	4.94	31.54	15.48	S3000 27 WHITE/BLUE	56	NNB15LF		132
98	7.34	698.93	5.10	4.94	31.47	15.47	S3000 27 WHITE/BLUE	57	NNB15LF		126
99	7.33	706.26	5.21	5.37	31.41	15.46	S3000 28 BLUE	58	NNB15LF		120
100	7.50	713.76	6.22	6.13	31.35	15.36	S3000 30 DK BROWN	59	NNB15LF		118
TOWER 4	179.00	718.60									
										42	
101		719.59									
102	10.00	723.76	6.29	6.15	31.27	10.51	S3000 33 ORN/DK GRN	60	NNB10LF		118
103	7.50	731.26	5.40	5.42	31.21	10.68	S3000 31 DK BRN/ORN	61	NNB10LF		120
104	7.33	738.59	5.39	5.42	31.16	10.68	S3000 31 DK BRN/ORN	62	NNB10LF		126
105	7.34	745.93	5.44	5.41	31.10	10.67	S3000 31 DK BRN/ORN	63	NNB10LF		132
106	7.33	753.26	5.56	5.41	31.05	10.64	S3000 31 DK BRN/ORN	64	NNB10LF		132
107	7.50	760.76	5.49	5.41	31.00	10.66	S3000 31 DK BRN/ORN	65	NNB10LF		138
108	7.00	767.76	5.54	5.41	30.95	10.64	S3000 31 DK BRN/ORN	66	NNB10LF		138
109	7.50	775.26	5.73	5.80	30.90	10.60	S3000 32 ORANGE	67	NNB10LF		144
110	7.33	782.59	5.72	5.80	30.86	10.61	S3000 32 ORANGE	68	NNB10LF		144
111	7.34	789.93	5.77	5.80	30.81	10.60	S3000 32 ORANGE	69	NNB10LF		144
112	7.33	797.26	5.89	5.79	30.77	10.57	S3000 32 ORANGE	70	NNB10LF		144
113	7.50	804.76	5.81	5.79	30.73	10.58	S3000 32 ORANGE	71	NNB10LF		144
114	7.00	811.76	5.86	5.79	30.69	10.57	S3000 32 ORANGE	72	NNB10LF		144
115	7.50	819.26	6.05	6.16	30.65	10.53	S3000 33 ORN/DK GRN	73	NNB10LF		144
116	7.33	826.59	6.04	6.16	30.61	10.53	S3000 33 ORN/DK GRN	74	NNB10LF		144
117	7.34	833.93	6.09	6.16	30.57	10.52	S3000 33 ORN/DK GRN	75	NNB10LF		144
118	7.33	841.26	6.21	6.15	30.54	10.49	S3000 33 ORN/DK GRN	76	NNB10LF		138
119	7.50	848.76	6.13	6.15	30.51	10.51	S3000 33 ORN/DK GRN	77	NNB10LF		138
120	7.00	855.76	6.18	6.15	30.48	10.50	S3000 33 ORN/DK GRN	78	NNB10LF		138
121	7.50	863.26	6.37	6.51	30.44	10.46	S3000 34 DK GREEN	79	NNB10LF		132
122	7.33	870.59	6.35	6.52	30.42	10.47	S3000 34 DK GREEN	80	NNB10LF		132
123	7.34	877.93	6.40	6.51	30.39	10.45	S3000 34 DK GREEN	81	NNB10LF		126
124	7.33	885.26	6.52	6.50	30.36	10.43	S3000 34 DK GREEN	82	NNB10LF		120
125	7.50	892.76	7.77	7.66	30.34	10.33	S3000 37 PUR/BLK	83	NNB10LF		118
TOWER 5	179.00	897.60									
										43	
126		898.59									
127	10.00	902.76	7.85	7.66	30.30	10.32	S3000 37 PUR/BLK	84	NNB10LF		OS
128	7.50	910.26	6.72	6.85	30.28	10.39	S3000 35 DK GRN/PUR	85	NNB10LF		OS
129	7.33	917.59	6.69	6.85	30.26	10.39	S3000 35 DK GRN/PUR	86	NNB10LF		OS
130	7.34	924.93	6.74	6.85	30.24	10.39	S3000 35 DK GRN/PUR	87	NNB10LF		OS
131	7.33	932.26	6.87	6.85	30.22	10.38	S3000 35 DK GRN/PUR	88	NNB10LF		OS
132	7.50	939.76	6.77	6.85	30.20	10.39	S3000 35 DK GRN/PUR	89	NNB10LF		OS
133	7.00	946.76	6.82	6.85	30.19	10.38	S3000 35 DK GRN/PUR	90	NNB10LF		OS
134	7.50	954.26	7.03	7.19	30.17	10.37	S3000 36 PURPLE	91	NNB10LF		OS
135	7.33	961.59	7.00	6.84	30.16	10.37	S3000 35 DK GRN/PUR	92	NNB10LF		OS
136	7.34	968.93	7.06	7.19	30.15	10.37	S3000 36 PURPLE	93	NNB10LF		OS
137	7.33	976.26	7.18	7.19	30.13	10.36	S3000 36 PURPLE	94	NNB10LF		OS
138	7.50	983.76	7.07	7.19	30.12	10.37	S3000 36 PURPLE	95	NNB10LF		OS

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.	DROP LENGTH
139	7.00	990.76	7.12	7.19	30.11	10.37	S3000 36 PURPLE	96	NNB10LF		OS
140	7.50	998.26	7.33	7.18	30.10	10.35	S3000 36 PURPLE	97	NNB10LF		OS
141	7.33	1005.59	7.32	7.18	30.10	10.35	S3000 36 PURPLE	98	NNB10LF		OS
142	7.34	1012.93	7.38	7.18	30.09	10.35	S3000 36 PURPLE	99	NNB10LF		OS
143	7.33	1020.26	7.53	7.67	30.08	10.34	S3000 37 PUR/BLK	100	NNB10LF		OS
144	7.50	1027.76	7.40	7.18	30.07	10.35	S3000 36 PURPLE	101	NNB10LF		OS
145	7.00	1034.76	7.47	7.67	30.07	10.35	S3000 37 PUR/BLK	102	NNB10LF		OS
146	7.50	1042.26	7.68	7.66	30.07	10.33	S3000 37 PUR/BLK	103	NNB10LF		OS
147	7.33	1049.59	7.65	7.67	30.06	10.33	S3000 37 PUR/BLK	104	NNB10LF		OS
148	7.34	1056.93	7.70	7.66	30.06	10.33	S3000 37 PUR/BLK	105	NNB10LF		OS
149	7.33	1064.26	7.84	7.66	30.06	10.32	S3000 37 PUR/BLK	106	NNB10LF		OS
150	7.50	1071.76	8.93	8.96	30.05	10.26	S3000 40 DK TURQ	107	NNB10LF		OS
TOWER 6	179.00	1076.60									
151	9.21	1080.97	8.99	8.96	30.05	10.25	S3000 40 DK TURQ	108	NNB10LF		OS
152	7.50	1088.47	8.05	8.09	30.05	10.31	S3000 38 BLACK	109	NNB10LF		OS
153	7.33	1095.80	8.00	8.09	30.05	10.31	S3000 38 BLACK	110	NNB10LF		OS
154	7.34	1103.14	8.02	8.09	30.05	10.31	S3000 38 BLACK	111	NNB10LF		OS
155	7.33	1110.47	8.13	8.09	30.05	10.31	S3000 38 BLACK	112	NNB10LF		OS
156	7.50	1117.97	8.50	8.54	30.05	10.28	S3000 39 BLK/DTURQ	113	NNB10LF		OS
DRAIN-SANDTRAP			3.75	3.75			F SPRAY 10 TURQ				
OVERHANG	44.87	1121.47									

TOTAL GPM = 630.50
GPA = 6.90

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 34.84 PSI FOR SPRINKLER 59
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	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	16.42	16.97	7.14	0.016	0.57	0.76	0.95
2	7.00	48.33	47.57	6.80	0.015	0.54	0.72	0.90
3	11.62	80.23	79.06	6.80	0.015	0.54	0.72	0.90
4	16.24	112.14	114.03	7.02	0.016	0.56	0.74	0.93

5	20.86	144.05	144.01	6.90	0.015	0.55	0.73	0.92
6	25.49	175.96	175.23	6.88	0.015	0.55	0.73	0.91
OVERHANG	7.11	49.11	49.87	7.01	0.015	0.56	0.74	0.93
TOTAL	90.71	626.25	626.75	6.91				

SUMMARY OF SPRINKLERS

4	S3000 12 GOLD
1	S3000 13 GOLD/LIME
1	S3000 14 LIME
1	S3000 15 LIME/LAV
1	S3000 16 LAVENDER
1	S3000 17 LAV/GRAY
1	S3000 18 GRAY
1	S3000 20 TURQUOISE
3	S3000 21 TURQ/YEL
1	S3000 22 YELLOW
1	S3000 23 YEL/RED
4	S3000 24 RED
8	S3000 25 RED/WHITE
7	S3000 26 WHITE
8	S3000 27 WHITE/BLUE
1	S3000 28 BLUE
4	S3000 29 BLUE/DK BRN
3	S3000 30 DK BROWN
8	S3000 31 DK BRN/ORN
9	S3000 32 ORANGE
9	S3000 33 ORN/DK GRN
5	S3000 34 DK GREEN
7	S3000 35 DK GRN/PUR
9	S3000 36 PURPLE
8	S3000 37 PUR/BLK
4	S3000 38 BLACK
1	S3000 39 BLK/DTURQ
2	S3000 40 DK TURQ
43	PLUGS

SUMMARY OF DROPS

4	118 IN DROP
9	120 IN DROP
7	126 IN DROP
14	132 IN DROP
21	138 IN DROP
28	144 IN DROP
30	OS

TOTAL OF 113 DROPS

SUMMARY OF REGULATORS

59	NNB15LF
54	NNB10LF

TOTAL OF 113 REGULATORS

Humanheld #3 + #4 Same

AGRI LINES IRRIGATION

SEPTEMBER 24 2002		WISHNW-9098
CUSTOMER	WILLIAM HEID	2002 LINDSAY GEN II - 90 4 TOWER - 807.47 FT SYSTEM 365 GPM @ 35 PSI
P O NO	43000	NELSON S3000 SPINNERS
JOB NO		NELSON 15 PSI REGULATORS
LEGAL	4 TOWER - HIGH PROFILE	NELSON P85AS 11/32 TB
CROP		ELEVATION 0 FT UP, 0 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

WISHNW-9098

02 LINDSAY GEN II - 90

SEPTEMBER 04, 2002

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

WILLIAM HEID
4 TOWER - HIGH PROFILE
43000

OTAL TARGET GPM	365 00
IVOT PRESSURE	35 00
NDGUN TARGET GPM	37 55
UMBER OF OUTLETS	112

FRICTION FACTOR USED	138
TOTAL LENGTH	807.47
NUMBER OF TOWERS	4
NUMBER OF SPRINKLERS	72

SPANS	LENGTH	PIPE I.D.
1	181.60	6.395
3	179.00	5.369
OH	44.87	5.369
	44.00	3.806

NELSON S3000 SPINNERS - D6 PURPLE PLATES
NELSON BLUE TOP 15 LF INTEGRAL SERIES REGULATORS
DROPS AVERAGE 11 FT OF 75 I D SURELINE FLEXIBLE HOSE WITH INTEGRAL POLYWEIGHTS®
ELEVATION IS 0 FT UP AND 0 FT DOWN

CAUTIONS AND WARNINGS

1. Inadequate [illegible] 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

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.	DROP LENGTH
1		3.59								1	
2		7.76								2	
3		15.26								3	
4	22.59	22.59	0.44	1.01	34.43	16.75	S3000 12 GOLD	1	NNB15LF		126
5		29.93								4	
6	14.67	37.26	0.54	1.01	34.48	16.72	S3000 12 GOLD	2	NNB15LF		132
7		44.76								5	
8	14.67	51.76	0.75	1.01	34.53	16.65	S3000 12 GOLD	3	NNB15LF		138
9		59.26								6	
10	14.83	66.59	0.97	1.01	34.58	16.58	S3000 12 GOLD	4	NNB15LF		144
11		73.93								7	
12	14.67	81.26	1.17	1.19	34.74	16.52	S3000 13 GOLD LIME	5	NNB15LF		144
13		88.76								8	
14	14.67	95.76	1.39	1.35	34.69	16.44	S3000 14 LIME	6	NNB15LF		144
15		103.26								9	
16	14.83	110.59	1.61	1.59	34.64	16.37	S3000 15 LIME/LAV	7	NNB15LF		144
17		117.93								10	
18	14.67	125.26	1.81	1.75	34.60	16.31	S3000 16 LAVENDER	8	NNB15LF		138
19		132.76								11	
20	14.67	139.76	2.03	2.01	34.55	16.23	S3000 17 LAV/GRAY	9	NNB15LF		138
21		147.26								12	
22	14.67	154.59	2.25	2.23	34.51	16.16	S3000 18 GRAY	10	NNB15LF		132
23		161.93								13	
24	14.67	169.26	2.70		34.46	16.01	S3000 20 TURQUOISE	11	NNB15LF		120
25		176.76								14	
TOWER 1	14.84	191.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
26		192.59								15	
27	17.5	196.76	2.98	2.96	34.34	15.92	S3000 21 TURQ/YEL	12	NNB15LF		120
28		204.26								16	
29	14.67	211.59	2.94	2.90	34.24	15.93	S3000 21 TURQ/YEL	13	NNB15LF		126
30		218.93								17	
31	14.67	226.26	3.12	3.09	34.14	15.88	S3000 21 TURQ/YEL	14	NNB15LF		132
32		233.76								18	
33	14.50	241.76	3.35	3.32	34.04	15.80	S3000 22 YELLOW	15	NNB15LF		138
34		248.26								19	
35	14.83	256.59	3.58	3.58	33.94	15.72	S3000 23 YEL/RED	16	NNB15LF		144
36		263.93								20	
37	14.67	271.26	3.75	3.68	33.85	15.67	S3000 23 YEL/RED	17	NNB15LF		144
38		278.76								21	
39	14.50	286.26	3.99	3.94	33.75	15.59	S3000 24 RED	18	NNB15LF		144
40		293.26								22	
41	14.83	301.59	4.23	4.25	33.66	15.57	S3000 25 RED/WHITE	19	NNB15LF		144
42		308.93								23	
43	14.67	316.26	4.39	4.25	33.57	15.55	S3000 25 RED/WHITE	20	NNB15LF		138
44		323.76								24	
45	14.50	338.76	4.63	4.61	33.49	15.53	S3000 26 WHITE	21	NNB15LF		138
46		126									

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.	DROP LENGTH
47	14.83	333.59	4.87	4.94	33.40	15.50	S3000 27 WHITE/BLUE	22	NNB15LF		132
48		340.93								26	
49	14.67	348.26	4.56	5.74	33.32	15.43	S3000 29 BLUE/DK BRN	23	NNB15LF		120
50		355.76								27	
TOWER 2	179.00	360.60									
51		361.59								28	
52	17.50	365.76	4.84	5.74	33.23	15.40	S3000 29 BLUE/DK BRN	24	NNB15LF		120
53		373.26								29	
54	14.83	380.59	4.56	5.74	33.15	15.43	S3000 29 BLUE/DK BRN	25	NNB15LF		126
55		387.93								30	
56	14.67	395.26	4.70	5.74	33.08	15.42	S3000 29 BLUE/DK BRN	26	NNB15LF		132
57		402.76								31	
58	14.50	409.76	4.95	6.14	33.01	15.39	S3000 30 DK BROWN	27	NNB15LF		138
59		417.26								32	
60	14.83	424.59	5.19	6.13	32.94	15.37	S3000 30 DK BROWN	28	NNB15LF		144
61		431.93								33	
62	14.67	439.26	5.33	6.49	32.87	15.35	S3000 31 DK BRN/ORN	29	NNB15LF		144
63		446.76								34	
64	14.50	454.26	5.58	6.48	32.81	15.33	S3000 31 DK BRN/ORN	30	NNB15LF		144
65		461.76								35	
66	14.83	469.59	5.83	6.96	32.74	15.31	S3000 32 ORANGE	31	NNB15LF		144
67		476.93								36	
68	14.67	483.26	5.96	6.96	32.68	15.29	S3000 32 ORANGE	32	NNB15LF		138
69		490.76								37	
70	14.50	497.76	6.21	7.42	32.61	15.27	S3000 33 ORN/DK GRN	33	NNB15LF		138
71		505.26								38	
72	14.83	512.59	6.34	7.41	32.54	15.24	S3000 33 ORN/DK GRN	34	NNB15LF		132
73		519.93								39	
74	14.67	527.26	4.71	5.74	32.14	15.41	S3000 29 BLUE/DK BRN	35	NNB15LF		120
75	7.50	534.76	3.93	4.61	32.11	15.52	S3000 26 WHITE	36	NNB15LF		118
TOWER 3	179.00	539.60									
76		540.59								40	
77	10.00	544.76	4.70	4.61	32.49	15.51	S3000 26 WHITE	37	NNB15LF		120
78	7.50	552.26	4.04	3.93	32.47	15.58	S3000 24 RED	38	NNB15LF		120
79	7.33	559.59	4.06	3.93	32.45	15.58	S3000 24 RED	39	NNB15LF		126
80	7.34	566.93	4.11	4.25	32.43	15.57	S3000 25 RED/WHITE	40	NNB15LF		132
81	7.33	574.26	4.21	4.25	32.41	15.56	S3000 25 RED/WHITE	41	NNB15LF		132
82	7.50	581.76	4.17	4.25	32.39	15.55	S3000 25 RED/WHITE	42	NNB15LF		138
83	7.00	588.76	4.22	4.25	32.38	15.54	S3000 25 RED/WHITE	43	NNB15LF		138
84	7.50	596.26	4.36	4.25	32.36	15.53	S3000 25 RED/WHITE	44	NNB15LF		138
85	7.33	603.59	4.37	4.25	32.34	15.53	S3000 25 RED/WHITE	45	NNB15LF		144
86	7.34	610.93	4.43	4.61	32.33	15.54	S3000 26 WHITE	46	NNB15LF		144
87	7.33	618.26	4.53	4.61	32.31	15.53	S3000 26 WHITE	47	NNB15LF		144
88	7.50	625.76	4.48	4.61	32.30	15.53	S3000 26 WHITE	48	NNB15LF		144
89	7.00	632.76	4.52	4.61	32.28	15.53	S3000 26 WHITE	49	NNB15LF		144
90	7.50	640.26	4.68	4.61	32.27	15.51	S3000 26 WHITE	50	NNB15LF		144
91	7.33	647.59	4.68	4.61	32.26	15.51	S3000 26 WHITE	51	NNB15LF		144
92	7.34	654.93	4.74	4.61	32.25	15.51	S3000 26 WHITE	52	NNB15LF		144

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.	DROP LENGTH
93	7.33	662.26	4.85	4.94	32.24	15.50	S3000 27 WHITE/BLUE	53	NNB15LF		138
94	7.50	669.76	4.79	4.94	32.23	15.50	S3000 27 WHITE/BLUE	54	NNB15LF		138
95	7.00	676.76	4.84	4.94	32.22	15.50	S3000 27 WHITE/BLUE	55	NNB15LF		138
96	7.50	684.26	4.99	4.94	32.21	15.48	S3000 27 WHITE/BLUE	56	NNB15LF		132
97	7.33	691.59	5.00	4.94	32.20	15.48	S3000 27 WHITE/BLUE	57	NNB15LF		132
98	7.34	698.93	5.05	4.94	32.19	15.48	S3000 27 WHITE/BLUE	58	NNB15LF		126
99	7.33	706.26	5.17	5.[illegible]	32.19	15.47	S3000 26 BLUE	59	NNB15LF		120
100	7.50	713.76	5.87	5.[illegible]	32.18	15.40	S3000 29 BLUE/DK BRN	60	NNB15LF		118
TOWER 4	179.00	718.60									
101	9.21	722.97	5.96	6.14	32.17	15.39	S3000 30 LT BROWN	61	NNB15LF		120
102	7.50	730.47	5.33	5.[illegible]	32.17	15.45	S3000 29 BLUE	62	NNB15LF		120
103	7.33	737.80	5.32	5.[illegible]	32.16	15.45	S3000 28 BLUE	63	NNB15LF		120
104	7.34	745.14	5.37	5.[illegible]	32.16	15.45	S3000 28 BLUE	64	NNB15LF		126
105	7.33	752.47	5.48	5.[illegible]	32.15	15.44	S3000 28 BLUE	65	NNB15LF		126
106	7.50	759.97	5.49	5.[illegible]	32.15	15.43	S3000 28 BL[illegible]	66	NNB15LF		126
		PIPE ID CHANGES FROM 5.369 TO 3.806									
107	7.17	767.14	5.50	5.[illegible]	32.13	15.43	S3000 28 BL[illegible]	67	NNB15LF		132
108	7.33	774.47	5.64	5.[illegible]	32.12	15.42	S3000 29 BLUE/DK BRN	68	NNB15LF		132
109	7.33	781.80	5.67	5.[illegible]	32.11	15.42	S3000 29 BL[illegible]/DK BRN	69	NNB15LF		132
110	7.34	789.14	5.70	5.[illegible]	32.10	15.41	S3000 29 BL[illegible]/DK BRN	70	NNB15LF		138
111	7.33	796.47	5.73	5.[illegible]	32.09	15.41	S3000 29 BL[illegible]/DK BRN	71	NNB15LF		138
112	7.33	803.80	5.85	5.[illegible]	32.08	15.40	S3000 29 BL[illegible]/DK BRN	72	NNB15LF		138
	DRAIN-SANDTRAP		3.75	[illegible]			F SPRAY [illegible]				
OVERHANG	88.87	807.47	38.15		ENDGUN		(2)NELSON [illegible] 42 TB				

THERE IS NO BOOSTER PUMP
FRICTION LOSS THROUGH ENDGUN VALVE IS 0.31 PSI - ENDGUN PRESSURE IS 31.77 [illegible]

TOTAL GPM = 365.60
GPA = 6.88

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 35.57 PSI FOR SPRINKLER 72
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER	ACRES UNDER	GPM	ACTUAL	GPM PER	AVERAGE IN. PER HR DELIVERED	AVERAGE IN. DELIVERED FOR REVOLUTION TIME

UME	S[illegible]	[illegible]EED	GPM	ACRE	UNDER SPAN	36 HR	48 HR	60 HR
1	2.38	16.37	16.95	7.13	0.016	0.57	0.76	0.95
2	7.00	48.18	47.19	6.74	0.015	0.54	0.71	0.89
3	11.62	80.00	81.54	7.02	0.016	0.56	0.74	0.93
4	16.24	111.81	110.95	6.83	0.015	0.54	0.72	0.91
ERHANG	9.79	67.33	67.03	6.85	0.015	0.55	0.73	0.91
DGUN	4.73	37.55	38.15	8.06				
TAL	51.76	361.25	361.81	6.99				

SUMMARY OF SPRINKLERS

[illegible]	S3000 12 GOLD
1	S3000 13 GOLD/LIME
1	S3000 14 LIME
1	S3000 15 LIME/LAV
1	S3000 16 LAVENDER
1	S3000 17 LAV/GRAY
1	S3000 18 GRAY
1	S3000 20 TURQUOISE
3	S3000 21 TURQ/YEL
1	S3000 22 YELLOW
2	S3000 23 YEL/RED
3	S3000 24 RED
8	S3000 25 RED/WHITE
10	S3000 26 WHITE
7	S3000 27 WHITE/BLUE
7	S3000 28 BLUE
11	S3000 29 BLUE/DK BRN
3	S3000 30 DK BROWN
2	S3000 31 DK BRN/ORN
2	S3000 32 ORANGE
2	S3000 33 ORN/DK GRN
40	PLUGS

SUMMARY OF DROPS

2	118 IN DROP
11	120 IN DROP
8	126 IN DROP
13	132 IN DROP
18	138 IN DROP
20	144 IN DROP

TOTAL OF 72 DROPS

SUMMARY OF REGULATORS

72	NNB15LF

TOTAL OF 72 REGULATORS

SOUTH DIVIT

AGRI LINES IRRIGATION

SEPTEMBER 21, 2004	WISHNW-12849
CUSTOMER : JENSEN / GUMCREEK	2004 LINDSAY GEN II - 90 8 TOWER - 1413.47 FT SYSTEM 720 GPM @ 35 PSI
P.O. NO. : 52655 LOW SIDE JOB NO. : LEGAL : HIGH PROFILE - 8 TOWER CROP :	NELSON R3000 ROTATORS NELSON 15 PSI REGULATORS NO ENDGUN ELEVATION 0 FT UP, 0 FT DOWN

115 NORTH SECOND

PARMA, IDAHO 83660

(208) 722-5121

2004 LINDSAY GEN II - 90 SEPTEMBER 21, 2004 WISHNW-12849

DEALER

AGRI LINES IRRIGATION
115 NORTH SECOND
PARMA, IDAHO 83660

IRRIGATOR

JENSEN / GUMCREEK
HIGH PROFILE - 8 TOWER
52655 LOW SIDE

TOTAL TARGET GPM	720.00	FRICTION FACTOR USED	138
PIVOT PRESSURE	35.00	TOTAL LENGTH	1413.47
NO ENDGUN		NUMBER OF TOWERS	8
NUMBER OF OUTLETS	197	NUMBER OF SPRINKLERS	151

SPANS	LENGTH	PIPE I.D.
1	159.60	7.782
3	157.00	7.782
1	157.00	6.395
1	179.00	6.395
2	179.00	5.369
OH	44.87	5.369
	44.00	3.806

NELSON R3000 ROTATORS - D6 RED PLATES
NELSON BLUE TOP 15 LF INTEGRAL SERIES REGULATORS
DROPS AVERAGE 12 FT OF .75 I.D. SURELINE FLEXIBLE HOSE WITH EXTERNAL POLYWEIGHTS®
BOOMBACKS AND OFFSETS AS SHOWN
ELEVATION IS 0 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.	PAGE 2 DROP LENGTH
1		3.70									
2		7.76								1	
3		15.26								2	
4		22.59								3	
5	29.93	29.93	0.33	1.37	34.87	16.80	R3000 14 LIME	1	NNB15LF	4	
6		37.26									144
7	14.83	44.76	0.47	1.36	34.80	16.75	R3000 14 LIME	2	NNB15LF	5	
8		51.76									150
9	14.50	59.26	0.61	1.36	34.74	16.70	R3000 14 LIME	3	NNB15LF	6	
10		66.59									156
11	14.50	73.76	0.77	1.36	34.67	16.65	R3000 14 LIME	4	NNB15LF	7	
12		81.26									156
13	14.83	88.59	0.93	1.36	34.61	16.60	R3000 14 LIME	5	NNB15LF	8	
14		95.93									156
15	14.67	103.26	1.07	1.36	34.55	16.55	R3000 14 LIME	6	NNB15LF	9	
16		110.76									156
17	14.50	117.76	1.23	1.35	34.48	16.50	R3000 14 LIME	7	NNB15LF	10	
18		125.26									150
19	14.83	132.59	1.39	1.35	34.42	16.44	R3000 14 LIME	8	NNB15LF	11	
20		139.93									144
21	14.67	147.26	1.70	1.78	34.36	16.34	R3000 16 LAVENDER	9	NNB15LF	12	
22		154.76									132
TOWER 1	159.60	159.60								13	
23		160.59									
24	17.50	164.76	1.89	1.78	34.28	16.28	R3000 16 LAVENDER	10	NNB15LF	14	
25		172.26									126
26	14.83	179.59	1.89	1.78	34.22	16.28	R3000 16 LAVENDER	11	NNB15LF	15	
27		186.93									138
28	14.67	194.26	2.02	2.01	34.15	16.23	R3000 17 LAV/GRAY	12	NNB15LF	16	
29		201.76									144
30	14.50	208.76	2.19	2.22	34.09	16.18	R3000 18 GRAY	13	NNB15LF	17	
31		216.26									150
32	14.83	223.59	2.35	2.22	34.03	16.13	R3000 18 GRAY	14	NNB15LF	18	
33		230.76									156
34	14.67	238.26	2.49	2.50	33.97	16.08	R3000 19 GRAY/TURQ	15	NNB15LF	19	
35		245.59									156
36	14.67	252.93	2.66	2.78	33.91	16.02	R3000 20 TURQUOISE	16	NNB15LF	20	
37		260.26									156
38	14.83	267.76	2.80	2.78	33.85	15.98	R3000 20 TURQUOISE	17	NNB15LF	21	
39		274.76									150
40	14.50	282.26	2.94	3.00	33.79	15.93	R3000 21 TURQ/YEL	18	NNB15LF	22	
41		289.59									144
42	14.67	296.93	3.13	2.99	33.73	15.87	R3000 21 TURQ/YEL	19	NNB15LF	23	
43		304.26									138
44	14.83	311.76	3.60	3.58	33.67	15.72	R3000 23 YEL/RED	20	NNB15LF	24	
TOWER 2	157.00	316.60									126

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.	DROP LENGTH
45		317.59									
46		321.76								25	
47	17.50	329.26	3.77	3.94	33.60	15.66	R3000 24 RED	21	NNB15LF	26	132
48		336.59									
49	14.67	343.93	3.62	3.58	33.54	15.71	R3000 23 YEL/RED	22	NNB15LF	27	144
50		351.26									
51	14.83	358.76	3.75	3.58	33.48	15.67	R3000 23 YEL/RED	23	NNB15LF	28	150
52		365.76									
53	14.50	373.26	3.86	3.94	33.43	15.63	R3000 24 RED	24	NNB15LF	29	156
54		380.59									
55	14.50	387.76	4.06	3.93	33.37	15.58	R3000 24 RED	25	NNB15LF	30	156
56		395.26									
57	14.83	402.59	4.24	4.25	33.32	15.56	R3000 25 RED/WHITE	26	NNB15LF	31	156
58		409.93									
59	14.67	417.26	4.34	4.25	33.26	15.55	R3000 25 RED/WHITE	27	NNB15LF	32	156
60		424.76									
61	14.50	431.76	4.52	4.61	33.21	15.54	R3000 26 WHITE	28	NNB15LF	33	150
62		439.26									
63	14.83	446.59	4.70	4.61	33.15	15.52	R3000 26 WHITE	29	NNB15LF	34	144
64		453.93									
65	14.67	461.26	5.30	5.37	33.10	15.46	R3000 28 BLUE	30	NNB15LF	35	132
66		468.76									
TOWER 3	157.00	473.60								36	
67		474.59									
68	17.50	478.76	5.52	5.37	33.04	15.44	R3000 28 BLUE	31	NNB15LF	37	126
69		486.26									
70	14.83	493.59	5.20	5.37	32.99	15.47	R3000 28 BLUE	32	NNB15LF	38	138
71		500.93									
72	14.67	508.26	5.29	5.37	32.94	15.46	R3000 28 BLUE	33	NNB15LF	39	144
73		515.76									
74	14.50	522.76	5.47	5.37	32.89	15.44	R3000 28 BLUE	34	NNB15LF	40	150
75		530.26									
76	14.83	537.59	5.66	5.74	32.84	15.42	R3000 29 BLUE/DK BRN	35	NNB15LF	41	156
77		544.76									
78	14.67	552.26	4.32	4.25	32.79	15.55	R3000 25 RED/WHITE	36	NNB15LF	42	156
79	7.33	559.59	2.93	3.00	32.77	15.93	R3000 21 TURQ/YEL	37	NNB15LF		156
80	7.34	566.93	2.97	3.00	32.74	15.92	R3000 21 TURQ/YEL	38	NNB15LF		156
81	7.33	574.26	3.04	3.00	32.72	15.89	R3000 21 TURQ/YEL	39	NNB15LF		156
82	7.50	581.76	3.01	3.00	32.70	15.90	R3000 21 TURQ/YEL	40	NNB15LF		150
83	7.00	588.76	3.05	3.00	32.67	15.89	R3000 21 TURQ/YEL	41	NNB15LF		150
84	7.50	596.26	3.16	2.99	32.65	15.85	R3000 21 TURQ/YEL	42	NNB15LF		144
85	7.33	603.59	3.16	3.32	32.63	15.85	R3000 22 YELLOW	43	NNB15LF		144
86	7.34	610.93	3.20	3.32	32.61	15.84	R3000 22 YELLOW	44	NNB15LF		138
87	7.33	618.26	3.27	3.32	32.59	15.82	R3000 22 YELLOW	45	NNB15LF		132
88	7.50	625.76	3.91	3.94	32.56	15.61	R3000 24 RED	46	NNB15LF		126
TOWER 4	157.00	630.60									

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.	DROP LENGTH
		PIPE ID CHANGES FROM 7.782 TO 6.395									
89		631.59								43	
90	10.00	635.76	3.97	3.93	32.49	15.58	R3000 24 RED	47	NNB15LF		OS
91	7.50	643.26	3.40	3.31	32.43	15.77	R3000 22 YELLOW	48	NNB15LF		132
92	7.33	650.59	3.41	3.31	32.38	15.77	R3000 22 YELLOW	49	NNB15LF		138
93	7.34	657.93	3.44	3.31	32.32	15.76	R3000 22 YELLOW	50	NNB15LF		144
94	7.33	665.26	3.52	3.58	32.27	15.73	R3000 23 YEL/RED	51	NNB15LF		144
95	7.50	672.76	3.48	3.59	32.22	15.75	R3000 23 YEL/RED	52	NNB15LF		150
96	7.00	679.76	3.52	3.58	32.17	15.73	R3000 23 YEL/RED	53	NNB15LF		150
97	7.50	687.26	3.64	3.58	32.11	15.70	R3000 23 YEL/RED	54	NNB15LF		156
98	7.33	694.59	3.59	3.58	32.06	15.71	R3000 23 YEL/RED	55	NNB15LF		156
99	7.17	701.76	3.67	3.58	32.01	15.68	R3000 23 YEL/RED	56	NNB15LF		156
100	7.50	709.26	3.75	3.58	31.96	15.66	R3000 23 YEL/RED	57	NNB15LF		156
101	7.33	716.59	3.75	3.58	31.92	15.66	R3000 23 YEL/RED	58	NNB15LF		156
102	7.34	723.93	3.79	3.94	31.87	15.65	R3000 24 RED	59	NNB15LF		156
103	7.33	731.26	3.87	3.94	31.82	15.62	R3000 24 RED	60	NNB15LF		156
104	7.50	738.76	3.82	3.94	31.77	15.64	R3000 24 RED	61	NNB15LF		150
105	7.00	745.76	3.86	3.94	31.73	15.62	R3000 24 RED	62	NNB15LF		150
106	7.50	753.26	3.99	3.93	31.68	15.58	R3000 24 RED	63	NNB15LF		144
107	7.33	760.59	3.98	3.93	31.64	15.59	R3000 24 RED	64	NNB15LF		144
108	7.34	767.93	4.02	3.93	31.59	15.58	R3000 24 RED	65	NNB15LF		138
109	7.33	775.26	4.10	4.25	31.55	15.57	R3000 25 RED/WHITE	66	NNB15LF		132
110	7.50	782.76	4.89	4.94	31.50	15.48	R3000 27 WHITE/BLUE	67	NNB15LF		OS
TOWER 5	157.00	787.60									
111		788.59								44	
112	10.00	792.76	4.95	4.94	31.45	15.47	R3000 27 WHITE/BLUE	68	NNB15LF		OS
113	7.50	800.26	4.24	4.24	31.40	15.54	R3000 25 RED/WHITE	69	NNB15LF		OS
114	7.33	807.59	4.23	4.24	31.36	15.54	R3000 25 RED/WHITE	70	NNB15LF		OS
115	7.34	814.93	4.27	4.24	31.32	15.54	R3000 25 RED/WHITE	71	NNB15LF		OS
116	7.33	822.26	4.35	4.24	31.28	15.53	R3000 25 RED/WHITE	72	NNB15LF		OS
117	7.50	829.76	4.29	4.24	31.24	15.53	R3000 25 RED/WHITE	73	NNB15LF		OS
118	7.00	836.76	4.33	4.24	31.21	15.53	R3000 25 RED/WHITE	74	NNB15LF		OS
119	7.50	844.26	4.47	4.61	31.17	15.52	R3000 26 WHITE	75	NNB15LF		OS
120	7.33	851.59	4.46	4.61	31.13	15.52	R3000 26 WHITE	76	NNB15LF		OS
121	7.34	858.93	4.50	4.61	31.10	15.51	R3000 26 WHITE	77	NNB15LF		OS
122	7.33	866.26	4.58	4.61	31.06	15.51	R3000 26 WHITE	78	NNB15LF		OS
123	7.50	873.76	4.52	4.61	31.02	15.51	R3000 26 WHITE	79	NNB15LF		OS
124	7.00	880.76	4.56	4.61	30.99	15.51	R3000 26 WHITE	80	NNB15LF		OS
125	7.50	888.26	4.70	4.60	30.96	15.49	R3000 26 WHITE	81	NNB15LF		OS
126	7.33	895.59	4.69	4.60	30.92	15.50	R3000 26 WHITE	82	NNB15LF		OS
127	7.34	902.93	4.73	4.60	30.89	15.49	R3000 26 WHITE	83	NNB15LF		OS
128	7.33	910.26	4.82	4.94	30.86	15.48	R3000 27 WHITE/BLUE	84	NNB15LF		OS
129	7.50	917.76	4.75	4.60	30.83	15.49	R3000 26 WHITE	85	NNB15LF		OS
130	7.00	924.76	4.79	4.94	30.80	15.48	R3000 27 WHITE/BLUE	86	NNB15LF		OS
131	7.50	932.26	4.93	4.94	30.77	15.47	R3000 27 WHITE/BLUE	87	NNB15LF		OS
132	7.33	939.59	4.92	4.94	30.74	15.47	R3000 27 WHITE/BLUE	88	NNB15LF		OS
133	7.34	946.93	4.96	4.94	30.71	15.47	R3000 27 WHITE/BLUE	89	NNB15LF		OS

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.	DROP LENGTH
134	7.33	954.26	5.05	4.93	30.68	15.46	R3000 27 WHITE/BLUE	90	NNB15LF		OS
135	7.50	961.76	6.01	6.13	30.66	15.37	R3000 30 DK BROWN	91	NNB15LF		OS
TOWER 6	179.00	966.60									
		PIPE ID CHANGES FROM 6.395 TO 5.369									
136		967.59	- - -	- - -	- - -	- - -	- - - - - - - - -	- - -	- - -	45	
137	10.00	971.76	6.06	6.13	30.57	15.36	R3000 30 DK BROWN	92	NNB15LF		OS
138	7.50	979.26	5.18	5.37	30.51	15.45	R3000 28 BLUE	93	NNB15LF		OS
139	7.33	986.59	5.16	5.37	30.45	15.45	R3000 28 BLUE	94	NNB15LF		OS
140	7.34	993.93	5.20	5.37	30.40	15.44	R3000 28 BLUE	95	NNB15LF		OS
141	7.33	1001.26	5.29	5.37	30.34	15.43	R3000 28 BLUE	96	NNB15LF		OS
142	7.50	1008.76	5.21	5.37	30.29	15.44	R3000 28 BLUE	97	NNB15LF		OS
143	7.00	1015.76	5.24	5.37	30.24	15.44	R3000 28 BLUE	98	NNB15LF		OS
144	7.50	1023.26	5.40	5.36	30.19	15.42	R3000 28 BLUE	99	NNB15LF		OS
145	7.33	1030.59	5.38	5.36	30.14	15.43	R3000 28 BLUE	100	NNB15LF		OS
146	7.34	1037.93	5.42	5.36	30.09	15.42	R3000 28 BLUE	101	NNB15LF		OS
147	7.33	1045.26	5.52	5.36	30.04	15.41	R3000 28 BLUE	102	NNB15LF		OS
148	7.50	1052.76	5.43	5.36	30.00	15.42	R3000 28 BLUE	103	NNB15LF		OS
149	7.00	1059.76	5.47	5.36	29.96	15.42	R3000 28 BLUE	104	NNB15LF		OS
150	7.50	1067.26	5.64	5.73	29.91	15.40	R3000 29 BLUE/DK BRN	105	NNB15LF		OS
151	7.33	1074.59	5.61	5.74	29.87	15.40	R3000 29 BLUE/DK BRN	106	NNB15LF		OS
152	7.34	1081.93	5.65	5.73	29.83	15.40	R3000 29 BLUE/DK BRN	107	NNB15LF		OS
153	7.33	1089.26	5.75	5.73	29.79	15.39	R3000 29 BLUE/DK BRN	108	NNB15LF		OS
154	7.50	1096.76	5.66	5.73	29.76	15.40	R3000 29 BLUE/DK BRN	109	NNB15LF		OS
155	7.00	1103.76	5.70	5.73	29.72	15.39	R3000 29 BLUE/DK BRN	110	NNB15LF		OS
156	7.50	1111.26	5.86	5.73	29.69	15.38	R3000 29 BLUE/DK BRN	111	NNB15LF		OS
157	7.33	1118.59	5.84	5.73	29.66	15.38	R3000 29 BLUE/DK BRN	112	NNB15LF		OS
158	7.34	1125.93	5.88	5.73	29.62	15.38	R3000 29 BLUE/DK BRN	113	NNB15LF		OS
159	7.33	1133.26	5.99	6.13	29.59	15.36	R3000 30 DK BROWN	114	NNB15LF		OS
160	7.50	1140.76	7.11	6.95	29.56	15.24	R3000 32 ORANGE	115	NNB15LF		OS
TOWER 7	179.00	1145.60									
161		1146.59	- - -	- - -	- - -	- - -	- - - - - - - - -	- - -	- - -	46	
162	10.00	1150.76	7.17	6.94	29.53	15.24	R3000 32 ORANGE	116	NNB15LF		OS
163	7.50	1158.26	6.13	6.13	29.50	15.35	R3000 30 DK BROWN	117	NNB15LF		OS
164	7.33	1165.59	6.10	6.13	29.47	15.35	R3000 30 DK BROWN	118	NNB15LF		OS
165	7.34	1172.93	6.14	6.13	29.45	15.34	R3000 30 DK BROWN	119	NNB15LF		OS
166	7.33	1180.26	6.24	6.13	29.43	15.33	R3000 30 DK BROWN	120	NNB15LF		OS
167	7.50	1187.76	6.15	6.13	29.41	15.34	R3000 30 DK BROWN	121	NNB15LF		OS
168	7.00	1194.76	6.18	6.13	29.39	15.34	R3000 30 DK BROWN	122	NNB15LF		OS
169	7.50	1202.26	6.36	6.48	29.37	15.32	R3000 31 DK BRN/ORN	123	NNB15LF		OS
170	7.33	1209.59	6.33	6.48	29.35	15.32	R3000 31 DK BRN/ORN	124	NNB15LF		OS
171	7.34	1216.93	6.36	6.48	29.33	15.32	R3000 31 DK BRN/ORN	125	NNB15LF		OS
172	7.33	1224.26	6.47	6.48	29.32	15.31	R3000 31 DK BRN/ORN	126	NNB15LF		OS
173	7.50	1231.76	6.36	6.48	29.30	15.32	R3000 31 DK BRN/ORN	127	NNB15LF		OS
174	7.00	1238.76	6.40	6.48	29.29	15.31	R3000 31 DK BRN/ORN	128	NNB15LF		OS
175	7.50	1246.26	6.58	6.47	29.28	15.29	R3000 31 DK BRN/ORN	129	NNB15LF		OS
176	7.33	1253.59	6.55	6.47	29.26	15.30	R3000 31 DK BRN/ORN	130	NNB15LF		OS

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.	DROP LENGTH
177	7.34	1260.93	6.59	6.47	29.25	15.29	R3000 31 DK BRN/ORN	131	NNB15LF		OS
178	7.33	1268.26	6.71	6.47	29.24	15.28	R3000 31 DK BRN/ORN	132	NNB15LF		OS
179	7.50	1275.76	6.61	6.47	29.23	15.29	R3000 31 DK BRN/ORN	133	NNB15LF		OS
180	7.00	1282.76	6.65	6.47	29.22	15.29	R3000 31 DK BRN/ORN	134	NNB15LF		OS
181	7.50	1290.26	6.85	6.95	29.22	15.26	R3000 32 ORANGE	135	NNB15LF		OS
182	7.33	1297.59	6.81	6.95	29.21	15.27	R3000 32 ORANGE	136	NNB15LF		OS
183	7.34	1304.93	6.84	6.95	29.20	15.27	R3000 32 ORANGE	137	NNB15LF		OS
184	7.33	1312.26	6.95	6.95	29.20	15.25	R3000 32 ORANGE	138	NNB15LF		OS
185	7.50	1319.76	7.87	7.85	29.19	15.14	R3000 34 DK GREEN	139	NNB15HF		OS
TOWER 8	179.00	1324.60									
186	9.21	1328.97	7.93	7.84	29.19	15.13	R3000 34 DK GREEN	140	NNB15HF		OS
187	7.50	1336.47	7.08	6.95	29.18	15.27	R3000 32 ORANGE	141	NNB15HF		OS
188	7.33	1343.80	7.06	6.95	29.18	15.27	R3000 32 ORANGE	142	NNB15HF		OS
189	7.34	1351.14	7.11	6.95	29.18	15.27	R3000 32 ORANGE	143	NNB15HF		OS
190	7.33	1358.47	7.24	7.41	29.17	15.24	R3000 33 ORN/DK GRN	144	NNB15HF		OS
191	7.50	1365.97	7.18	7.41	29.17	15.25	R3000 33 ORN/DK GRN	145	NNB15HF		OS
		PIPE ID CHANGES FROM 5.369 TO 3.806									
192	7.17	1373.14	7.10	6.95	29.17	15.27	R3000 32 ORANGE	146	NNB15HF		OS
193	7.33	1380.47	7.24	7.41	29.16	15.24	R3000 33 ORN/DK GRN	147	NNB15HF		OS
194	7.33	1387.80	7.25	7.41	29.16	15.24	R3000 33 ORN/DK GRN	148	NNB15HF		OS
195	7.34	1395.14	7.23	7.42	29.16	15.29	R3000 33 ORN/DK GRN	149	NNB15HF		144
196	7.33	1402.47	7.17	6.96	29.15	15.30	R3000 32 ORANGE	150	NNB15HF		144
197	7.33	1409.80	7.42	7.41	29.15	15.26	R3000 33 ORN/DK GRN	151	NNB15HF		144
DRAIN-SANDTRAP			3.50	3.69			F SPRAY 10 TURQ				
OVERHANG	88.87	1413.47									

TOTAL GPM = 720.18
GPA = 4.97

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 19.00 PSI
WITH GRADUATED ELEVATION OF .00 FT THE INLET PRESSURE IS 28.21 PSI FOR SPRINKLER 140
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME 36 HR	48 HR	60 HR

PUMP CURVES

South Pivot pump
12.25

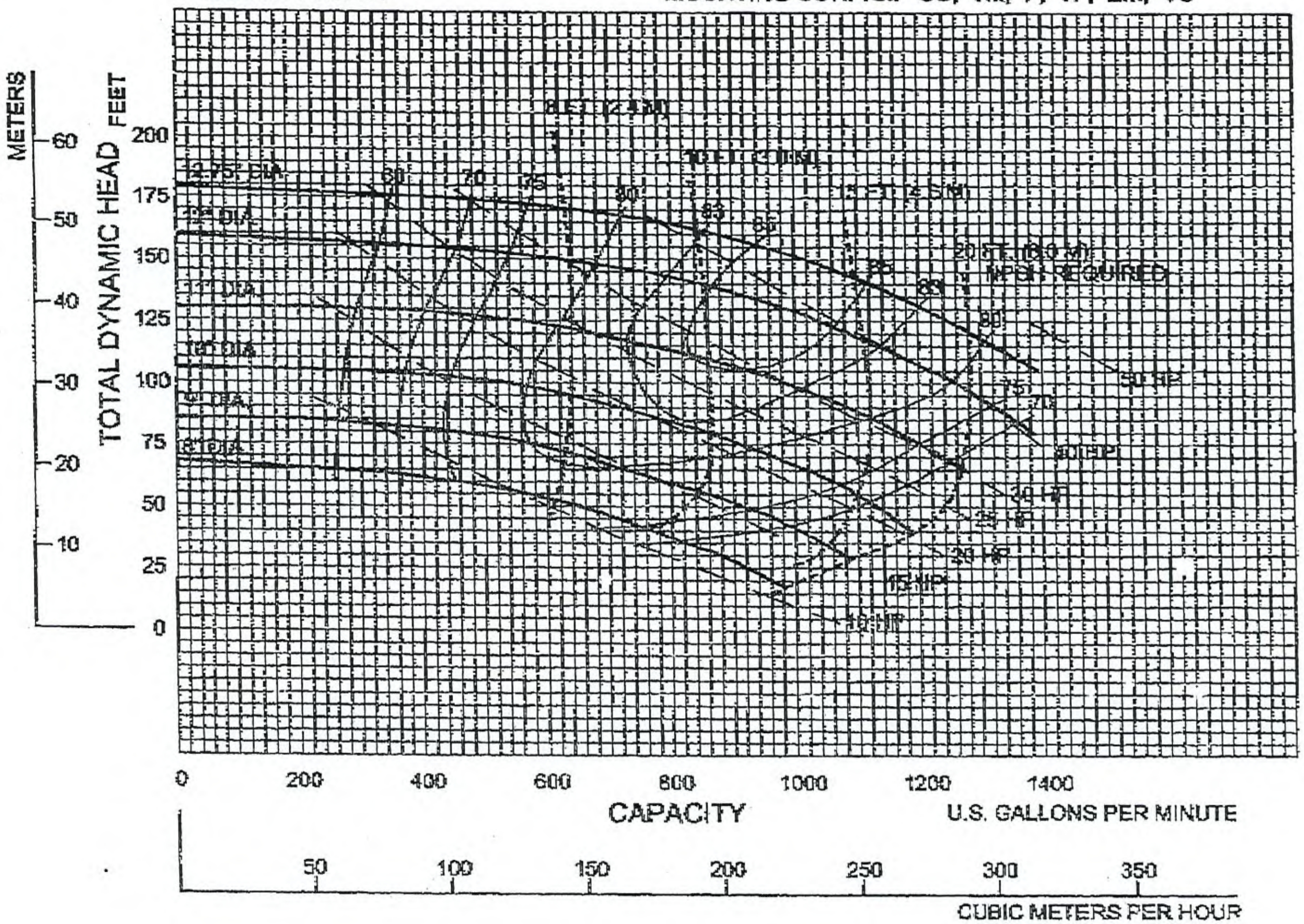
Feet x .305 = Meters
Inches x 25.4 = Millimeters
GPM x .227 = Cubic Meters/Hour
GPM x 3.785 = Liters/Minute
HP x .746 = KW

Speed	Impeller Dia.	Style	Solids Dia.	N_S	Suction	Discharge	No. vanes
1775	VARIOUS	ENCLOSED	.84"	1332	6"	4"	7

NEW PAGE

SINGLE VOLUTE

MOUNTING CONFIG.: CC, VM, F, VF, EM, VC



Performance shown are for cool water, close-coupled electric configuration with packing. Other mounting styles or liquids may require horsepower and/or performance adjustments.

4RB18

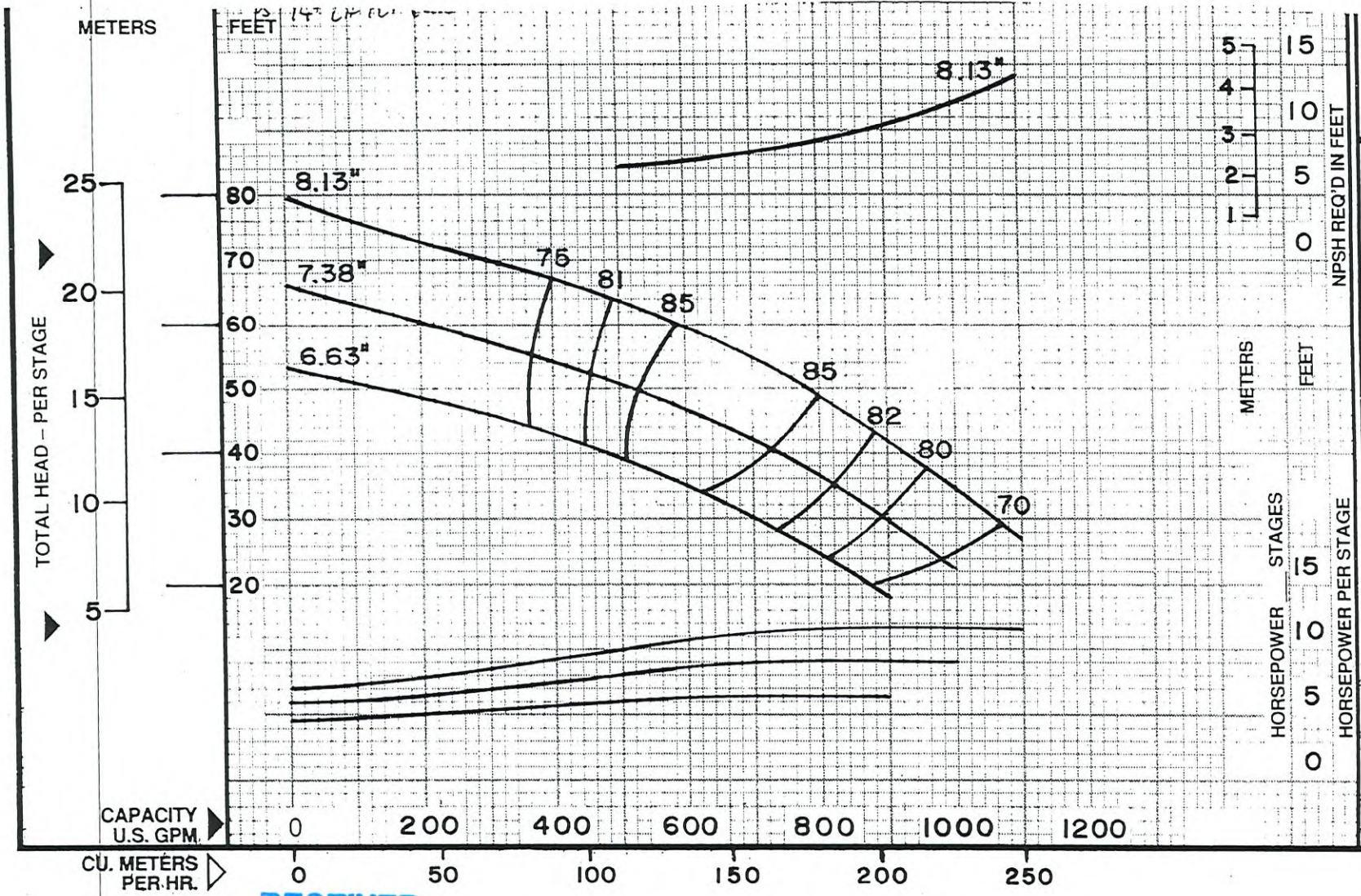
6/99

CORNELL

Cornell Pump Company • Portland, Oregon

4RB - 1800 RPM

#15, 3 STAGES 7.38" TRIM



Curve No. E3142-1

Model: 11CLC

RPM: 1770

EFFICIENCY CORRECTION

STGS. 1	-1.5
STGS. 2	-1.0
STGS. 3	-0.5

PERF BASED ON STD. MTL'S

Impeller= ENCLOSED

N_S= 2320

K= 7.90 LBS/FT
11.70 KG/M

K (Bal.)=

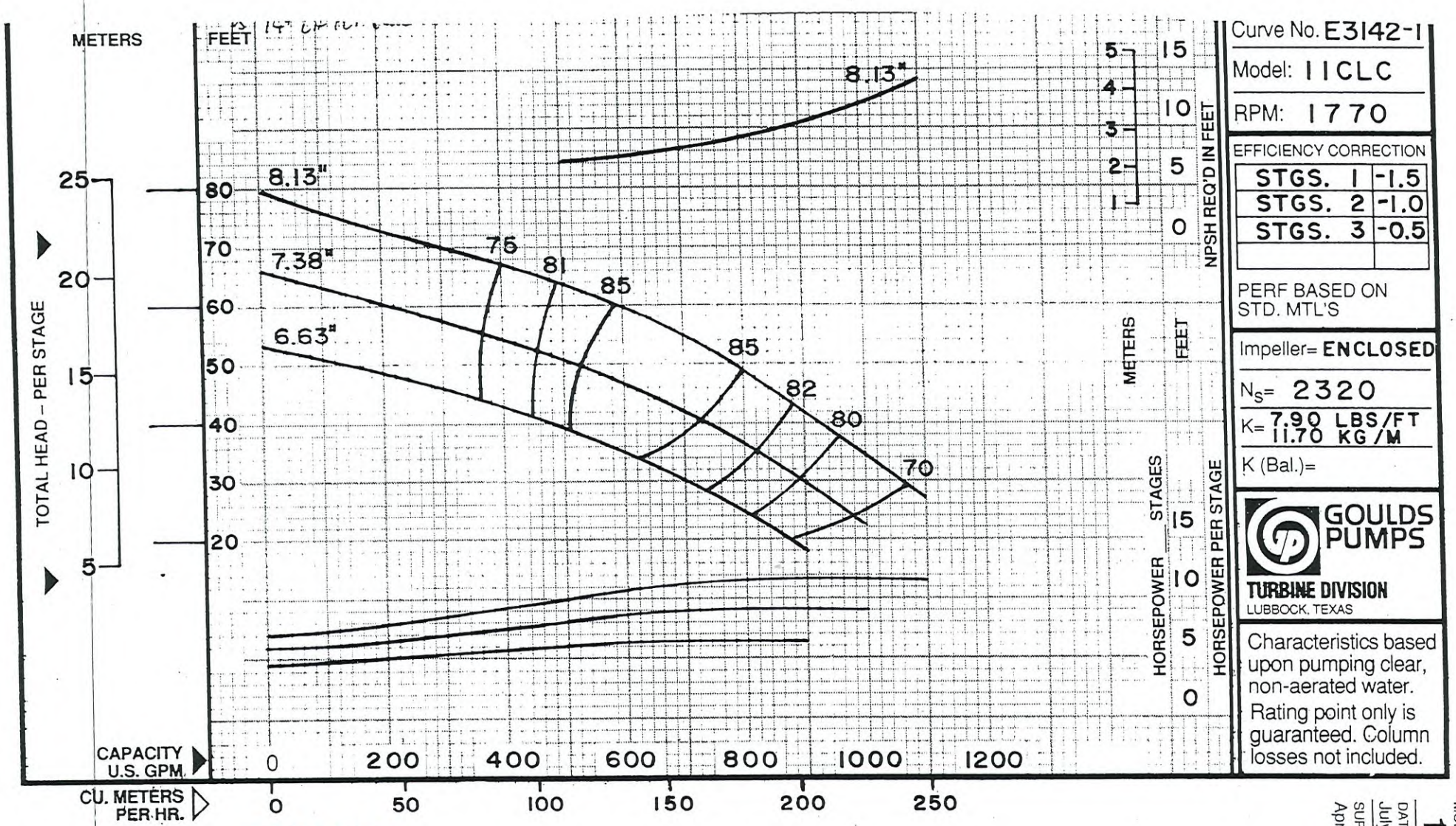
GOULDS PUMPS
TURBINE DIVISION
LUBBOCK, TEXAS

Characteristics based upon pumping clear, non-aerated water. Rating point only is guaranteed. Column losses not included.

MODEL 11CLC
DATE July 1996
SUPERCEDES April 1994

11CLC

#17 4 STAGES 8.13 TRIM



Curve No. E3142-1

Model: 11CLC

RPM: 1770

EFFICIENCY CORRECTION

STGS. 1	-1.5
STGS. 2	-1.0
STGS. 3	-0.5

PERF BASED ON STD. MTL'S

Impeller= ENCLOSED

N_S= 2320

K= 7.90 LBS/FT
11.70 KG/M

K (Bal.)=

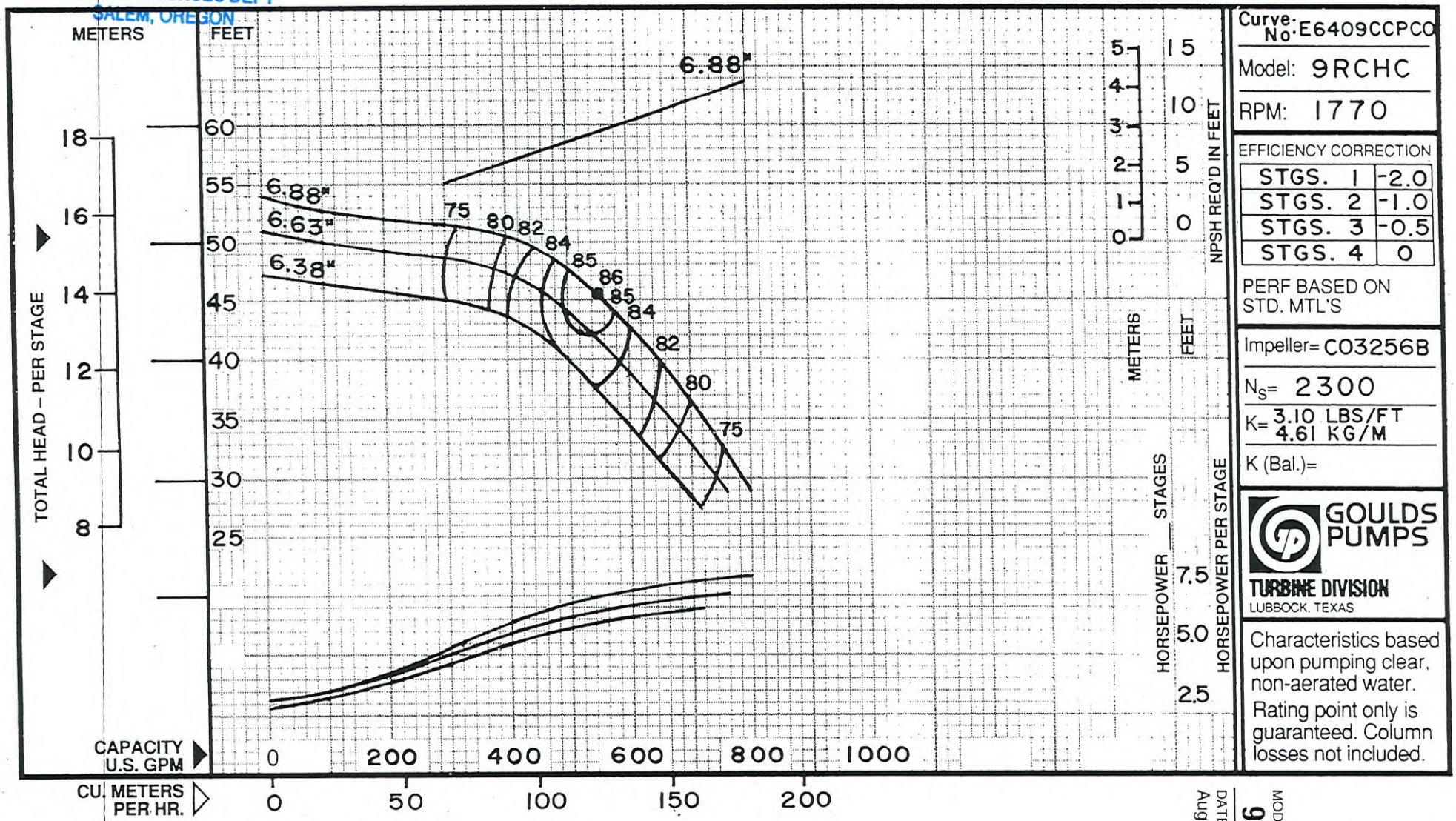
GOULDS PUMPS
TURBINE DIVISION
LUBBOCK, TEXAS

Characteristics based upon pumping clear, non-aerated water. Rating point only is guaranteed. Column losses not included.

MODEL 11CLC
DATE July 1996
SUPERCEDES April 1994

11CLC

#18 7 STAGES 6.63" TRIM



Curve No. E6409CCPCO
Model: 9RCHC
RPM: 1770

EFFICIENCY CORRECTION

STGS. 1	-2.0
STGS. 2	-1.0
STGS. 3	-0.5
STGS. 4	0

PERF BASED ON STD. MTL'S

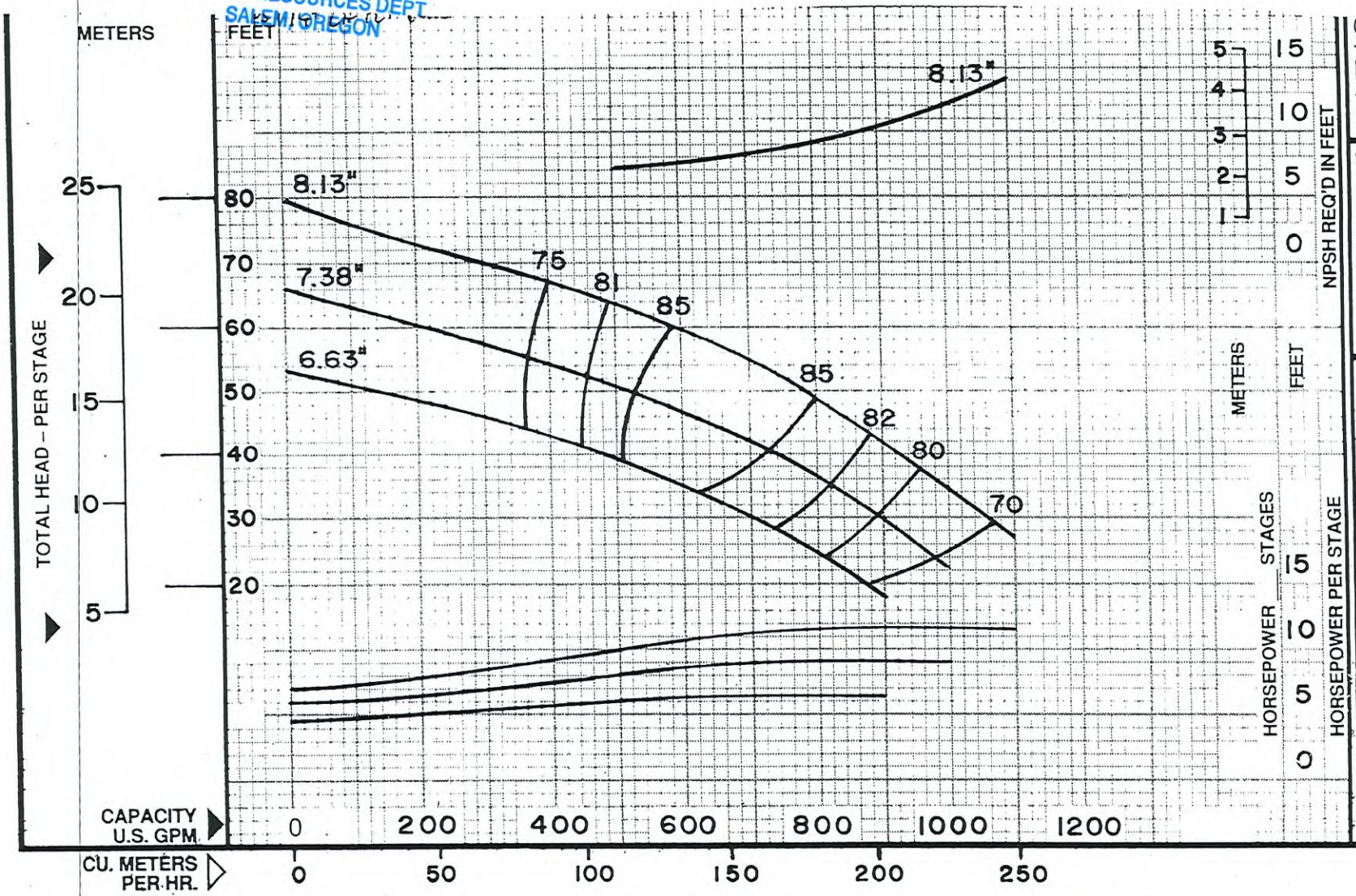
Impeller= C03256B
N_S= 2300
K= 3.10 LBS/FT
4.61 KG/M
K (Bal.)=

GOULDS PUMPS
TURBINE DIVISION
LUBBOCK, TEXAS

Characteristics based upon pumping clear, non-aerated water.
Rating point only is guaranteed. Column losses not included.

MODEL 9RCHC
DATE August, 1995

#19 3 STAGES 7.38" TRIM



Curve No. E3142-1

Model: 11CLC

RPM: 1770

EFFICIENCY CORRECTION

STGS. 1	-1.5
STGS. 2	-1.0
STGS. 3	-0.5

PERF BASED ON STD. MTL'S

Impeller= ENCLOSED

N_S= 2320

K= 7.90 LBS/FT
11.70 KG/M

K (Bal.)=

GOULDS PUMPS
TURBINE DIVISION
LUBBOCK, TEXAS

Characteristics based upon pumping clear, non-aerated water.
Rating point only is guaranteed. Column losses not included.

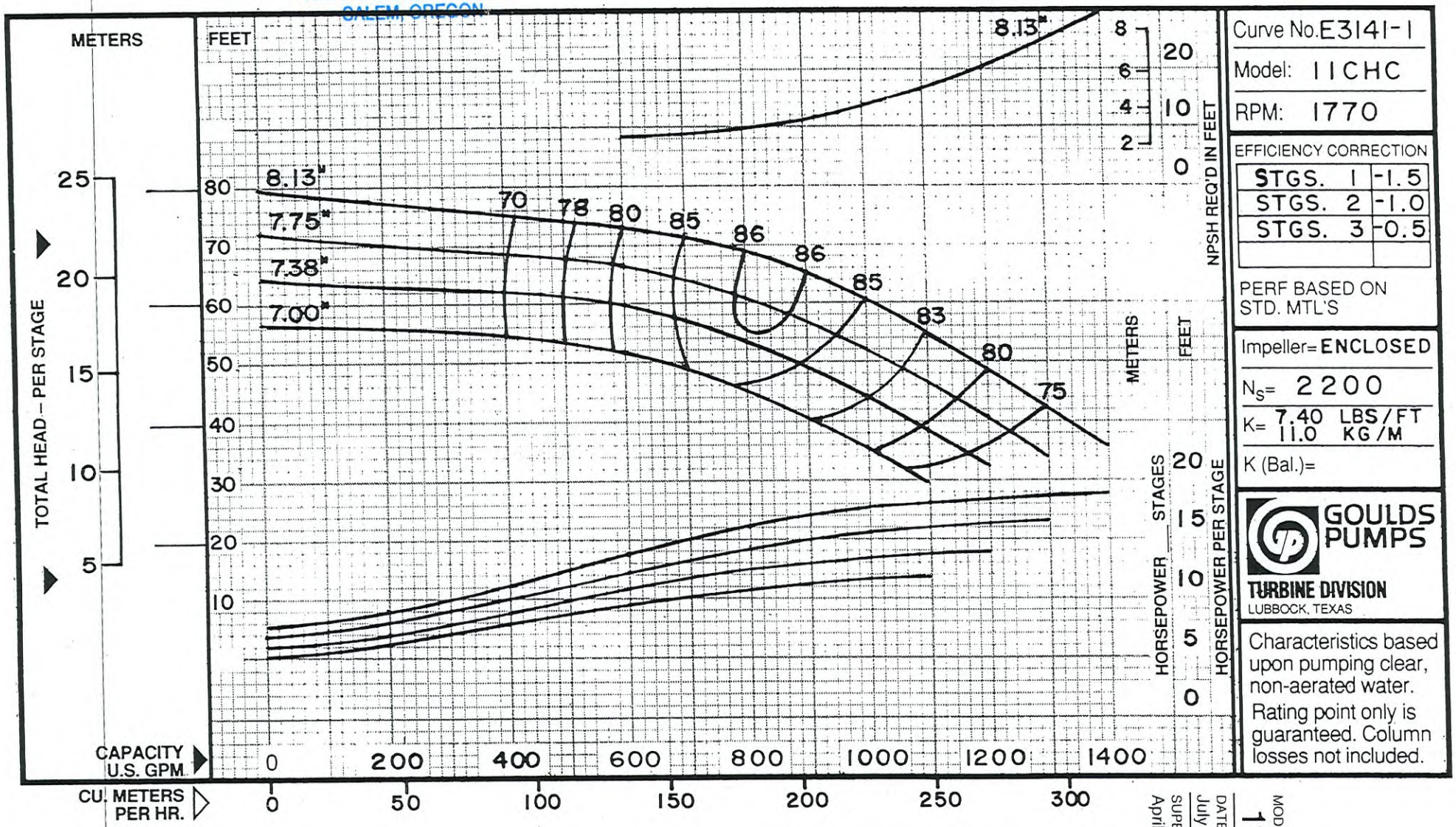
11CLC

DATE
July 1996
SUPERCEDES
April 1994

11CLC

11CLC

#20 3 STAGES 7.38" TRIM



Curve No. E3141-1
Model: 11CHC
RPM: 1770

EFFICIENCY CORRECTION

STGS. 1	-1.5
STGS. 2	-1.0
STGS. 3	-0.5

PERF BASED ON STD. MTL'S

Impeller= ENCLOSED

N_S= 2200

K= 7.40 LBS/FT
11.0 KG/M

K (Bal.)=

GOULDS PUMPS
TURBINE DIVISION
LUBBOCK, TEXAS

Characteristics based upon pumping clear, non-aerated water.
Rating point only is guaranteed. Column losses not included.

MODEL 11CHC
DATE July 1996
SUPERCEDES April 1994

Sagebrush Farm LLC G-14461
2436 11th Ave. E
Vale, OR 97918

Sagebrush Farm LLC G-14461
2436 11th Ave. E
Vale, OR 97918

Northwest Farm Credit Services G-14461
308 SE 10th St.
Ontario, OR 97914

Northwest Farm Credit Services G-14461
308 SE 10th St.
Ontario, OR 97914

STATE OF OREGON REMITTANCE ADVICE

WARRANT NO.
115176607

WATER RESOURCES DEPARTMENT (503) 378-8455

INVOICE NO.	INVOICE DATE	INVOICE DESCRIPTION	AGY	DOCUMENT	AMOUNT
		REV REF G-14461 10189	690	VP007744	418.00

Records have been redacted or withheld pursuant to the exemption for financial transfer records specified in ORS 192.345(27).

ISSUE DATE: 12/02/98
WARRANT AMOUNT 418.00

VENDOR NAME: HEID, WILLIAM
VENDOR NUMBER: 9690000001

DO NOT ACCEPT THIS CHECK UNLESS YOU CAN SEE A TRUE WATERMARK OF LINKED DIAMOND SHAPES WHEN HELD TO THE LIGHT

STATE OF OREGON
Dept of Administrative Services
To the State Treasurer, Salem, OR 97310
WATER RESOURCES DEPARTMENT
(503) 378-8455

96-10
1232

CHECK DATE
12/02/98

BANK WARRANT NO.
11 5176607

PAY THIS AMOUNT
$418.00

VENDOR NO.
9690000001

**********FOUR HUNDRED EIGHTEEN AND 00/100 DOLLARS

PAY TO THE ORDER OF:

HEID, WILLIAM
5070 S ROAD K
VALE OR 97918

VOID AFTER 2 YEARS FROM DATE OF ISSUE

AUTHORIZED SIGNATURE

THE FACE OF THIS CHECK HAS A COLORED BACKGROUND ** EXPLANATION OF ADDITIONAL SECURITY FEATURES INDICATED ON REVERSE SIDE

[redacted]

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMORANDUM

OK - Dwight Irwin

TO: MARIE LICARI, FISCAL
CC: FILE
FROM: Russ Klassen

SUBJECT: REQUEST FOR REFUND CHECK

PLEASE REFUND $ 418.00 TO William Heid
FILE # G14461, RECEIPT # 10189. THESE FUNDS ARE REFUNDED DUE TO :

_____ APPLICATION REJECTED
_____ APPLICATION WITHDRAWN
_____ EXCESS FEES COLLECTED FOR APPLICATION
_____ FILE CLOSED
_____ PROTEST FILING FEE
_____ OTHER: _____

0704

PLEASE INCLUDE THE FOLLOWING MAILING ADDRESS ON THE CHECK:

5070 S Rd K
Vale, OR 97918

RECEIVED NOV 17 1998

STATE OF OREGON
WATER RESOURCES DEPARTMENT

RECEIPT # 10189

158 12TH ST. N.E.
SALEM, OR 97310-0210
378-8455 / 378-8130 (FAX)

INVOICE #_____

RECEIVED FROM: Northwest Farm Credit Services ACA
BY:

APPLICATION	G 14461
PERMIT	
TRANSFER	

CASH: ☐ CHECK: # ☒ 1621 ☐ OTHER: (IDENTIFY) _____

TOTAL REC'D $ 1548.00

0417 WRD MISC CASH ACCT

	ADJUDICATIONS	$
	PUBLICATIONS / MAPS	$
_____	OTHER: (IDENTIFY) _____	$
_____	OTHER: (IDENTIFY) _____	$

REDUCTION OF EXPENSE

CASH ACCT. _____

PCA AND OBJECT CLASS _____ VOUCHER # _____ $

0427 WRD OPERATING ACCT

PCA 66111

	MISCELLANEOUS				
0407	COPY & TAPE FEES				$
0410	RESEARCH FEES				$
0408	MISC REVENUE: (IDENTIFY) _____				$
TC165	DEPOSIT LIAB. (IDENTIFY) _____				$
	WATER RIGHTS:	**EXAM FEE**		**RECORD FEE**	
0201	SURFACE WATER	$	0202	$	
0203	GROUND WATER	$ 200.00	0204	$ 1348.00	
0205	TRANSFER	$	0206	$	
	WELL CONSTRUCTION	**EXAM FEE**		**LICENSE FEE**	
0218	WELL DRILL CONSTRUCTOR	$	0219	$	
	LANDOWNER'S PERMIT		0220	$	

_____ OTHER (IDENTIFY) _____

0437 WELL CONST. START FEE

0211	WELL CONST START FEE	$	CARD #	
0210	MONITORING WELLS	$	CARD #	

_____ OTHER (IDENTIFY) _____

0539 LOTTERY PROCEEDS

1302	LOTTERY PROCEEDS	$

0467 HYDRO ACTIVITY

		LIC NUMBER	
0233	POWER LICENSE FEE (FW/WRD)		$
0231	HYDRO LICENSE FEE (FW/WRD)		$
_____	HRDRO APPLICATION _____		$

RECEIPT # 10189 DATED: 2-18-97 BY: Melissa Trujillo

Distribution-White Copy-Customer, Yellow Copy-Fiscal, Blue Copy-File, Buff Copy-Fiscal

541-473-3324

Bill Hyde - Gum Creek Farms

G-14461

PFO = conflict ?

~~Status~~

Permit

G-14059 - Status

G-10144 file

Cert 26616

from Gum Creek

well #1 9808

well #2 9809 > 1951

8:13

Kent Jenson
for Bill Hyde
~~541-473-~~
541-473-3135

---

30 Day extension

10-30

- Gum Creek Farms.
- App. G-14461
- Per. G-15533
- Edwards & Cummings working
- Darrell Chad called -

Case in Progress by
Edwards & Cummings. 11/02/2004

[signature]

app G-14461 (permit G-13533)

USER-ID 9071

2007 2008

Oregon Water Resources Department
October 2007 through September 2008
Annual Water Use - Monthly Quantities Form

Facility → / Report ID →	WELL #15 / 47860	WELL #17 / 47861	WELL #18 / 47862	WELL #19 / 47863	WELL #20 / 47864
October - 2007	Ø AF	Ø AF	Ø AF	Ø AF	Ø AF
November - 2007	Ø	Ø	Ø	Ø	Ø
December - 2007	Ø	Ø	Ø	Ø	Ø
January - 2008	Ø	Ø	Ø	Ø	Ø
February - 2008	Ø	Ø	Ø	Ø	Ø
March - 2008	Ø	Ø	Ø	Ø	Ø
April - 2008	Ø	31.2	14.6	Ø	23.0
May - 2008	74.3	67.1	53.9	10.5	62.8
June - 2008	15.8	61.5	57.3	26.3	62.2
July - 2008	Ø	55.3	52.6	43.8	48.3
August - 2008	Ø	59.7	64.5	48.4	52.3
September - 2008	Ø	47.4	36.4	25.3	40.3
Total *	90.1 AF	322.2 AF	279.3 AF	154.3 AF	288.9 AF

RECEIVED
FEB 09 2009
WATER RESOURCES DEPT
SALEM, OREGON

* Describe the units of measurement as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe the method of measurement used: FLOW METER **If used for irrigation, total number of acres irrigated:** 424

I certify this information is true and accurate to the best of my knowledge.

Signature	Title	Reporting Entity	Date
Kenneth Jansen	FARM OPERATOR	GUM CREEK FARMS INC	2-5-2009
Name	**Mailing Address**		**Phone Number**
KENNETH JANSEN	5070 S. Rd K. VALE OR 97918		541 473-3135

Please complete and mail to: Oregon Water Resources Department; Water Use Reporting Program;
725 Summer Street NE, Suite A; Salem, OR 97301-1266.

1134.4

Oregon
Theodore R. Kulongoski, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1271
503-986-0900
FAX 503-986-0904

October 6, 2008

KENNETH JENSEN
GUM CREEK FARMS INC
5070 SOUTH ROAD K
VALE, OR 97918

REFERENCE: User Id and Password **9071**

Dear Water User,

You are receiving this letter as a reminder of a water use reporting requirement listed on a water right. Online reporting is available at our web site (www.wrd.state.or.us). To begin, locate the *Water Use Reporting* link under *Featured Links*. By clicking this link, your browser will open a new page where you will be able to log in with your User Id and Password (above). Once you are logged in, the *Select* link will allow you to add data for a particular diversion. Please remember to report zeros for any given month when water was not used. Online reporting will be available through March 31, 2009. If the internet is not accessible, you may use the form provided on the back of this letter to submit your monthly water use data.

Although much effort has been done to add new permits to the Water Use Reporting database, there still may be diversions not included on the web site. Please be aware that most Transfer orders approved within the last few years will not likely appear online. If you notice a diversion not listed that should be, you can either use the form provided to report water use or let me know and we will add it to the database as soon as possible. Additionally, if you would like to designate a facility name for a diversion, please feel free to contact me.

For water rights authorizing less than 0.1 cubic foot per second (CFS) or 9.2 acre-feet, you may assume the maximum quantity allowed under the right and report that volume. For reporting purposes, please convert cubic feet per second to acre feet, using (1.98)(CFS)(# of days used per month).

The time and effort of both recording and reporting your water use is greatly appreciated. If you have any questions or need additional time, please let me know.

Sincerely,

Alyssa Mucken

Alyssa Mucken
Water Measurement Specialist
Oregon Water Resources Department
Phone 503.986.0837 Fax 503.986.0902
alyssa.m.mucken@wrd.state.or.us