

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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JAN 24 2008

Department of Water Resources

A. GENERAL INFORMATION

Permit No. 65-13933

1. Owner: Daniel and/or Karen Hansen Phone No.: 208-890-2552

Current Address: KD Bar Ranch, 6500 SE 7th Ave, Caldwell, ID 83607

2. Accompanied by: Mark Needs EXAM DATE: September 5, 2007

Address: Same as above Phone No. 208-405-1387

Relationship to Permit Holder: Ranch Manager

3. Source: Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-31261, Black Canyon Irrigation District

2. Other water rights with the same point of diversion: 65-23072

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident No.	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
	1		NW	NW	18	6N	3W	Payette	Field Exam, GPS

2. Place(s) of Use:

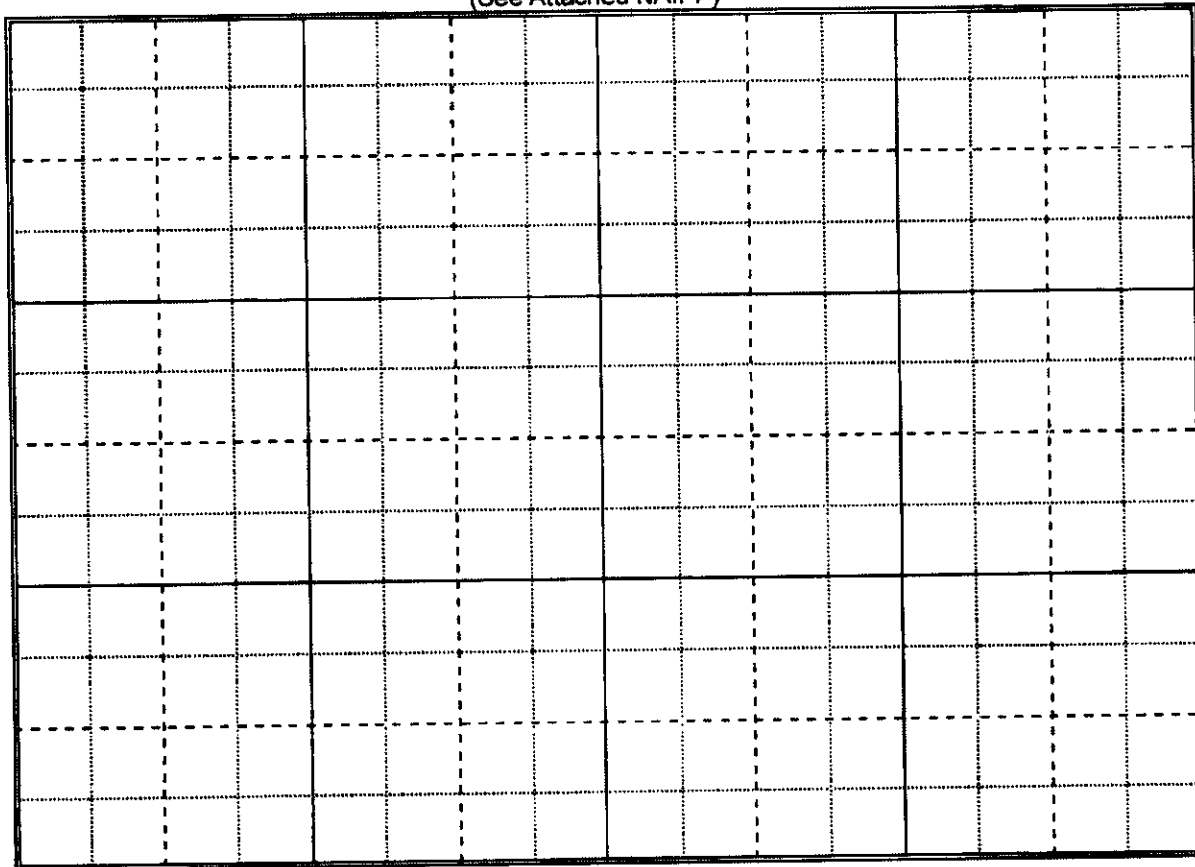
Indicate Method of Determination Field Exam, Aerial Photography (NAIP 2006)

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
6N	3W	6															36	36	
		7	36		40	35								4		33	31	179	
		18	8	8	8		39	38	39	40								180	
								Lt 1	Lt 2										

Total Acres 395

3. **Delivery System Diagram:** Indicate all major components and distances between components.
Indicate weir size/ditch size/pipe id as applicable.

(See Attached NAIPP)



Scale: 1" = _____

X Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required)

X Aerial Photo Attached (required for irrigation of 10+ acres)

X Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well No. 1	US Motor Holloshaft 1,770 rpm	300	CC1004186	Goulds	14RJHC, 4-stage, full trim
Booster No. 1	Baldor 1,800 rpm	50	A150950-55 42f060w38861	Cornell	4RB, 12.75" Diameter
Booster No. 2	US Electric 1,770 rpm	75	E02-S334A-H AZ	Fairbanks Morse Vertical Turbine	FM TURB60.MPC v. 1 3-stage, 8.875" Diameter
Booster No. 3	Baldor 1,800 rpm	50	0000314 A150960-55	Cornell	4RB, 12" Diameter
Booster No. 4	Baldor 1,800 rpm	50	F001121	Cornell	4RB, 12.75" Diameter
Booster No. 5	Baldor 3,600 rpm	7.5	F0703103694	Berkeley	B2TPM, 5-5/8" Trim and Diameter

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Pump Curve						

2. **Measurements:** 2,250 gpm at 344' TDH (290' pwl, 20' friction loss, 15 psi discharge)

Boosters provide 40 to 100 psi pressure increase for sprinklers

E. NARRATIVE/REMARKS/COMMENTS

A 16-inch well (aka Well #1) equipped with a 300-hp turbine pump supplies irrigation water to 395 acres. The ground water from this well is diverted in the Payette River drainage. A 2nd well in Section 7 (aka Well #2, permit 63-31261) also provides additional ground water to the system for irrigation of the same 395 acres and dust control. Ground water from this well is diverted in the Boise River drainage. Although part of a common system, the wells cannot be listed together because of the separate basins.

The complete irrigation system consists two wells with pumps, five booster pumps that supply ground water to one full 9-tower pivot and two half 9-tower pivots. The pivots operate between 50 and 65 psi. Ground water is also provided to portable hand lines, wheel lines and two Kifco water wheel sprinklers used to irrigate the pivot corners and small fields. The hand line and wheel line sprinklers, along with the smaller (B210) Kifco water wheel sprinkler operate at 75 psi. The larger "Big Gun" Kifco water wheel sprinkler operates at 100 psi. The irrigation system was not in use at the time of the exam. Pressure amounts were provided by Mark Needs.

Linda McCommell with Black Canyon Irrigation District (BCID) confirmed that Dan Hansen is assessed for 126 acres BCID surface water for irrigation of a 3/4ths 9-tower pivot and three corners in the NE and a pivot corner in the SENW, Section 18. The ground water supplements BCID water only on the pivot corners in Section 18 for a total of 32 acres. The other 363 acres are irrigated only with ground water.

Permit 65-23072 also uses ground water from Well #1 to irrigate separate acres in Section 13, Township 6N Range 4E. No other rights are used.

Well logs, well pump curves and booster pump curves for the entire system are attached. Riverside Inc. drilled the wells and installed their pumps. Dave Cleaver with Riverside Inc. supplied the attached well pump curves. Agri-Lines designed the irrigation system and installed the booster pumps. Dave Stubbs with Agri-Lines supplied the attached booster pump curves and system diagram.

See attached 2006 NAIPP, camera photos and system diagram for details.

This right, when combined with right 63-31261, will be limited to 7.9 cfs and 1777.5 afa for irrigation of 395 acres.

Have conditions of permit approval been met? X yes ___ no

F. FLOW CALCULATIONS

Yes Additional Computation Sheets Attached
(Pump Curve)

Measured Method:

Per pump curve: 2,250 gpm pumping capacity or 5.02 cfs

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 395 \times 4.5 = 1777.5$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 5.02 \times 260 \times 1.9835 = 2588.9$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1777.5$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Irrigation	3/1	11/15	5.02	1777.5

2. Recommended Amendments

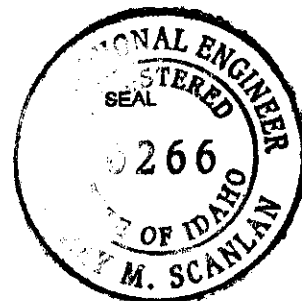
___ Change P.D. as reflected above ___ Add P.D. as reflected above ___ None
X Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

Field Examiner's Name Terry M. Scanlan Date 1-22-08

Field Examiner's Signature Terry M. Scanlan

Reviewer _____ Date _____



CWRE #08-129

Class

IDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

07/27/2007

WATER RIGHT NO 65-13933

Owner Type Name and Address

Current Owner: DANIEL B. HANSEN
Current Owner: KAREN L. HANSEN
1717 CHISHOLM DR
NAMPA, ID 83687
(208)890-2332

Priority Date: 11/07/2005

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

IRRIGATION 3/01 11/15 8 CFS
Total Diversion 8 CFS

Location of Point(s) of Diversion

GROUND WATER: NWNW 1/4 Sec 18 Township 06N Range 03W PAYETTE County

Place(s) of use

Place of Use Legal Description: IRRIGATION PAYETTE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
06N	03W	6		SESE	40									
		7		NENE	40		SWNE	40		SENE	40			
				NWSE	40		SWSE	40						
		18		NENW	40	1	NWNW	40	2	SWNW	40		SENW	40

Total Acres: 400

Conditions of Approval

1. 046 Right holder shall comply with the drilling permit requirements of Section 42-215, Idaho Code.
The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The
2. 121 amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.
3. 26A Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. R65 This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4 cfs per acre at the field headgate for irrigation of the lands above.
5. 015 After specific notification by the department, the right holder shall install a suitable measuring device or shall enter into an agreement with the department to determine the amount of water diverted from power records and shall annually report the information to the department.
6. 104 If the surface water right(s) appurtenant to the place of use is sold, transferred, leased or used on any other place of use, this right to divert groundwater shall not be used without an approved transfer pursuant to Section 42-222, Idaho Code, or approval of the Department if a transfer is not required.
7. The right holder shall use the full allotment of appurtenant surface water rights in conjunction with groundwater diverted under this right. The right holder shall monitor water levels in two local wells and the irrigation well at static and pumping conditions and shall report the results to the department during the initial pump test. The right holder shall measure the static water level in the irrigation well and one of the local wells using a method acceptable to the department on a yearly basis prior to each irrigation season and shall report the results to the department before using the irrigation well each year during the five year development period.

Dates

Proof Due Date: 08/01/2005
Proof Made Date: 11/07/2005
Approved Date: 08/08/2000
Monetization Expiration Date:
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Application Received Date: 02/22/2000
Protest Deadline Date:
Number of Protests: 0
Field Exam Date:
Date Sent to State Off:
Date Received at State Off:

Other Information

State or Federal:
Owner Name Connector: And/Or
Water District Number:
Generic Max Rate per Acre:
Generic Max Volume per Acre:
Swan Falls Trust or Nontrust:

FOR OFFICE USE ONLY Amt.
of Fee \$: 225.00
Receipt No. C039519
Receipt By: ML
Date Received: 11-7-05

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
PROOF OF BENEFICIAL USE

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NOV 07 2005

DEPARTMENT OF
WATER RESOURCES

The Idaho Department of Water Resources considers this form a statement that the permit holder(s) has/have completed all development that will occur under this permit and that water has been applied according to the provisions of the permit for the beneficial use(s) described below. This form must be accompanied by a license examination fee, when necessary, or be accompanied by a completed field examination report prepared by a certified water right examiner.

1. Permit No. 65-13933 Telephone No. 208-890-2552
2. Name of Permit Holder(s): Daniel B. Hansen and/or Karen L. Hansen
3. Mailing Address: KD Bar Ranch, 1717 Chisholm Drive
City Nampa State Idaho Zip 83687
4. Source of Water: Groundwater If GROUNDWATER (well), Date Drilled: mo. December / yr. 2000
Well Driller: Riverside, Inc. Drilling Permit Number: Well Tag D15828
Use(s) (as authorized by the water right permit):
Domestic (No. of households): _____ Stockwater (No. and type of stock): _____
Irrigation (No. of acres): 350 Other: _____
6. Total rate of diversion and/or volume for which proof is submitted: 5.56 cfs cfs OR _____ acre-feet
7. Measuring Device Requirement: (refer to the approval conditions on your permit and respond accordingly)
(This question is not optional. Please check either yes or no. Proofs returned not checked accordingly, will be considered incomplete)
Measuring Device: Is a measuring device required? Yes _____ or No X
Has the measuring device been installed? Yes _____ or No X
8. Fee Enclosed: \$: 225.00 (See Fee Schedule on back of the instructions for filing proof of beneficial use)
9. Person to contact to accompany the Department representative during field examination of the water system.
Name: Dan Hansen Telephone Number: 208-890-2552
Address: KD Bar Ranch, 1717 Chisholm Drive, Nampa, ID 83687

10. The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted. I agree to relinquish any undeveloped portion of the permit to the State of Idaho.

Signature of permit holder: Daniel B. Hansen (OWNER) Date: 11/3/05
(include your title, if on behalf of company or organization)

Permit 65-13933
2006 Naip Photography



0 0.15 0.3
Miles

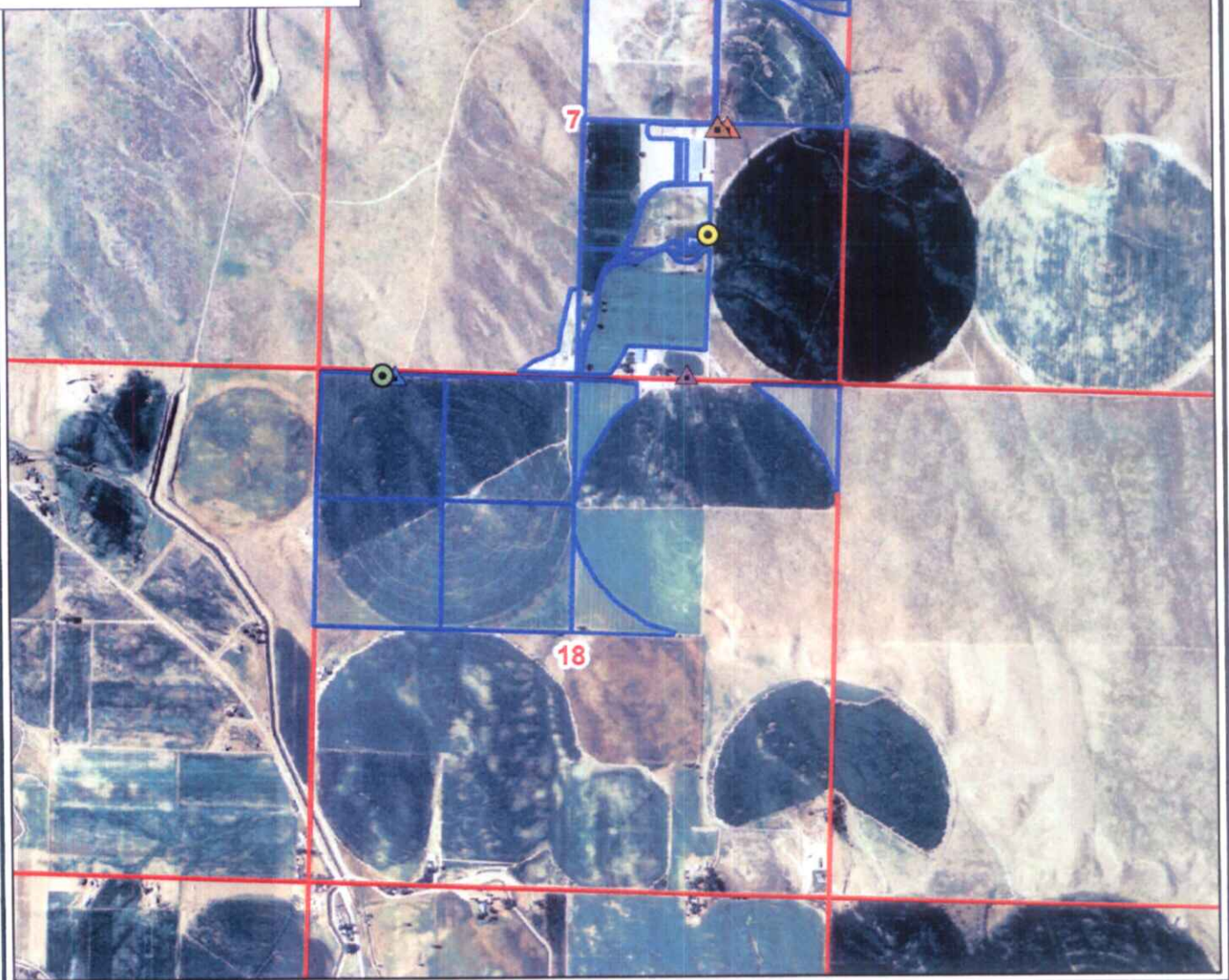


Water Engineering LLC
water resource consultants
101 S. Main Street, Ste. 100, Boise, Idaho 83720
ph: 208-333-1510 fax: 208-333-4350

Legend

-  Well #1
-  Well #2
-  Booster #1
-  Booster #2
-  Booster #3
-  Booster #4
-  Booster #5

 Irrigation Place of use



Permit 65-13933



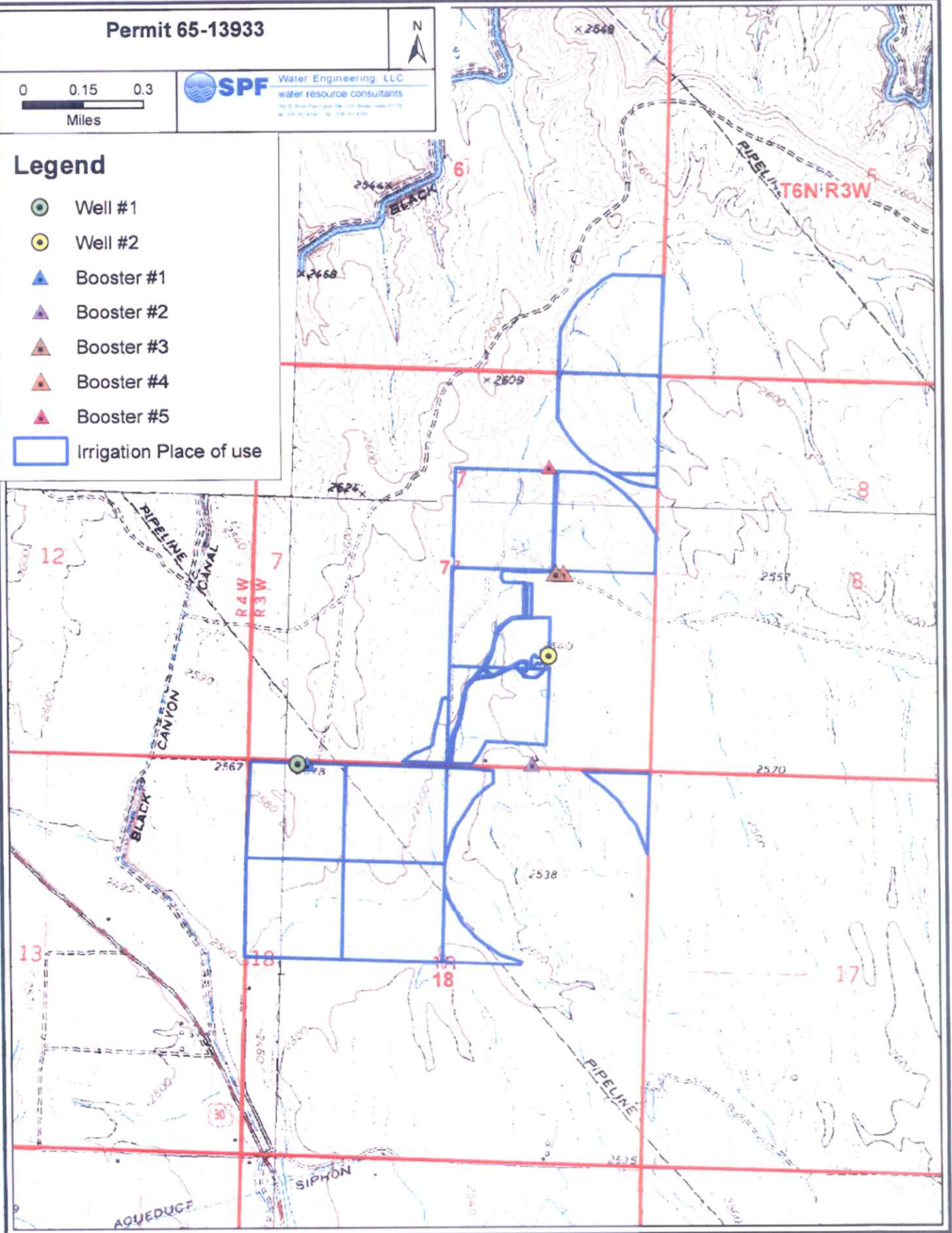
0 0.15 0.3
Miles



Water Engineering, LLC
water resource consultants
1401 S. Main Street, Suite 100, Boise, Idaho 83725
Tel: 208-333-4477 Fax: 208-333-4478

Legend

-  Well #1
-  Well #2
-  Booster #1
-  Booster #2
-  Booster #3
-  Booster #4
-  Booster #5
-  Irrigation Place of use



IRRIGATION WELL #1

Log and Pump Curve

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 _____ 1/4 _____ 1/4 _____
Lat: _____ Long: _____

1. WELL TAG NO. D 15828
DRILLING PERMIT NO. _____
Other IDWR No. _____

2. OWNER:
Name Don & Karen Hansen
Address PO Box 337
City Nepe State ID Zip 83653

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

North ☒ or South ☐
East ☐ or West ☒
Rge. 3 Sec. 18 1/4 NW 1/4 NW 1/4
Gov't Lot _____ County _____
Lat _____ Long _____
Address of Well Site 1 mile NE Black Canyon T. & R. 1 City Sand Hollow
L.L. _____ Blk. _____ Sub. Name _____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other Reverse

7. SEALING PROCEDURES

SEAL/FILTER PACK	AMOUNT	METHOD
Material	From To Spills or Pounds	
<u>Benitrite 5/8</u>	<u>0 371</u> <u>10025</u>	<u>Overfill</u>
<u>Benitrite 5/8</u>	<u>392 410</u> <u>3700</u>	<u>Overfill</u>
<u>Benitrite</u>	<u>530 555</u> <u>1000</u>	<u>Overfill</u>

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>11 1/2"</u>	<u>7 2</u>	<u>32 1/2</u>	<u>575</u>	<u>SS</u>	☒	☐	☒	☐
<u>10"</u>	<u>35 4</u>	<u>30 8</u>	<u>575</u>	<u>SS</u>	☒	☐	☒	☐
<u>11 1/2"</u>	<u>38 8</u>	<u>41 1/2</u>	<u>575</u>	<u>SS</u>	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe 10'

9. PERFORATIONS/SCREENS

Perforations _____ Method _____
Screen Type SS Johnson

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>32 1/2</u>	<u>35 4</u>	<u>185</u>		<u>110"</u>	<u>SS</u>	☒	☐
<u>30 8</u>	<u>38 8</u>	<u>185</u>		<u>110"</u>	<u>SS</u>	☒	☐
<u>41 1/2</u>	<u>45 1</u>	<u>185</u>		<u>110"</u>	<u>SS</u>	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

205 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: 2" access pipe

11. WELL TESTS:

Yield gal/min	Drawdown	Pumping Level	Time
<u>1800</u>	<u>82</u>	<u>287'</u>	<u>8 hrs</u>

Water Temp. 60.5° Bottom hole temp. _____
Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>8"</u>	<u>0</u>	<u>12</u>	<u>Sand</u>		
	<u>12</u>	<u>43</u>	<u>Sandy Clay</u>		
	<u>43</u>	<u>815</u>	<u>Coarse Sand Shale Clay</u>		
	<u>815</u>	<u>910</u>	<u>Tan Clay & Sand Shale</u>		
	<u>910</u>	<u>310</u>	<u>Med. Sand</u>		
	<u>310</u>	<u>313</u>	<u>Tan Clay</u>		
	<u>313</u>	<u>321</u>	<u>Sand & Clay</u>		
	<u>321</u>	<u>353</u>	<u>Med. Sand</u>		
	<u>353</u>	<u>310</u>	<u>Tan Clay</u>		
	<u>310</u>	<u>390</u>	<u>Med. Sand</u>		
	<u>390</u>	<u>410</u>	<u>Tan then Blue Clay</u>		
	<u>410</u>	<u>451</u>	<u>Coarse to med. Sand</u>		
	<u>451</u>	<u>498</u>	<u>Blue Clay</u>		
	<u>498</u>	<u>521</u>	<u>Med. Sand</u>		
	<u>521</u>	<u>5810</u>	<u>Blue Clay Shale Sand</u>		

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Department of Water Resources

Pump test results as required by condition #10.

Completed _____ Depth 530' (Measurable)
Date Started 11-1-00 Completed 12-15-00

13. DRILLER'S CERTIFICATION

We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside Inc. Firm No. 333

Firm Official _____ Date _____
and _____
Driller or Operator _____ Date 2-15-00
(Sign lines of Firm Official & Operator)

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IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

pg 182

Office Use Only

Inspected by _____

Twp _____ Rge _____ Sec _____

_____ 1/4 _____ 1/4 _____ 1/4

Lat : : Long : :

1. WELL TAG NO. D 15828
 DRILLING PERMIT NO. _____
 Other IDWR No. _____

2. OWNER: Daniel & Karen Hansen
Name: Daniel & Karen Hansen
Address: PO Box 337
City: Nampa State/Tri: Zip: 83405

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.



Twp. _____ North ☐ or South ☐
 Rge. _____ East ☐ or West ☐
 Sec. _____
 Gov't Lot _____
 Lat. _____ Long. _____

County _____

Address of Well Site _____

Rate of fuel consumption of engine : Distance to Road on Landmark

Blk. _____ Sub. Name _____

4. USE:

USE:

☐ Domestic	☐ Municipal	☐ Monitor	☐ Irrigation
☐ Thermal	☐ Injection	☐ Other _____	

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

DRILL METHOD ☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

7. SEALING PROCEDURES				AMOUNT	METHOD
SEAL/RTEN PACK			Scale in Pounds		
Material	From	To			
ESST #10 #12	300	352	25.191		Chlorbut
ESST #10 #12	410	530	37.800		Chlorbut
3/4" Lead	535	586	24.206		Chlorbut

What drive shoe used? ☒ Y ☐ N Shoe Depth(s).

Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
110"	451'	500'	57	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method _____
Screens _____ Screen Type _____

From	To	Set Size	Number	Diameter	Material	Casing	Line
500	530	.035		1/8"	SS	X	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

10. STATIC WATER LEVEL ON WELL _____ ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

☐ Pump	☒ Battery	☐ Fuel		
Tried galena.	Drawdown	Pumping Level	Time	

Water temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

[illegible]

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Department of Water Resources

Completed _____ Depth _____ (Measurable)
Date: Started _____ Completed _____

13. DRILLER'S CERTIFICATION

13. DRILLER'S CERTIFICATION
We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name _____ Firm No. _____

Firm Official _____ Date _____

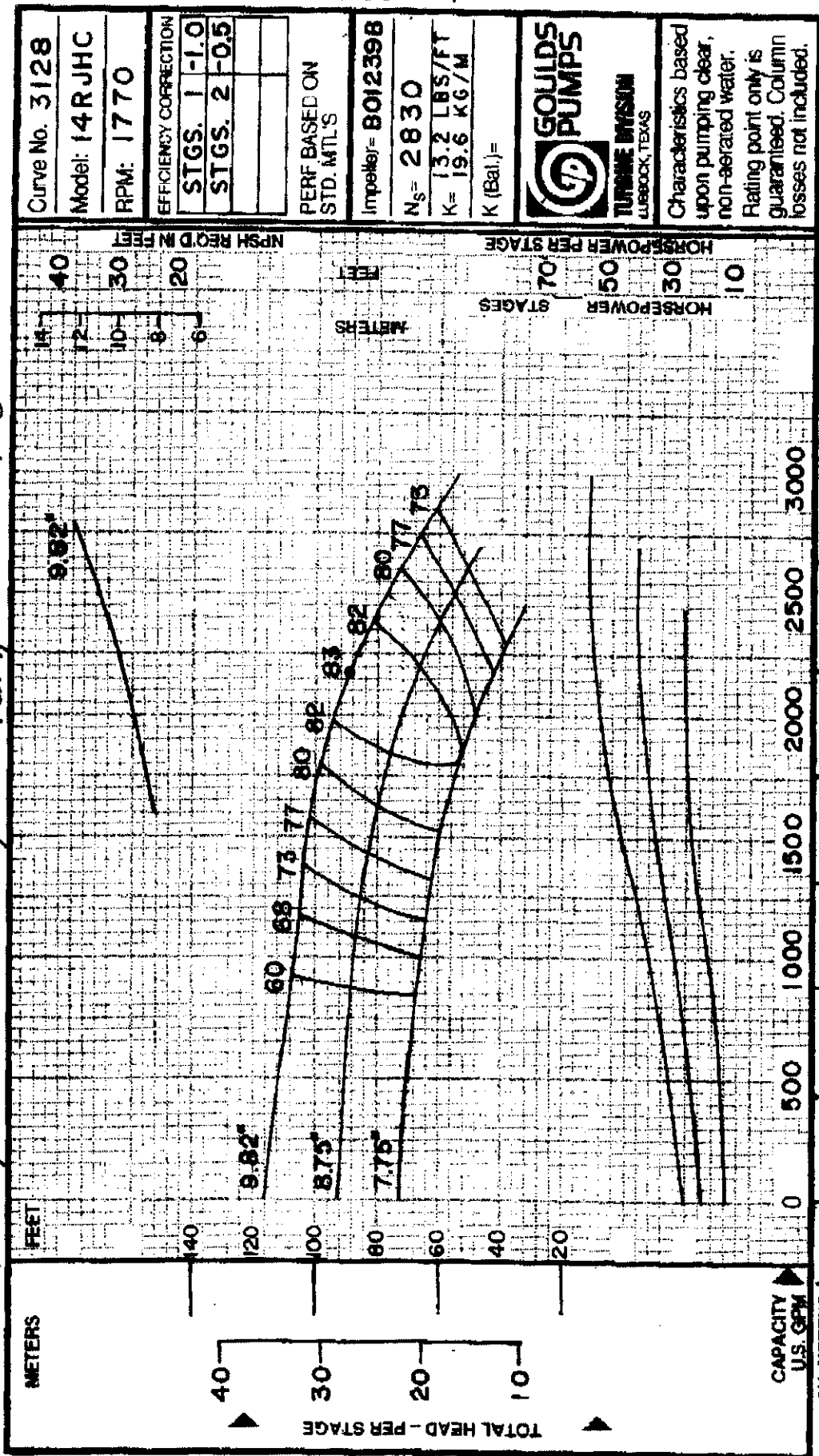
and
Driver or Operator _____ Date _____

(Sign areas & Form Official & Operator)

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GOLDS PROPOSAL NO.	GOLDS S.O. NO.	INDUSTRY NO.	CUSTOMER P.O. NO.	P.O. DATE	ITEM NO.	CUSTOMER
PROJECT <i>Dan Hansen</i>			SERVICE			
CAPACITY			F.T. TDH		RPM	
200			335		1720	

4 Stages Full Dia Pump Set AT 350'



MODEL
14RJHC
 DATE
 May 2, 1988
 SUPERCEDES
 July 22, 1977

IRRIGATION WELL #2

Log and Pump Curve

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

767079

Office Use Only

Inspected by

Twp Rge Sec

1/4 1/4 1/4

Lat: Long:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

1. WELL TAG NO. D 15829

DRILLING PERMIT NO.

Other IDWR No. 63-12569

11. WELL TESTS:

☐ Pump ☐ Bailer

Yield gal/min.	Drawdown	Pumping Level	Time
2200	77'	251	7 hrs.

Water Temp.

Bottom hole temp.

Water Quality test or comments:

Depth first Water Encounter:

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
28	0	4	top soil		
28	4	8	Coarse to Med tan Sand		
28	8	12	Coarse Brown Clay		
28	12	36	Coarse to fine Sand w/ clay		
28	36	41	lt. Brown Clay		
28	41	50	Coarse to Med lt. Gray Sand		
28	50	60	Med lt. Brown Sand w/ Blue Clay		
28	60	67	Med to Coarse lt. Gray Sand		
28	67	70	tan Clay		
28	70	76	Sandy lt. Brown Clay		
28	76	80	tan Clay		
28	80	84	Coarse to Med lt. Gray Sand		
28	84	85	Brown Clay		
28	85	88	Med. Brown Sand		
28	88	90	Gray Clay		
28	90	93	Gray Clay		
28	93	101	Coarse to Med lt. Gray Sand		
28	101	109	tan Clay		
28	109	119	Coarse to Med lt. Brown Sand		
28	119	130	Med to Coarse lt. Brown Sand		
28	130	139	Coarse to Med tan Sand		
28	139	143	tan Clay		
28	143	160	Med to Coarse Sandy tan Clay		
28	160	169	Fine Med tan Sand Clay		
28	169	185	Coarse to Med tan Sand		
28	185	187	tan Clay		
28	187	195	Coarse to Med tan Sand		
28	195	200	lt. Brown Clay		
28	200	216	Med to Coarse tan Sand		
28	216	228	tan Clay		
28	228	240	Coarse to Med lt. Brown Sand		
Completed Depth 520' (Measurable)				Date: Started 5/6/01 Completed 5/12/01	

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside, Inc. Firm No. 333

Firm Official

Date

and

Driller or Operator

Date

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

2. OWNER

Name Daniel & Karen Hansen

Address P.O. Box 332

City Nampa State ID Zip 83653

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

Map showing well location on a grid. The well is located in the center of the grid, marked with an 'X'. The grid is labeled with North, South, East, and West. The well is located in the center of the grid, marked with an 'X'. The grid is labeled with North, South, East, and West. The well is located in the center of the grid, marked with an 'X'. The grid is labeled with North, South, East, and West.

Twp. 6 North or South ☒ East ☐ or West ☒ Rge. 3 East or West ☒ Sec. 3 1/4 NW 1/4 SE 1/4 Gov't Lot County Payette Lat. Long. Address of Well Site Link NE Block Canyon I-84 Exit City Sand Hollow

Lt. BIK. Sub. Name

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection ☐ Other Stock

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other Reverse

7. SEALING PROCEDURES

SEAL/FILTER PACK	AMOUNT	METHOD
Material	From To Sacks or Pounds	
5' Bentonite	0 320 60000# over bore	
5' Bentonite	321 382 2500# over bore	
4' ESS	383 421 3229# over bore	

Was drive shoe used? ☐ N ☒ S Shoe Depth(s):
Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	2	320'	3.75	Steel	☒	☐	☒	☐
16"	320'	382'	3.75	Steel	☐	☐	☒	☐
16"	382'	421'	3.75	Steel	☐	☐	☒	☐

Length of Headpipe Length of Tailpipe 10'

9. PERFORATIONS/SCREENS

Perforations Method Johnson
Screens Screen Type Wire wrap

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
340'	380'	.035		16"	SS	☒	☐
382'	392'	.035		16"	SS	☒	☐
421'	452'	.035		16"	SS	☒	☐
470'	505'	.035		16"	SS	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

126' ft. below ground Artesian pressure lb.
Depth flow encountered ft. Describe access port or control devices: 1 1/2" Pipe

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 _____ 1/4 _____ 1/4 _____
Lat: _____ Long: _____

1. WELL TAG NO. D 15829
DRILLING PERMIT NO. _____
Other IDWR No. 03-12509 JUN 11 2001

2. OWNER:
Name Daniel & Karen Hansen
Address P.O. Box 337
City Hampe State ID Zip 83653

11. WELL TESTS:

☐ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____

Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water: _____

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
28 240	242	242	tan clay		
28 242	244	244	coarse + med tan sand		
28 244	250	250	tan sandy clay		
28 250	253	253	med reddish brown sand		
28 253	256	256	sandy brown clay		
28 256	264	264	tan clay		
28 264	270	270	med lt. brown sand & tan clay		
28 270	283	283	coarse to med tan sandy clay		
28 283	297	297	coarse to med sandy tan clay		
28 297	334	334	med to coarse tan sandy clay		
28 334	378	378	coarse to med tan sandy clay		
28 378	385	385	blue clay		
28 385	395	395	coarse to med gray sand		
28 395	397	397	blue clay		
28 397	400	400	coarse to med gray sand		
28 400	409	409	blue clay w/ thin sand streaks		
28 409	411	411	coarse to med gray sand		
28 411	426	426	blue clay w/ thin sand streaks		
28 426	428	428	coarse to med gray sand		
28 428	447	447	med to coarse blue sandy clay		
28 447	459	459	med to coarse gray sand		
28 459	470	470	med to coarse blue sandy clay		
28 470	505	505	coarse sand w/ some clay		
28 505	520	520	med to 4' blue clay		
28 520	530	530	blue clay		

Completed _____ Depth 520' (Measurable)
Date: Started 3/1/01 Completed 5/17/01

13. DRILLER'S CERTIFICATION

We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name _____ Firm No. _____
Firm Official _____ Date _____
and
Driller or Operator _____ Date _____
(Sign once if Firm Official & Operator)

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

Twp. 10 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 7 1/4 NW 1/4 SE 1/4
Gov't Lot _____ County Payette
Lat: _____ Long: _____

Address of Well Site _____ City _____

(Give at least name of road + distance to road or landmark)
Lt. _____ Bk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply

(Replacement etc.)

☐ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK	AMOUNT	METHOD
Material	From To Sacks or Pounds	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method _____

Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

_____ ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

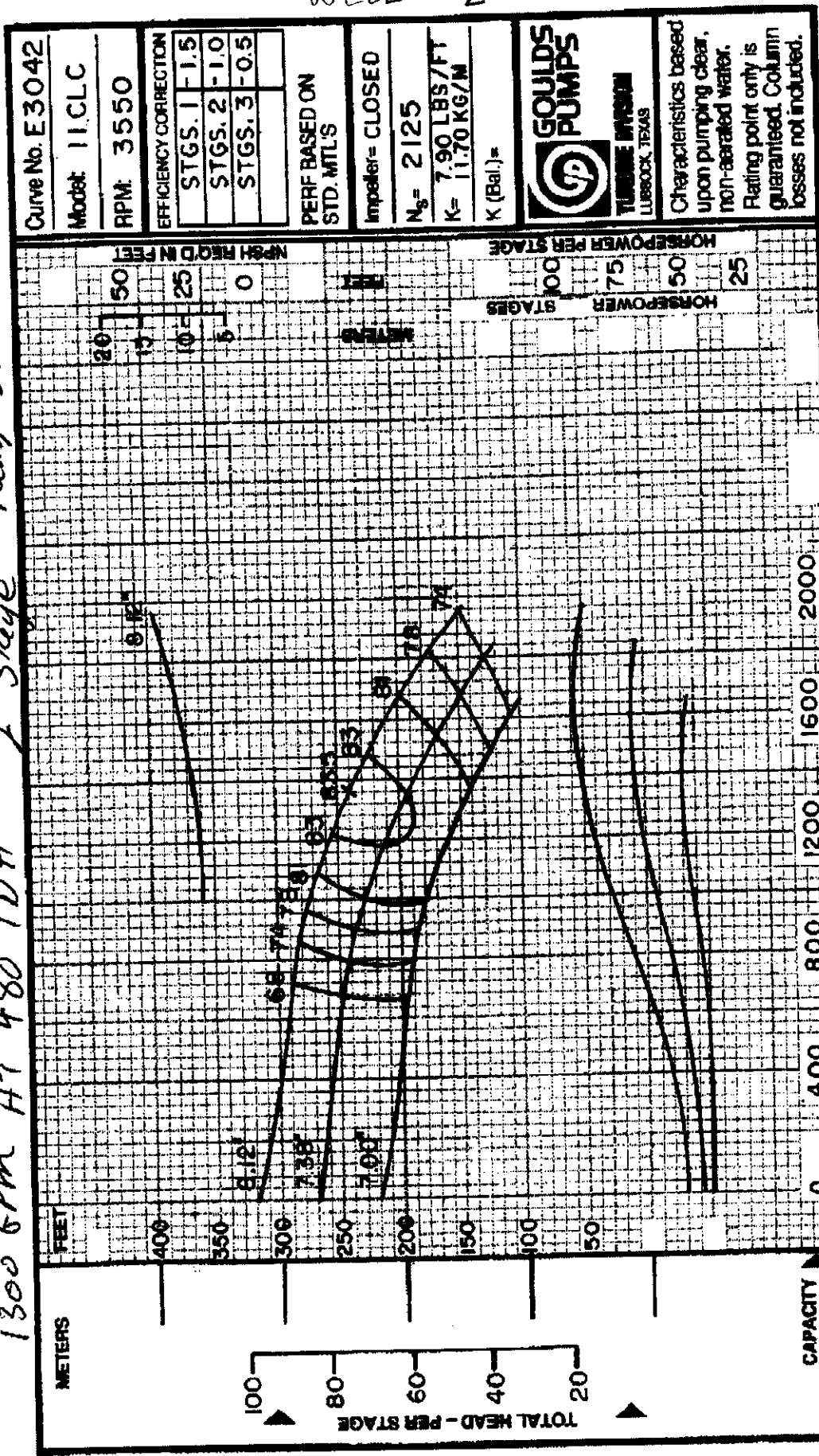
FORWARD WHITE COPY TO WATER RESOURCES

WELL #2

MODEL
11CLC
DATE
April, 1994
SUPERCEDES
February, 1993

see 7 well

GOULDS PROPOSAL NO.	GOULDS S.O. NO.	INQUIRY NO.	CUSTOMER P.O. NO.	P.O. DATE	ITEM NO.	CUSTOMER
PROJECT			SERVICE			
1400 gpm @ 360' TDH			1300 gpm AT 480' TDH 2 Stage Pump Set AT 350'			
GPM CAPACITY		F.T. TDH		% EFFICIENCY		RPM
						3550



C11CLC.1

BOOSTER PUMP CURVES

BOOSTER #1

3RC - 1800 RPM

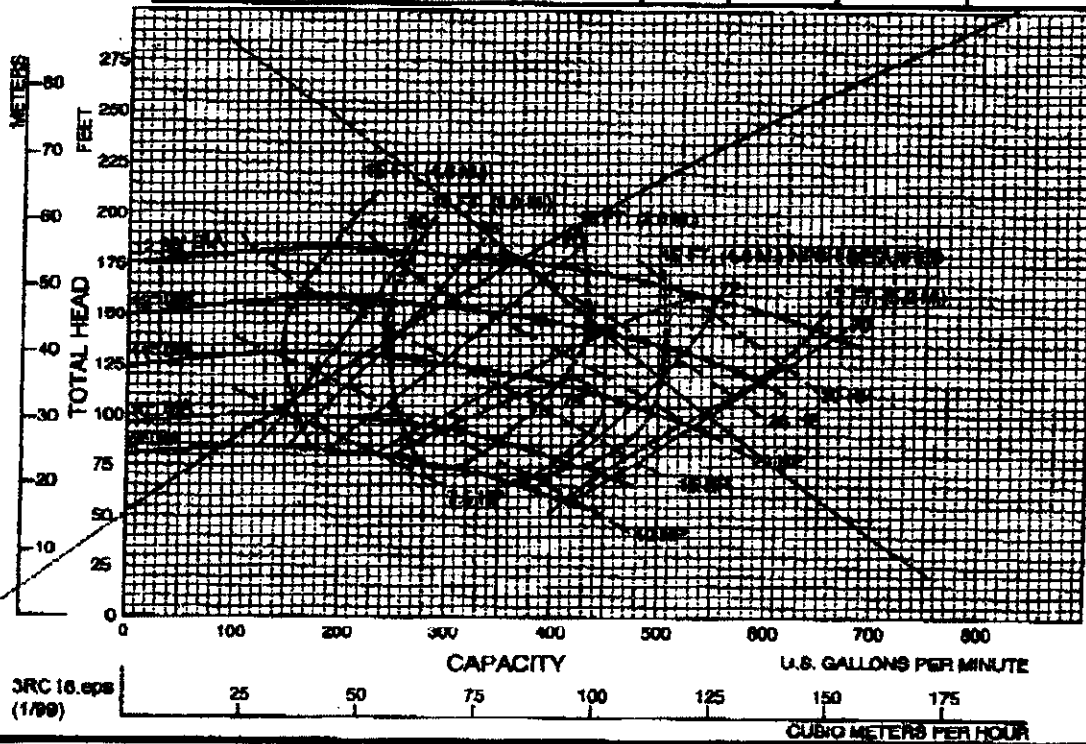
SINGLE VOLUTE

Max. Impeller Dia. Non-overloading		
HP	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
30	12.19"	12.75"
25	11.56"	12.06"
20	11.00"	11.31"
15	10.25"	10.56"
10	9.00"	9.44"

performances shown are for
hot water, close-coupled
electric configuration with
ycloseal®. Other mounting
styles or liquids may require
horsepower and/or perform-
ance adjustments.

ft x .305 = Meters
inches x 25.4 = Millimeters
*M x .227 = Cubic Meters/Hour
*M x 3.785 = Liters/Minute
* x .746 = KW

Speed	Impeller Dia	Style	Solids Dia	N _s	Suction	Discharge	No. Vanes
1775	Various	Enclosed	0.50"	915	5.0	3.0	7



IRB - 1800 RPM

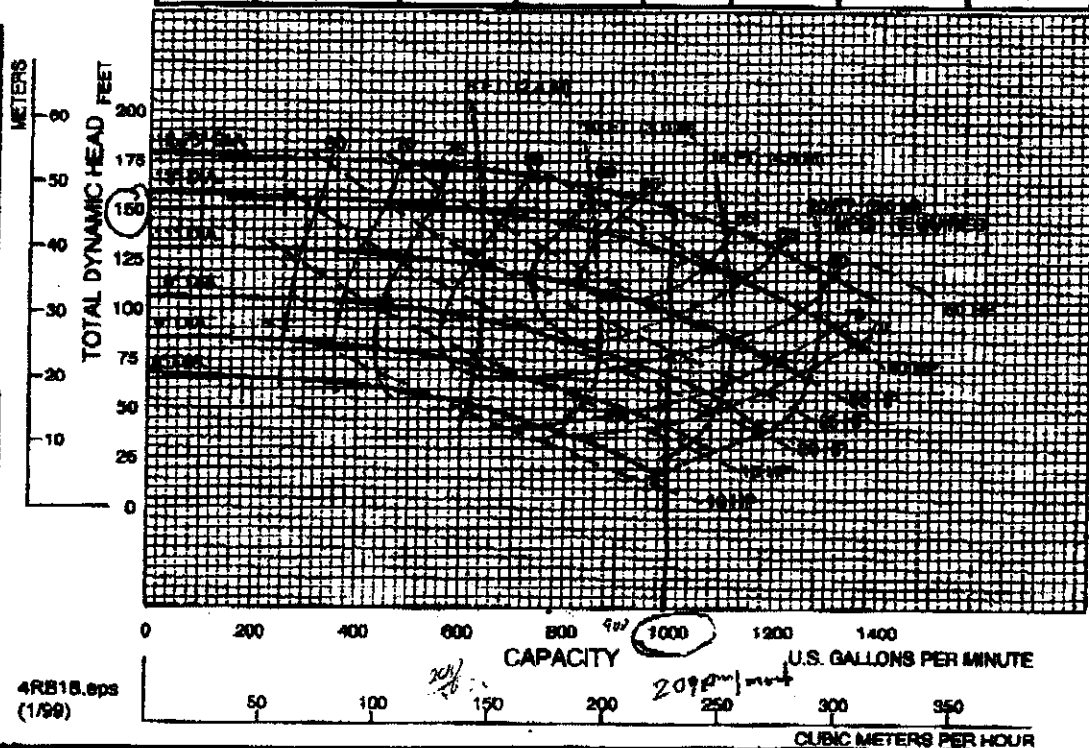
SINGLE VOLUTE

Max. Impeller Dia. Non-overloading		
HP	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
30	12.75"	13.62"
25	12.00"	12.62"
20	11.00"	11.50"
15	10.50"	10.75"
10	9.75"	10.25"
5	8.94"	9.36"
3	8.00"	8.38"

performances shown are for
hot water, horizontal frame
configuration with packing.
Other mounting styles or liq-
uids may require horsepower
or performance adjust-
ments.

x .305 = Meters
inches x 25.4 = Millimeters
* x .227 = Cubic Meters/Hour
* x 3.785 = Liters/Minute
* x .746 = KW

Speed	Impeller Dia	Style	Solids Dia	N _s	Suction	Discharge	No. Vanes
1775	Various	Enclosed	0.84"	1332	6.0	4.0	7



1000gpm @ 150' TDH 12.75" dia
KD Bar B. Pump #1 50HP

ce/Time JUN-02-2006(FRI) 14:50

5592665341

06/02/2006 03:15 5592665341

FAIRBANKS MORSE

BOOSTER #2

FAIRBANKS MORSE

mill

AGRI LINES IRRIGATION (DAVE STUBBS)

PUMP DATA SHEET
FAIRBANKS MORSE, 60 HzH2Optimize ver: 8.041
06/02/06

Selection file: (untitled)

Catalog: FMTURB00.MPC v.1

Design Point: Flow: 1280 US gpm
Head: 190 ftPump: VERT. TURBINE - 1800 Size: 12M (3 stages)
Speed: 1770 rpm Dia: 8.875 inLimits: Temperature: 150 °F Sphere size: 0.04 in
Pressure: 380 psi Power: 344 bhp

Specific Speed: Ns: — Nss: —

Vertical Turbine: Bowl Size: 12.28 in Max Lateral: 0.92 in
Thrust K Factor: 5.33Motor: 100 hp Speed: 1800 Frame: 405T
NEMA Standard TEFC Enclosure
sized for Max Power on Design Curve

Fluid: Water

Temperature: 60 °F

SG: 1

Viscosity: 1.122 cP

Vapor pressure: 0.2568 psi_aAtm pressure: 14.7 psi_a

NPSHr: — ft

Piping:

System: —

Suction: — in

Discharge: — in

— Data Point —

Flow: 1280 US gpm

Head: 190 ft

Eff: 80.3%

Power: 76.4 bhp

NPSHr: 22.5 ft

— Design Curve —

Shutoff Head: 280 ft

Shutoff dP: 121 psi

Min Flow: — US gpm

BEP: 83.2% eff

● 1063 US gpm

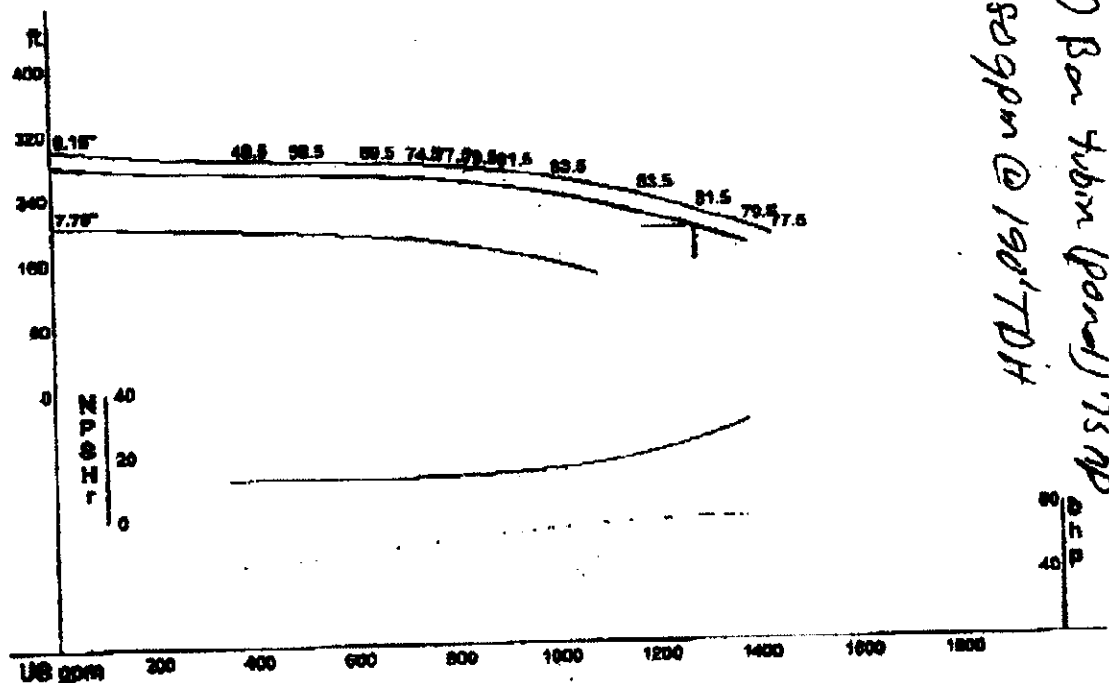
NOL Pwr: 76.6 bhp

● 1320 US gpm

— Max Curve —

Max Pwr: 84.2 bhp

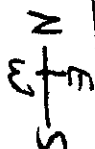
● 1285 US gpm



— PERFORMANCE EVALUATION —

Flow US gpm	Speed rpm	Head ft	Pump %eff	Power bhp	NPSHr ft	Motor %eff	Motor kW	Hrs/yr	Cost \$/kWh
1636	Flow Rate is Out of Range for this Pump								
1280	1770	190	80.3	76.4	22.5				
1024	1770	232	82.7	72.3	14.6				
768	1770	266	77.4	63.8	12.2				
612	1770	263	82.4	64.2	12				

van Manjun
As Build
Booster Pump
12-01


$$12^{\circ} \rightarrow \text{PVI II 3} + \text{IV 4}$$

6" 125 to cyl. (crosses under 12")
 440' End of volute

12" B.V. G.O.

6-BF-11

put #2

10" B.F.V. 50.

75hp.B. Perz

12' from W2011

BOOSTER #2 DIAGRAM

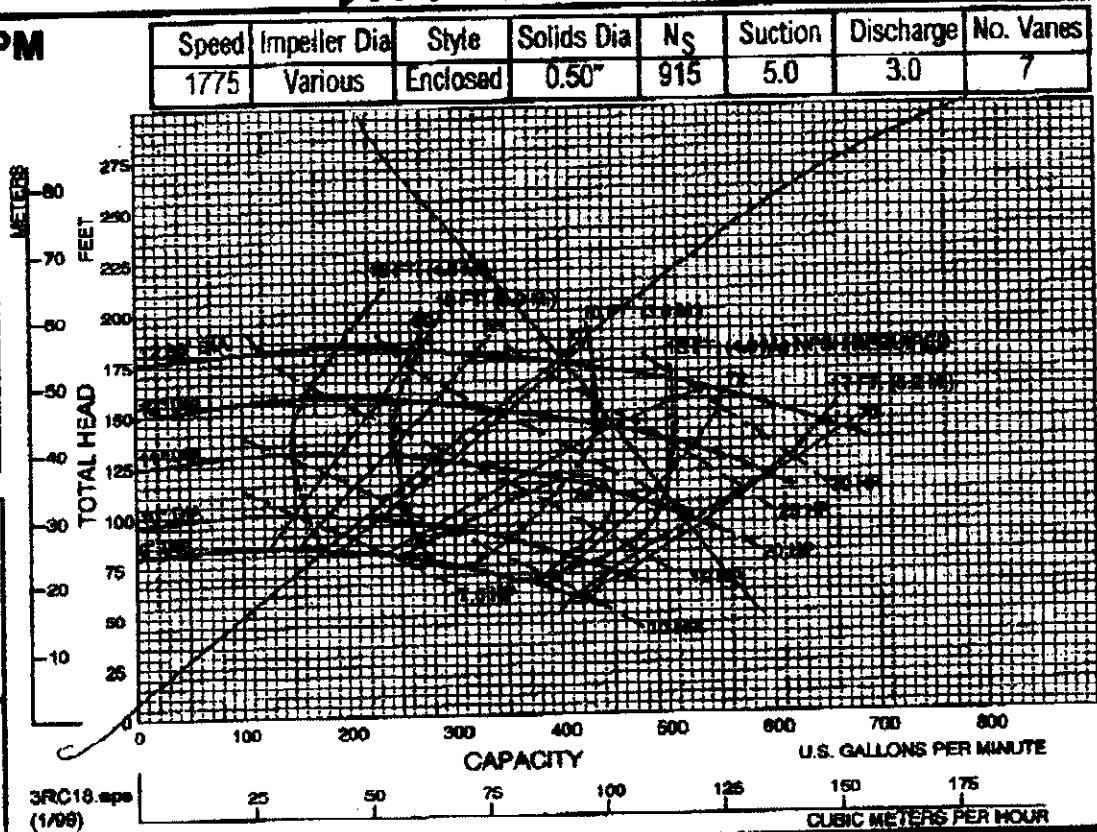
Booster #3**3RC - 1800 RPM**

SINGLE VOLUTE

HP	Max. Impeller Dia. Non-overloading	
	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
30	12.19"	12.75"
25	11.56"	12.06"
20	11.00"	11.31"
15	10.25"	10.66"
10	9.00"	9.44"

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

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

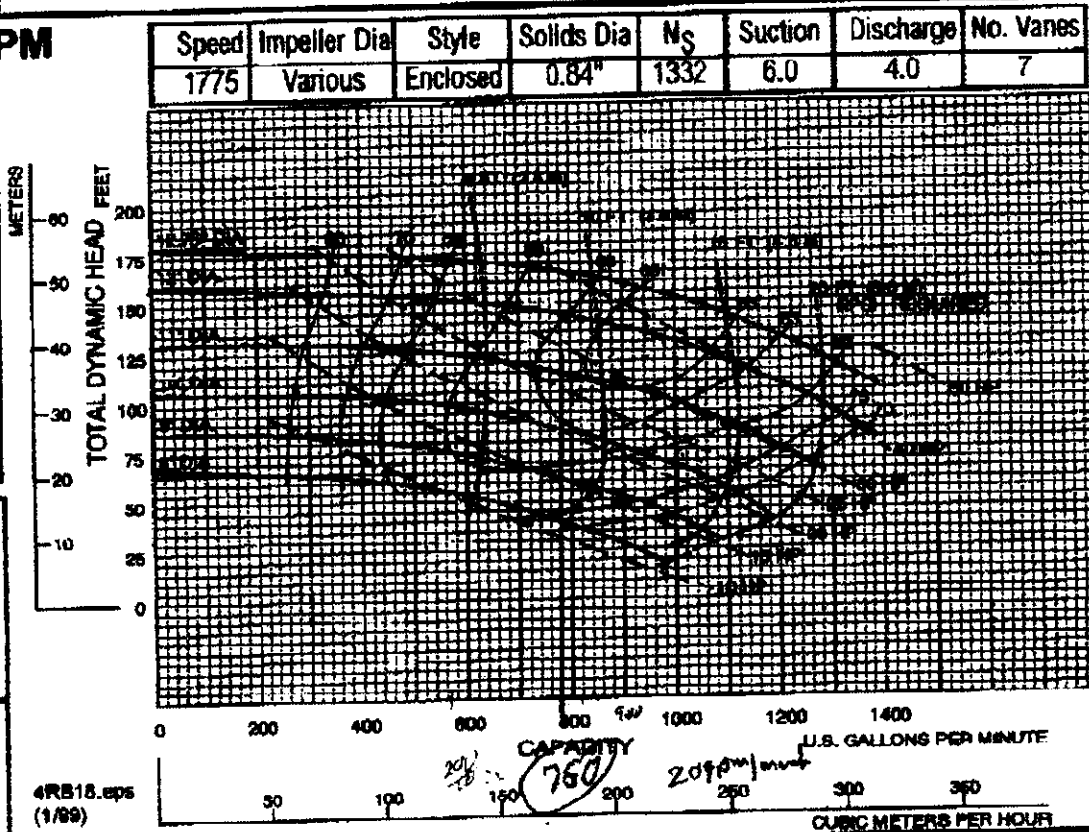
**4RB - 1800 RPM**

SINGLE VOLUTE

HP	Max. Impeller Dia. Non-overloading	
	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
50	12.75"	12.62"
40	12.00"	12.62"
30	11.00"	11.60"
25	10.50"	10.75"
20	9.75"	10.25"
15	8.94"	9.38"
10	8.00"	8.38"

Performances shown are for cool water, horizontal frame configuration with packing. Other mounting styles or liquids may require horsepower and/or performance adjustments.

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

**Cornell Pump Company • Portland, Oregon****I-A-3-40**

Handwritten notes on the right side of the page:

- 1)
- RD Bar B Pump #3
- 760 gpm @ 145' TDH 12" Dia
- 50 gpm @ 145' TDH 12" Dia
- 6/9/07

Booster #4**3RC - 1800 RPM**

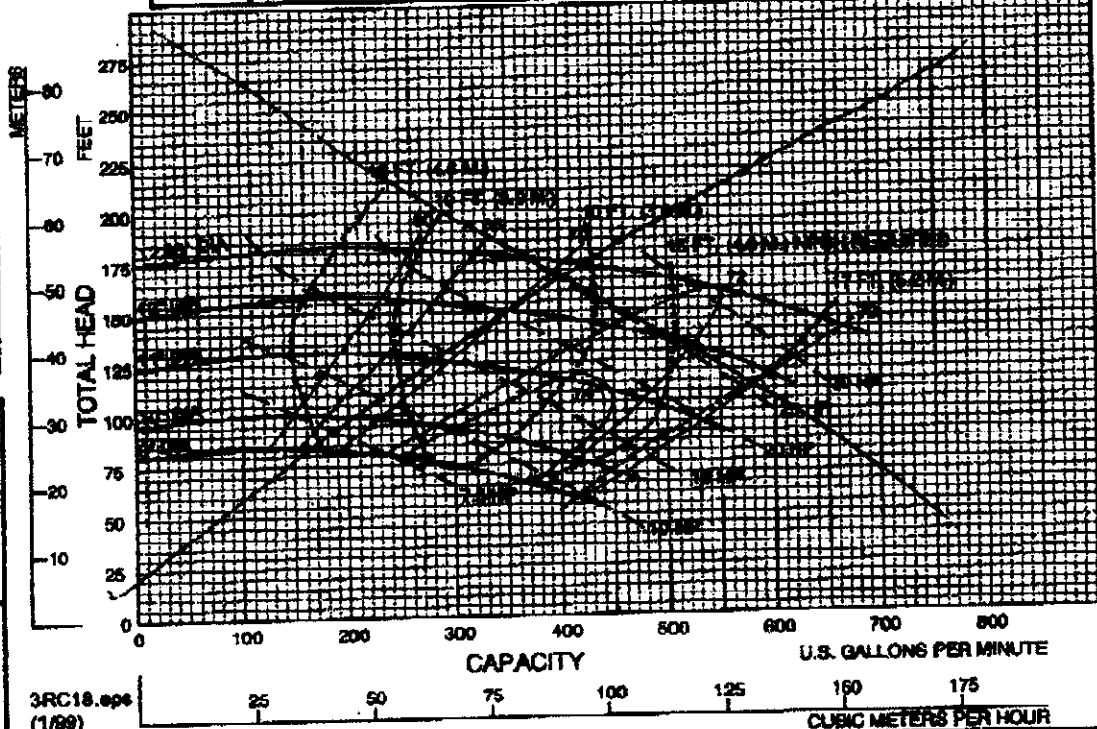
SINGLE VOLUTE

Max. Impeller Dia. Non-overloading		
HP	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
30	12.19"	12.75"
25	11.56"	12.06"
20	11.00"	11.31"
15	10.25"	10.56"
10	9.00"	9.44"

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

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	0.50"	915	5.0	3.0	7

3RC18.eps
(1/99)**4RB - 1800 RPM**

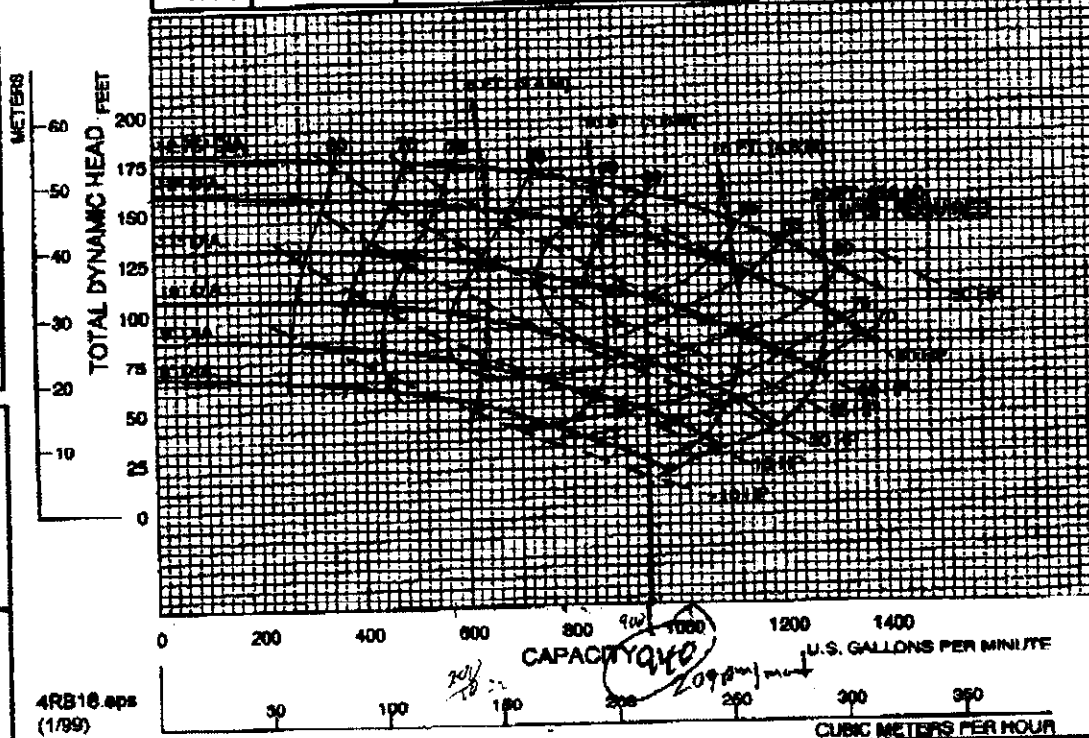
SINGLE VOLUTE

Max. Impeller Dia. Non-overloading		
HP	Full Motor Load 1.0 S.F.	Full Motor Load 1.15 S.F.
50	12.75"	12.82"
40	12.00"	12.62"
30	11.00"	11.50"
25	10.50"	10.75"
20	9.75"	10.25"
15	8.94"	9.38"
10	8.00"	8.36"

Performances shown are for cool water, horizontal frame configuration with packing. Other mounting styles or liquids may require horsepower and/or performance adjustments.

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	0.84"	1332	6.0	4.0	7

4RB18.eps
(1/99)

Cornell Pump Company • Portland, Oregon

I-A-3-40

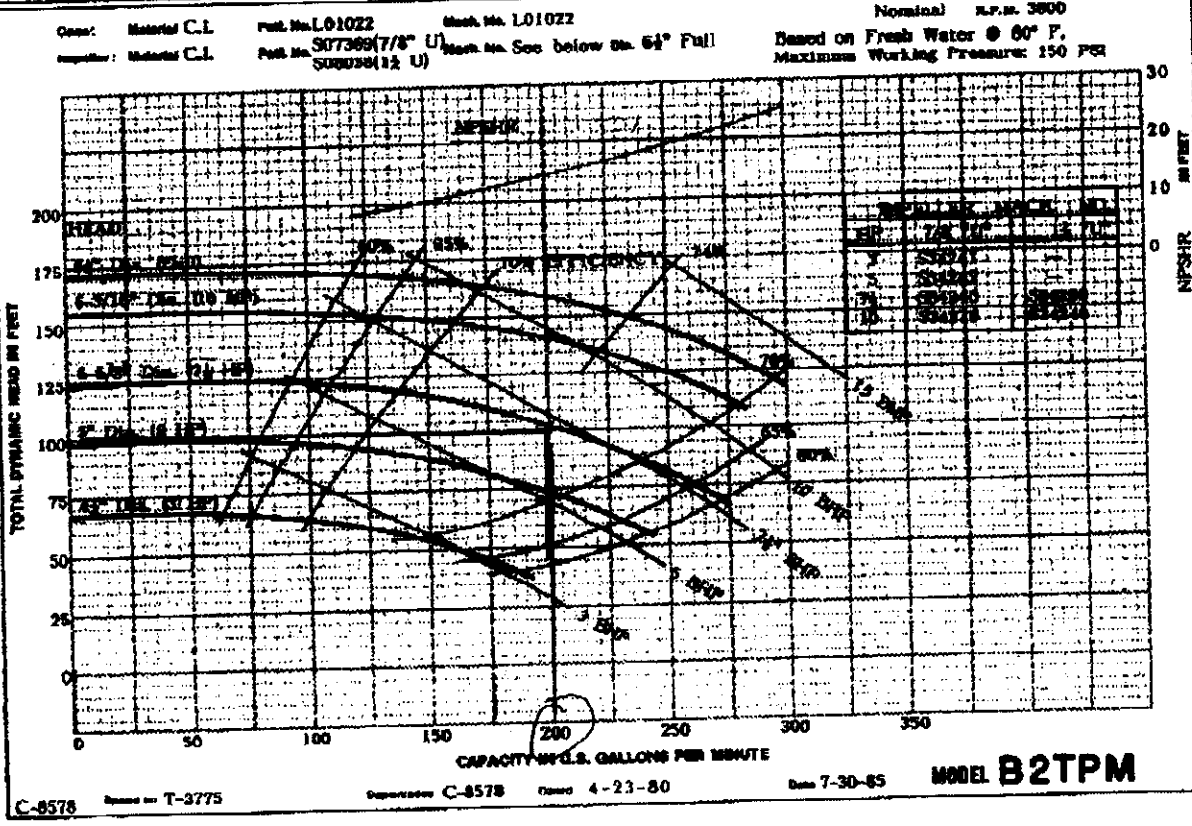
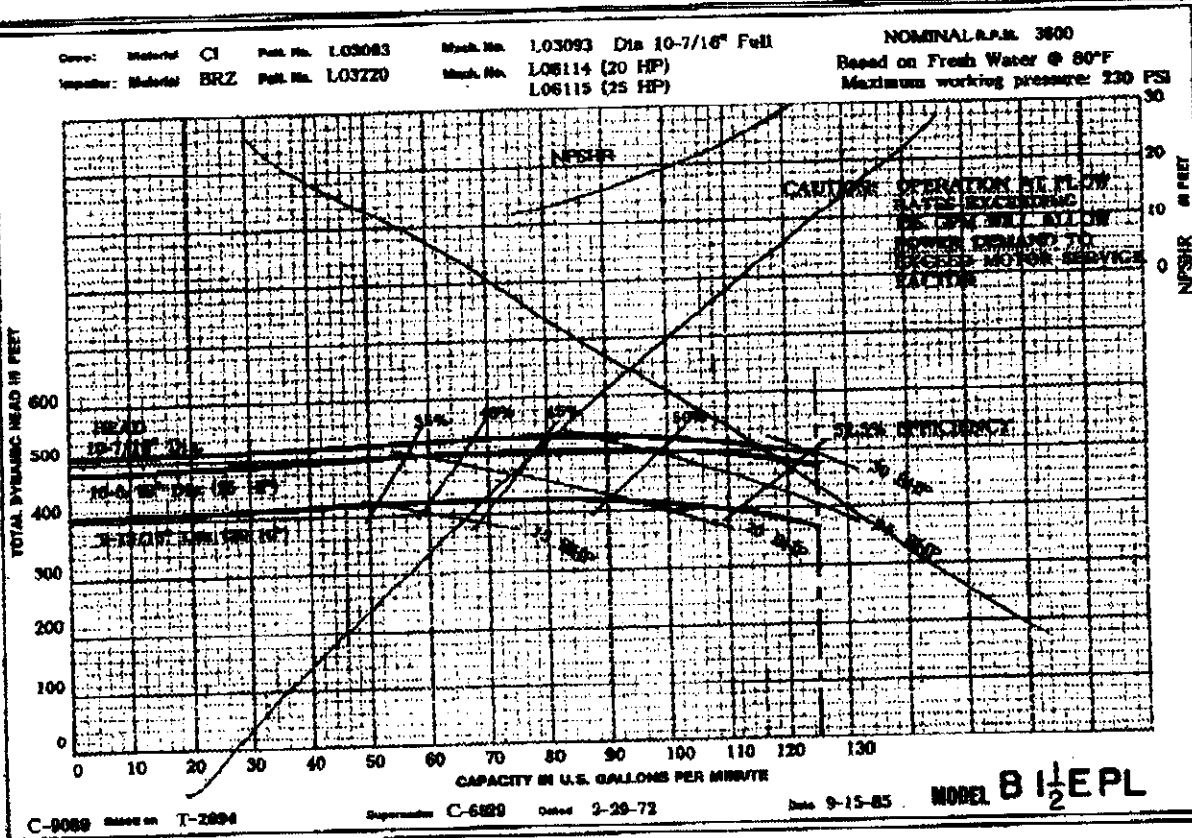
KUBA B.R. #4 544
940 gpm @ 155' TDH 12.75" Dia

BOOSTER #5
BERKELEY PUMPS
 Pumptron Division—Transamerica Delaval Inc.



TYPE "B" RATING CURVES
MOTOR DRIVE

CURVE	4075
DATE	1-2-86
PAGE	2.02
SUPERSEDES	
All previously issued	
4075 Curves	



KID bar
Kibco/Big gun Booster Pump 17.5HP
5 5/8" from 200gpm @ 100' H₂O. 576' H₂O.
#5

AGRI-LINES SYSTEM DIAGRAM

FIELD EXAM PHOTOS

Permits 65-13933 & 63-31261
9/5/2007 Exam Photos



Well #1: 16-inch Casing , 300-hp Turbine Pump
NWNW, Section 18 (Gov Lt 1)



Booster #1: 50-hp
NWNW, Section 18 (Gov Lt 1)



Booster #2: 75-hp
SWSE, Section 7

Pump can be valved separate surface water system to divert Black Canyon Irrigation water from pond to the pivot in the NE Section 18 or, valved to separate ground water system to booster ground water to hand line sprinklers for irrigation of pivot corners in Section NE Section 18.



Well #2: 16-inch Casing, 200-hp Submersible Pump
NWSE, Section 7
(also contains 7.5-hp submersible pump for permit 63-12569)



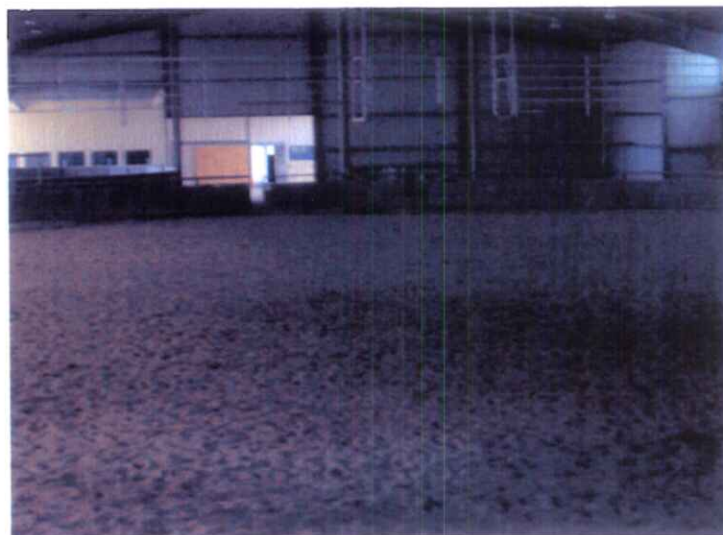
Boosters #3 & #4: Each 50-hp
NESE, Section 7



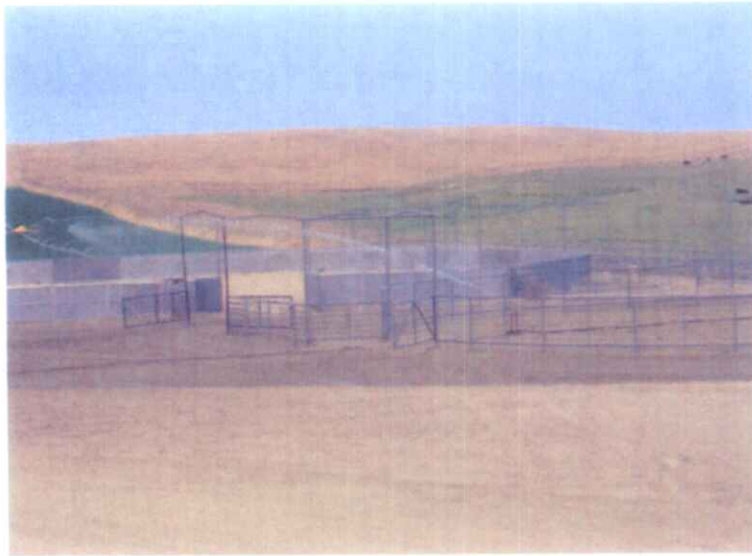
Booster #5: 7.5-hp
NWNE, Section 7
Used for Kifco "Big Gun" Water Wheel Sprinkler



Indoor Arena Building
NWSE, Section 7



Inside Dust Control Area



Outside Dust Control Area
NWSE, Section 7