

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86 -7129 & 86-7374

Exam Date: 9/6/2012

1. Current Owner: NEW HOPE WATER CO
1024A SUNNYSIDE LP
LENORE ID 83541
(208)476-7460

2. Accompanied by: Dick Monahan

Phone No: 476-9501

Relationship to Permit Holder: operator

3. **SOURCE**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Please see attached overlap analysis spreadsheet

2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

Well #6 GROUND WATER SE1/4SE1/4 Sec. 30, Twp 37N, Rge 01E, B.M. CLEARWATER County
(46.517, -116.37)

Well #7 GROUND WATER SE1/4SE1/4 Sec. 30, Twp 37N, Rge 01E, B.M. CLEARWATER County
(46.515462, -116.370495)

Method of Determination: GPS and Field Visit

2. **LOCATION OF PLACE OF USE:**

MUNICIPAL within CLEARWATER County

NE	NW	SW	SE
----	----	----	----

Twp	Rge	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
37N	01E	29									X	X	X	X					
37N	01E	30									X			X	X	X	X	X	
37N	01E	31	X	X				X											
37N	01E	32						X	X										

Method of Determination: Field visit, aerial imagery, and plat map

3. ☒ Delivery System Diagram Attached (required).

☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required).

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

☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
Well #6 D0022113		3			
Well #7 D0057218		3			

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
--	-------------	-------------	------------------	-------------------	-------------	--------------------

2. Measurements: Each well contains a Sensus measuring device. Both wells were running at the time of the exam and the measurement from the Sensus' reflect an accurate measurement according to Dick Monahan. I asked Dick if he thought a better measurement could be made with my equipment and he did not want to pursue a calibration measurement. I told him this might mean their diversion rate may get shorted on New Hope's license. He was not concerned and thought the Sensus measurements were right on.

E. FLOW CALCULATIONS

Measured Method: Horsepower theoretical

Measuring device reading during the examination:

Well #6: 12 gpm or **0.03 cfs**

Well #7: 1.5-1.7 gpm or **~0.01 cfs** Total capacity = **~0.03 cfs**

Condition of measurement: both of the wells were running at the same time and were feeding into the storage tank. The intake from the wells is at the bottom of the tank.

Well #6: 3 hp, 75 psi measured, 160' to water per well driller's report + difference in elevation between discharge point at storage tank and the well of 140' = 300'

$8.8 \times 3 \times 0.7 / 300 + (2.31 \times 75) = 18.5 / 473 = \mathbf{0.038 \text{ cfs}}$

Well #7: 3 hp, 75 psi measured, 350' to water per well driller's report + discharge point at storage tank of 620' = 980'

$8.8 \times 3 \times 0.7 / 980 + (2.31 \times 75) = 18.5 / 1153 = \mathbf{0.016 \text{ cfs}}$

Total theoretical capacity = **~0.05 cfs**

Capacity conclusion: The measured rate and theoretical estimates are pretty close. I think that splitting the difference and license the right with a rate of 0.04 cfs would be fair.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA (the use under 86-7129 will be changed to municipal)

2. Volume Calculations for Other Uses:

Municipal → 51 lots x 1.2 AF = 61.2 AFA

0.04 cfs x 1.9835 x 365 = 29.0 AFA

Volume conclusion: Limited to amount of water available in the storage tank and the live flow (40,000 gallons = 0.1 af therefore, 29.0 AF + 0.1 AF = 29.1 AFA)

G. NARRATIVE/REMARKS/COMMENTS

In the history of New Hope 7 wells have been drilled. Currently the only wells now in service are wells #6 and well #7. In 2009, well #7 was drilled to replace well #5. There are two permits that cover New Hope. Permit 86-7129 had a development period of 9/24/1981 through 6/30/1991. Proof was not filed for that permit until 8/19/1992 and

consequently it got lapsed and reinstated. A field exam date of 9/10/1999 appears in the database for permit 86-7129 but no field examination can be found in the state office, online, or at Northern's office. However, the comment found in the database from the examiner says that 4 wells were found at the exam as follows: Wells drilled by aqua drilling - deepened in 2/91, new well 7/92. Well #1 - 325' with 4 AM 19-1 Berkley pump. Well #2 - 425' with SD 12-150 Aeromotor pump. Well #3 - 300' with 4 AM 19-1 Berkley pump. Well #4 - 60' with SE 50-5003 Aeromotor pump. All pumped to 40,000 gallon reservoir. The information provided does not give the hp of the pumps so no theoretical can be calculated. However, a letter accompanying the proof statement dated 8/1992 from New Hope describes the system as:

- Well 1 and 3 abandoned
- Well 2 producing 13 gpm
- Well 4 pump removed
- Well 5 is new and will replace well 4. Pump from well 4 will be used in well 5 that produced 55 gpm
- Peak hour demand was 90 gpm and peak day demand was 68250 gallons

I conclude that at the time the letter was written, the system was producing at least 13 gpm.

Currently well #6 and well #7 are the only wells that provide for water for the subdivision. Well #6 produces 12 gpm and well #7 provides ~2 gpm for a total of ~0.03 cfs. Both wells contain a 3 hp pump and feed into the 40,000 gallon storage tank that is located 175' above the well house. The storage tank is buried $\frac{1}{2}$ way and the inlet and outlet into the storage tank are at the bottom of the tank. There are 51 lots that are stubbed-in at the subdivision and there are currently 45 paying customers. The customers are metered and there's very little irrigation occurring at the subdivision but there is a lot of stock water according to Dick.

The system that is currently in place is much different than what was operating during the authorized development period. However, it appears that the capacity of the system has remained the same.

Current information for the subdivision:

- roughly 5,000 gallons/customer over a month (New Hope's estimate)
- 45 customers x 5000 gallons = 225,000 gallons total.
- 225,000 - 40,000 gallons in storage = 185,000 gallons that the wells must produce in a month.
- Current capacity of the system is 0.03 cfs = 13.5 gpm x 1440 min/day = 19,440 gpd or >580,000 gal/month
- The system needs to run 185,000 gallons /30 days = 6,200 gpd/13.5 gpm = 457 minutes or ~ 8 hrs/day*

*This doesn't account for peak demands but illustrates that the capacity of the system makes sense given the size of the storage tank and should be able to provide for regular use and peak demands.

April 1, 2013

Field Examination Report 86-7129 and 86-7374

It appears that permit 86-7374 was filed in order to add/change points of diversion. I spoke with Dick on the phone and told him that 86-7374 could be relinquished because it doesn't appear to add any benefit, so long that they don't plan on bringing any of the previous wells on-line. He told me that wells 1-5 have all been abandoned and they intend to stay with wells 6 and 7. I propose changing the use under permit 86-7129 from irrigation and domestic to municipal and license it with a volume limited to the # of stub-ins (however, the limiting factor is the diversion rate). There are 51 lots that are stubbed-into the New Hope system. Note that Lot 7 of Blk 1, New Hope School Subdivision contains a well and contains water right, 86-11991. Dick said that they don't currently receive water from New Hope but have the option to do so. A condition will be added to the license to address the overlap.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS for 86-7129

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	1/01 to 12/31	0.040 CFS	29.1 AF
<u>Totals:</u>		0.040 CFS	29.1 AF

2. Recommended Amendments

☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ Other (change to municipal use)

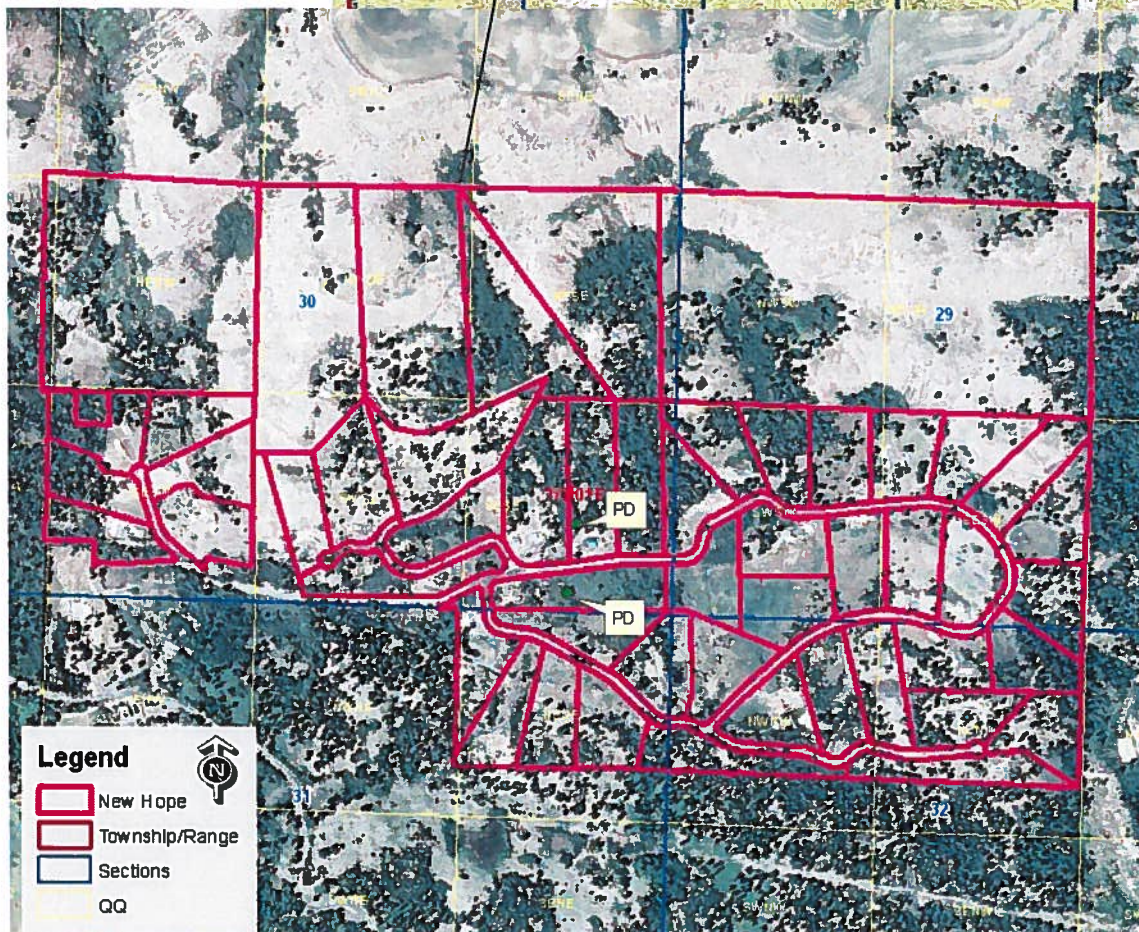
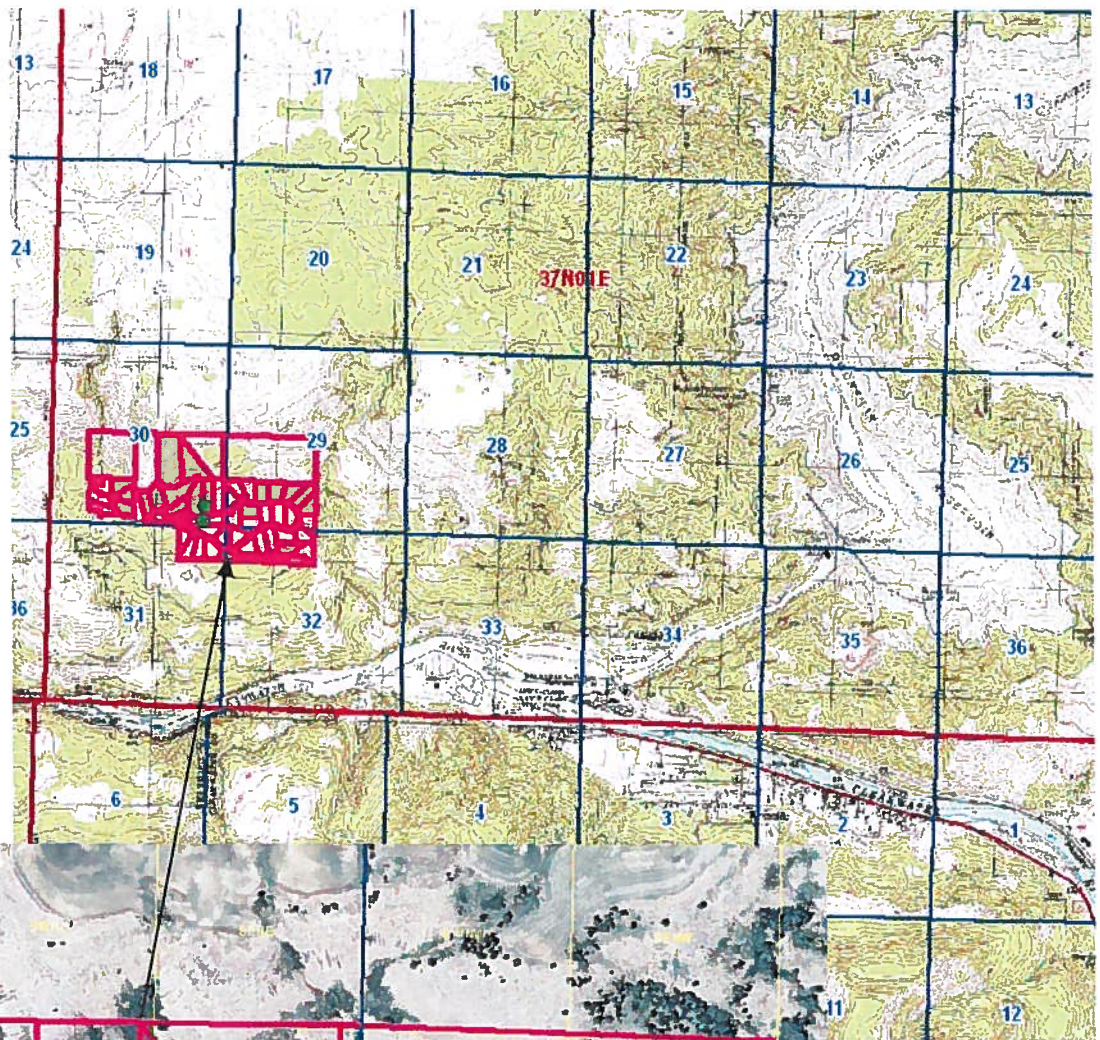
* **RECOMMENDATIONS for 86-7374: RELINQUISH**

I. AUTHENTICATION

Field Examiner's Name Heidi Palmer Date 4/2/13

Reviewer _____ Date _____

Service
Boundary
for
New Hope
Water Co.
as of 2013
there are
51 lots stubbed-in
with ~~45~~ 45 developed





System Notes

- Elevation of well house = 2040'
 well # 6 = 2140'
 well # 7 = 2000'
 24' - Storage tank = 2260'



Well #7



Well #6





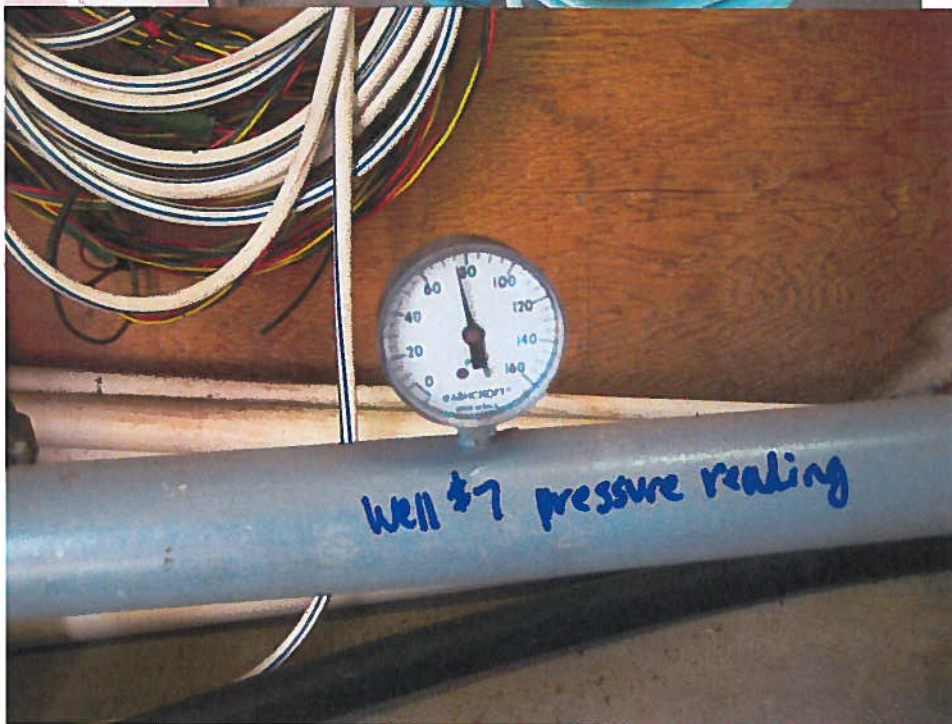
3hp pumps





April 1, 2013

Field Examination Report 86-7129 and 86-7374





well #6
pressure
reading



well house
or diverting
works
house

RECEIVED

Form 238-7

11/9 APR 19 2002

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. : :

IDWR/North

1. WELL TAG NO. D 0022113

DRILLING PERMIT NO. 772994

Other IDWR No.

2. OWNER:

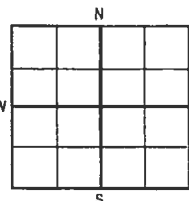
Name New Hope Water Company

Address 1024A Sunny Side Loop

City Lenoire State ID Zip 83541

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.



Twp. 37 North ☒ or South ☐
 Rge. 1 East ☒ or West ☐
 Sec. 30 NE 1/4 SE 1/4 SE 1/4
 Gov't Lot County Clearwater
 Lat. : : Long. : :

Address of Well Site Sunny Side Loop Rd

Approx. 500' N. of Road 4A City Lenoire

Lt. 3/4 Blk. 5 Sub. Name New Hope

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other Public Water Supply

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		
Neat Cement	0	125	4 yds	2	Pressure Grout

Was drive shoe used? ☒ N Shoe Depth(s) 123 ftWas drive shoe seal tested? ☒ Y ☐ N How? Air Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
2"	+2	-123	132	Steel	☒	☐	☐	☐
6"	+2	-123	80	Steel	☐	☐	☐	☐
5 9/16"				Screens	☐	☐	☐	☐

Length of Headpipe Length of Tailpipe

9. PERFORATIONS/SCREENS

Perforations

Method

Pullback

☒ Screens

Screen Type

Johnson

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
125	160	10/8		5 9/16"	Skainless	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

125 ft. below ground Artesian pressure — lb.

Depth flow encountered — ft. Describe access port or control devices: Top of casing

37N 1E 30

FORWARD WHITE COPY TO WATER RESOURCES

11. WELL TESTS:

☐ Pump ☐ Bailor☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
35			4:00

Water Temp. 54°

Bottom hole temp.

Water Quality test or comments: Good

Depth first Water Encounter 123 ft

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
16	0	2	Overburden		
16	2	12	Brn Clay - Sand Rock		
16	12	24	Clay & Broken B&S		
16	24	27	Hard Black B&S		
16	27	63	Clay - Brown		
16	63	123	Clay & Porous Rock		
8	123	167	SAND	35	
8	167	225	Med Hard Granite		

TAG # D 17594 WAS
 reported lost - NEW TAG
 #15 D 22113

Completed

Depth

225

(Measurable)

Date: Started

1-22-02

Completed

2-1-02

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 UHLENKOTI Drilling Firm No. 125

Firm Official Dan J. Uhlendorf Date 4-16-02

and Driller or Operator Brett S. Uhlendorf Date 4-16-02

(Sign once if Firm Official & Operator)

Well #7

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D D0057218
Drilling Permit No. 857801

Water right or injection well #
2. OWNER: New Hope Water Company

Name
Address 1024A New Hope Loop
City Lenore State ID Zip 83541

3. WELL LOCATION:
Twp. 37 North ☒ or South ☐ Rge. 1 East ☒ or West ☐
Sec. 30 SE 1/4 SE 1/4 1/4

Gov't Lot _____ County Clearwater
Lat. 46 ° 30 940 (Deg. and Decimal minutes)
Long. 116 ° 22 1166 (Deg. and Decimal minutes)
Address of Well Site 700 New Hope Loop
City Lenore

(Give at least name of road + Distance to Road or Landmark)
Lot _____ Blk. _____ Sub. Name 700 New Hope Loop

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☒ Other Public water supply

5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:
☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
<u>Cement</u>	<u>0</u>	<u>70</u>	<u>3760#</u>	<u>tremmy pipe pumped in</u>

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
<u>6"</u>	<u>±2</u>	<u>183</u>	<u>290</u>	<u>Steel</u>	☒	☐	☐	☒
<u>4 1/2"</u>	<u>-10</u>	<u>525</u>	<u>Sch 40</u>	<u>pvc</u>	☐	☒	☐	☒

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 182'

9. PERFORATIONS/SCREENS:
Perforations ☒ Y ☐ N Method Saw
Manufactured screen ☐ Y ☐ N Type _____
Method of Installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
<u>300</u>	<u>320</u>	<u>1/4x6</u>	<u>30</u>	<u>4 1/2</u>	<u>pvc</u>	<u>Sch 40</u>
<u>340</u>	<u>360</u>	<u>1/4x6</u>	<u>30</u>	<u>4 1/2</u>	<u>pvc</u>	<u>Sch 40</u>

Length of Headpipe _____ Length of Tailpipe _____
Packer ☐ Y ☐ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
—	—	—	—	—

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☐ N Artesian Pressure (PSIG) _____
Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 240' Static water level (ft) 158'
Water temp. (°F) 58.0 Bottom hole temp. (°F) _____
Describe access port Well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
<u>525'</u>	<u>10 est.</u>	<u>1 HR</u>	☐	☐	☒	☐

Water quality test or comments: UNKNOWN

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
<u>10</u>	<u>0</u>	<u>16</u>	<u>Clay & Basalt Boulders</u>		☒
<u>10</u>	<u>16</u>	<u>90</u>	<u>Hard Brown clay</u>		☒
<u>8</u>	<u>90</u>	<u>150</u>	<u>Brown silty clay</u>		☒
<u>8</u>	<u>150</u>	<u>171</u>	<u>Brn silty clay w/ Broken Basalt</u>		☒
<u>8</u>	<u>171</u>	<u>193</u>	<u>Soft Basalt</u>		☒
<u>6</u>	<u>193</u>	<u>222</u>	<u>Grey silty clay</u>		☒
<u>6</u>	<u>222</u>	<u>235</u>	<u>Lava</u>		☒
<u>6</u>	<u>235</u>	<u>250</u>	<u>Decomposed Granite</u>	☒	
<u>6</u>	<u>250</u>	<u>320</u>	<u>Green granite</u>	☒	
<u>6</u>	<u>320</u>	<u>415</u>	<u>Salt & pepper granite</u>		☒
<u>6</u>	<u>415</u>	<u>450</u>	<u>Soft white Granite</u>		☒
<u>6</u>	<u>450</u>	<u>525</u>	<u>Firm salt/pepper granite</u>		☒

RECEIVED

OCT 15 2009

IDWR/North



Completed Depth (Measurable): 525'
Date Started: 9/30/09 Date Completed: 10/6/09

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Nail & Sons Well Drilling Inc. Co. No. 616
*Principal Driller Nail Date 10/7/09
*Driller _____ Date _____
*Operator II _____ Date _____
Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

37N 01E 20

Overlap Analysis for New Hope Water Co.

Process	Basin Sequence	Owner	Source	NE	NE	NW	NW	SW	SE	NE	NW	SW	SE	SE	SE	SE				
37N01E29																				
Water Right	86-7129	NEW HOPE WATER CORP	GW					X	X											
37N01E30																				
Water Right	86-10138	LYTLE, DAVID, LYTLE, SHELLY	SPRING																	
Water Right	86-10701	CRICKMON, OLIVER P	GW																	
Water Right	86-4173	LAWS, KARL S	SPRING																	
Water Right	86-7129	NEW HOPE WATER CORP	GW																	
37N01E31																				
Water Right	86-10020	LYONS, GEORGE J; LYONS, PATRICIA A	GW																	
Water Right	86-10046	GASWINT, LEE	STREAM																	
Water Right	86-10138	LYTLE, DAVID, LYTLE, SHELLY	SPRING																	
Water Right	86-4085	LYONS, GEORGE J; LYONS, PATRICIA A	SPRING																	
Water Right	86-4173	LAWS, KARL S	SPRING																	
Water Right	86-7115	GASWINT, LEE	GW																	
Water Right	86-7129	NEW HOPE WATER CORP	GW																	
37N01E32																				
Water Right	86-11991	GOODRICH, RAY	GW																	
Water Right	86-4173	LAWS, KARL S	SPRING																	
Water Right	86-7129	NEW HOPE WATER CORP	GW																	

Conclusion: Right 86-11991 is for domestic use from groundwater. License 86-7129 will include overlapping conditions regarding # of homes.

The lot owner of 86-11991 should be able to use municipal water or water from their well. All lots are stubbed into the delivery system.

Right 86-7374 fully overlaps the PDV but doesn't add any benefit - Relinquishment Request