

PRINT OR TYPE ONLY  
 DO NOT WRITE ON BACK

WELL DRILLER'S REPORT

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. 60709

1. OWNER Sierra Pacific Resources ADDRESS AT WELL LOCATION 10.6 Miles N. of Mc Gill on Hwy 93 1.6 miles west of Hwy 93  
 MAILING ADDRESS 705 Aultman St. Ste. 3 Ely, Nevada  
 2. LOCATION S.E. 1/4 NW 1/4 Sec. 20 T. 31 R. 69 E White Pine County  
 PERMIT NO. 25385 Issued by Water Resources Parcel No. 008-490-07 Hernandez Ranch Subdivision Name WT: 39.67519/Long: -114.763425

3. WORK PERFORMED  
 New Well  Replace  Recondition  Deepen  Abandon  Other  
 4. PROPOSED USE  
 Domestic  Irrigation  Test  Municipal/Industrial  Monitor  Stock  
 5. WELL TYPE  
 Cable  Rotary  RVC  Air  Other

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thick-ness
Well grade sand, clayey sand silty sand		0	300	300
Poorly graded sand lean clay, elastic silt				
Sand and fat clay well graded sand		300	600	300
Fat clay, silty sand clayey sand, sandy fat clay, clayey gravel, sandy fat clay, clayey sand, fat clay, well graded gravel, poorly graded gravel, well graded sand, well graded gravel with sand		600	900	300
		900	1020	120

39.675255°N  
114.763425°W  
N 90 23 (100)

8. WELL CONSTRUCTION  
 Depth Drilled 1020 Feet Depth Cased 1010 Feet  
 HOLE DIAMETER (BIT SIZE)  
 From 36 Inches To 38 Feet  
 From 28 Inches To 1020 Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
16.625	55	.312	0	140
16.625	55	.312	320	640
16.625	55	.312	1000	110

Perforations:  
 Type perforation 10' covered Roscoe Moss  
 Size perforation TOP .0625 bottom .125  
 From 140 feet to 320 feet  
 From 640 feet to 1000 feet  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet

Surface Seal:  Yes  No Seal Type:  Neat Cement  Cement Grout  Concrete Grout  
 Depth of Seal 0-50 Feet  
 Placement Method:  Pumped  Poured  
50-330, 410-1020 benchmark 330-400  
 Gravel Packed:  Yes  No  
 From 50 feet to 410 feet to (330) 1020 feet

9. WATER LEVEL  
 Static water level 58.7 feet below land surface  
 Artesian flow N/A G.P.M. N/A P.S.I.  
 Water temperature 74.3 °F Quality good for irrigation

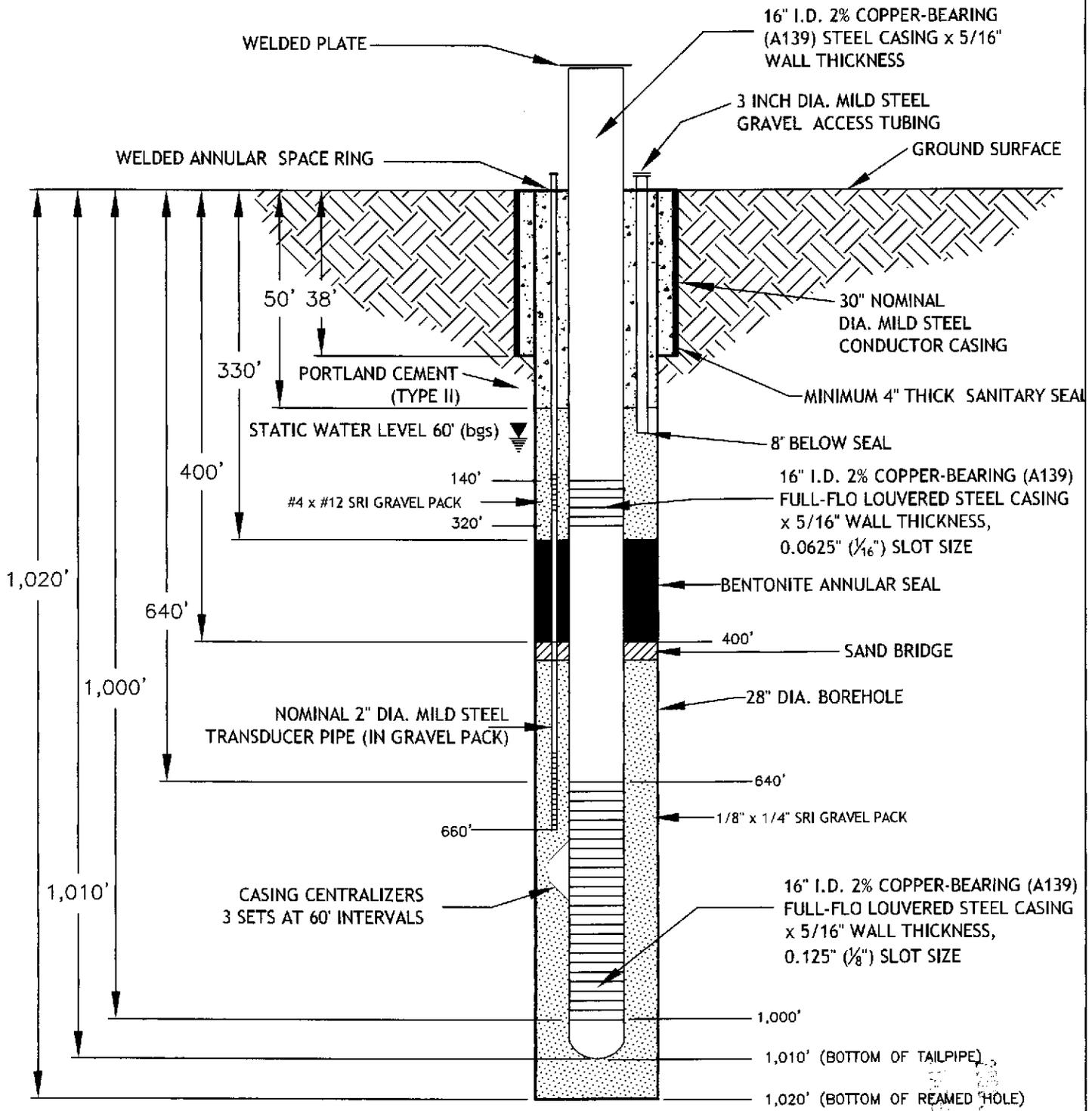
Date started 11-10, 2007  
 Date completed 2-23, 2008

7. WELL TEST DATA

TEST METHOD:	G.P.M.	Draw Down (Feet Below Static)	Time (Hours)
<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Air Lift			
Turbine Pump	3200	192	45 MIN

10. DRILLER'S CERTIFICATION  
 This well was drilled under my supervision and the report is true to the best of my knowledge.  
 Name WAC Exploration & wells Contractor  
 Address 580 W. Silver St. Eiko Nevada 89801 Contractor  
 Nevada contractor's license number issued by the State Contractor's Board 0012852  
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller 1616  
 Signed [Signature] 2/25/08  
 By driller performing actual drilling on site or contractor  
 Date 2/25/08

Log# 109807



H-1 WELL PROPOSED DESIGN

ELY ENERGY CENTER  
 Steptoe Valley  
 White Pine County, Nevada

Scale	N.T.S.	File No.	H1-PD
Date	11/20/07	Project No.	06-33159-02
Drafted By	GRD	Drawing No.	
Checked By	TWR		
Approved By			



CONVERSE CONSULTANTS

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Log # 109807

# Log No. HW-1

Date of Drilling: 11/15/07  
 Driller: WDC  
 Logged By: TWR

Location:  
 Borehole Diameter: 17.5"  
 Groundwater Depth (ft): 57'

Ground Surface Elevation (ft):  
 Equipment: Reverse Rotary Rig, 17.5" milltooth bit  
 Driving Wt. and Drop:

DRAFTED BY TWR	Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS		Samples		Drill Rate (sec/ft)	Moisture (%)	Dry Density (lb/cf)	Field or Lab Tests
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	0		(SW) WELL GRADED SAND; reddish brown, <10% fines, sub-rounded to sub-angular							
	12		- red, green and brown sand							
	24		(SW) WELL GRADED SAND; red, green + brown, <10% fines, sub-rounded to angular							
	36		(SW) WELL GRADED SAND With Gravel; 30% sub-rounded gravels to 1/2", 5% light brown fines							
	48		(SC) CLAYEY SAND; dark brown sub-rounded sand with 20% light tan clay and trace sub-angular gravels to 1/4"							
	60		- 30% clay, no gravel							
	72		- 15% clay, 10% gravel							
	84		(SW-SC) WELL GRADED SAND With Clay; dark brown sub-rounded sand with 10% clay and trace sub-angular gravel to 1/2", 50% coarse sand							
	96		(SM) SILTY SAND; poorly graded dark brown sand with 35% light tan silt and few gravels to 1/2"							
	108		(SM) SILTY SAND With Gravel; poorly graded sand with 30% light tan silt and 10% sub-angular gravels to 3/4"							
	120		(SP) POORLY GRADED SAND; coarse blue sub-angular to angular sand with 25% fine light brown sub-rounded sand and trace gravels to 1/4"							
			(SM) SILTY SAND; coarse sub-angular blue sand with 45% tan silt and trace gravels to 1/4"							

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132		(SW) WELL GRADED SAND; sub-angular to angular red, blue and green sand, 40% coarse grains							
144		(CL) LEAN CLAY; light tan lean clay with 10% coarse sand							
156		(SW-SC) WELL GRADED SAND With Clay and Gravel; fine to coarse sub-angular reddish sand with 30% fine reddish brown sub-angular gravel to 1/8" and 10% plastic fines							
168		(SC) CLAYEY SAND; coarse blueish with 35% light tan fat clay (1.5" ribbon)							
180		(SW) WELL GRADED SAND With Gravel; angular red sand with 20% gravel to 1" with 10% fines							
192		(MH) ELASTIC SILT With Sand; brown silt with 20% coarse sub-rounded sand							
204		(SC) CLAYEY SAND; well graded sub-angular brown sand with 15% fat clay and trace gravel							
216		(SP-SM) POORLY GRADED SAND With Silt; coarse sub-angular to angular sand with 10% tan silt and trace 1/4" gravel							
228		(SC) CLAYEY SAND; coarse reddish angular sand with 25% fat clay, 15% silt and 10% gravel to 1/2"							
240		(CH) SANDY FAT CLAY With Gravel; light tan fat clay with 30% coarse angular sand with 20% sub-angular gravels to 1/2"							
240		(CH) SANDY FAT CLAY; brown fat clay with 40% coarse reddish angular sand							
240		(SM) SILTY SAND; reddish and blue angular well graded sand with 20% tan low-plastic silt							

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Project No.

07-0117 4-010000



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	252		(SC) CLAYEY SAND; red-brown angular medium sand with 40% brown lean clay							
	264		- 20% lean tan clay with 10% sub-angular gravels to 1"							
	276		(SW-SM) WELL GRADED SAND With Silt and Gravel; fine to coarse angular red-brown sand with 20% sub-angular gravels to 1" and 10% lean tan silt							
	288		(SC) CLAYEY SAND; sub-angular blue-brown fine to medium sand with 40% tan fat clay							
	300		(SP-SM) POORLY GRADED SAND With Silt and Gravel; medium to coarse sand with 20% sub-rounded gravels and 10% high-plastic silt							
	312		(SW) WELL GRADED SAND With Gravel; sub-rounded brown sand with 15% sub-rounded gravel to 1/2"							
	324		(SW-SM) WELL GRADED SAND With Silt and Gravel; sub-rounded brown sand with 15% sub-rounded gravel to 1/4" and 10% lean silt							
	336		(CH) FAT CLAY; tan fat clay with 25% sub-rounded blue-grey coarse sand							
	348		- light brown clay with 10% coarse rounded sand and trace gravel							
	360		- trace coarse sand and no gravel							
	372		- 30% medium to coarse sand							
			- 20% medium sand							

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			Drive	Bulk	Blow Count				
384		- 30% coarse sand							
396		- 15% coarse sand							
408		(CH) GRAVELLY FAT CLAY With Sand; brown fat clay with 20% sub-rounded gravel and 10% coarse sand							
420		(SW) WELL GRADED SAND With Gravel; reddish brown sub-angular to angular sand with 15% angular gravel to 1/2" and 5% silt							
432		(CH) FAT CLAY; light brown fat clay with 10% coarse sand							
444		- 10% coarse sand							
456		- trace coarse sand							
468		- trace medium sand							
480		(SM) SILTY SAND; medium to coarse sub-rounded blue-grey sand with 30% light brown high-plastic silt  - 20% silt							
492		(SC) CLAYEY SAND; medium sub-angular sand with 45% light tan and light brown high-plastic silt and clay							

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Project No.

64-1017-9-011117

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			Drive	Bulk	Blow Count				
504		(CH) SANDY FAT CLAY; brown fat clay (1.5" ribbon) with 35% sub-angular blue-grey medium sand							
516		(SM) SILTY SAND; medium to coarse poorly graded sand with 20% tan high-plastic silt							
528		(CH) FAT CLAY; brown fat clay with trace sand							
540		(SW-SC) WELL GRADED SAND With Clay and Gravel; blue-brown sub-rounded sand with 15% angular gravel and 10% fat clay							
552		(GC) CLAYEY GRAVEL With Sand; dark brown sub-rounded to sub-angular gravel 1/4 to 1/2" with 15% light brown clay and 30% coarse sub-angular sand							
564		(SW) WELL GRADED SAND With Gravel; reddish sub-rounded sand with 15% sub-rounded gravel to 1" and trace light brown clay							
576		(CH) FAT CLAY; brown fat clay with 10% coarse sand							
588		(SW-SC) WELL GRADED SAND With Clay; blue-grey sub-angular sand with 10% tan clay							
600		(SC) CLAYEY SAND; medium to coarse blue-grey sand with 20% clay (balled)							
612		(SC) CLAYEY SAND With Gravel; coarse angular blue sand with 25% clay (balled) and 15% gravel to 1/4", few gravels to 1.5"							
624		(CH) SANDY FAT CLAY; tan fat clay with 15-20% coarse blue angular sand							
		(SC) CLAYEY SAND With Gravel; coarse sub-angular dark brown sand with 25% angular gravel to 1/2" and 30% brown clay (balled)							
		(SC) CLAYEY SAND; coarse sub-angular blue and red sand with 15% brown clay (balled)							

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64:0111 4-15-07 0002

Project No.



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	636		(CH) FAT CLAY; brown fat clay with 10% coarse dark brown sand and 5% angular reddish gravel								
	648		(SW) WELL GRADED SAND With Gravel; medium to coarse reddish sand with 20% angular gravel and <10% high-plastic silt and clay								
	660		(GW-GC) WELL GRADED GRAVEL With Clay and Sand; angular dark gravel to 1/4" with 40% medium to coarse sand and 10% clay (balled)								
	672		(SW) WELL GRADED SAND With Gravel; reddish brown medium to coarse sub-rounded sand with 35% sub-angular gravel to 1/2" and 5% light brown clay (balled) - gravel to 1/2"								
	684		(GW) WELL GRADED GRAVEL With Sand; dark brown sub-angular gravel to 1/2" with 40% medium to coarse dark brown sand and trace clay (balled)								
	696		(GP) POORLY GRADED GRAVEL With Sand; dark sub-rounded gravel to 3/4" with 40% medium to coarse reddish sand and trace clay (balled) - angular gravel to 1/2" with 35% sand								
	708		- sub-rounded gravel to 1/8" with 25% sub-rounded gravel 1/4 to 1", 20% sand								
	720		(GW) WELL GRADED GRAVEL With Sand; angular gravel to 1/2" with 35% sub-angular medium to coarse sand and 5-10% clay (balled)								
	732		(GP) POORLY GRADED GRAVEL; sub-rounded 1/8" gravel with 10% sub-angular gravel 1/2-1", 10% coarse sub-angular sand and 5% fines - 15% sand								
	744		(GW) WELL GRADED GRAVEL With Sand; sub-angular blue-grey								

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64-3111-1-11-2008



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	756		gravel to 1/4" with 30% coarse to medium blue-grey sand							
	768		(SW) WELL GRADED SAND; angular dark grey sand with 10% sub-angular gravel to 1/8"							
	780		(GW) WELL GRADED GRAVEL With Sand; sub-angular reddish gravel to 1/4" with 25% coarse sub-angular sand and trace to few gravels to 3/4" - no large gravel							
	792		(GP) POORLY GRADED GRAVEL With Sand; sub-angular gravel to 1/4" with few gravels 1/2 to 3/4" and 25% coarse reddish angular sand							
	804		(GW) WELL GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 20% coarse angular sand and 5% clay (balled) - gravel to 1/2"							
	828		(GW) WELL GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 25% coarse angular sand and trace brown clay (balled) - gravel to 1/4"							
	852		(GP) POORLY GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 15% sub-angular gravel 1/2 to 3/4" and 20% coarse angular red sand - 10% large gravel							
	876		(GP) POORLY GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 15% sub-angular gravel 1/2 to 3/4" and 20% coarse angular red sand - 15% large gravel							

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Project No.

07:31:11 11-15-07



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	888		(GW) WELL GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 20% coarse angular reddish sand and few sub-angular gravels to 1"									
	900		(GW-GC) WELL GRADED GRAVEL With Clay and Sand; angular red and blue gravel to 1/4" with 10% light brown clay and 15% medium to coarse angular sand									
	912		(GW) WELL GRADED GRAVEL With Sand; sub-angular red and blue gravel to 1/4" with 20% coarse angular sand and 5% high-plastic fines									
	924		- 15% sand									
	936		- 20% sand									
	948		(GW-GC) WELL GRADED GRAVEL With Clay and Sand; angular red and blue gravel to 1/4" with 10% brown clay and 15% coarse reddish sand									
	960		(GW) WELL GRADED GRAVEL With Sand; angular red and blue gravel to 1/4" with 20% coarse angular sand and 5% clay									
	972		- 25% sand									
	984											
	996											
			End of borehole									
			End of Exploration at 1000.0'									

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Project No.

68:01171 9-11-07 0002

Drawing No.



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# KEY TO SYMBOLS

Log# 109807

Symbol Description

Symbol Description

Strata symbols

	WG Sand
	WG Sand with Gravel
	Clayey Sand
	WG Sand with Clay
	Silty Sand
	Silty Sand with Gravel
	PG Sand
	Lean Clay
	WG Sand with Clay and Gravel
	Elastic Silt
	PG Sand with Silt
	Fat Clay with Gravel

	Fat Clay
	WG Sand with Silt and Gravel
	PG Sand with Silt and Gravel
	Gravelly Fat Clay
	Sandy Fat Clay
	Gravelly Lean Clay with Sand
	Clayey Sand with Gravel
	WG Gravel with Clay and Sand
	WG Gravel with Sand
	PG Gravel with Sand
	PG Gravel

Misc. Symbols

 Water table at boring completion

Notes:

1. Exploratory borings were drilled on 11/15/07 using a 4-inch diameter continuous flight power auger.
2. No free water was encountered at the time of drilling or when re-checked the following day.
3. Boring locations were established with hand-held GPS units
4. These logs are subject to the limitations, conclusions, and recommendations in this report.
5. Results of tests conducted on samples recovered are reported on the logs.

2007-11-15 11:22  
 109807