STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 115570
Permit No.
Basin No. Ø49

PRINT OR TYPE IN BLACK INK ONLY
DO NOT WRITE ON BACK

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

NOTICE OF INTENT NO. 69196
WELL NAME (If applicable) MW-10

1. OWNER/CLIENT NAME Union Pacific Railroad
MAILING ADDRESS 221 Hodgeman St.
Laramine WY. 82072

DETAILED ADDRESS AT WELL LOCATION Corner of 14th Street and Railroad St. Elko Nevada
Subdivision Name County Elko

2. PLS LOCATION NW ¼ NW ¼ 14 Sec 34 N/S 55 E
PERMIT/WAIVER NO. E-000212 | Issued by Water Resources | Current Parcel No

Latitude 40° 50' 21.2" UTM E 605047.58 ☐ NAD 27
Longitude 115° 45' 13.5" UTM N 4521671.19 X NAD 83/WGS 84

3. WORKED PERFORMED
X New Well ☐ Deepen: Original well log #
☐ Replacement: Original well log #
☐ Recondition: Original well log #

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☒ Monitor
☐ Mining / Dewater ☐ Com / Ind ☐ Stock
☐ Test / Other ☐ Mun / QM ☐ Rec

5. WELL TYPE
☐ Auger ☐ Rotary ☐ RVC
☐ Air ☐ Mud ☐ Sonic
☒ Other Auger

6. LITHOLOGIC LOG

Material Encountered	Lost Circ.	Water Strata	From	To	Thickness

Please See Attach

RECEIVED 2012 AUG 23 AM 11:0 STATE ENGINEER'S OFFICE

Date started 8-6, 20 12
Date completed 8-6, 20 12

9. WELL CONSTRUCTION
Depth Drilled: 65' Feet Depth Cased: 65' Feet

HOLE DIAMETER (BIT SIZE)

		From		To	
10"	Inches	0	Feet	65'	Feet
	Inches		Feet		Feet
	Inches		Feet		Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
4"		Sch 40	0	65'

PERFORATIONS:
Type of perforation: Manufactured Slot
Size of perforation: 020
From 49' Feet To 64' Feet
From Feet To Feet
From Feet To Feet

ANNULAR MATERIALS

☐ Sanitary Seal		to			
☒ Neat Cement	0	to	45'	☒ Pumped	☐ Poured
☐ Cement Grout		to		☐ Pumped	☐ Poured
☐ Concrete Grout		to		☐ Pumped	☐ Poured
☒ Bentonite Chips	45'	to	47'	☐ Pumped	☒ Poured
☐ Bentonite Grout		to		☐ Pumped	☐ Poured
☐ 15 % ☐ 20 % ☐ Other, explain:					
☒ Gravel Pack [> 0.2 in.]	47'	to	65'	☐ Pumped	☒ Poured
☐ Sand Pack [< 0.2 in.]		to		☐ Pumped	☐ Poured
☐ Other, explain:		to		☐ Pumped	☐ Poured

7. WATER QUALITIES
Static water level: 54' Feet below land surface
Artesian Flow: G.P.M. P.S.I.
Water Temperature: ° Fahrenheit
Water Quality:

8. WELL TEST DATA
Test Method: ☐ Bailer ☐ Pump ☐ Air Lift

G.P.M.	Draw Down (Feet Below Static)	Recorded Time (Hours)

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision. This report is true to the best of my knowledge.
Name Gregg Drilling
Contractor
Address 950 Howe Ave Martinez, Ca. 94553
Contractor

Nevada contractor's license number as issued by the State Contractor's Board. C23-0038113
Nevada well driller's license number as issued by the Nevada Division of Water Resources (on-site driller): M-2354
Signed Eri Santelli
By driller performing actual drilling on site or contractor
Date 8-6-12

(Rev. 08-12)

USE ADDITIONAL SHEETS IF NECESSARY

40.839434 °N
115.753077 °W NAD27

pg. 1/4

Lat 40° 50' 21.2"

Lon 115° 45' 13.5"

8-6-12

Elv 5083

MW-10 1 of 2

DEPTH BELOW	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE RECOVERY (FT)	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
0				15-12-9	Ground Surface 0.-0.5' Well graded gravel w/ silt and sand (GW-GM) 5y 2.5/1 Black 0.5-1.5 - Poorly graded sand (fine) w/ silt 10 yR 4/4 dark yellowish brown (SP-SM)	Appears to be an asphalt fill with gravel surface
5				2-2-3	5.0-5.75 - Poorly graded sand (SP) 10 yR 5/6 yellowish brown. 5.75-6.0 - Well graded sand w/ gravel (SW) 2.5y 5/6 light olive brown.	
10				5-5-10	6.0-6.5 - Poorly graded sand (SP) 10 yR 4/4 dark yellowish brown	
15				4-7-10	10.0-11.25 - Poorly graded sand (fine) (SP) 2.5y 5/6 light olive brown 11.25-11.5 wellgraded sand w/ gravel (SW) 2.5 y 5/4 light olive brown	
20				3-7-15	15.0-16.5 Poorly graded sand (fine) with silt (SP-SM) Trace gravel 10 yR 5/4 yellowish brown.	
25				21-31-27	20-21.5 Silty sand (SM) 10 yR 5/3 Brown 25-26.5 Well graded sand w/ gravel (SW) 2.5y 5/4 light olive brown. Moist. Sub-angular.	
30				19-36-39	30-31.5 - Same as above. Moist	
35				12-18-25	35-36.5 - Silty sand (SM) 2.5y 5/6 light olive brown	
40				12-13-19	40-41.5 Same as above	
45				15-23-31	45.0-46.5 Same as above	
50						

RECEIVED
2012 AUG 23 AM 11:01
STATE ENGINEERS OFFICE

MW-10 2of2

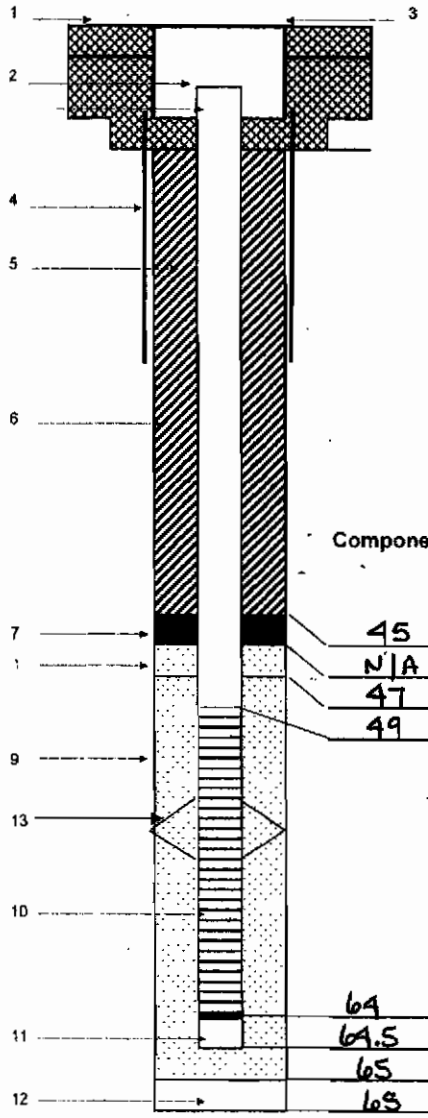
WATER LEVELS:

DEPTH BELOW	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE RECOVERY (FT)	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
50				17-21-36	50.0'-51.5 Same as above Ground Surface	
55				12-27-32	55.0-56.5 Same as above	▽ GW @ 54.10'
60				12-39-34	60-61.5 Poorly graded sand w/silt (SP-SM) 2.5Y 5/6 light olive brown Moist.	
65				26-41-42	65-66.5 Same as above Firm consistency.	
70				16-21-30	70-71.5 Silty sand (SM) 2.5Y 5/6 light olive brown. Soft consistency. Moderately dense.	
75				18-32-29	75.0-76.5 Silty sand (SM) 2.5Y 5/6 light olive brown. Hard consistency Dense.	
30						No odors detected in soil or groundwater
35						
40						
45						
50						

RECEIVED
2012 AUG 23 AM 11:0
STATE ENGINEERS OFFIC

MW-10

RECEIVED
2012 AUG 23 AM 11:0
STATE ENGINEERS OFFICE



Component Depths BGS

45	Top of seal (ft bgs)
N/A	Top of transition sand (ft bgs)
47	Top of pack (ft bgs)
49	Top of screen (ft bgs)
64	Bottom of screen (ft bgs)
64.5	Bottom of sump (ft bgs)
65	Bottom of pack (ft bgs)
65	Bottom of borehole (ft bgs

NOTE: DRAWING NOT TO SCALE

Well Development

Start Date/Time:		
End Date/Time:		
Development Method.		
Duration		
Purgevolume:		gal
Volume of water injected during drilling/ well installation.		gal
Calculated well volume.		gal

1- Ground elevation at well		ft above msl
2- Top of casing elevation		ft above msl
3- Surface completion type	Flush Mount	
a) Diameter	15.0"	in
b) Concrete pad dimensions		in
c) Bollards	N/A	
4- Conductor casing type		
a) Diameter	N/A	in
b) Length		ft
5- Well casing type	PVC SCH 40	
a) Diameter	4.0"	in
b) Length	64.5'	ft
6- Sanitary seal type	Neat Cement	
a) Method of placement	Tremmie	
b) Volume of grout used	175	ga
c) Calculated volume	20.7 ft^3	gal
7 Transition seal type	Bentonite Chips	
a) Quantity used	1 50 lb. bag	
b) Calculated quantity	0.92 ft^3	50 lb bags
8- Transition filter pack type	N/A	
a) Quantity used		
b) Calculated quantity	ft^3	100 lb bags
9- Filter pack type	#3 Monterey	
a) Quantity used	9 100 lb. bags	
b) Calculated quantity	8.28 ft^3	100 lb bags
10- Screen type / slot size	0.020 PVC SCH 40	
a) Diameter	4.0"	in
b) Length	15.0'	ft
c) Slot size	0.020	in
11- Sump / end cap type	PVC	
a) Diameter	4.0"	in
b) Length	0.5	ft
12- Backfill type		
a) Quantity used	N/A	ft^3
b) Calculated quantity		ft^3
13- Centralizer type	N/A	
a) Depths (ft bgs)		

Comments. Collected Split Spoon for Soil logging to 75.0-76.5'. Backfilled with bentonite and reamed to 65.8'