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

OFFICE USE ONLY
Log No. 115618
Permit No.
Basin 049

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DO NOT WRITE ON BACK

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

MW-1
NOTICE OF INTENT NO. 69196

1. OWNER Union Pacific Railroad.
MAILING ADDRESS 221 Hodgeman St. Laramie, WY. 82072
ADDRESS AT WELL LOCATION W. Oak St. & Idaho St. Elko Nevada.

2. LOCATION SE ¼ SW ¼ Sec 15 T 34 N S R 55 E
PERMIT/WAIVER No. F-000212 *Issued by Water Resources* Parcel No.
Latitude 40° 49' 41.1" UTM E 603633.56 ☐ NAD 27
Longitude 115° 46' 15.9" N 4520400.34 ☒ NAD 83/WGS 84
Subdivision Name: County: Elko

3. WORKED PERFORMED
☒ New Well ☐ Replace ☐ Recondition
☐ Deepen ☐ Other...

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☐ Test
☐ Municipal/Industrial ☒ Monitor ☐ Stock

5. WELL TYPE
☐ Cable ☐ Rotary ☐ RVC
☐ Air ☒ Other... Auger

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thickness
Please see Attach				

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Date started 8-3, 2012
Date completed 8-3, 2012

7. WELL TEST DATA
TEST METHOD: ☐ Bailer ☐ Pump ☐ Air Lift

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

8. WELL CONSTRUCTION
Depth Drilled 26' Feet Depth Cased 22' Feet

HOLE DIAMETER (BIT SIZE)

		From	To
10	Inches	0 Feet	22' 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'	22'

Perforations:
Type of perforation Manufactured Slot
Size of perforation 020
From 22' feet to 6' feet
From feet to feet
From feet to feet
From feet to feet
From feet to feet

Surface Seal: ☒ Yes ☐ No
Depth of Seal 2'
Placement Method: ☐ Pumped ☒ Poured
Gravel Packed: ☒ Yes ☐ No
From 4' feet to 22' feet
Seal Type: ☒ Neat Cement ☐ Cement Grout ☐ Concrete Grout

9. WATER LEVEL
Static water level 14' feet below land surface
Artesian flow G.P.M P.S.I
Water temperature °F Quality

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name Gress Drilling. Contractor
Address 950 Howe Ave Martinez Ca. 94553 Contractor
Nevada contractor's license number issued by the *State Contractor's Board* C23-0038113
Nevada driller's license number issued by the Division of Water Resources, the *on-site driller* M-2354
Signed Eric Daniels By driller performing actual drilling on site or contractor
Date 8-3-12

(Rev. 06/10) USE ADDITIONAL SHEETS IF NECESSARY

40.828168°N
115.770057°W
NAD27

Pg. 1/5

Lat 40 41 41.1 5075
Long 115° 46' 15.9"

8-3-12

MW-1

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	S000	SS/SL (G)		4-6-5	Ground Surface 0-1.5' Well graded sand with silt and gravel. 2.5 y 5/4 light olive brown Moist (SW-SM)	Asphalt Cap
5	S005	SS/SL (G)		5-5-7	5.0'-6.0' - Well graded sand with gravel (SW) 2.5y 4/3 olive brown. Moist 6.0'-6.25' - Poorly graded sand (fine) (SP) 10 YR 3/2 Very dark grayish brown	
10	S010	SS/SL (G)		15-33-44	6.25'-6.5' - Poorly graded sand (fine) (SP) 10 YR 3/6 Dark Yellowish brown.	
15	S015	(SS/SL) (G)		29-31-33	10.0'-10.25' - Silty sand. 2.5y 5/4 light olive brown (SM) 10.25'-10.5' - Poorly graded sand (fine) (SP) 2.5y 4/4 olive Brown	▽ GW @ ≈ 14.0'
20	S020	SS/SL (G)		17-36-45	10.5'-11.5' - Well graded sand w/ gravel (SW) Gravel sub angular. 2.5y 5/2 Grayish brown.	Total depth 22.0' for monitoring well. backfill w/ bentonite to 22.0'
25					15.0-16.5 - Well graded sand (coarse) with gravel (SW) 2.5 y 3/2 Very dark grayish brown. Gravel rounded (river rock) - sub angular	
30					@ 16.25' color transitions to a 5y 4/2 olive gray. Poorly graded sand (SP)	Note: No TPH, no odors detected
35					20.0'-21.0' Same as above 21.0-21.5' - Silty sand (SM) 10 YR 5/6 Yellowish brown. Dense. Firm consistency.	
40					25.0'-26.5' - Silty sand (SM) 10YR 6/4 light yellowish brown	
45						
50						

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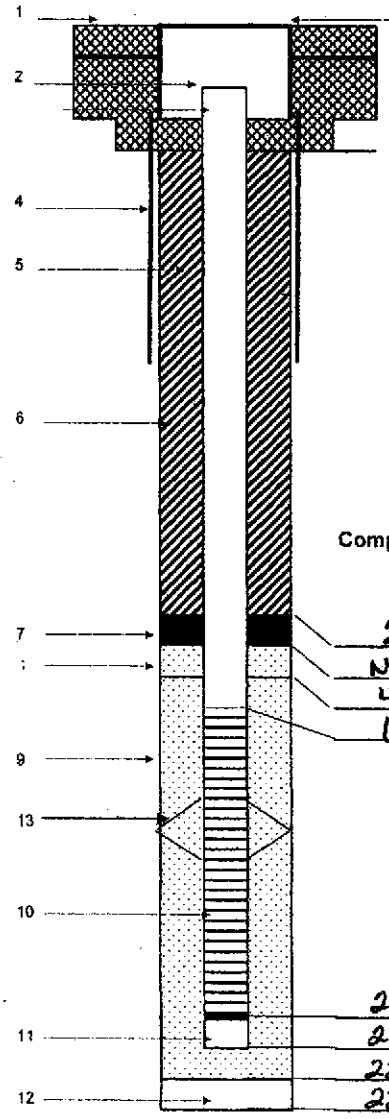

Component Depths BGS

2'	Top of seal (ft bgs)
NA	Top of transition sand (ft bgs)
4'	Top of pack (ft bgs)
6'	Top of screen (ft bgs)
21	Bottom of screen (ft bgs)
21.5	Bottom of sump (ft bgs)
22	Bottom of pack (ft bgs)
22	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: none

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: 21.5' ft

6- Sanitary seal type: neat cement
- a) Method of placement: pour
- b) Volume of grout used: 10 ga
- c) Calculated volume: 0.92 ft^3 gal

7 Transition seal type: bentonite
- a) Quantity used: 1 50 lb. bag
- b) Calculated quantity: 0.92 ft^3 50 lb bags

8- Transition filter pack type
- a) Quantity used: N/A
- b) Calculated quantity: ft^3 100 lb bags

9- Filter pack type: #3 Monteray Sand
- a) Quantity used: 9 100 lb. bags
- b) Calculated quantity: 7.82 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 threaded
- 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
- a) Depths (ft bgs): N/A

Comments: Split Spoon Sampled to 25.0-26.5'. Backfilled with bentonite chips and reamed w/10" auger to 22.0'

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FIGURE 2-1
Parcel B - Boundary and Lessees, Benzene Concentrations
Elko, Nevada
Union Pacific Railroad

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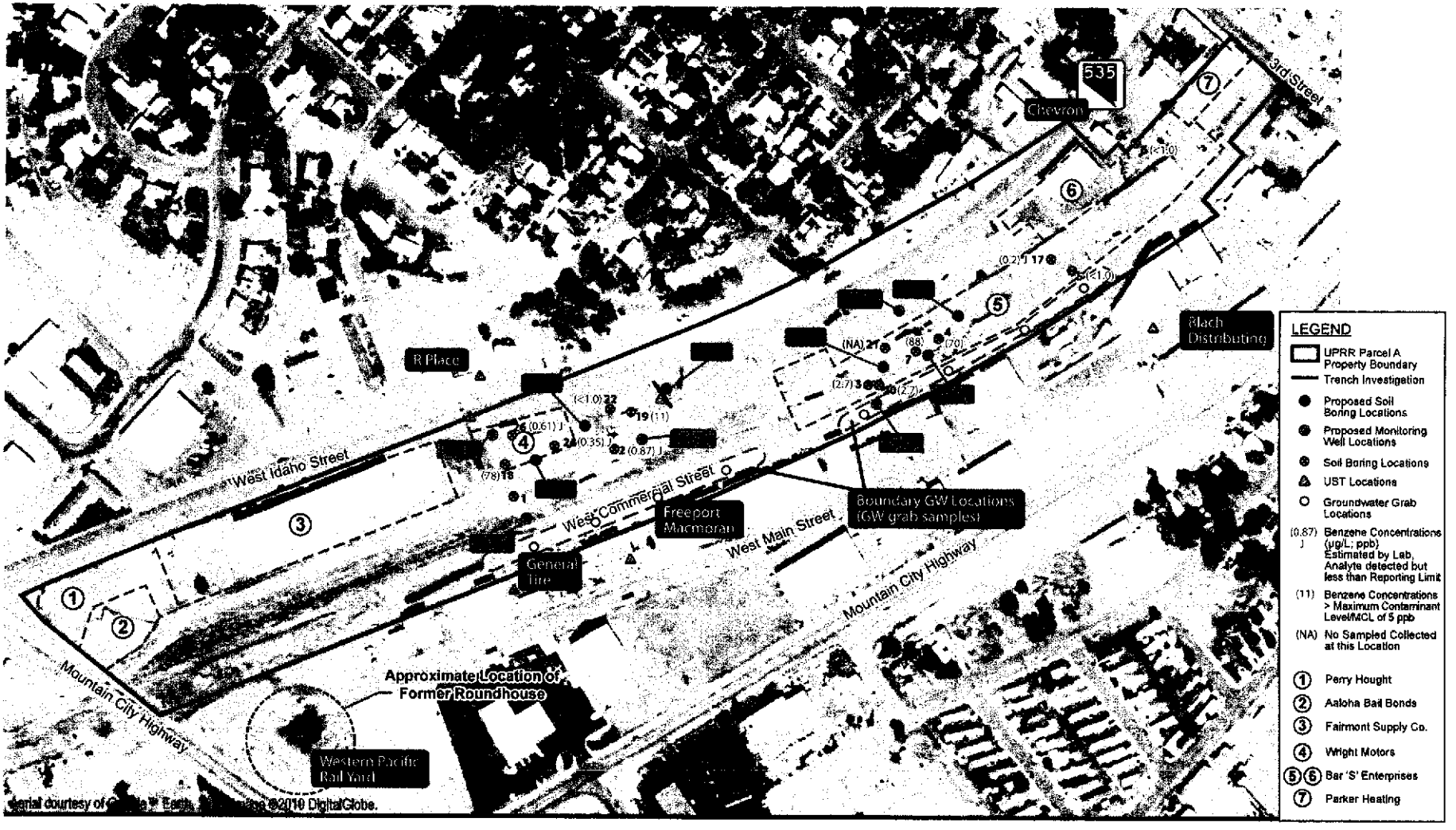
UPPR_ParcelB_Benzene_06 cts

4/5



0 200 400
Approximate scale in feet

North

FIGURE 2-1
Parcel A - Proposed Monitoring Wells and Soil Boring Locations
Elko, Nevada
Union Pacific Railroad

UPPR_ParcelA_Benzene_06 cts

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