

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

OFFICE USE ONLY  
Log No. 113306  
Permit No. \_\_\_\_\_  
Basin \_\_\_\_\_

PRINT OR TYPE 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. 32287

1. OWNER National Nuclear Security Administration ADDRESS AT WELL LOCATION Nevada Test and Training Range  
MAILING ADDRESS P.O. Box 98518, Las Vegas, NV 89193 Well ER-EC-13  
Subdivision Name: N/A County: Nye

2. LOCATION SW 1/4 NW 1/4 Sec 7 T 09S N/S R 49 E Latitude 37 10' 10" UTM E 540,022  NAD 27  
PERMIT/WAIVER No. R-1024G N/A Longitude 116 32' 57" N 4,113,750  NAD 83/WGS 84  
Issued by Water Resources Parcel No. \_\_\_\_\_

3. WORKED PERFORMED  
 New Well  Replace  Recondition  
 Deepen  Other

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

5. WELL TYPE  
 Cable  Rotary  RVC  
 Air  Other

6. LITHOLOGIC LOG				
Material	Water Strata	From	To	Thick-ness
ALLUVIUM: TUFFACEOUS	N	0	35	35
Rhyolitic Lava: mostly devitrified	N	35	485	450
Debris Flow: tuff and lavas	N	485	620	135
Tuff: nonwelded, unaltered	Y	620	1220	600
Tuff: nonwelded, zeolitic	Y	1220	1600	380
Rhyolitic Lava: devitrified	Y	1600	2090	490
Rhyolitic Lava: vitrophyric	Y	2090	2110	20
Rhyolitic Lava: devitrified	Y	2110	2180	70
Rhyolitic Lava: vitrophyric	Y	2180	2255	75
Rhyolitic Lava: devitrified	Y	2255	2405	150
Rhyolitic Lava: vitrophyric	Y	2405	2480	75
Rhyolitic Lava: devitrified	Y	2480	2610	130
Tuff: nonwelded, zeolitic	Y	2610	3000	390

9. WELL CONSTRUCTION					
Depth Drilled	3000	Feet	Depth Cased	2731	Feet
HOLE DIAMETER (BIT SIZE)					
	From	To			
42	Inches	surface	Feet	74	Feet
20.50	Inches	74	Feet	1099	Feet
14.75	Inches	1099	Feet	3000	Feet

CASING SCHEDULE				
Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
30	157.30	0.500	surface	72
16.00	75.00/65.00	0.438/0.375	surface	1085.61
7.625	26.40	0.328	surface	983

Perforations:  
Type of perforation slotted 0.076 to 0.080 inches wide  
Size of perforation 2" long, spaced on 6 inch centers

From for 6-5/8" csg, 1888 feet to 2097 feet  
From for 5-9/16 csg, 2286 feet to 2601 feet  
From 1st tbq behind csg, 2292 feet to 2611 feet  
From 2nd tbq behind csg, 1900 feet to 2100 feet  
From 3rd tbq behind csg, 1014 feet to 1094 feet

Annular Seal:  Yes  No

Neat Cement to \_\_\_\_\_  Pumped  Poured  
 Cement Grout surf to 72  Pumped  Poured  
 Concrete Grout to \_\_\_\_\_  Pumped  Poured  
 ≥30% Bentonite Grout to \_\_\_\_\_  Pumped  Poured

Gravel Pack:  Yes  No \_\_\_\_\_ to \_\_\_\_\_  Pumped  Poured  
Type: see attached page 3 with details of gravel pack & stemming  
Bentonite Chips:  Yes  No \_\_\_\_\_ to \_\_\_\_\_  Pumped  Poured  
Type: \_\_\_\_\_

Date started: 2-Oct, 20 10  
Date completed: 26-Oct, 20 10

7. Water Level  
Static water level: 1,012.00 feet below land surface  
Artesian Flow: \_\_\_\_\_ G.P.M. \_\_\_\_\_ P.S.I.  
Water Temperature: 108 °F  
Quality: \_\_\_\_\_

8. WELL TEST DATA			
TEST METHOD:	G.P.M.	Draw Down (Feet Below Static)	Time (Hours)
<input type="checkbox"/> Bailor <input type="checkbox"/> Pump <input type="checkbox"/> Air Lift			

10. DRILLER'S CERTIFICATION  
This well was drilled under my supervision and the report is true to the best of my knowledge.  
Name National Security Technologies, LLC  
Contractor  
Address P.O. Box 98521  
Contractor  
Las Vegas, NV 89193-8521  
Nevada contractor's license number \_\_\_\_\_  
issued by the State Contractor's Board  
Nevada driller's license number issued by the \_\_\_\_\_  
Division of Water Resources, the on-site driller FP 2219  
Signed Michael W. Williams  
By driller performing actual drilling on site or contractor  
Date 26-Nov-10

**WELL DRILLER'S REPORT (cont)**

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Well ER-EC-13

CASING SCHEDULE (cont.)				
Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
6-5/8" stainless steel (SS)	20.96	0.310	983	2202
5-1/2" stainless steel (SS)	18.99	0.258	2202	2645
1 <sup>st</sup> 2-7/8" SS tbg behind the casing	7.66	0.276	973	2731
1 <sup>st</sup> 2-3/8" CS tbg behind the casing	4.70	0.190	surface	973
2 <sup>nd</sup> 2-7/8" SS tbg behind the casing	7.66	0.276	980	2100
2 <sup>nd</sup> 2-3/8" CS tbg behind the casing	4.70	0.190	surface	980
3 <sup>rd</sup> 2-7/8" SS tbg behind the casing	7.66	0.276	934	1094
3 <sup>rd</sup> 2-3/8" CS tbg behind the casing	4.70	0.190	surface	934

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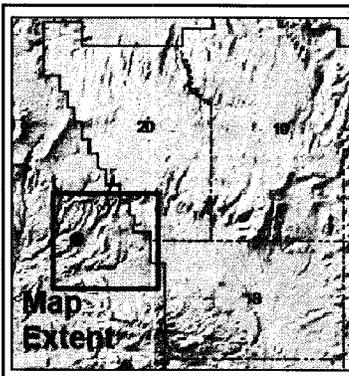
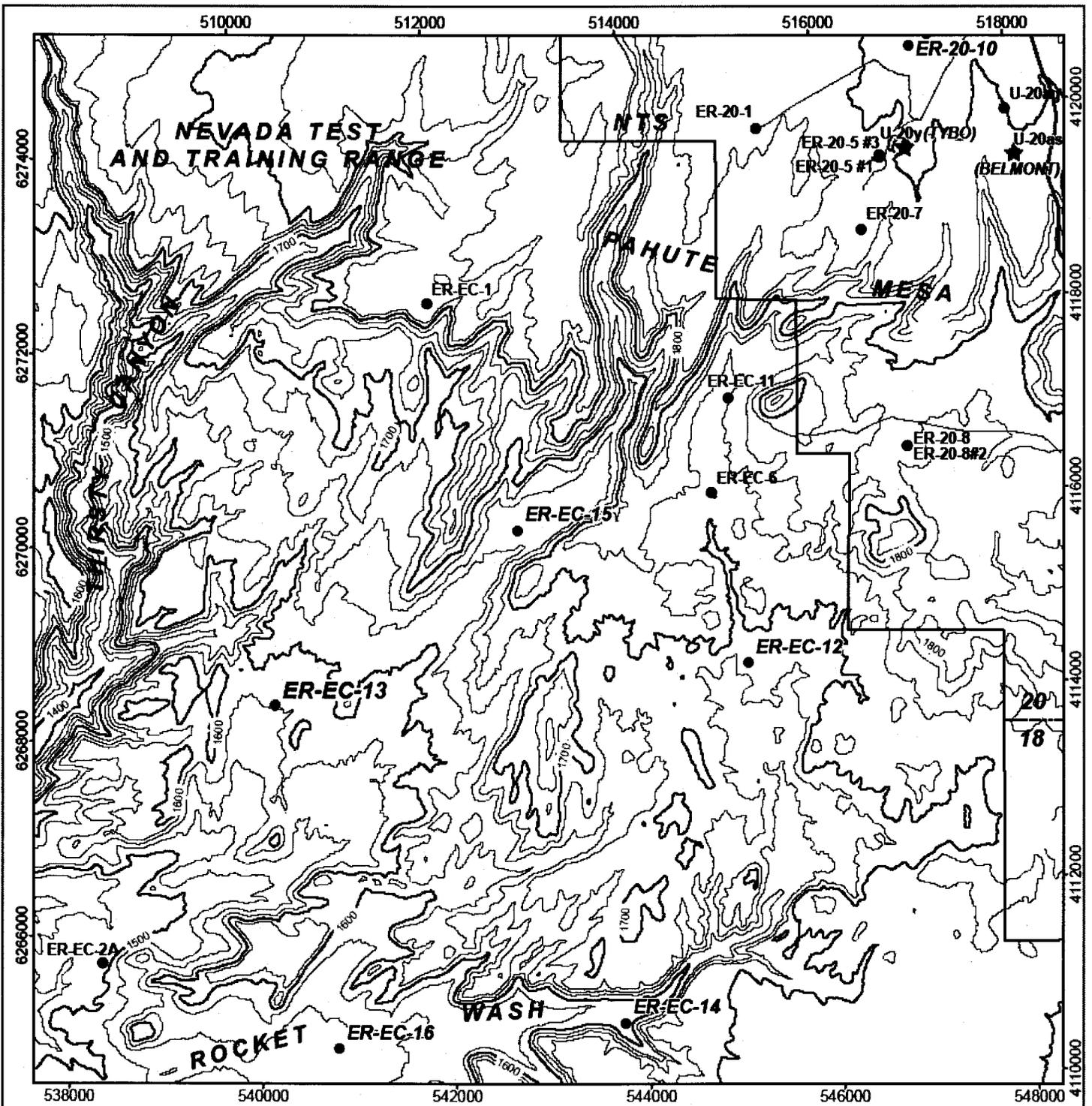
**WELL DRILLER'S REPORT (cont)**

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Well ER-EC-13

GRAVEL PACK (cont.)

Gravel Pack:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	_____ to _____	<input checked="" type="checkbox"/> Pumped	<input type="checkbox"/> Poured
Type:	Portland Type II neat cement, from top of fill at 2984' to 2680'				
Type:	3/8 inch gravel, 2680' - 2263'				
Type:	6/9 silica sand, 2263' - 2253'				
Type:	20/40 sand, 2253' - 2240'				
Type:	Portland Type II neat cement, 2240' - 2136'				
Type:	3/8 inch gravel, 2136' - 1861'				
Type:	6/9 silica sand, 1861' - 1847'				
Type:	20/40 sand, 1847' - 1837'				
Type:	Portland Type II neat cement, 1837' - 1530'				

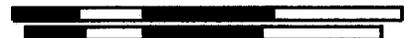


- Existing drill hole
- Proposed well location
- ★ Underground nuclear test
- NTS boundary
- - - NTS operational area
- Unpaved road
- Major elevation contour (100 m)
- Minor elevation contour (25 m)

Nevada Central State Plane Projection (meters), North American Datum 1983  
 Source: NSTec, 2009



1,000 500 0 1,000 2,000 m



3,000 1,500 0 3,000 6,000 ft

Black tick marks are in Nevada State Plane, Central Zone, NAD83, meters  
 Blue tick marks are in Universal Transverse Mercator, NAD83, meters

**Figure E.1-1**  
**Topographic Map of the Well ER-EC-13 Area**

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