

WELL DRILLER'S REPORT

Please complete this form in its entirety

PRINT OR TYPE ONLY

NOTICE OF INTENT NO. 9826
Hawthorne Army Ammunition Plant, Grant Road and 5th avenue north

1. OWNER Hawthorne Army Ammunition Plant ADDRESS AT WELL LOCATION Hawthorne Army Ammunition Plant, Grant Road and 5th avenue north
MAILING ADDRESS Commander (SMCHW-OR) HWAAP, Hawthorne, NV. 89416
2. LOCATION 1/4 SW 1/4 Sec. 21 T. 9 S. R. 31 E. Mineral County
PERMIT NO. _____ Issued by Water Resources Parcel No. _____ Subdivision Name _____

3. TYPE OF WORK
New Well Recondition
Deepen Other
4. PROPOSED USE
Domestic Irrigation Test
Municipal Industrial Stock Other air rotary

6. LITHOLOGIC LOG HWAAP-D15 (ITMG-015)

Material	Water Strata	From	To	Thickness
Med. to fine silty sand		0	25ft	25ft.
Med. to fine sand		25ft	55ft	30ft
Fine to coarse sand		55ft	70ft	15ft
Fine sand w/pebbles		70ft	95ft	25ft
Med. to fine sand		95ft	128ft	33ft
Med. to fine sand	damp	128ft	140ft	12ft
Fine sand	wet	140ft	155ft	15ft
Fine to coarse sand	wet	155ft	160ft	5ft

See W. Driller's Log 1988-1-15
Let's see record 11-1-89
MAY 12 1989
STATE ENGINEER
HWAAP-D15

8. WELL CONSTRUCTION
Diameter 4" inches Total depth 160 feet
Casing record Mild steel sch 40
Weight per foot _____ Thickness _____
Diameter From To
4" inches +1.99 feet 13.0 feet
4" inches 13.0 feet 34.0 feet
4" inches 34.0 feet 55.0 feet
4" inches 55.0 feet 148.0 feet
Surface seal: Yes No Type cement grout
Depth of seal 0-142ft. bentonite to 146 feet
Gravel packed: Yes No
Gravel packed from 146.0 feet to 160.0 feet
Perforations:
Type perforation continuous stainless steel
Size perforation .020"
From 148 feet to 158 feet
From _____ feet to _____ feet

Date started 2-19, 1988
Date completed 2-20, 1988

7. WELL TEST DATA

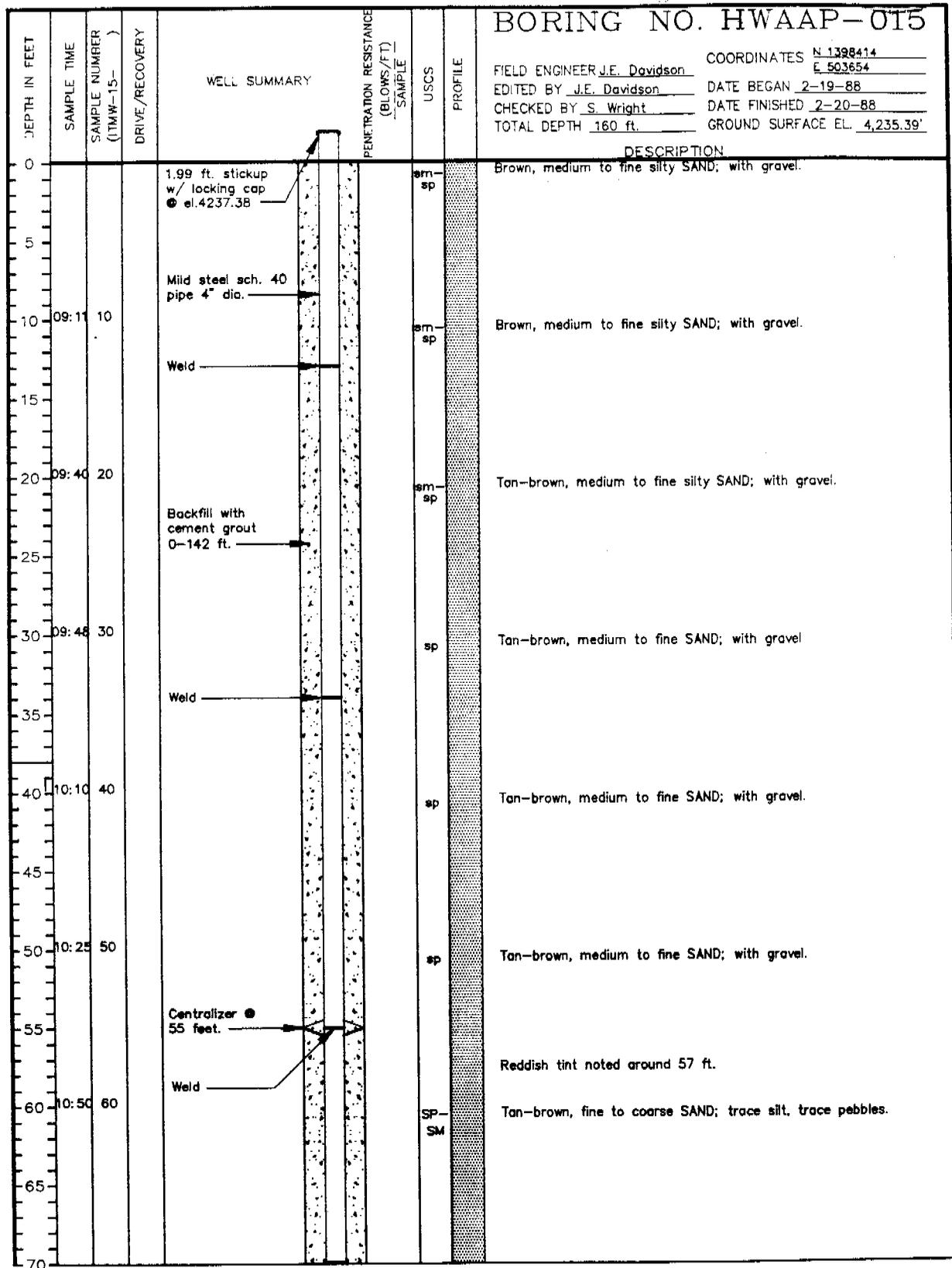
Pump RPM	G.P.M.	Draw Down	After Hours Pump

9. WATER LEVEL
Static water level 140 ft. feet below land surface
Flow _____ G.P.M. _____ P.S.I.
Water temperature 65 °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 Water Development Corporation Contractor
Address 220 N. East St., Woodland, CA Contractor
Nevada contractor's license number issued by the State Contractor's Board 0012852
Nevada contractor's driller's number issued by the Division of Water Resources _____
Nevada driller's license number issued by the Division of Water Resources, the on-site driller 1015
Signed _____
Date 5-2-89

BAILER TEST
G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours

Page 2 of log #32127



PROJECT NO. 190257
 CLIENT: US Army Corps of Engineers
 Huntsville, Alabama

SEE LEGEND FOR LOGS AND TEST PITS
 FOR EXPLANATION OF SYMBOLS AND TERMS

HWAAP-15(HW-1)

E.1-1



...Creating a Safer Tomorrow

					BORING NO. HWAAP-015				
DEPTH IN FEET	SAMPLE TIME	SAMPLE NUMBER (ITMW-15--)	DRIVE/RECOVERY	WELL SUMMARY	PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	COORDINATES <u>N 1398414</u> <u>E 503654</u>	
								FIELD ENGINEER <u>J.E. Davidson</u>	DATE BEGAN <u>2-19-88</u>
								CHECKED BY <u>S. Wright</u>	DATE FINISHED <u>2-20-88</u>
								TOTAL DEPTH <u>160 ft.</u>	GROUND SURFACE EL. <u>4,235.39'</u>
								DESCRIPTION	
70	10:55	70					sp	Tan-brown, fine SAND; with pebbles.	
75				Weld					
80	11:14	80					sp	Brown,-dark brown, fine SAND; trace pebbles.	
85				Mild steel sch. 40 pipe 4" dia.					
90	11:20	90					sp	Brown,-dark brown, fine SAND; damp.	
95				Weld					
100	11:55	100					sp	Dark brown, medium to fine SAND; damp.	
105									
110	12:15	110		Backfill with cement grout 0-142 ft.			sp	Dark brown, medium to fine SAND; with gravel.	
115				Centralizer ● 118 feet.					
120	12:35	120		Sch. 5 S.S. blank 1-20 ft. section 1-10 ft. section			sp	Dark brown, medium to fine SAND; with gravel.	
125								Air absorbing into formation & not lifting cutting - flush water down drill pipe (200 gals.) & continue drilling.	
130	14:37	130					sp	Brown, medium to fine SAND; damp.	
135								● 136 material damp (natural)	
140									

PROJECT NO. 190257
 CLIENT: US Army Corps of Engineers
 Huntsville, Alabama

SEE LEGEND FOR LOGS AND TEST PITS
 FOR EXPLANATION OF SYMBOLS AND TERMS



...Creating a Safer Tomorrow

				BORING NO. HWAAP-015			
DEPTH IN FEET	SAMPLE TIME	SAMPLE NUMBER (ITMW-15-)	DRIVE/RECOVERY	WELL SUMMARY	FIELD ENGINEER <u>J.E. Davidson</u>		
					COORDINATES <u>N 1398414</u> <u>E 503654</u>		
					EDITED BY <u>J.E. Davidson</u> DATE BEGAN <u>2-19-88</u>		
					CHECKED BY <u>S. Wright</u> DATE FINISHED <u>2-20-88</u>		
					TOTAL DEPTH <u>160 ft.</u> GROUND SURFACE EL. <u>4,235.39'</u>		
				PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
140		N.S.		#60 sand		sp	Cuttings caked up on drill rod. Material very wet.
145				1/2-1/4 in. Bentonite pellets			
147				Centralizer @ 147 feet.			
150	15:30	150		#20 slot screen sch. 5 S.S. from 148 to 158'		sp	Brown, fine SAND; wet. 1st. GW @ 150 ft.
150				#1 C sand			
155				Centralizer @ 159 feet.			
160	16:00	160	12/18	Sch. 5 S.S. sand sump		SP-SM	Brown, fine to coarse SAND; trace silt, wet. Gray SAND; trace gravel, some silt.
				TOTAL DEPTH 160 FEET.			
165							
170							
175							
180							
185							
190							
195							
200							
205							
210							
				<p><u>DRILLING INFORMATION</u> SUBCONTRACTOR: The Water Development Corporation EQUIPMENT: Koehring SS-15THH, carrier mounted METHOD: Air Rotary Casing Hammer TEMPORARY DRILL CASING: 9 5/8" O.D. flush threaded BIT: 8 1/2" Mill Tooth Roller Bit DRILLER SUPT.: Miller Smith</p>			

PROJECT NO. 190257
 CLIENT: US Army Corps of Engineers
 Huntsville, Alabama

SEE LEGEND FOR LOGS AND TEST PITS
 FOR EXPLANATION OF SYMBOLS AND TERMS

HWAAP-15(HW-1)

E.1-3



...Creating a Safer Tomorrow