



SPOKANE AQUIFER
JOINT BOARD
MONITORING WELL

NW 1/4, NW 1/4, SEC. 17, T25N, R45E

PROJECT NUMBER
136236.DC.20

WELL NUMBER
SAJB # 1

MONITORING WELL CONSTRUCTION DETAILS

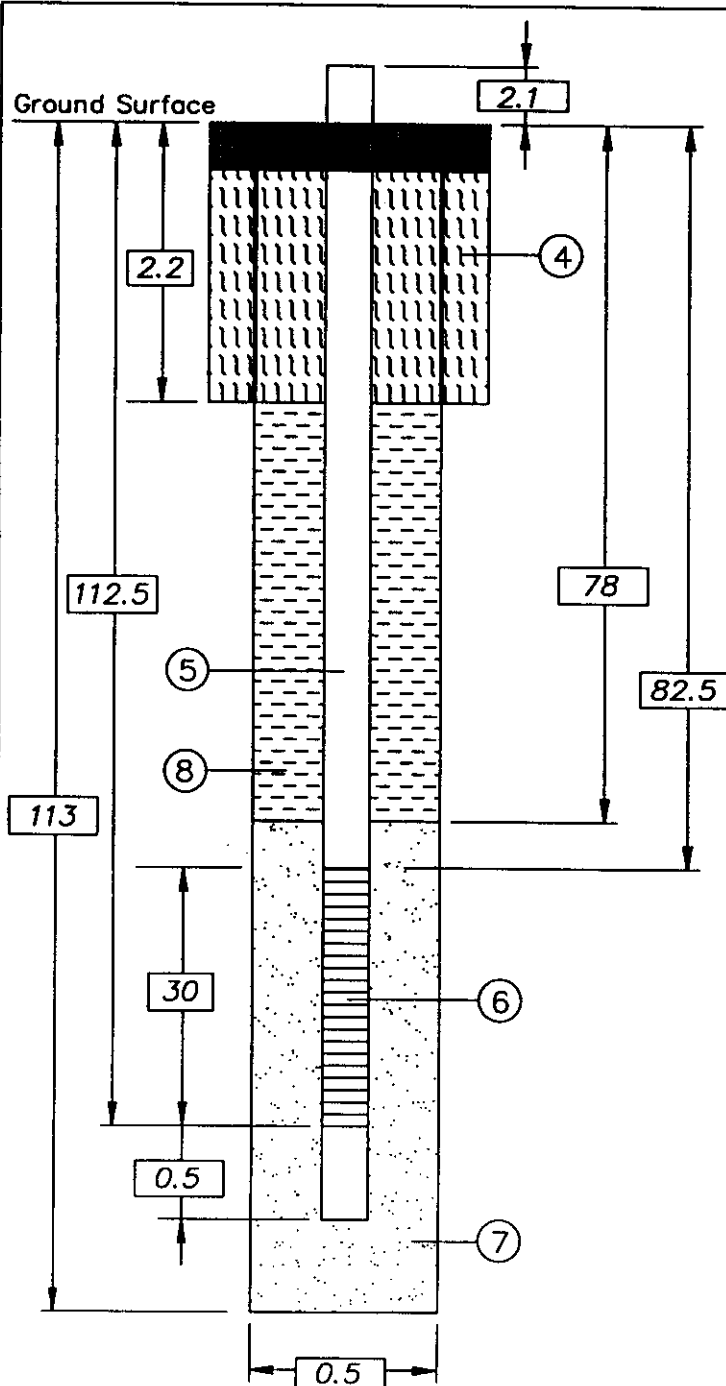
PROJECT SAJB WELLHEAD PROTECTION PROGRAM

DRILLER Fogle Pump and Supply

LOCATION CID Wellfield #4 near Mission and Barker, Greenacres

DRILLING METHOD & EQUIPMENT 6-inch ODEX Air Rotary, CP-7000

START 9/5/96 FINISH 9/9/96 LOGGER Henry/Smith WATER LEVEL & DATE 9/16/96, 88.38 ft. btc



- 1) Ground elevation 2039.17 (USGS)
2056.10 (City)
- 2) Top of casing elevation 2041.36 (USGS)
2058.29 (City)
- 3) Wellhead/protective cover description 8-inch diameter steel casing with locking lid
- 4) Surface Seal 2' x 2' reinforced concrete pad
a) Quantity of surface seal used 5 x 50# bags
- 5) Diam./type of well casing 2-inch Sch. 40 PVC
- 6) Type/slot of screen 2-inch Sch. 40 PVC
20 slot (0.020 inch)
- 7) Type screen filter pack Colorado silica sand
a) Quantity used 8 x 100# bags
Size 8-12
- 8) Type of annular seal 3/8 inch bentonite chips
a) Quantity used 22 x 50# bags
- 9) Development method Surge block and bail
- 10) Development Time 2 hours
- 11) Estimated volume of water purged 15 gallons
- 12) Comments: Depth to water at time of installation was 86.5 ft. below ground surface.

Note: All measurements are in feet from ground surface.



PROJECT NUMBER

136236.DC.20

BORING NUMBER

SAJB #1

SHEET

1

OF 1

SOIL BORING LOG

PROJECT SAJB wellhead ProtectionLOCATION Mission & Barker, GreenacresELEVATION 2037 (USGS)DRILLING CONTRACTOR Fogle Pump & SupplyDRILLING METHOD AND EQUIPMENT 6-inch ODEX air rotary, CP-7000WATER LEVELS 86.5 ft bgsSTART 9/5/96FINISH 9/9/96LOGGER Henry Smith

DEPTH BELOW SURFACE (FT)	SAMPLE			STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION	COMMENTS
	INTERVAL	NUMBER AND TYPE	RECOVERY (FT)			
				6"-6"-6" (N)	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
0					0-4 Silty gravel and sand	
					4-10 Well graded gravel with sand (GW)	Gravels are well rounded, Sands are subangular to subrounded
20					10-44 Well graded gravel and sand (GW)	Gravels: pea gravel to 2 inch plus
40						
					44-46 Well graded sand (SW)	
					46-55 Well graded gravel and sand (GW)	
60					55-57 Boulder	
					57-109 Well graded gravel and sand (GW)	Gravels: pea size to approx. 2 inches
80						
100						
					109-112 Well graded sand (SW)	
					112-113 Well graded gravel and sand (GW)	
120					TD Borehole at 113 ft	



SPOKANE AQUIFER
JOINT BOARD
MONITORING WELL

NW 1/4, NW 1/4, SEC. 7, T25N, R45E

PROJECT NUMBER
136236.DC.20

WELL NUMBER
SAJB #2

MONITORING WELL CONSTRUCTION DETAILS

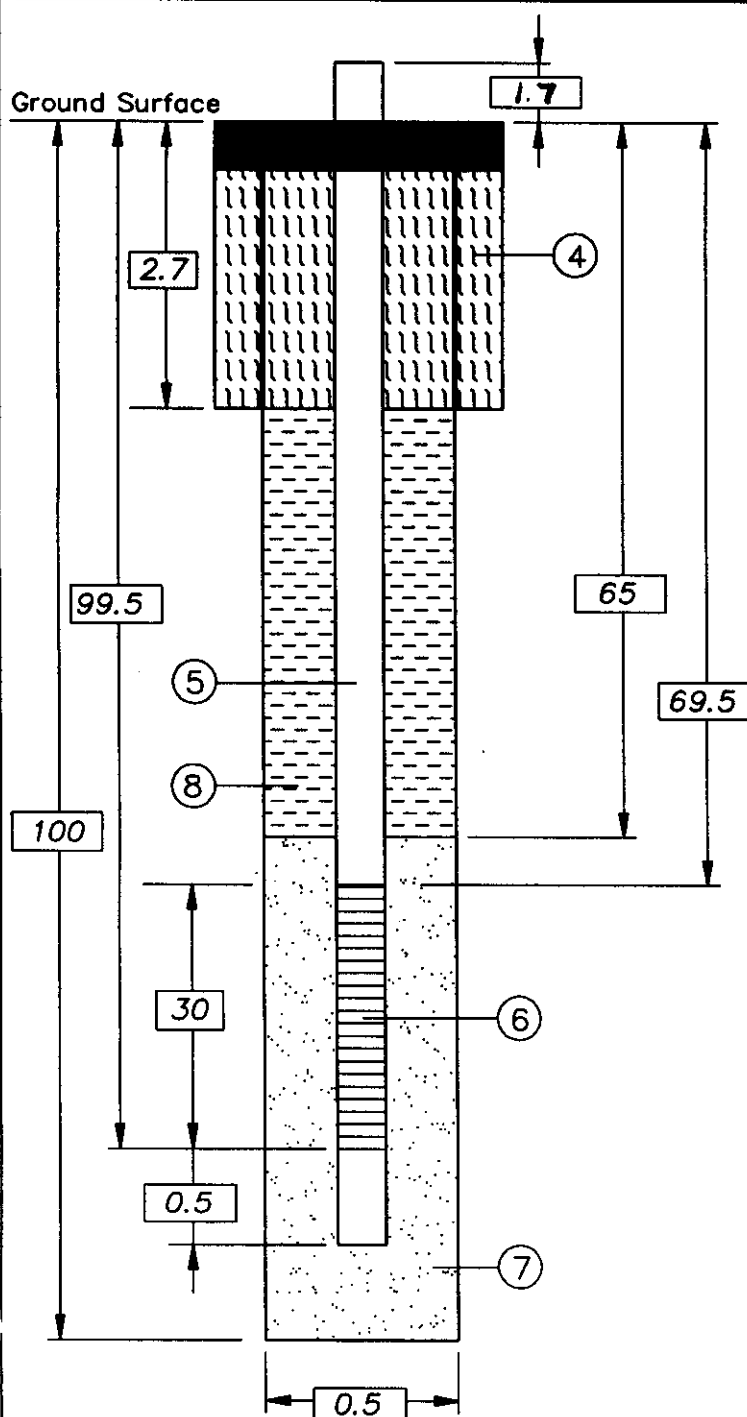
PROJECT SAJB WELLHEAD PROTECTION PROGRAM

DRILLER Fogle Pump and Supply

LOCATION CID Wellfield #5 near Barker and Euclid, Otis Orchards

DRILLING METHOD & EQUIPMENT 6-inch ODEX Air Rotary, CP-7000

START 9/9/96 FINISH 9/11/96 LOGGER Smith WATER LEVEL & DATE 9/16/96, 73.84 ft. btc



- 1) Ground elevation 2025.40 (USGS)
2042.33 (City)
- 2) Top of casing elevation 2027.15 (USGS)
2044.08 (City)
- 3) Wellhead/protective cover description _____
8-inch diameter steel casing with
locking lid
- 4) Surface Seal 2' x 2' reinforced
concrete pad
a) Quantity of surface seal used 5 x 50# bags
- 5) Diam./type of well casing 2-inch Sch. 40
PVC
- 6) Type/slot of screen 2-inch Sch. 40 PVC
20 slot (0.020 inch)
- 7) Type screen filter pack Colorado silica sand
a) Quantity used 9 x 100# bags
Size 8-12
- 8) Type of annular seal 3/8 inch bentonite
chips
a) Quantity used 19 x 50# bags
- 9) Development method Surge block and bail
- 10) Development Time 1.5 hours
- 11) Estimated volume of water purged 10 gallons
- 12) Comments: Depth to water at time of
installation was 74.5 ft. below ground
surface.

Note: All measurements are in feet from ground surface.

NW 1/4, SW 1/4, SEC. 31, T26N, R46E



SPOKANE AQUIFER
JOINT BOARD
MONITORING WELL

PROJECT NUMBER
136236.DC.20

WELL NUMBER
SAJB #3

MONITORING WELL CONSTRUCTION DETAILS

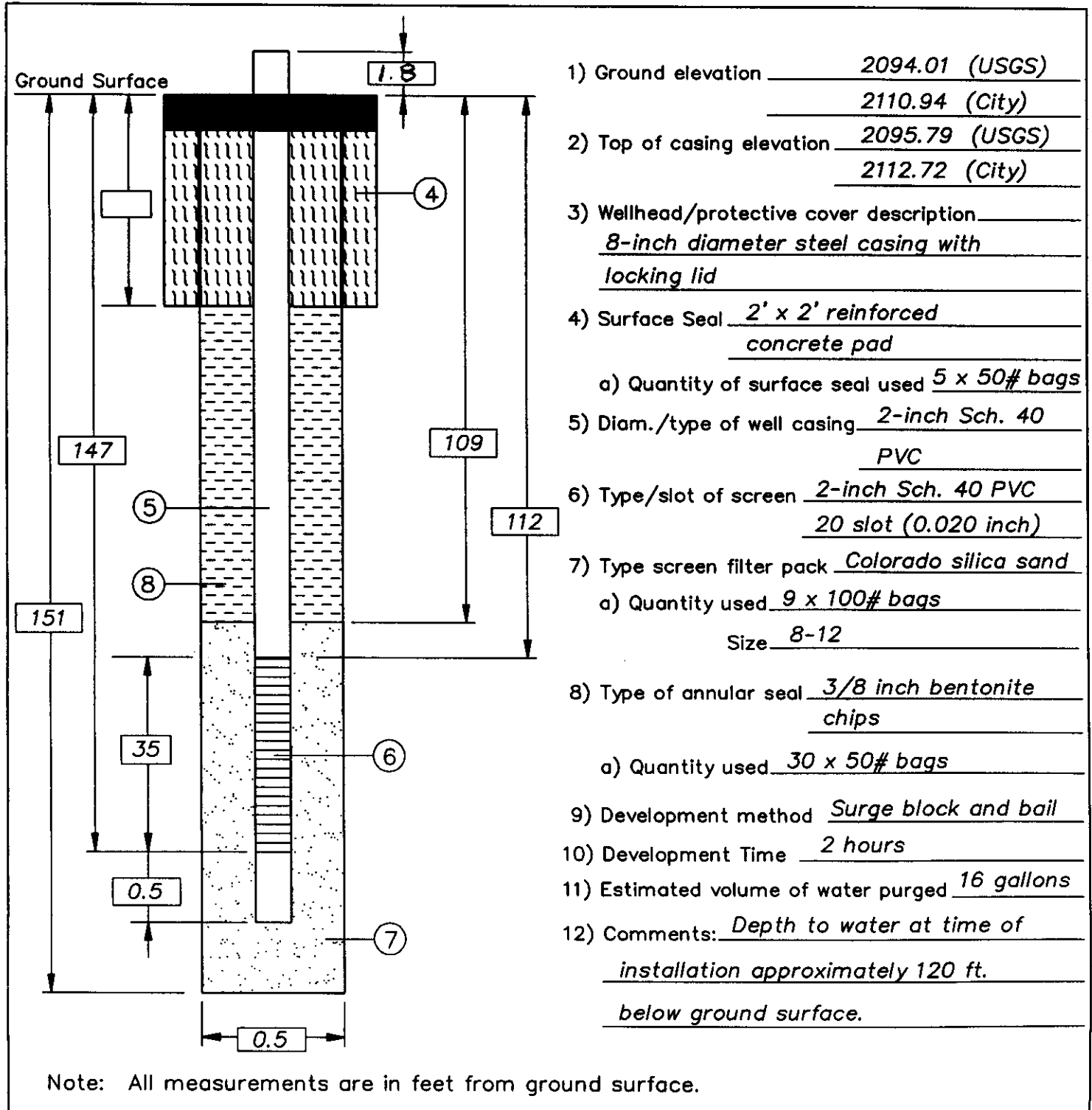
PROJECT SAJB WELLHEAD PROTECTION PROGRAM

DRILLER Fogle Pump and Supply

LOCATION CID Wellfield #11 near Wellesley and Idaho Road, East Farms

DRILLING METHOD & EQUIPMENT 6-inch ODEX Air Rotary, CP-7000

START 9/11/96 FINISH 9/13/96 LOGGER Henry WATER LEVEL & DATE 9/16/96, 118.41 ft. btc





PROJECT NUMBER

136236-DC-20

BORING NUMBER

SAJB #3

SHEET

1

OF 2

SOIL BORING LOG

PROJECT SAJB Wellhead ProtectionLOCATION Wellashy and Idaho Rd, East FarmsELEVATION 2080 (4565)DRILLING CONTRACTOR Fogle Pump & SupplyDRILLING METHOD AND EQUIPMENT 6-inch ODEX air rotary & CP-7600WATER LEVELS 120 ft bgsSTART 9/11/96FINISH 9/13/96LOGGER Henry

DEPTH BELOW SURFACE (FT)	SAMPLE			STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION	COMMENTS
	INTERVAL	NUMBER AND TYPE	RECOVERY (FT)		SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
0					0-3 Silty gravels with cobbles	Gravels are well rounded, sands are subangular to subrounded
					3-8 well graded gravel and coarse sands	
20					8-24 well graded gravels with sand	
					24-151 Well graded gravels	
40						
60						
80						
100						
120						
140						
160						
180						
200						
220						
240						
260						
280						
300						
320						
340						
360						
380						
400						
420						
440						
460						
480						
500						
520						
540						
560						
580						
600						
620						
640						
660						
680						
700						
720						
740						
760						
780						
800						
820						
840						
860						
880						
900						
920						
940						
960						
980						
1000						
1020						
1040						
1060						
1080						
1100						
1120						
1140						
1160						
1180						
1200						
1220						
1240						
1260						
1280						
1300						
1320						
1340						
1360						
1380						
1400						
1420						
1440						
1460						
1480						
1500						
151					TD Borehole at 151 ft.	



SPOKANE AQUIFER
JOINT BOARD
MONITORING WELL

SW 1/4, SW 1/4, SEC. 28, T26N, R43E

PROJECT NUMBER
136236.DC.20

WELL NUMBER
SAJB # 4

MONITORING WELL CONSTRUCTION DETAILS

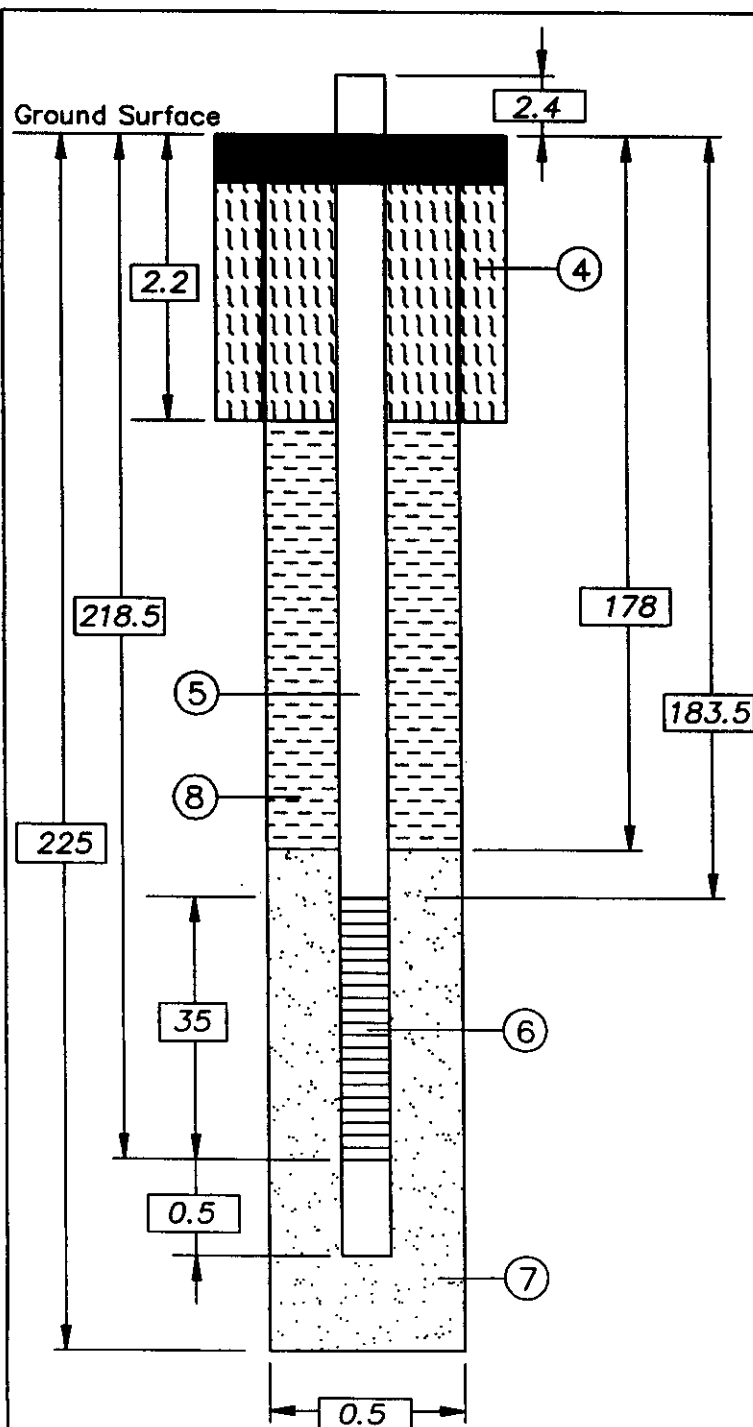
PROJECT SAJB WELLHEAD PROTECTION PROGRAM

DRILLER Fogle Pump and Supply

LOCATION Morgan Acres Fire Dept., Regal and Houston

DRILLING METHOD & EQUIPMENT 6-inch ODEX Air Rotary, CP-7000

START 11/4/96 FINISH 11/8/96 LOGGER Henry/Smith WATER LEVEL & DATE 12/6/96, 189.37 ft. btc



- 1) Ground elevation 2036.01 (USGS)
2052.94 (City)
- 2) Top of casing elevation 2038.21 (USGS)
2055.14 (City)
- 3) Wellhead/protective cover description _____
8-inch diameter steel casing with
locking lid
- 4) Surface Seal 2' x 2' reinforced
concrete pad
a) Quantity of surface seal used 5 x 50# bags
- 5) Diam./type of well casing 2-inch Sch. 80
PVC
- 6) Type/slot of screen 2-inch Sch. 80 PVC
20 slot (0.020 inch)
- 7) Type screen filter pack Colorado silica sand
a) Quantity used 10 x 100# bags
Size 8-12
- 8) Type of annular seal 3/8 inch bentonite
chips
a) Quantity used 62 x 50# bags
- 9) Development method Surge block and bail
- 10) Development Time 2 hours
- 11) Estimated volume of water purged 10 gallons
- 12) Comments: Depth to water at time of
installation was 187.3 ft. below ground
surface.

Note: All measurements are in feet from ground surface.



PROJECT NUMBER

136236.DC.20

BORING NUMBER

SAJB #4

SHEET

1 OF 2

SOIL BORING LOG

PROJECT SAJB Wellhead ProtectionLOCATION Morgan Acres Fire Dept/HillyardELEVATION 2035 (Ground)DRILLING CONTRACTOR Fogle Pump & Supply

DRILLING METHOD AND EQUIPMENT

6-inch ODEX air rotary CP-700

WATER LEVELS

187.3 ft bgs 11/8/96START 11/4/96FINISH 11/8/96LOGGER Henry Smith

DEPTH BELOW SURFACE (FT)	SAMPLE			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
	INTERVAL	NUMBER AND TYPE	RECOVERY (FT)			
0					<u>Poorly graded sand w/ silt (SP)</u> light brown, dry	
8					<u>Well graded sand w/ silt (SW)</u> light brown, moist, occasional pea gravel.	
20	22				<u>Well graded sand with gravel (SW), light brown, moist.</u> Gravel to 3/8-inch, well rounded	
54						
58					<u>Poorly graded gravel and sand (GP). Gravel 3/8 - 1/2 inch</u>	
60					<u>Well graded sand w/ gravel (SW)</u>	
65					<u>Poorly graded gravel w/ well graded sand (GP-SW)</u>	
80						
92					<u>Poorly graded sand with silt (SP-SM), light brown, moist</u>	
100						
105					<u>Well graded sand w/ silt (SW-SM), light brown, moist</u>	
120						



PROJECT NUMBER

136236.DC.20

BORING NUMBER

SAJB #4

SHEET

2

OF 2

SOIL BORING LOG

PROJECT SAJB Wellhead ProtectionLOCATION Morgan Acres Fire Dept/HillyardELEVATION 2035 (Ground)DRILLING CONTRACTOR Fogle Pump & Supply

DRILLING METHOD AND EQUIPMENT

6-inch ODEX air rotary CP-700

WATER LEVELS

187.3 ft bgs 11/8/96START 11/4/96

FINISH

11/8/96

LOGGER

Henry Smith

DEPTH BELOW SURFACE (FT)	SAMPLE			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
	INTERVAL	NUMBER AND TYPE	RECOVERY (FT)			
120					<u>well graded sand w/ silt (SW-SM)</u>	
130						
140					<u>Poorly graded sand w/ silt</u> SP-SM, light brown-brown, moist. Sand is fine to <u>medium grained.</u>	
145						
					<u>well graded sand w/ silt (SW-SM), light brown, moist</u>	
160						
180						
185					<u>well graded sand (SW), brown-tan, wet, occasional gravels to 1/2-inch.</u>	
200						
220						Completed well screened from 183-218
					TD at 225 ft	
240						



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #5

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 26 North, Range 45 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

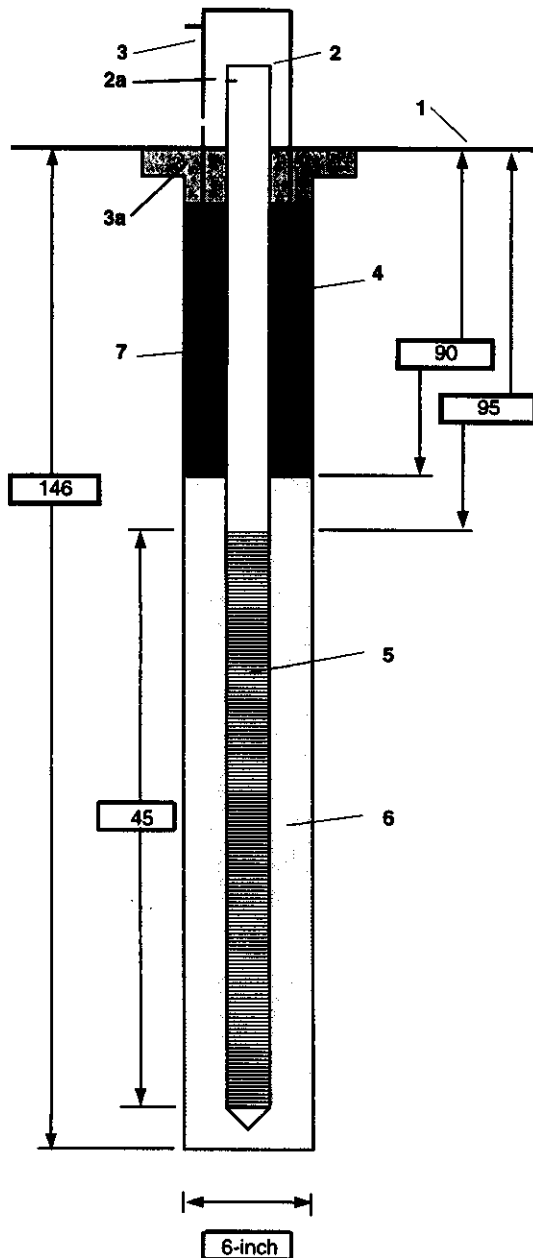
Section 25, SE 1/4 of the SE 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 102.40 feet btc (7/9/98)

COMPLETED: July 9, 1998

LOGGER : C. Golik



** Well located in County ROW on west side of Idaho Rd., approx. 300 feet south of NW Pipeline crossing.

1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot by 2-foot square
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	12 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	31 50-pound bags
Development method	Surge block and bail
Development time	1.5 hours
Estimated purge volume	10 gallons
Comments	WA Ecology well ID - AEB837
	Borehole backfilled from 140 - 146 with sandpack

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035115

PROJECT NAME: SAJB #136236.DC.50

WELL IDENTIFICATION NO. AEB837

DRILLING METHOD: Air Rotary

DRILLER: Mike Robinson

FIRM: Fogle Pump & Supply, Inc.

SIGNATURE: *Mike Robinson / mo*

CONSULTING FIRM: CH2M Hill

REPRESENTATIVE: Mark Henry

COUNTY: Spokane

LOCATION: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 25 T26N R45EWM

STREET ADDRESS OF WELL: Idaho Rd.

WATER LEVEL ELEVATION: 100'

GROUND SURFACE ELEVATION:

INSTALLED: 7-9-98

DEVELOPED:

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	<u>Cap or Vault</u> Type: Above-Locking Size: 8" Lock: <u>Pvc Cap:</u> Flush-Locking <u>Cement:</u> Quick crete Depth: 0 To: 2 Bags: 3 <u>Grout Type:</u> Hole Plug Depth: 2 To: 90 Bags: 31 <u>Pvc Type:</u> Sch 40 <u>Pvc Size:</u> 2" Depth: +2 To: 95 <u>Centralizers</u> 50, 95 & 140 <u>Pellets Size:</u> N/A Depth: To: Bags: <u>Silica Sand:</u> 8-12 Depth: 90 To: 146 Bags: 12 <u>Screen Type:</u> Sch 40 PVC Depth: 95 To: 140 Size: .020 <u>Casing Size:</u> <u>Drive Shoe:</u> <u>Bottom:</u> <u>Guard Posts:</u> 3-4 1/2" x 5' <u>Misc:</u>	Silty sand & gravel w/ cobbles & boulders 0-26 Silty sand & gravel, coarse 26-45 Silty sand & gravel w/ cobbles 45-65 Silty sand & gravel 65-100 Silty sand & gravel w/water 100-146

SCALE: 1" =

PAGE 1 OF 1



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #6

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 26 North, Range 45 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 24, SE 1/4 of the SE 1/4

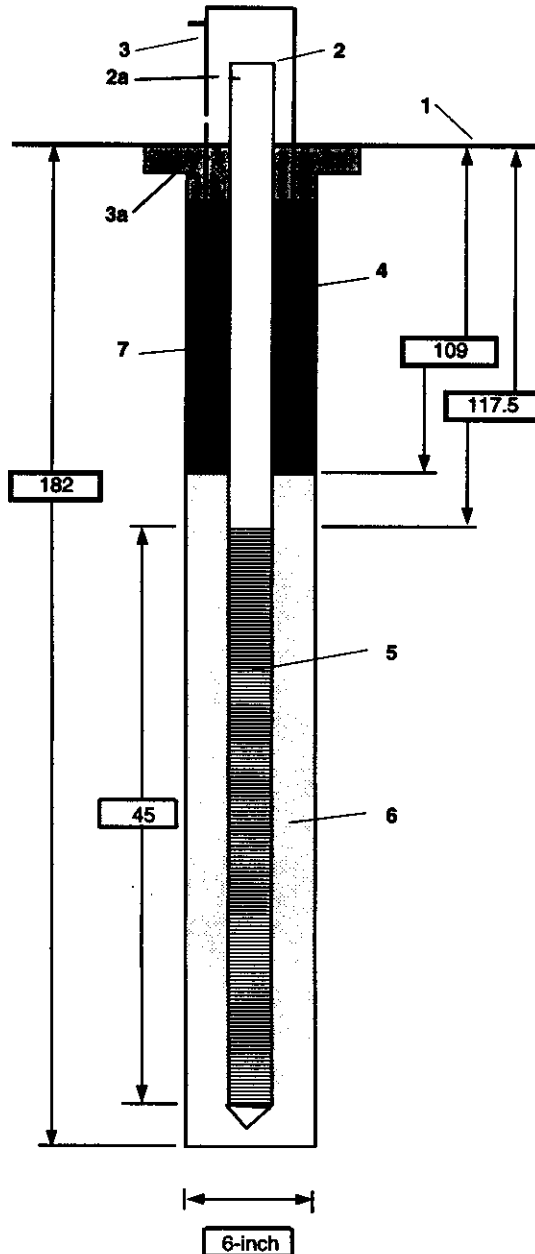
DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 125.55 feet btc (7/17/98)

COMPLETED: July 17, 1998

LOGGER : C. Golik

** Well located on Central Pre-Mix property west of Idaho Rd., approx. 1,000 feet south of Trent



1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot by 2-foot square
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	13 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	27 50-pound bags
Development method	Surge block and bail
Development time	2 hours
Estimated purge volume	10 gallons

Comments WA Ecology well ID - AEB875

Borehole allowed to slough from 163 - 182 prior to installation

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035111

PROJECT NAME: SAJB #136236.DC.50
 WELL IDENTIFICATION NO. AEB875
 DRILLING METHOD: Rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply
 SIGNATURE: Martin Jensen/mc
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: SE 1/4 SE 1/4 Sec 24 Twn 26N R45EWM
 STREET ADDRESS OF WELL: 1/4 mi. South of Trent
on Idaho Rd.
 WATER LEVEL ELEVATION: _____
 GROUND SURFACE ELEVATION: _____
 INSTALLED: 7-20-98
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	<u>Cap or Vault</u> Type: Monument Size: 8" Lock: Master <u>Pvc Cap:</u> Vented 2" <u>Cement:</u> Quick Crete Depth: 0' To: 2' Bags: 8 <u>Grout Type:</u> Hole plug Bentonite Depth: 2' To: 110 Bags: 27 <u>Pvc Type:</u> Boart Longyear <u>Pvc Size:</u> 2" Depth: +2 To: 118 <u>Centralizers</u> 4 <u>Pellets Size:</u> 3/8" Depth: 116 To: 118 Bags: 1 <u>Silica Sand:</u> 8/12 Depth: 110 To: 163 Bags: 13 <u>Screen Type:</u> Boart Longyear Depth: 118 To: 163 Size: 2" .020 <u>Casing Size:</u> 6" } Pulled out <u>Drive Shoe:</u> Flush <u>Bottom:</u> 163 <u>Guard Posts:</u> 2 <u>Misc:</u>	0-7 Cobble, gravel, sand 7-26 Gravel, cobble, coarse sand 26-59 Gravel, coarse, sand 59-75 Gravel, cobble, coarse sand 75-96 Gravel, coarse sand, cobble 96-98 Coarse sand 98-153 Coarse sand, gravel 153-155 Coarse sand, gravel, clay 155-168 Coarse sand, gravel 168-178 Gravel, coarse sand Static 124'

SCALE 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #7

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 26 North, Range 43 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 30, NE 1/4 of the SE 1/4

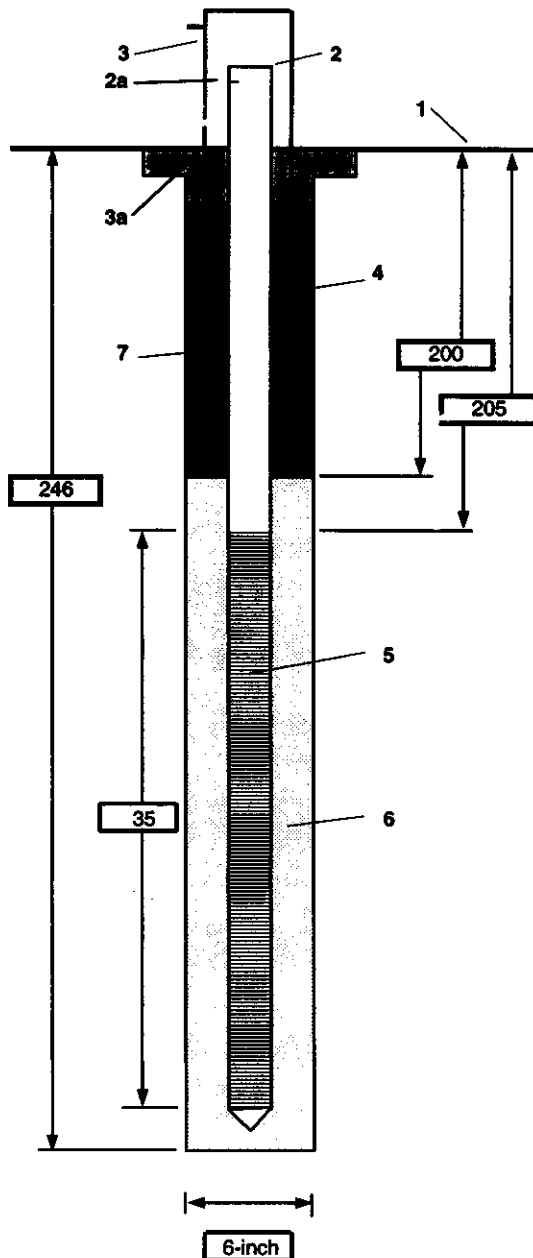
DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 211.97 feet btc (7/24/98)

COMPLETED: July 24, 1998

LOGGER : C. Golik

** Well located in County ROW (Rhoades Avenue) 50 feet east of intersection with Whitehouse St.



1- Ground elevation at well	
2- Top of casing elevation a) vent hole?	Yes
3- Wellhead protection type a) pad dimensions	8-inch steel casing with locking lid 2-foot by 2-foot square
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC 20 slot (0.020 inch)
6- Type screen filter a) Quantity used	Colorado Silica Sand #8 - 12 12 100-pound bags
7- Type of seal a) Quantity used	3/8-inch bentonite Holeplug chips 62 50-pound bags
Development method	Surge block and bail
Development time	4.5 hours
Estimated purge volume	10 gallons

Comments WA Ecology well ID - AEB876
Borehole backfilled from 241 - 246 with sandpack

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035112

PROJECT NAME: SAJB #1362366.DC.50
 WELL IDENTIFICATION NO. AEB876
 DRILLING METHOD: Rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply
 SIGNATURE: Martin Jensen/mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: NE 1/4 SE 1/4 Sec 30 Twn 26N R 43EWM
 STREET ADDRESS OF WELL: Rhoades Ave. East
of Whitehouse Intersection
 WATER LEVEL ELEVATION: _____
 GROUND SURFACE ELEVATION: _____
 INSTALLED: 7-23-98
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault Type: Monument Size: 8" Lock: Master Pvc Cap: 2" Slip Cement: QuickCrete Depth: 0 To: 7 Bags: 7 Grout Type: Hole Plug Depth: 2 To: 200 Bags: 62 Pvc Type: Flush (Boart Longyear) Pvc Size: 2" Depth: +2 To: 205 Centralizers 4 Pellets Size: 3/8" Depth: To: Bags: Silica Sand: 8/12 Depth: 200 To: 230 Bags: 12 Screen Type: Boart Longyear Depth: 205 To: 230 Size: .020 Casing Size: 6" Pulled Out Drive Shoe: Flush Bottom: 246 Guard Posts: 2 Misc:	0 - 158 Sand medium 158 - 172 Sand coarse w/gravel 172 - 191 Sand 191 - 223 Gravel w/coarse sand 223 - 230 Sand coarse 230 - 234 Sand coarse w/silt 234 - 246 Sand coarse/sand fine

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #8

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 45 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 5, NW 1/4 of the NW 1/4

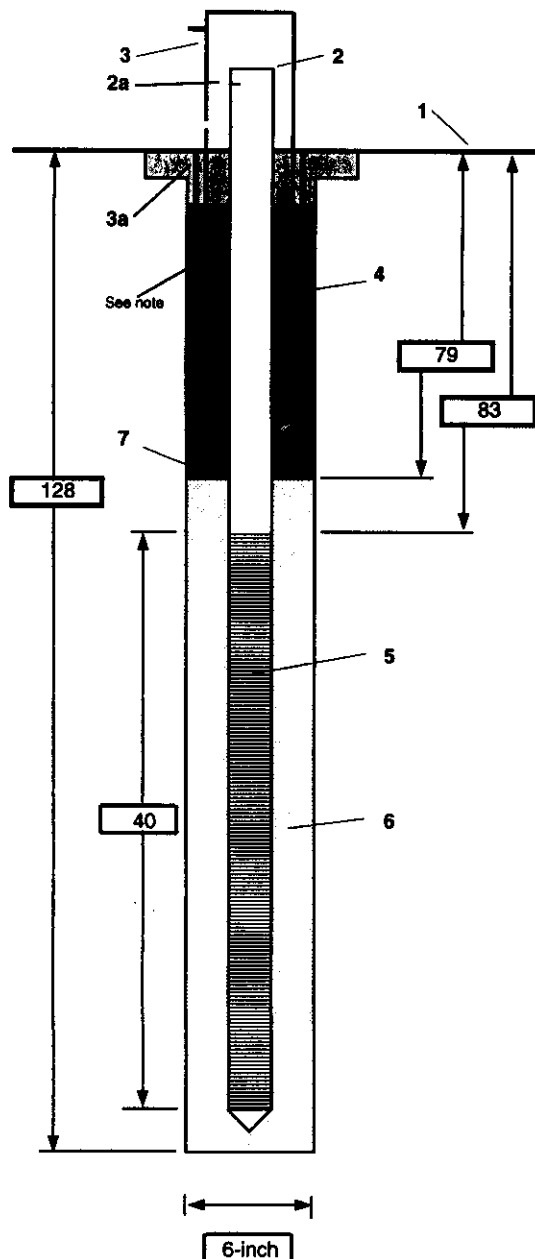
DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 93.50 feet btc (7/29/98)

COMPLETED: July 29, 1998

LOGGER : C. Golik

** Well located on Pentzer Development Corp. property,
east of Barker Road, approx 200 feet south of Trent



1- Ground elevation at well	
2- Top of casing elevation a) vent hole?	Yes
3- Wellhead protection type a) pad dimensions	8-inch steel casing with locking lid 2-foot by 2-foot square
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC 20 slot (0.020 inch)
6- Type screen filter a) Quantity used	Colorado Silica Sand #8 - 12 7 100-pound bags
7- Type of seal a) Quantity used	3/8-inch bentonite Holeplug chips 20 50-pound bags
Development method	Surge block and bail
Development time	1.5 hours
Estimated purge volume	10 gallons
Comments	WA Ecology well ID - AEB877 Borehole sloughed from 123 - 128 prior to installation Steel casing left in borehole from ground surface to 45 feet bgs

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035114

PROJECT NAME: SAJB #136236.DC.50
 WELL IDENTIFICATION NO. AEB877
 DRILLING METHOD: Rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply
 SIGNATURE: Martin Jensen / mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: NW 1/4 NW 1/4 Sec 5 Twn 25N R45EWM
 STREET ADDRESS OF WELL: 4500 N. Barker Rd.
East Side
 WATER LEVEL ELEVATION: 93' **RECEIVED**
 GROUND SURFACE ELEVATION: _____
 INSTALLED: 7-29-98 AUG - 3 1998
 DEVELOPED: _____

CH2M HILL - SPK

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault Type: Above Ground Size: 8" Lock: Master Pvc Cap: 2" Slip Cement: Quick Crete Depth: 0 To: 2 Bags: 7 Grout Type: Hole Plug Depth: 2 To: 72 Bags: 20 Pvc Type: Boart Longyear Pvc Size: 2" Depth: +2 To: 83 Centralizers 3 Pellets Size: Depth: To: Bags: Silica Sand: 8/12 Depth: 83 To: 123 Bags: 6 Screen Type: Boart Longyear Depth: 83 To: 123 Size: .020 2" Casing Size: 6" Drive Shoe: Flush Bottom: 123' - Cap Guard Posts: 3 Misc:	0 - 65 Gravel, coarse sand 65 - 71 Pea gravel 71 - 78 Pea gravel, cobble 78 - 97 Coarse sand, gravel 97 - 99 Gravel, sand, brown clay 99 - 121 Coarse sand, pea gravel, silt 121- 128 Gravel, coarse sand, brown clay Drilled to 128'. Well pulled up to 123'. The depth was ok'd by Cathy Golick and Mark Henry while on site. Plug was moving with casing. It was cut off below grade. Monument installed. Bentonite seal was in tact. Gap from 45' - 55' approximately.

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #9

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 43 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 15, NW 1/4 of the SW 1/4

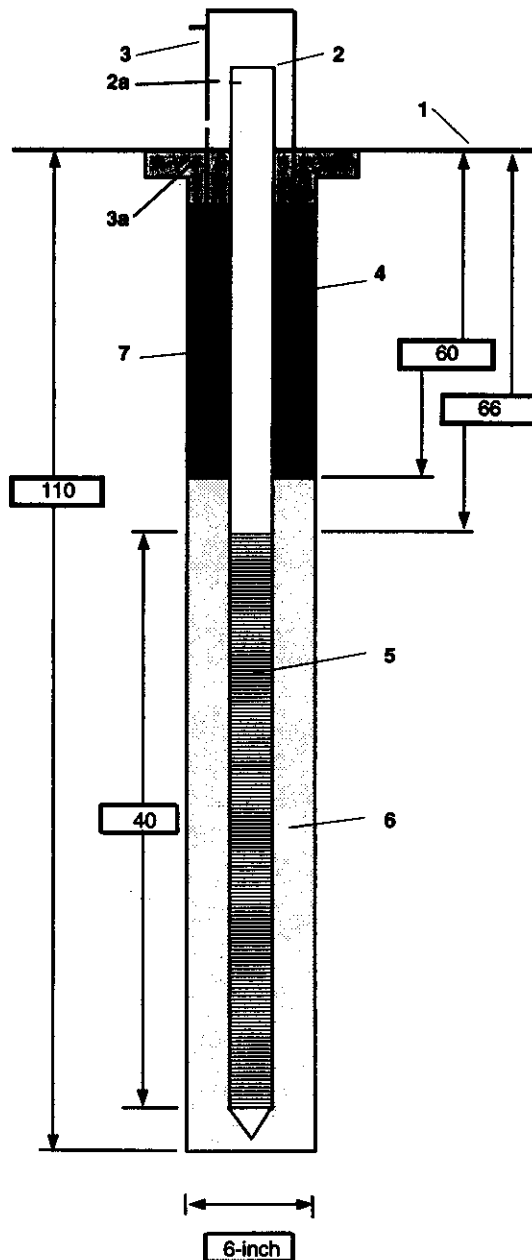
DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 73.5 feet btc (8/14/98)

COMPLETED: August 14, 1998

LOGGER : C. Golik

** Well located in City ROW
on the NW corner of Fiske and Olive



1- Ground elevation at well

2- Top of casing elevation
a) vent hole?

3- Wellhead protection type
a) pad dimensions

4- Dia./type of well casing

5- Type/slot size of screen

6- Type screen filter
a) Quantity used

7- Type of seal
a) Quantity used

Development method

Development time

Estimated purge volume

Comments WA Ecology well ID - AEK201

Borehole backfilled with sand from 106 to 110

RESOURCE PROTECTION WELL REPORT

PROJECT NAME: SAJB #136236.DC.50
 WELL IDENTIFICATION NO. AEK201
 DRILLING METHOD: Rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply, Inc.
 SIGNATURE: Martin Jensen / mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Cathy Golick

START CARD NO. R035113

COUNTY: Spokane
 LOCATION: NW 1/4 SW 1/4 Sec 15 Twp 25N R 43EWM
 STREET ADDRESS OF WELL: NW corner - Fiske & Olive
 WATER LEVEL ELEVATION: 69'
 GROUND SURFACE ELEVATION: _____
 INSTALLED: Aug 14-1998
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	<u>Cap or Vault</u>	0 - 26 Gravel Sand
	Type: Above ground	26 - 31 Coarse Sand
	Size: 8"	31 - 42 Gravel Sand
	Lock: Master	42 - 52 Coarse Sand Pea Gravel
	<u>Pvc Cap:</u> 2" Slip	52 - 65 Boulders Gravel
	<u>Cement:</u> Quick Crete	65 - 105 Coarse Sand Gravel
	Depth: 0 To: 2	
	Bags: 6	
	<u>Grout Type:</u> Hole Plug	
	Depth: -2 To: 57	
	Bags: 20	
	<u>Pvc Type:</u> Boart Longyear	
	<u>Pvc Size:</u> 2"	
	Depth: +2 To: 65	
	<u>Centralizers</u> 3	
	<u>Pellets Size:</u>	
	Depth: To:	
	Bags:	
	<u>Silica Sand:</u> 8/12	
	Depth: 57 To: 105	
	Bags: 12	
	<u>Screen Type:</u> Boart Longyear-pvc	
	Depth: 65 To: 105	
	Size: .020 2"	
	<u>Casing Size:</u> 6"	
	<u>Drive Shoe:</u>	
	<u>Bottom:</u> 105	
	<u>Guard Posts:</u> 3	
	<u>Misc:</u>	

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #10

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 45 East

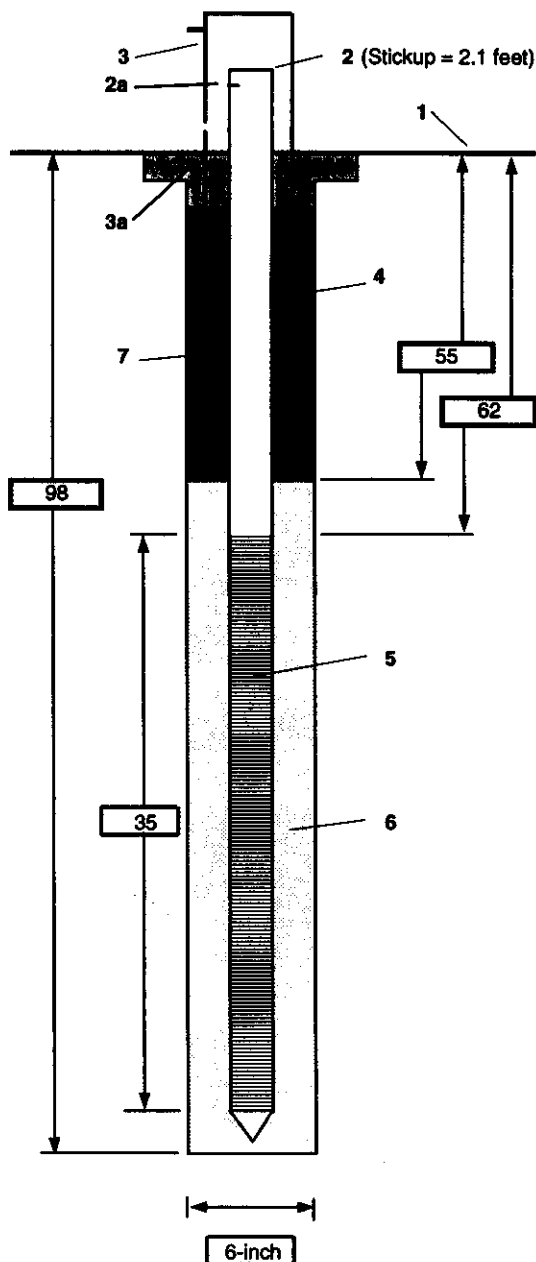
DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 8, NW 1/4 of the SW 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 68.72 ft btc (66.6 ft bgs) on 9/30/98 COMPLETED: September 26, 1998

LOGGER : M. Henry



** Well located in northwest corner of Centennial Trail parking lot (State land)

1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot diameter
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
	Screened zone - 62 to 97 feet bgs
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	20 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	25 50-pound bags
Development method	Surge block and bail
Development time	2 hours
Estimated purge volume	15 gallons

Comments WA Ecology well ID - AEK211

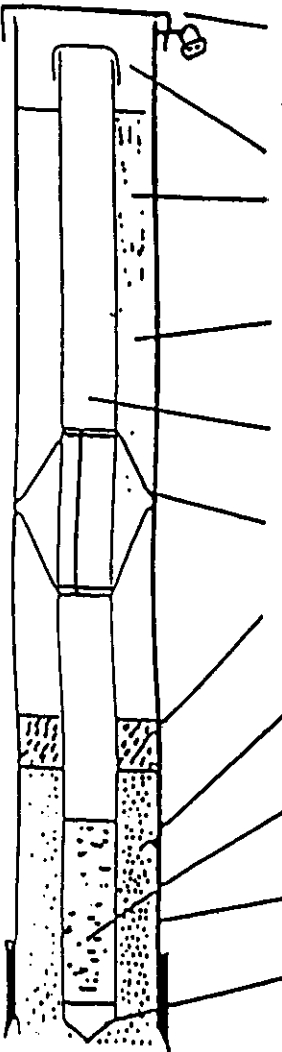
Ring bit pushed into formation at 97 ft bgs. Borehole backfilled from 98 to 97 ft bgs with sand prior to installation

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035117

PROJECT NAME: SATB 136236 Amendment #1
 WELL IDENTIFICATION NO. AEK211
 DRILLING METHOD: Air rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply, Inc.
 SIGNATURE: Martin Jensen / mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION NW 14 SW 14 Sec 8 Twn 25 R 45ewm
 STREET ADDRESS OF WELL: Barker Rd./Parking
lot north of Spokane River/well #1
 WATER LEVEL ELEVATION: 66' below grade
 GROUND SURFACE ELEVATION: _____
 INSTALLED: 9-26-98
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault	0 - 8 Cobbles, gravel
	Type: Above ground	8 - 12 Pea gravel
	Size: 8"	12 - 65 Gravel, sand
	Lock:	65 - 72 Gravel, sand, silt
	Pvc Cap	72 - 78 Coarse sand
	Cement	78 - 97 Gravel, sand, silt
	Depth: 0 To: -1	
	Bags: 3	
	Grout Type	
	Depth: 1 To: 55	
	Bags: 25	
	Pvc Type	
	Pvc Size	
	Depth: +2 To: 60	
	Centralizers	
	Pellets Size	
	Depth: To:	
	Bags:	
	Silica Sand	
	Depth: 55 To: 97	
	Bags: 20	
	Screen Type	
	Depth: 60 To: 95	
	Size: 2"	
	Casing Size	
	Drive Shoe	
	Bottom	
	Guard Posts	
	Misc.	

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #11

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 45 East

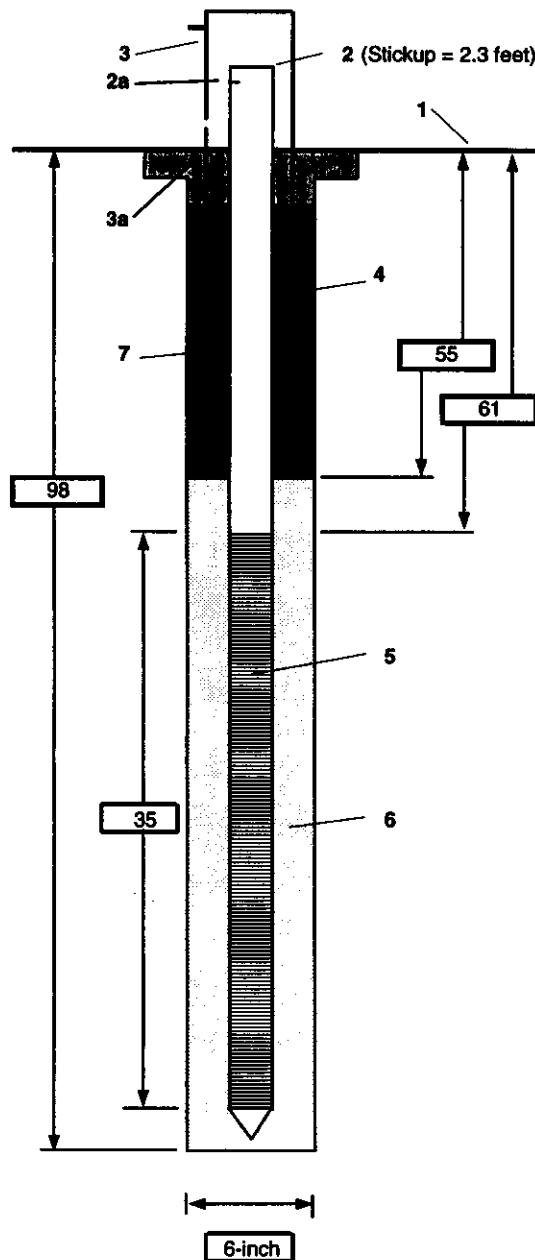
DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

Section 8, NW 1/4 of the SW 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 69.60 ft btc (67.3 ft bgs) on 9/30/98 COMPLETED: September 27, 1998

LOGGER : M. Henry



** Well located in southwest corner of Centennial Trail parking lot (State land)

1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot diameter
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
	Screened zone - 61 to 96 ft bgs
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	11 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	18 50-pound bags
Development method	Surge block and bail
Development time	1.5 hours
Estimated purge volume	12 gallons

Comments WA Ecology well ID - AEK212

Ring bit pushed into formation at 98 ft bgs. Borehole backfilled from 98 to 96 ft bgs with sand prior to installation

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035117

PROJECT NAME: SAJB 136236 Amendment #1
 WELL IDENTIFICATION NO. AEK212
 DRILLING METHOD: Air rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply, Inc.
 SIGNATURE: Martin Jensen / mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: NW 1/4 SW 1/4 Sec 8 Twn 25 R 45ewm
 STREET ADDRESS OF WELL: Barker Rd. / Parking lot south of Spokane River / well #2
 WATER LEVEL ELEVATION: 66' below grade
 GROUND SURFACE ELEVATION: _____
 INSTALLED: 9-27-98
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault	
	Type: Above ground	0 - 10 Cobbles, gravel
	Size: 8"	10 - 15 Pea gravel
	Lock:	15 - 65 Gravel, sand
	Pvc Cap Locking	65 - 72 Gravel, sand, silt
	Cement Quickrete	72 - 78 Coarse sand
	Depth: 0 To: -1	78 - 97 Gravel, sand, silt
	Bags: 3	
	Grout Type 3/8" holeplug	
	Depth: -1 To: 55	
	Bags: 18	
	Pvc Type Sch 40	
	Pvc Size 2"	
	Depth: +2 To: 60	
	Centralizers 2	
	Pellets Size	
	Depth: To:	
	Bags:	
	Silica Sand 8/12	
	Depth: 55 To: 97	
	Bags: 11	
	Screen Type .010 pvc	
	Depth: 60 To: 95	
	Size: 2"	
	Casing Size 6"	
	Drive Shoe Ring bit	
	Bottom 97	
	Guard Posts 3	
	Misc.	

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #12

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 44 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

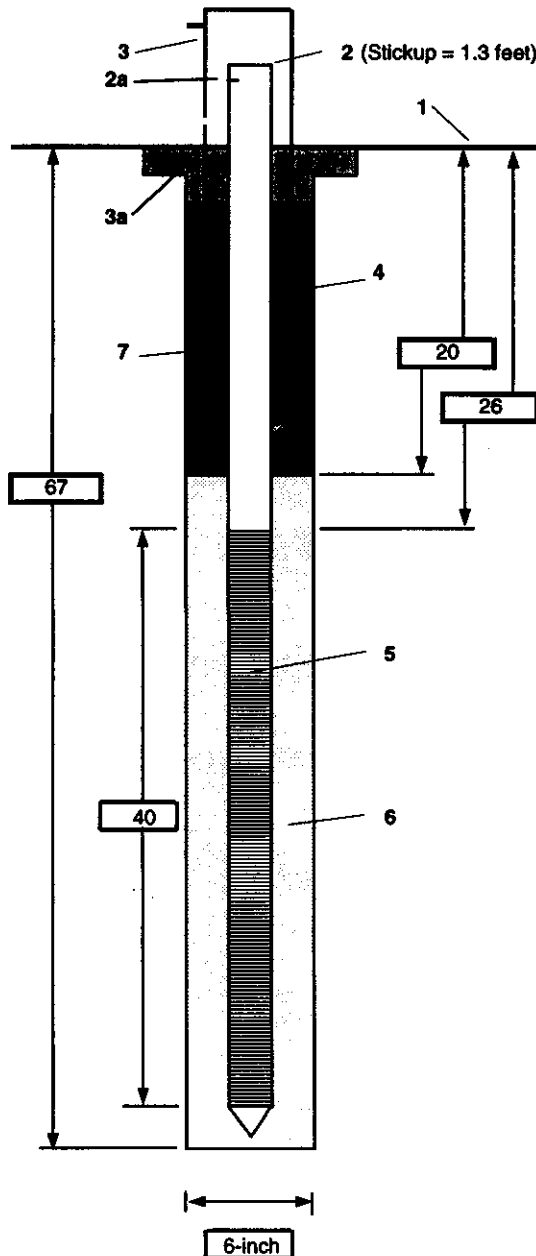
Section 11, SE 1/4 of the SE 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 34.74 ft btc (33.4 ft bgs) on 9/30/98 COMPLETED: September 28, 1998

LOGGER : M. Henry

** Well located in Sullivan Park (State land) near bluff overlooking the Spokane River



1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot diameter
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
	Screened zone - 26 to 66 ft bgs
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	20 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	10 50-pound bags
Development method	Surge block and bail
Development time	1.5 hours
Estimated purge volume	18 gallons

Comments WA Ecology well ID - AEK214

Ring bit pushed into formation at 67 ft bgs. Borehole backfilled from 67 to 66 ft bgs with sand prior to installation

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035116

PROJECT NAME: SAJB 136236 Amendment #1
 WELL IDENTIFICATION NO. A EK214
 DRILLING METHOD: Air rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply, Inc.
 SIGNATURE: Martin Jensen / mo
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: SE 14 SE 14 Sec 11 Twn 25 R 44ewm
 STREET ADDRESS OF WELL: N. of Spokane River,
 W. of Sullivan Rd. in park area (by river)
 WATER LEVEL ELEVATION: 34'
 GROUND SURFACE ELEVATION: _____
 INSTALLED: SEpt 28, 1998
 DEVELOPED: _____

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault	0 - 32 Boulders, gravel, silt
	Type: Above ground	32 - 49 Gravel, sand
	Size: 8"	49 - 69 Fine sand, silt
	Lock:	
	Pvc Cap Locking	
	Cement Quickrete	
	Depth: 0 To: -1	
	Bags: 3	
	Grout Type 3/8" holeplug	
	Depth: 1 To: 21	
	Bags: 10	
	Pvc Type Sch 40	
	Pvc Size 2"	
	Depth: +1.5 To: 26	
	Centralizers 1	
	Pellets Size	
	Depth: To:	
	Bags:	
	Silica Sand 8/12	
	Depth: 20 To: 66	
	Bags: 12	
	Screen Type Sch 40	
	Depth: 26 To: 66	
	Size: 2" .010	
	Casing Size 6"	
	Drive Shoe Ring bit	
	Bottom 66	
	Guard Posts	
	Misc.	

SCALE: 1" = _____

PAGE _____ OF _____



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #13

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 44 East

DRILLING CONTRACTOR : Fogle Pump & Supply - Spokane, WA

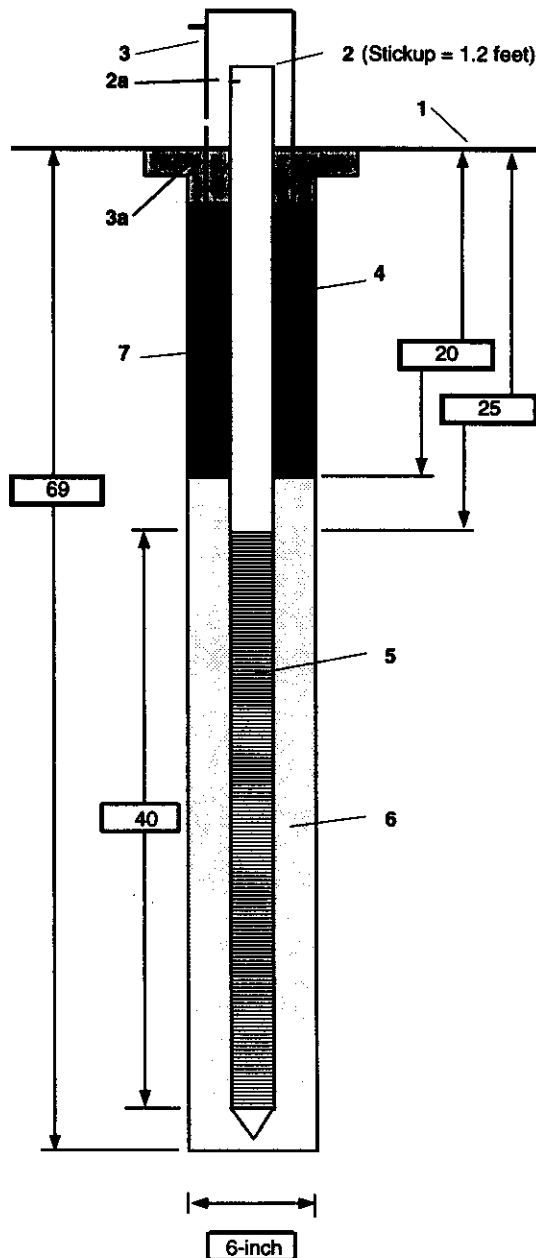
Section 11, SE 1/4 of the SE 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch air rotary using a CP650 drill rig

WATER LEVELS : 34.53 ft btc (33.3 ft bgs) on 9/30/98 COMPLETED: September 27, 1998

LOGGER : M. Henry

** Well located within Sullivan Park on State land near gate access (southwest corner of parking lot)



1- Ground elevation at well	
2- Top of casing elevation	
a) vent hole?	Yes
3- Wellhead protection type	8-inch steel casing with locking lid
a) pad dimensions	2-foot diameter
4- Dia./type of well casing	2-inch Schedule 40 PVC
5- Type/slot size of screen	2-inch Schedule 40 PVC
	20 slot (0.020 inch)
	Screened zone - 25 to 65 ft bgs
6- Type screen filter	Colorado Silica Sand #8 - 12
a) Quantity used	12 100-pound bags
7- Type of seal	3/8-inch bentonite Holeplug chips
a) Quantity used	10 50-pound bags
Development method	Surge block and bail
Development time	2 hours
Estimated purge volume	25 gallons

Comments WA Ecology well ID - AEK213

Ring bit pushed into formation at 69 ft bgs. Borehole backfilled from 69 to 65 ft bgs with sand prior to installation

RESOURCE PROTECTION WELL REPORT

START CARD NO. R035116

PROJECT NAME: SAJB 136236 Amendment #1
 WELL IDENTIFICATION NO: AEK213
 DRILLING METHOD: Air rotary
 DRILLER: Martin Jensen
 FIRM: Fogle Pump & Supply, Inc.
 SIGNATURE: *Martin Jensen*
 CONSULTING FIRM: CH2M Hill
 REPRESENTATIVE: Mark Henry

COUNTY: Spokane
 LOCATION: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 11 Twn 25 R 44ewm
 STREET ADDRESS OF WELL: N. of Spokane River,
 W. of Sullivan Rd. in park (by gate)
 WATER LEVEL ELEVATION: 33' below grade
 GROUND SURFACE ELEVATION:
 INSTALLED: Sept. 27, 1998
 DEVELOPED:

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	Cap or Vault	
	Type: Above ground	0 - 32 Boulders, gravel, silt
	Size: 8"	32 - 49 Gravel, sand
	Lock:	49 - 69 Fine sand, silt
	Pvc Cap	Locking
	Cement	Quickrete
	Depth: 0 To: -1	
	Bags: 3	
	Grout Type	3/8" holeplug
	Depth: 1 To: 20	
	Bags: 10	
	Pvc Type	Sch 40
	Pvc Size	2"
	Depth: +1.5 To: 25	
	Centralizers	1
	Pellets Size	
	Depth: To:	
	Bags:	
	Silica Sand	8/12
	Depth: 20 To: 65	
	Bags: 12	
	Screen Type	Sch 40
	Depth: 25 To: 65	
	Size: 2" .010	
	Casing Size	6"
	Drive Shoe	Ring bit
	Bottom	Tapered cap
	Guard Posts	
	Misc.	

SCALE: 1" =

PAGE OF



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #14

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 44 East

DRILLING CONTRACTOR : Environmental West Exploration - Spokane, WA

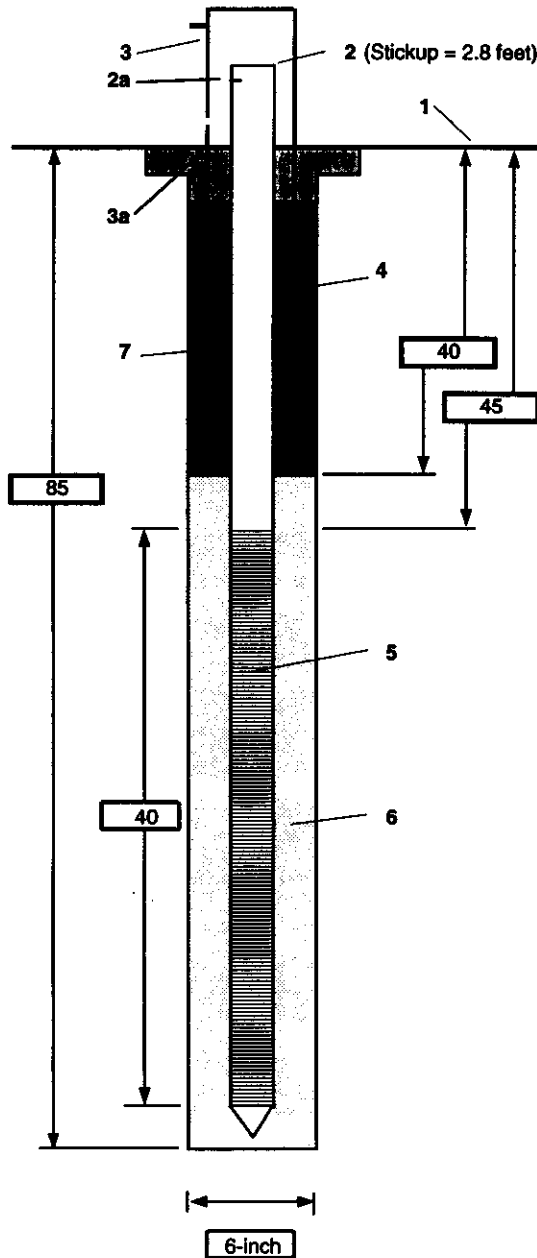
Section 11, SE 1/4 of the SE 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch TUBEX air rotary using a Mobile B-80 drill rig

WATER LEVELS : 55.55 ft btc (32.8 ft bgs) on 9/30/98 COMPLETED: September 29, 1998

LOGGER : M. Henry

** Well located on County ROW west of Sullivan Road and south of the Centennial Trail



- | | |
|-----------------------------|---|
| 1- Ground elevation at well | _____ |
| 2- Top of casing elevation | _____ |
| a) vent hole? | Yes |
| 3- Wellhead protection type | 8-inch steel casing with locking lid |
| a) pad dimensions | 2-foot diameter |
| 4- Dia./type of well casing | 2-inch Schedule 40 PVC |
| 5- Type/slot size of screen | 2-inch Schedule 40 PVC |
| | 10 slot (0.010 inch) |
| | Screened zone - 45 to 85 ft bgs |
| 6- Type screen filter | Colorado Silica Sand #10 - 20 |
| a) Quantity used | 13 100-pound bags |
| 7- Type of seal | 3/8-inch bentonite Holeplug chips |
| a) Quantity used | 15 50-pound bags |
| Development method | Surge block, ball, and air-lift pumping |
| Development time | 2 hours |
| Estimated purge volume | 45 gallons |
| Comments | WA Ecology well ID - # 336 |

Winter Flight Permit No.

五三

STATE OF WASHINGTON

Winter Flight Permit No.

TOTAL P.03



PROJECT NUMBER
136236.DC.50

WELL NUMBER
SAJB #15

WELL COMPLETION DIAGRAM

PROJECT : Spokane Aquifer Joint Board Wellhead Protection Program

LOCATION : Township 25 North, Range 45 East

DRILLING CONTRACTOR : Environmental West Exploration - Spokane, WA

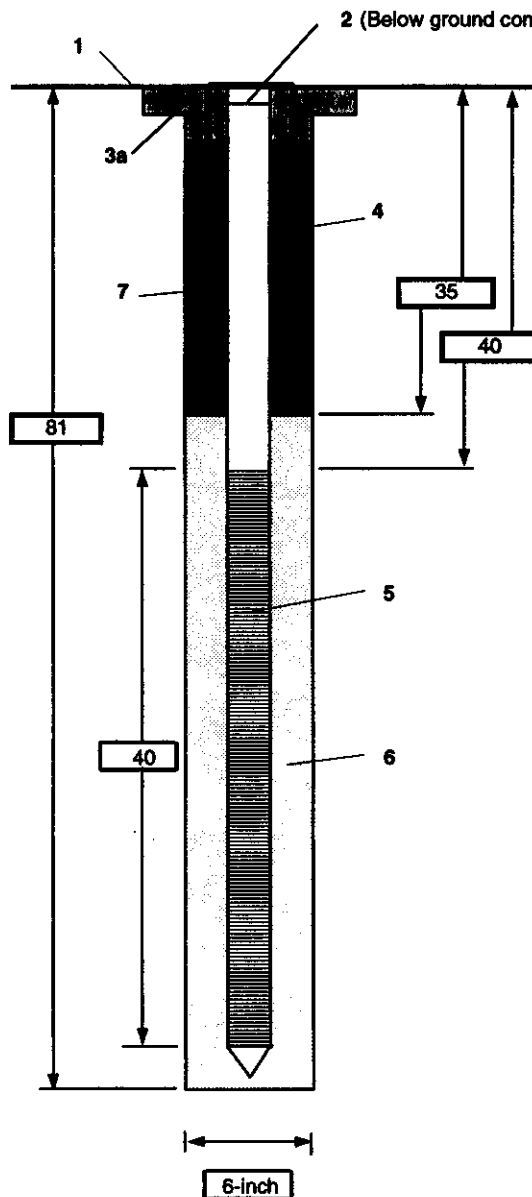
Section 7, SE 1/4 of the NE 1/4

DRILLING METHOD AND EQUIPMENT USED : 6-inch TUBEX air rotary using a Mobile B-80 drill rig

WATER LEVELS : 50.15 ft btc (50.7 ft bgs) on 9/30/98 COMPLETED: September 30, 1998

LOGGER : M. Henry

** Well located on County ROW, west of Barker Road and north of the Spokane River



- | | |
|-----------------------------|--|
| 1- Ground elevation at well | _____ |
| 2- Top of casing elevation | _____ |
| a) vent hole? | Yes |
| 3- Wellhead protection type | 12-inch steel flush-mount vault with locking lid |
| a) pad dimensions | 2-foot diameter |
| 4- Dia./type of well casing | 2-inch Schedule 40 PVC |
| 5- Type/slot size of screen | 2-inch Schedule 40 PVC |
| | 10 slot (0.010 inch) |
| | Screened zone - 40 to 80 ft bgs |
| 6- Type screen filter | Colorado Silica Sand #10 - 20 |
| a) Quantity used | 12 100-pound bags |
| 7- Type of seal | 3/8-inch bentonite Holeplug chips |
| a) Quantity used | 14 50-pound bags |
| Development method | Surge block, ball, and air-lift pumping |
| Development time | 2 hours |
| Estimated purge volume | 35 gallons |
| Comments | WA Ecology well ID - # 337 |

