APPENDIX N TABLE OF CONTENTS

FIGURES

GEOLOGIC LOGS

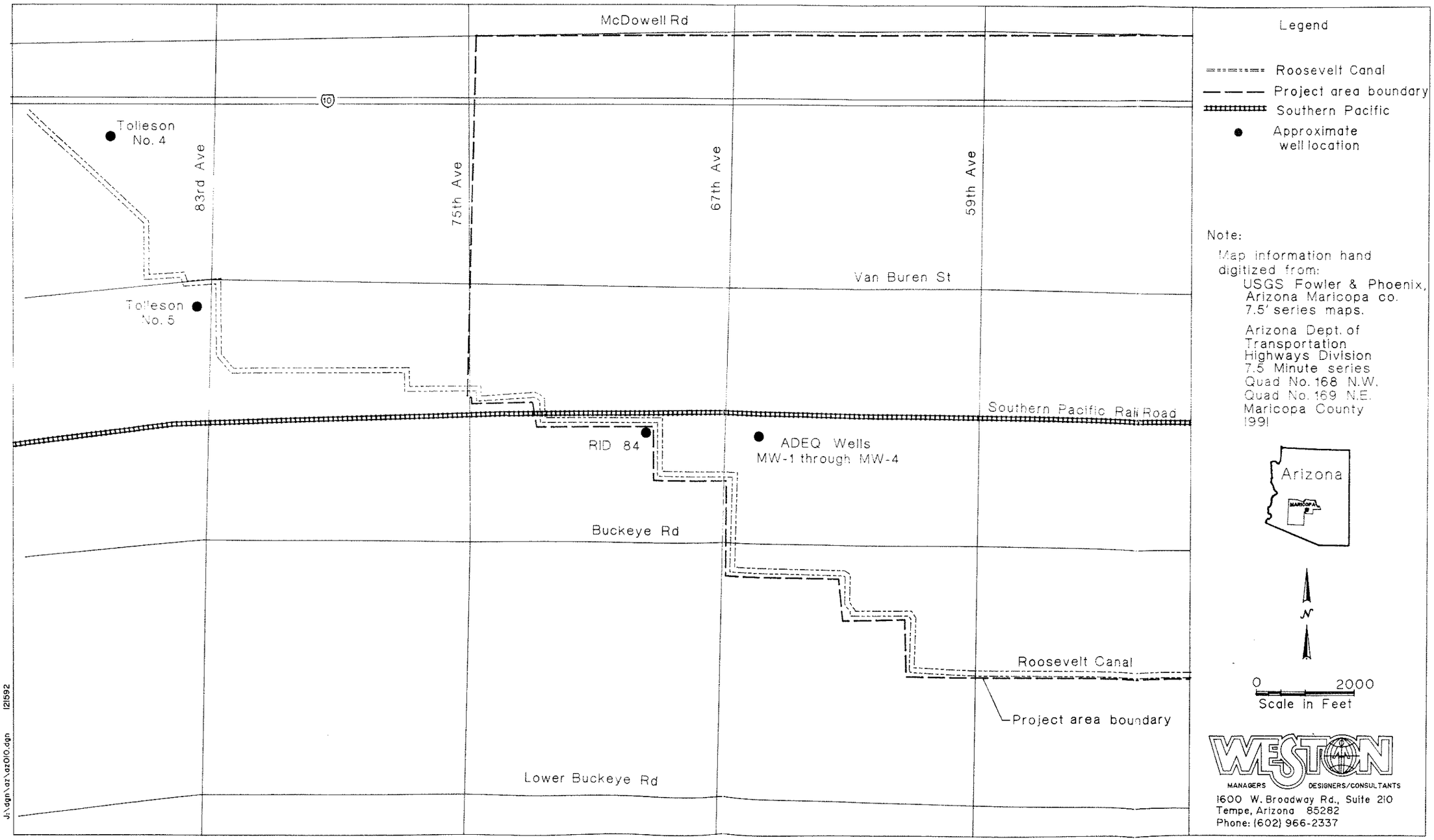


Figure N-1 Site Location map.

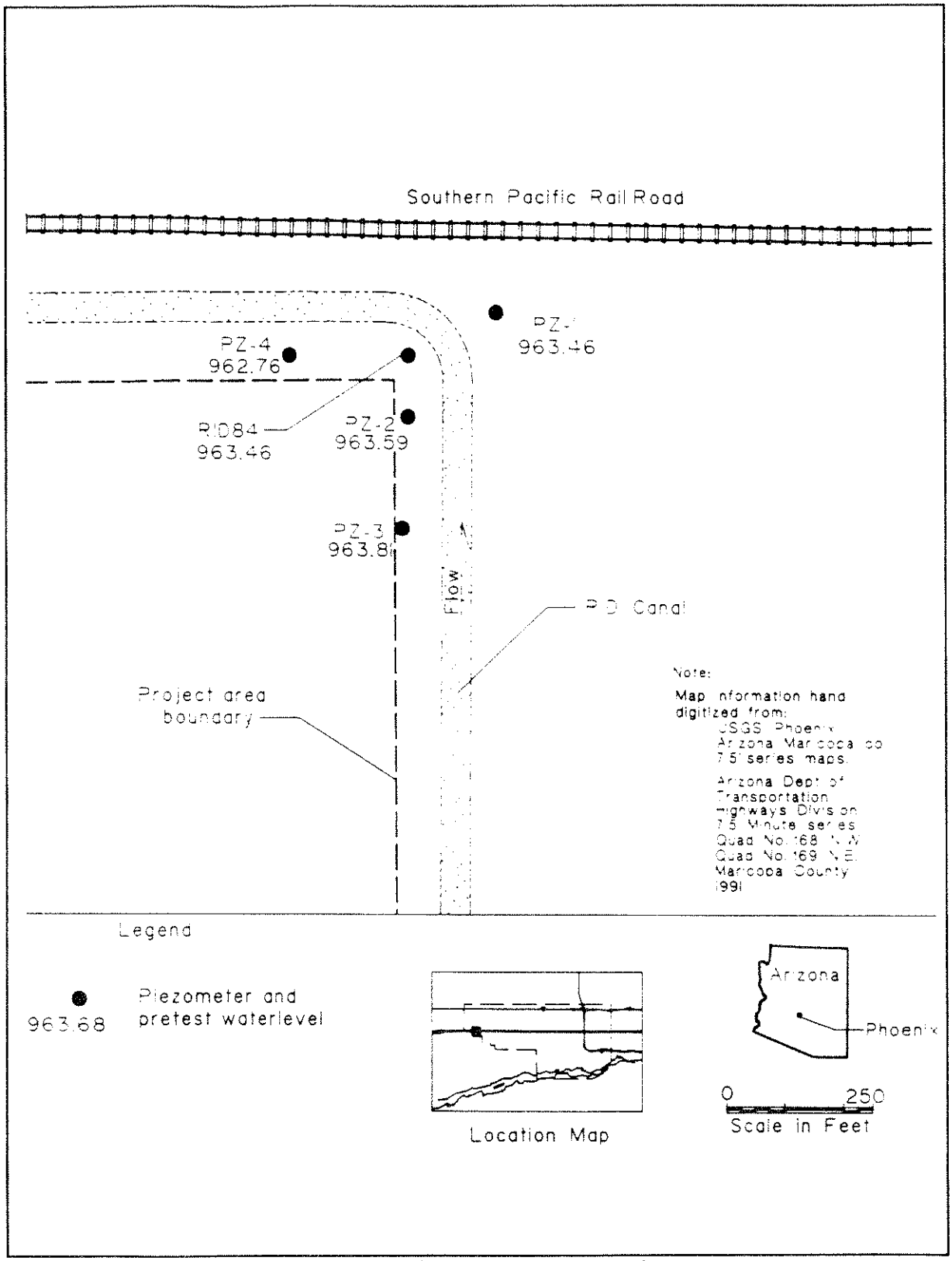


Figure N-2 Piezometer location map.

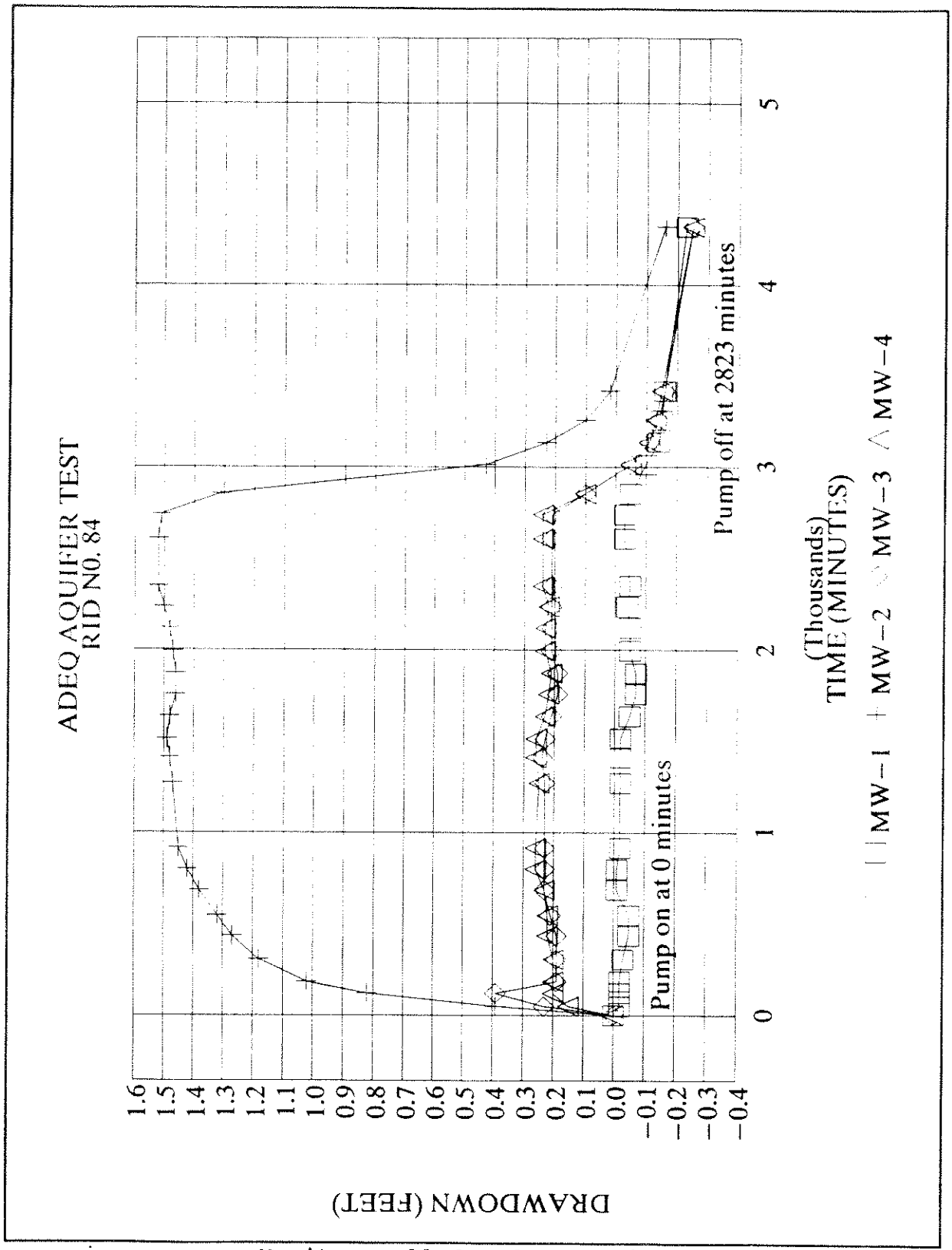


Figure N-3 Monitor well drawdown during aquifer test.

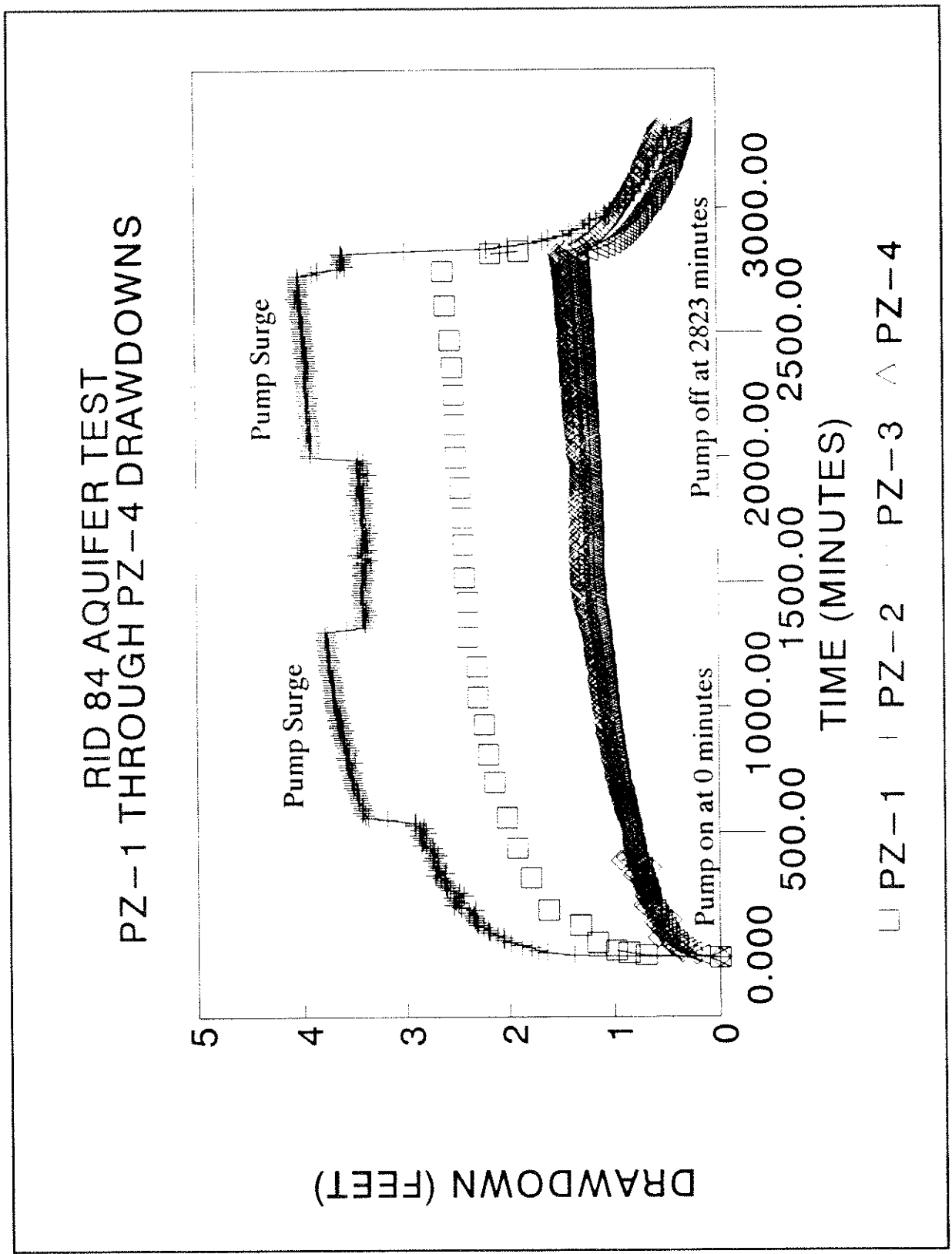


Figure N-4 Piezometer drawdown during aquifer test.

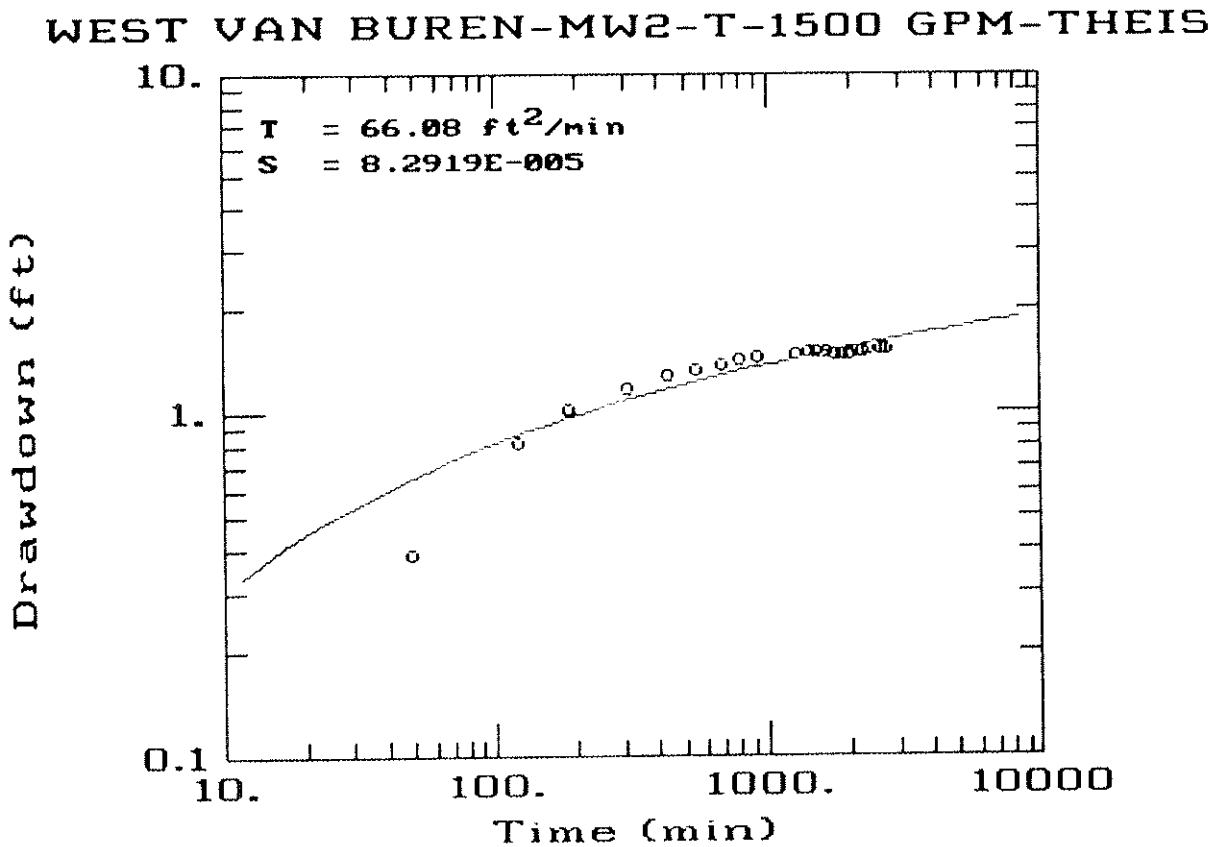

WEST VAN BUREN-MW2-T-1500 GPM-THEIS
T = 66.08 ft²/min
S = 8.2919E-005
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-5

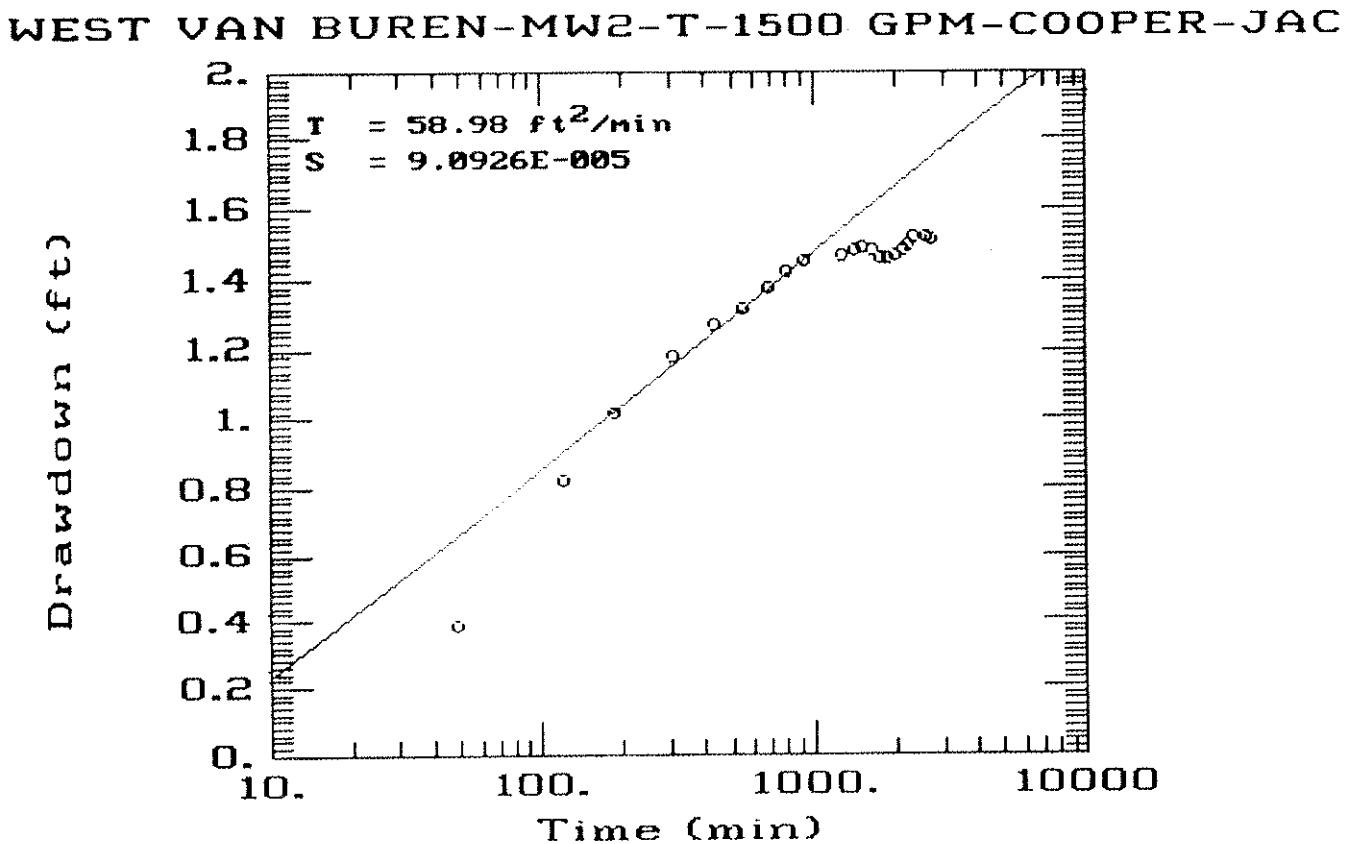

WEST VAN BUREN-MW2-T-1500 GPM-COOPER-JAC
T = 58.98 ft²/min
S = 9.0926E-005
Drawdown (ft)
2.
1.8
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
10.
100.
1000.
10000
Time (min)

Figure N-6

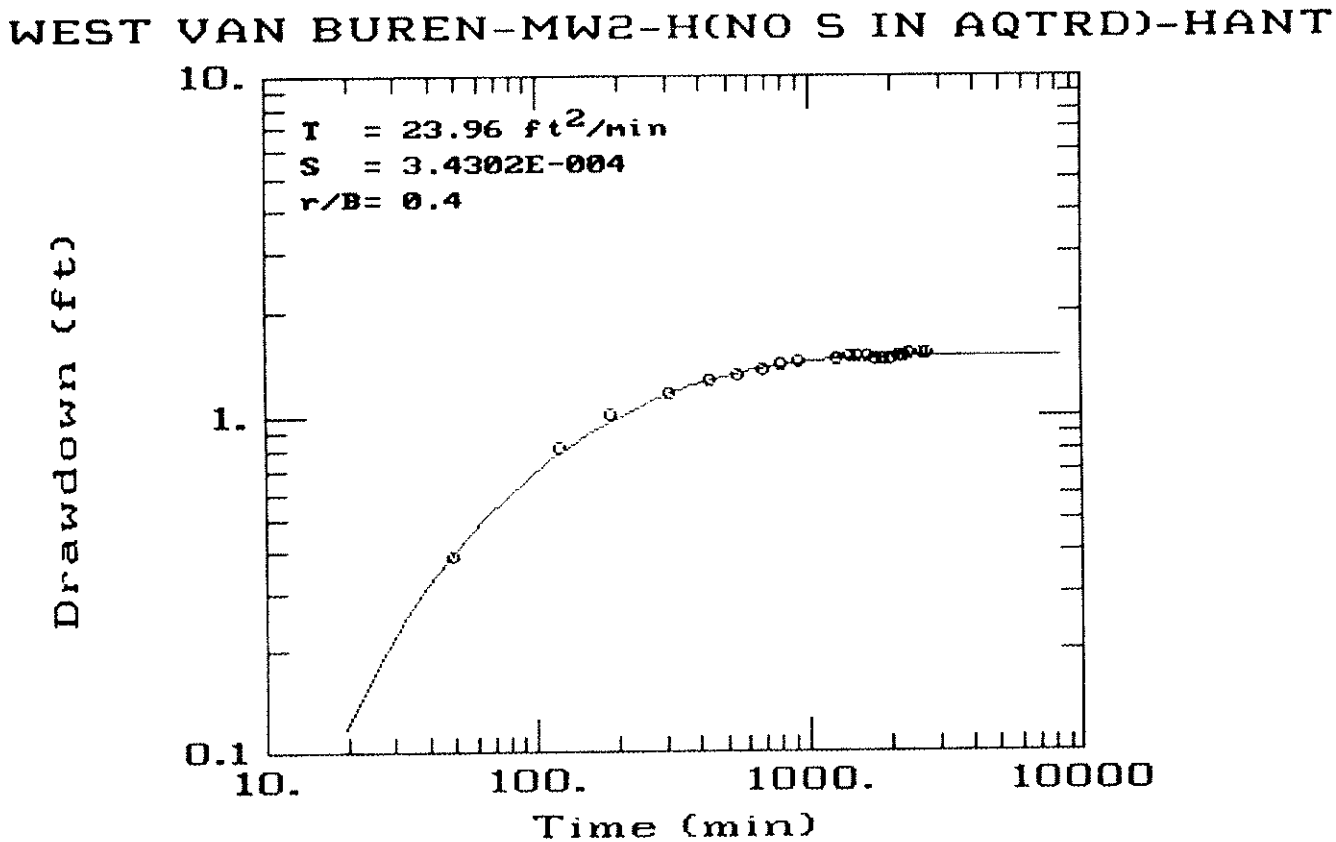

WEST VAN BUREN-MW2-H(NO S IN AQTRD)-HANT
T = 23.96 ft²/min
S = 3.4302E-004
r/B= 0.4
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-7

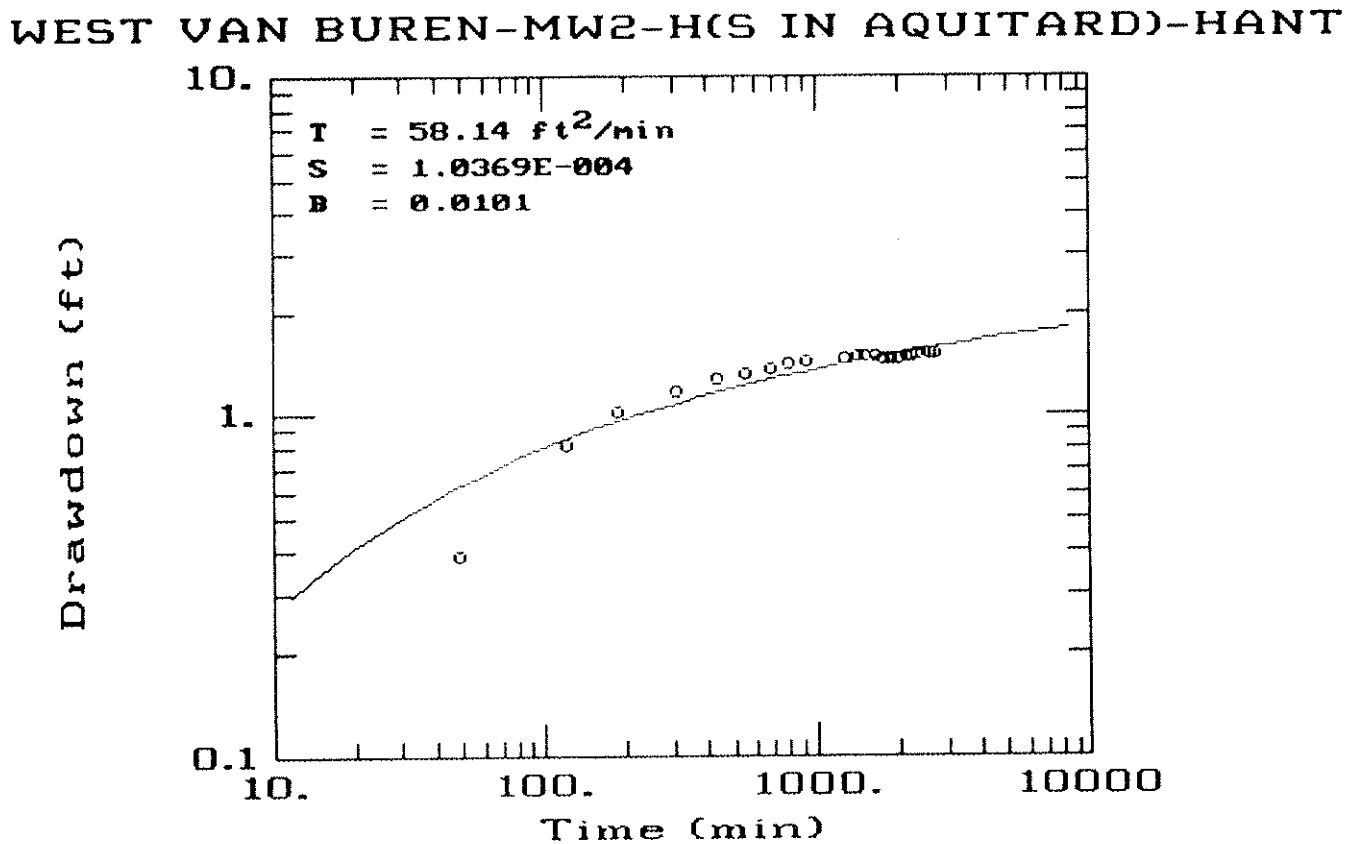

WEST VAN BUREN-MW2-H(S IN AQUITARD)-HANT
T = 58.14 ft²/min
S = 1.0369E-004
B = 0.0101
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-8

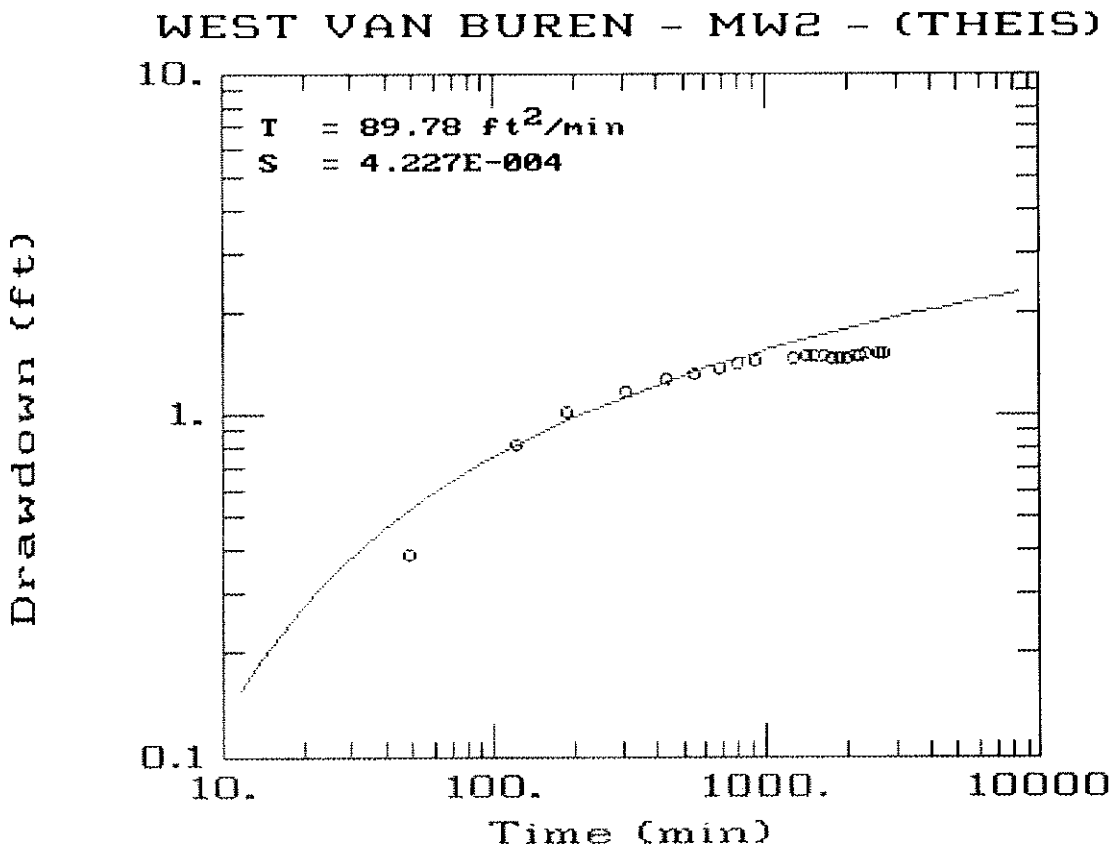

WEST VAN BUREN - MW2 - (THEIS)
T = 89.78 ft²/min
S = 4.227E-004
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-9

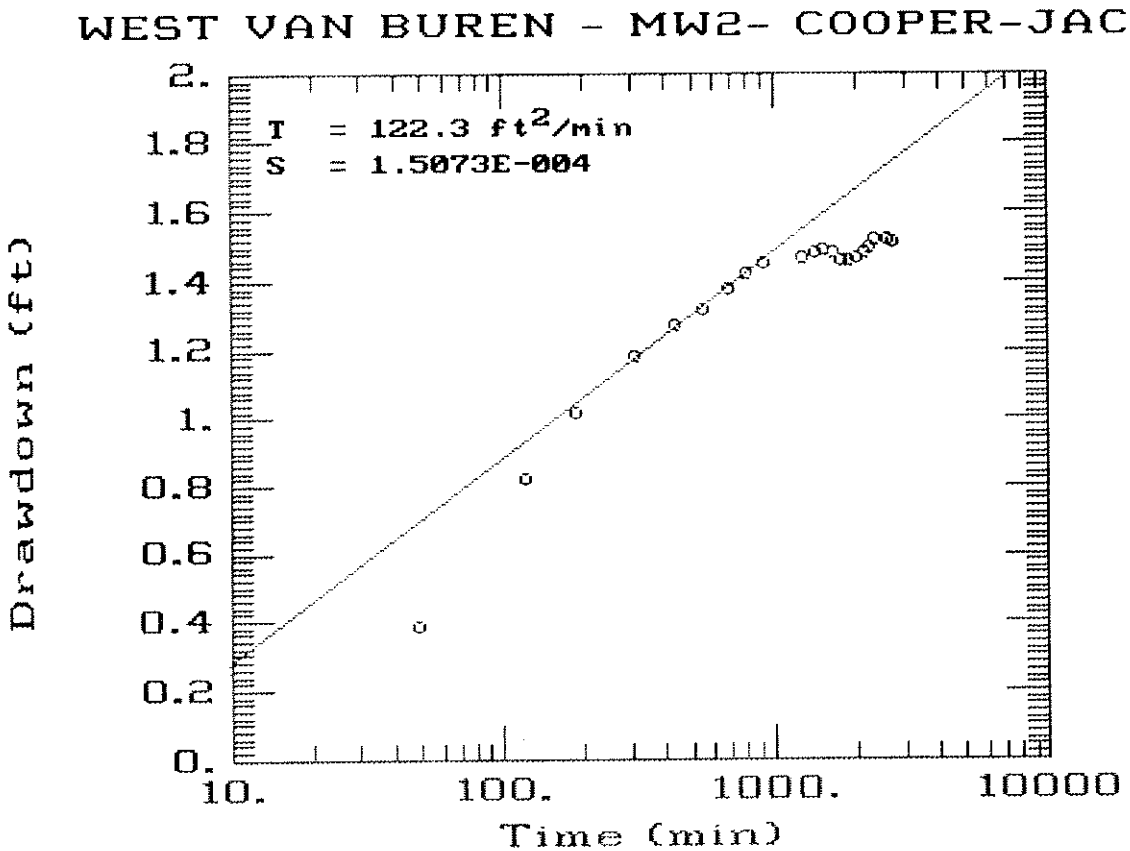

WEST VAN BUREN - MW2- COOPER-JACOB
T = 122.3 ft²/min
S = 1.5073E-004
Drawdown (ft)
2.
1.8
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
10.
100.
1000.
10000
Time (min)

Figure N-10

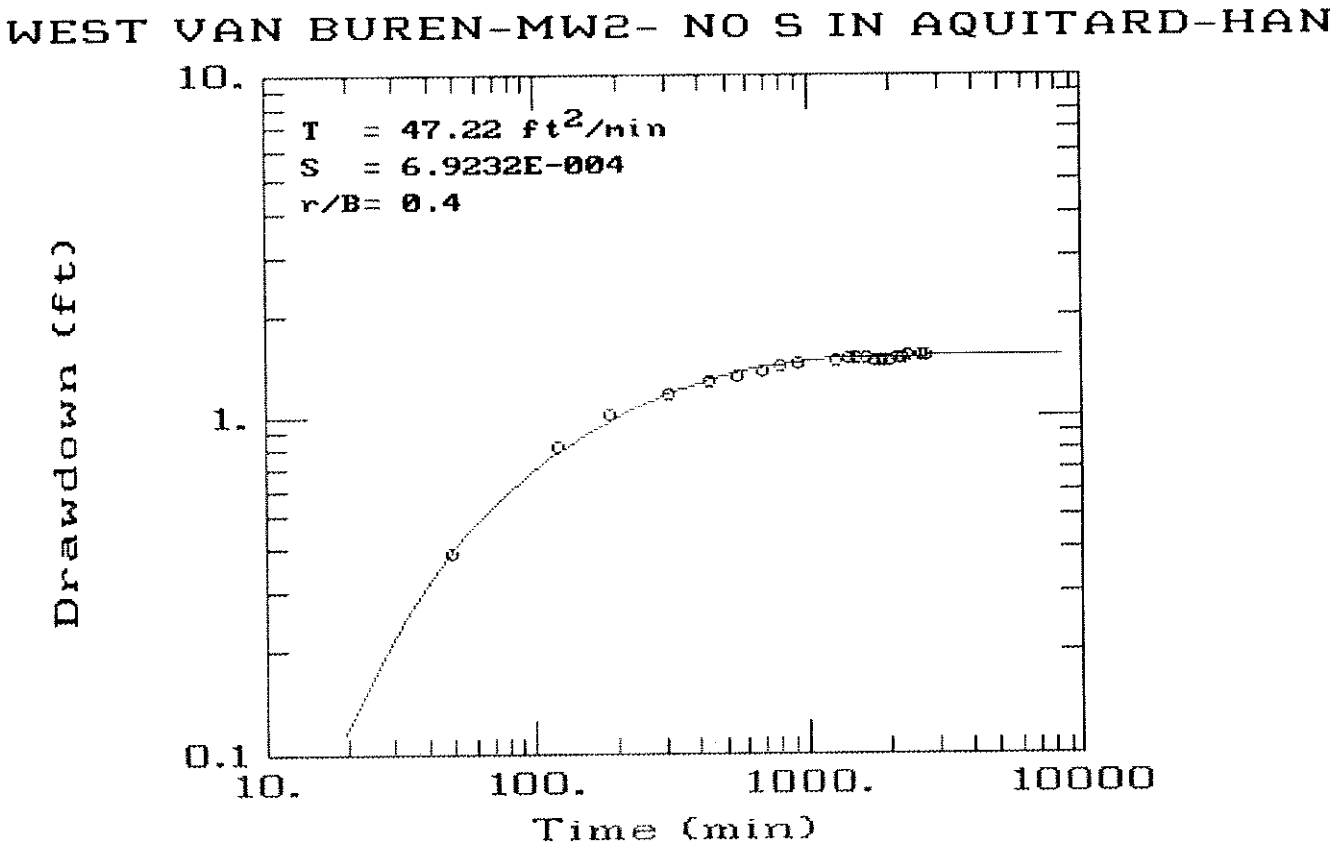

WEST VAN BUREN-MW2- NO S IN AQUITARD-HAN
T = 47.22 ft²/min
S = 6.9232E-004
r/B= 0.4
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-11

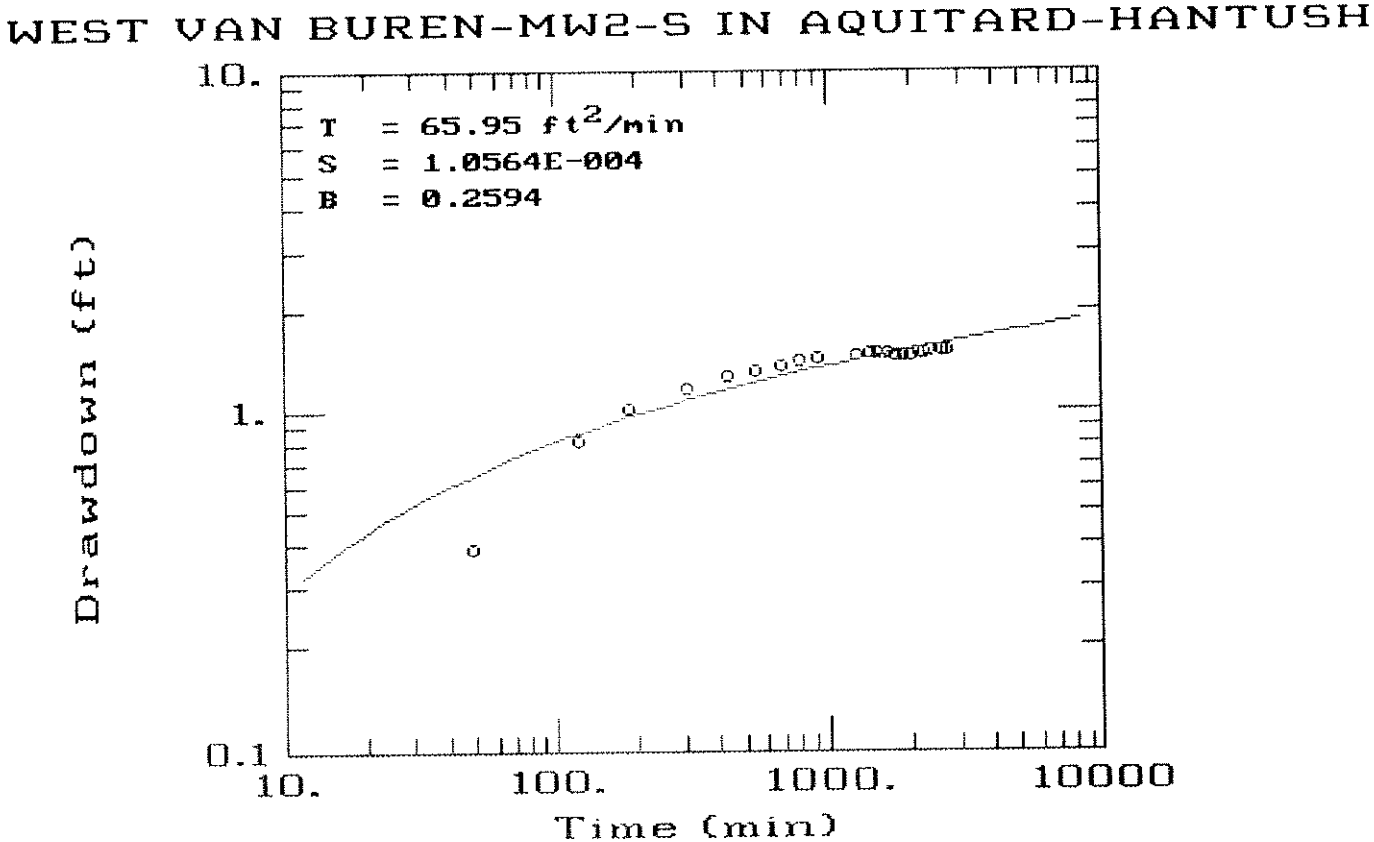

WEST VAN BUREN-MW2-S IN AQUITARD-HANTUSH
T = 65.95 ft²/min
S = 1.0564E-004
B = 0.2594
Drawdown (ft)
10.
1.
0.1
10.
100.
1000.
10000
Time (min)

Figure N-12

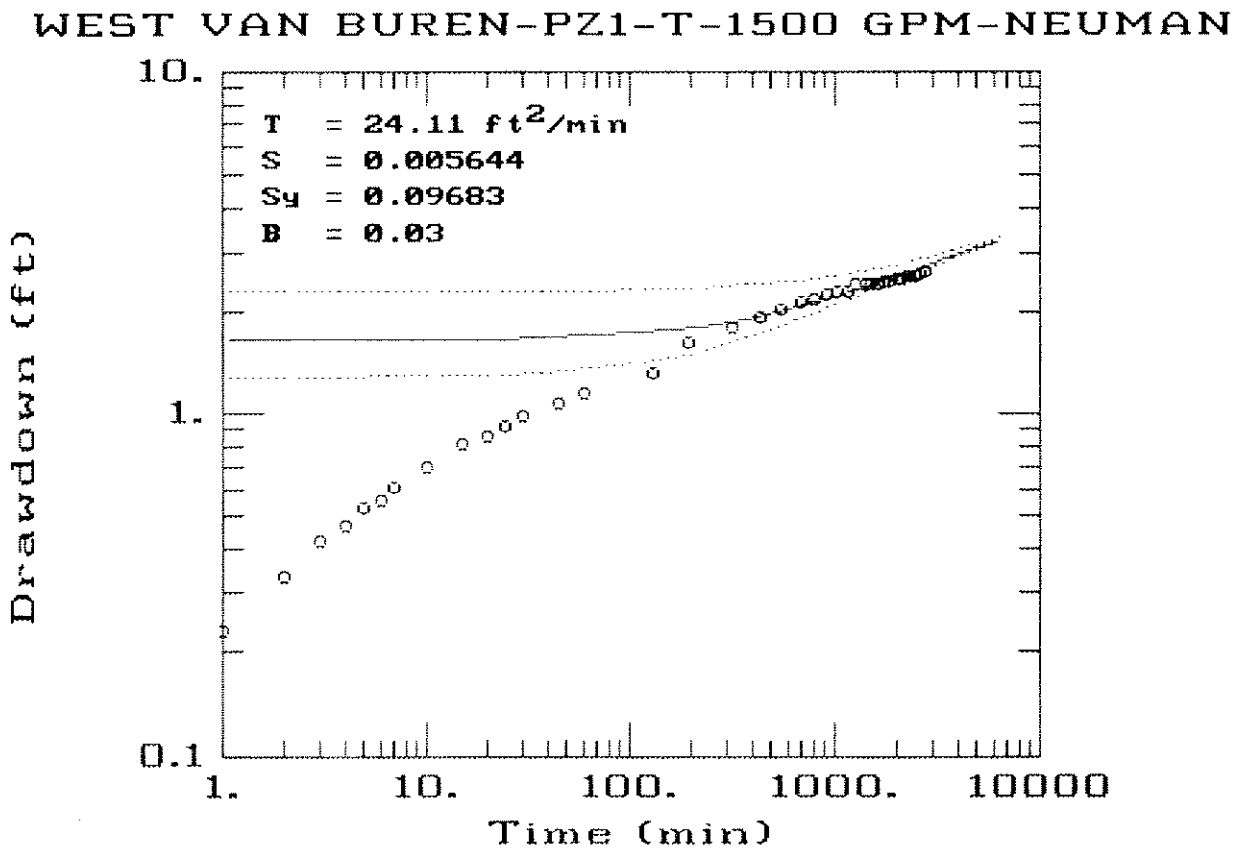

WEST VAN BUREN-PZ1-T-1500 GPM-NEUMAN
T = 24.11 ft²/min
S = 0.005644
Sy = 0.09683
B = 0.03
Drawdown (ft)
10.
1.
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-13

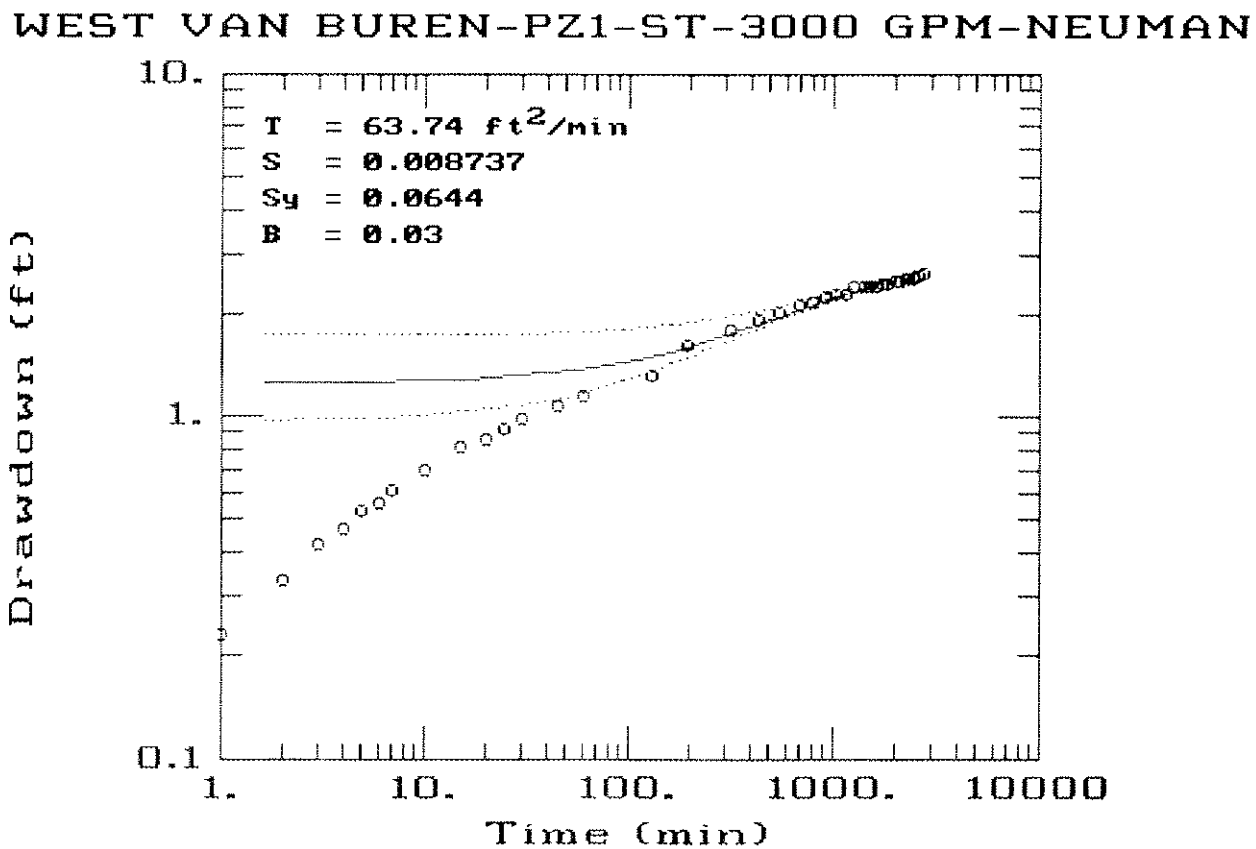

WEST VAN BUREN-PZ1-ST-3000 GPM-NEUMAN
T = 63.74 ft²/min
S = 0.008737
Sy = 0.0644
B = 0.03
Drawdown (ft)
10.
1.
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-14

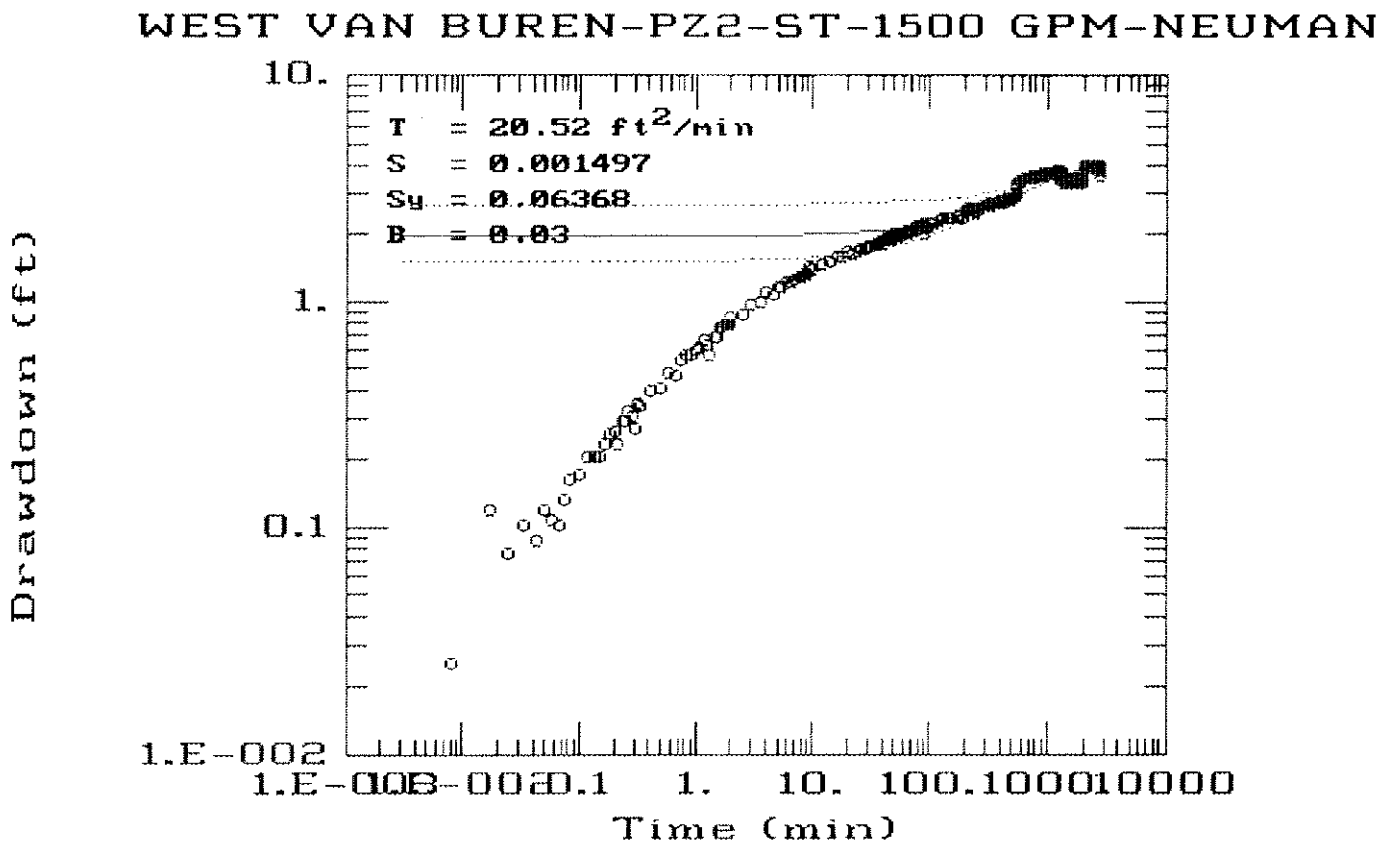

WEST VAN BUREN-PZ2-ST-1500 GPM-NEUMAN
T = 20.52 ft²/min
S = 0.001497
Sy = 0.06368
B = 0.03
10.
1.
0.1
1.E-002
Drawdown (ft)
1.E-00B-002D.1 1. 10. 100.100010000
Time (min)

Figure N-15

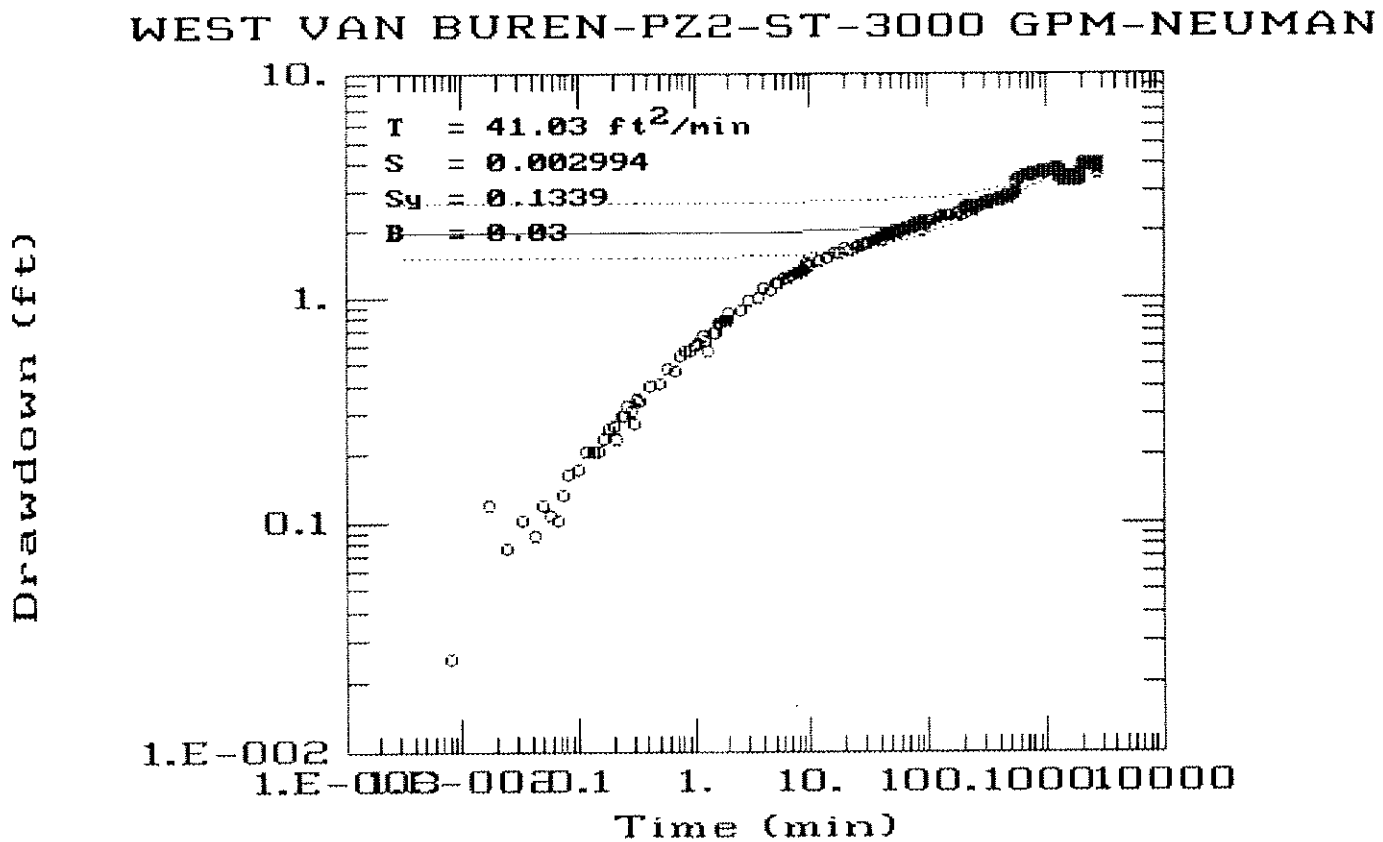

WEST VAN BUREN-PZ2-ST-3000 GPM-NEUMAN
T = 41.03 ft²/min
S = 0.002994
Sy = 0.1339
B = 0.03
10.
1.
0.1
1.E-002
1.E-003
0.01
0.1
1.
10.
100.
1000
10000
Drawdown (ft)
Time (min)

Figure N-16

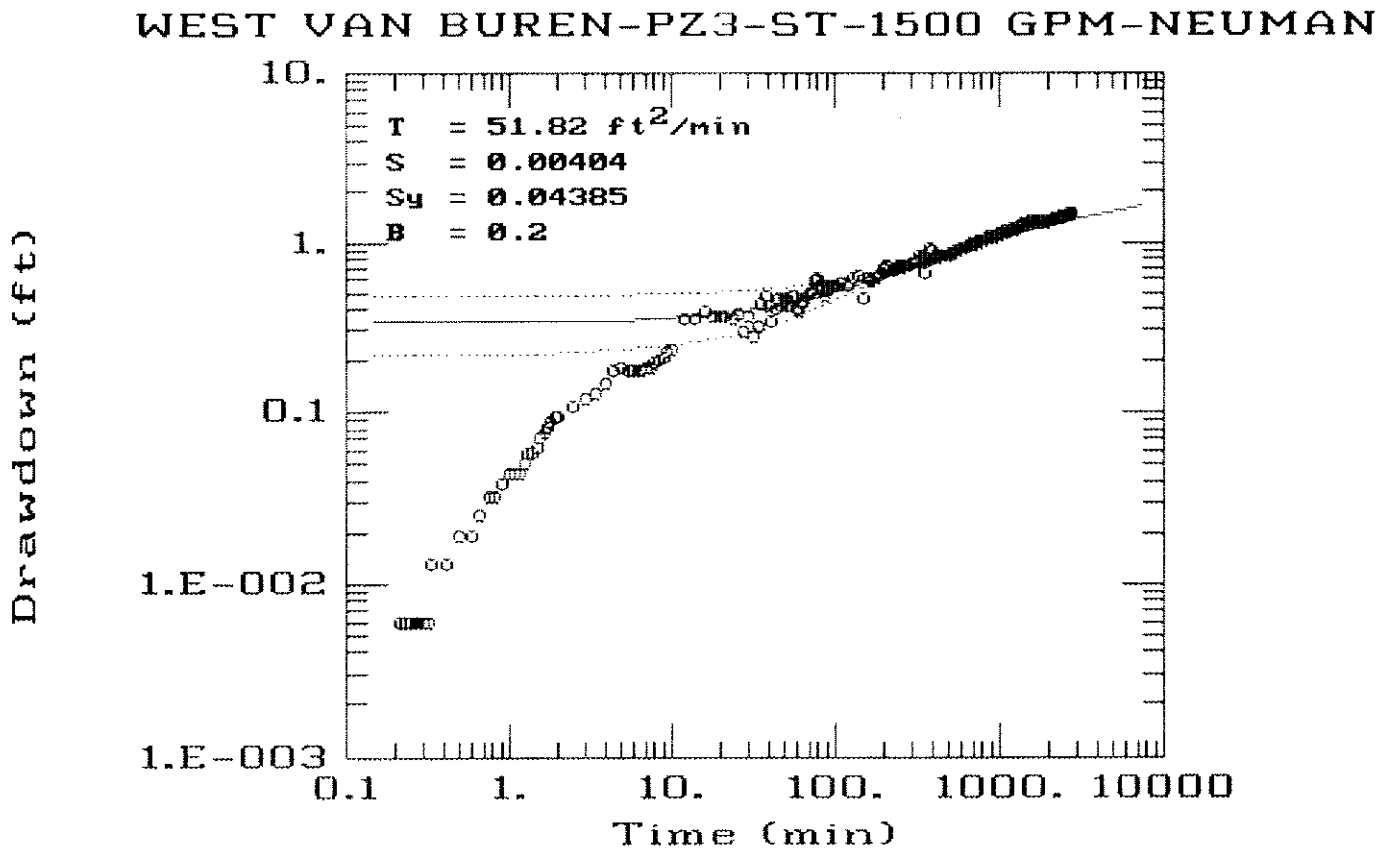

WEST VAN BUREN-PZ3-ST-1500 GPM-NEUMAN
T = 51.82 ft²/min
S = 0.00404
Sy = 0.04385
B = 0.2
Drawdown (ft)
10.
1.
0.1
1.E-002
1.E-003
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-17

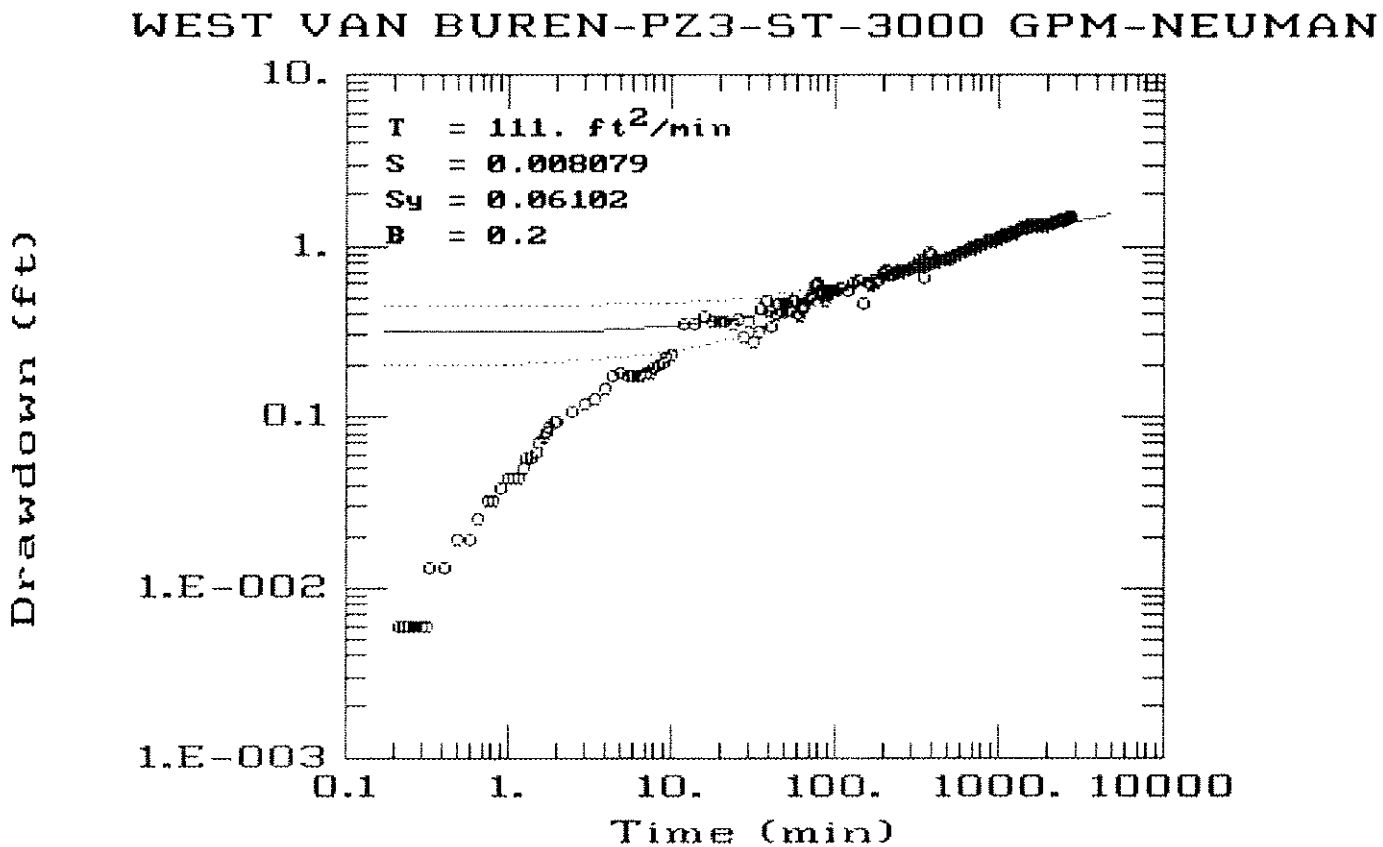

WEST VAN BUREN-PZ3-ST-3000 GPM-NEUMAN
T = 111. ft²/min
S = 0.008079
Sy = 0.06102
B = 0.2
Drawdown (ft)
10.
1.
0.1
1.E-002
1.E-003
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-18

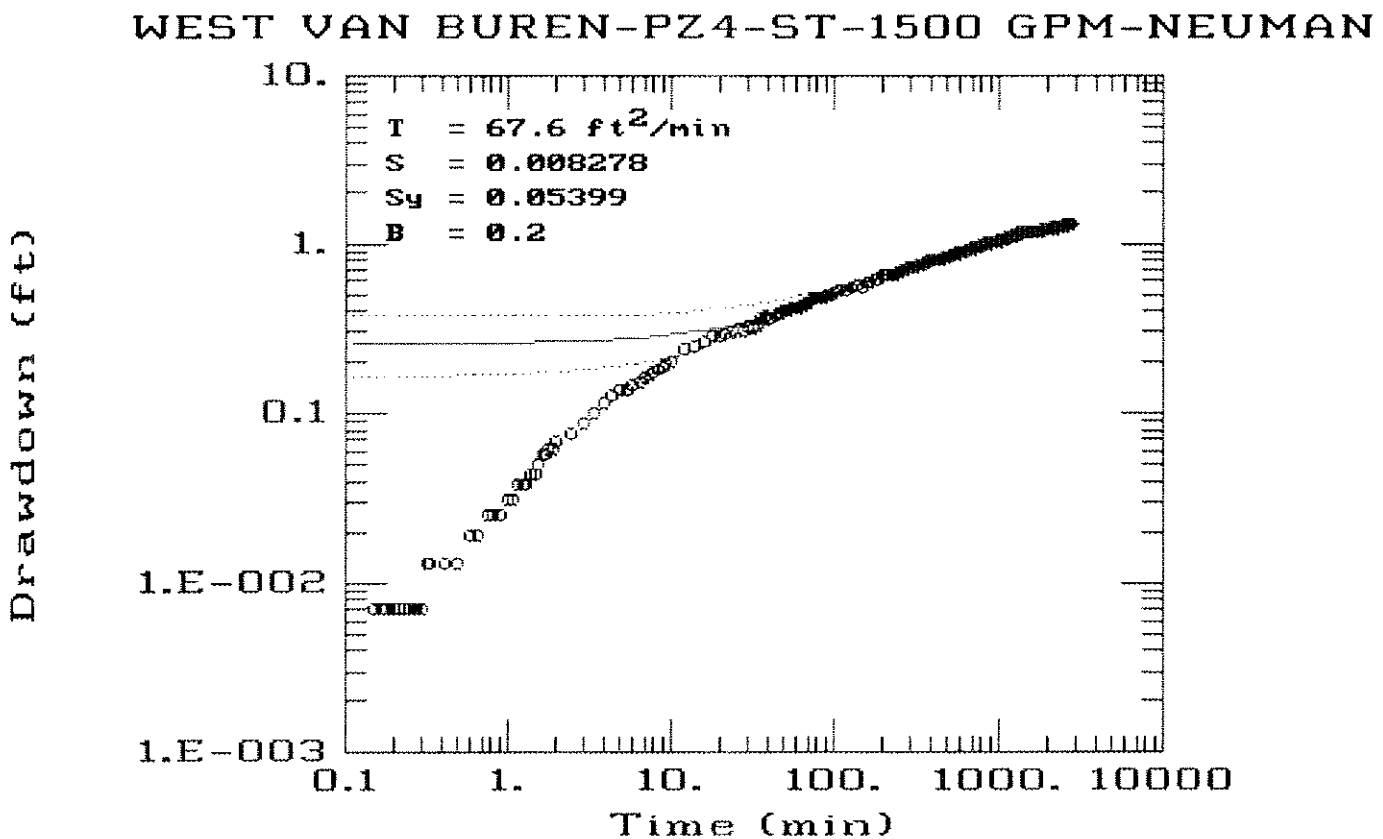

WEST VAN BUREN-PZ4-ST-1500 GPM-NEUMAN
T = 67.6 ft²/min
S = 0.008278
Sy = 0.05399
B = 0.2
Drawdown (ft)
10.
1.
0.1
1.E-002
1.E-003
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-19

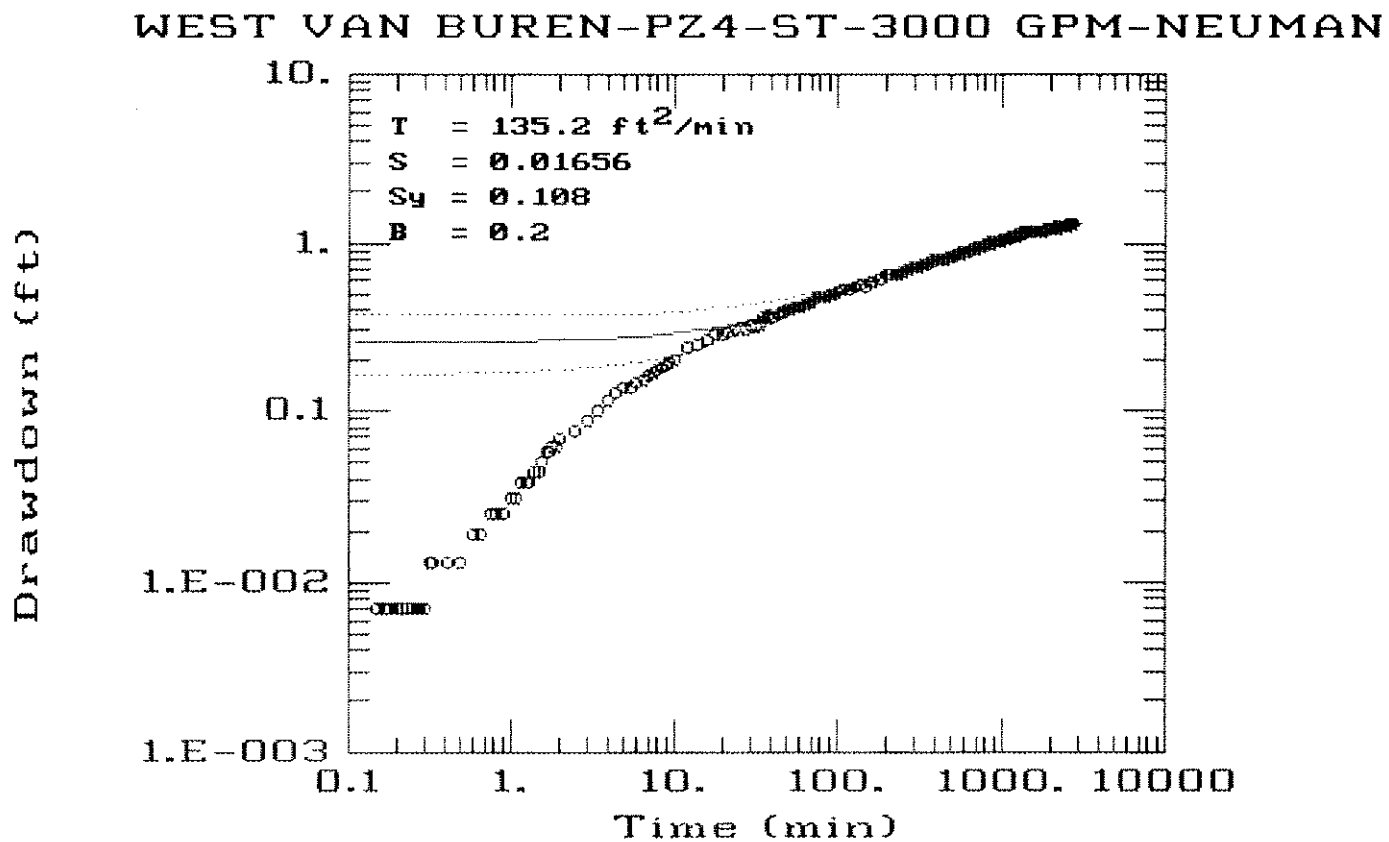

WEST VAN BUREN-PZ4-ST-3000 GPM-NEUMAN
T = 135.2 ft2/min
S = 0.01656
Sy = 0.108
B = 0.2
10.
1.
0.1
1.E-002
1.E-003
Drawdown (ft)
0.1
1.
10.
100.
1000.
10000
Time (min)

Figure N-20

BOREHOLE LOG (SOIL)

FACILITY CODE AUG38
LOCATION ID 01
COORDINATES (FT):
NORTH _____ EAST _____
GROUND ELEVATION (FT MSL) _____
LOCATION TYPE BH
COMMENTS PZ-1

DRILLER CODE LAYNE
COMPLETION DATE 2JUN92
DIAMETER (IN) 10
DEPTH (FTFD) 149
CONSTRUCTION METHOD P
ACCEPTANCE CODE _____

GROUNDWATER LEVELS

DATE	TIME	DEPTH (FT)
2JUN92	1000	≈ 87

LOCATION DESCRIPTION
East of RID canal at RD#84, SW of 67th ave / W Van Buren.

LOGGER CODE WESTON

LITHOLOGIC LOG

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
0-10								ML	Sandy silt 50% silt, 50% f to F sand. Some cobbles to 2 inches. Dry.
10-20								ML	Same as above. Dry.
20-30								ML	Same as above. More compacted. Dry.
30-35								ML	Same as above. Dry.
35-40								CL	Sandy lean clay. 10% medium gravel, 20% silt, 30% VF to F sand, 40% clay. Slightly moist.
40-45								CL	Same as above. Pale yellowish brown, 10YR 6/2.
45-50								SP	Poorly graded sand. 5% coarse

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

CONSTRUCTION METHODS:
A — AIR ROTARY
B — BORED OR AUGERED
C — CABLE-TOOL
D — DUG
H — HYDRAULIC-ROTARY
J — JETTED
P — AIR-PERCUSSION
R — REVERSE ROTARY
T — TRENCHING
V — DRIVEN
W — DRIVE AND WASH
Z — OTHER (SPECIFY)

SAMPLE METHODS:
A — AUGER CUTTINGS
S — 2" O.D. 1.38" I.D. DRIVE SAMPLE
U — 3" O.D. 2.42" I.D. TUBE SAMPLE
T — 3" O.D. THIN-WALLED SHELBY TUBE
O — OTHER (SPECIFY)

D Mustiere 2Jun92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38

LOCATION ID 01 COMPLETION DATE 2JUN92

LITHOLOGIC LOG

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
									cont
45-50								SP	gravel, VF-F sand moderate brown 5YR 4/4. Cobbles to 2 inches. Slightly moist.
50-60								SW	Well graded sand with gravel (fine to medium) sands. 15% gravel. Cobbles to 2 inches. Moderate yellowish brown 10YR 5/4
60-70								SW	Same as above. Cobbles to 4 inches moist
70-80								SW	Same as above
80-83								SW	Same as above. Very moist.
83-90								GP	Poorly graded gravel. Fine to coarse gravel. Cobbles to 4 inches. Saturated.
90-100								GP	Same as above. Cobbles to 6 inches. Coarse sand
100-110								GP	Same as above. Med to coarse sand. Cobbles to 6 inches. Black water.
129-143								CL	Sandy lean clay. TD = 143'

S Anstone 2Jun92

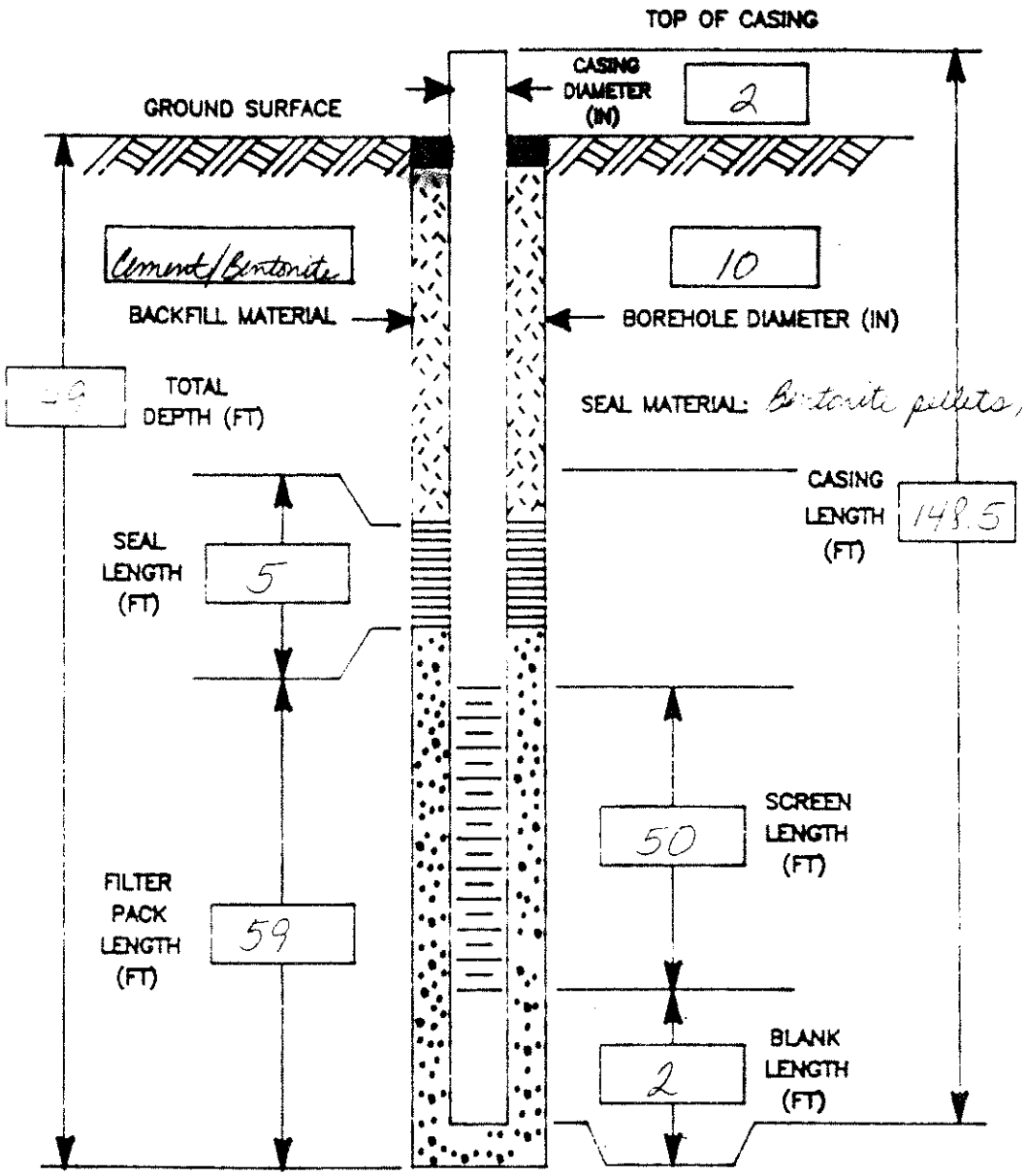
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

WELL COMPLETION INFORMATION

FACILITY CODE AUB38

LOCATION ID 01 INSTALLATION DATE 2 JUNE 92



COMMENTS

A Thurston 29 Jun 92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38
LOCATION ID 02
COORDINATES (FT):
NORTH _____ EAST _____
GROUND ELEVATION (FT MSL) _____
LOCATION TYPE BH
COMMENTS PZ-2

DRILLER CODE LAYNE
COMPLETION DATE 3SEP92
DIAMETER (IN) 10
DEPTH (FTFD) 138
CONSTRUCTION METHOD P
ACCEPTANCE CODE _____

GROUNDWATER LEVELS		
DATE	TIME	DEPTH (FT)

LOCATION DESCRIPTION
100 ft due south of RID#84
SW of 67th ave / Wilbur Burns

LITHOLOGIC LOG

LOGGER CODE WESTON

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
0-10								ML	Sandy silt some gravel 65% VF sand, 5% clay 10YR 6/2
10-20								ML	same as above
20-30								ML	Sandy silt some gravel to 1inch. VF to F sand 10YR 6/2
30-38								ML	same as above Moderately cohesive. 5YR 2/2
38-40									Caliche) Sandy gravel White
40-45								CL	Sandy lean clay 20% clay, 15% fine gravel, VF to fine sand
45-50								SC-SM	Silty clayey sand 15% clay

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

CONSTRUCTION METHODS:
A – AIR ROTARY
B – BORED OR AUGERED
C – CABLE–TOOL
D – DUG
H – HYDRAULIC–ROTARY
J – JETTED
P – AIR–PERCUSSION
R – REVERSE ROTARY
T – TRENCHING
V – DRIVEN
W – DRIVE AND WASH
Z – OTHER (SPECIFY)

SAMPLE METHODS:
A – AUGER CUTTINGS
S – 2" O.D. 1.38" I.D. DRIVE SAMPLE
U – 3" O.D. 2.42" I.D. TUBE SAMPLE
T – 3" O.D. THIN–WALLED SHELBY TUBE
O – OTHER (SPECIFY)

D Mustine 3/6/92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38

LOCATION ID 02 COMPLETION DATE 3SEP92

LITHOLOGIC LOG

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
45-50								SC-SM	15% silt, VF to F sand, some gravel. Moderately cohesive.
50-60								SP	Poorly graded sand with gravel. Cobbles to 4 inches. F to med sand. Slightly moist.
60-70								GP	Poorly graded gravel with sand 40% F to med sand. Cobbles to 6 inches. Caliche at 65-68
70-80								GP	Same as above. Med to coarse gravel
80-90								GP	Same as above. Moist
90-100								GP	Same as above. Very moist
100-110								GP	Same as above. Saturated. Med to coarse sand. Cobbles to 3 inches
110-120								GP	Same as above.
120-129								GP	Same as above.
129-130								CL	Sandy lean clay.
130-137								CL	Same as above
									TD = 139.5

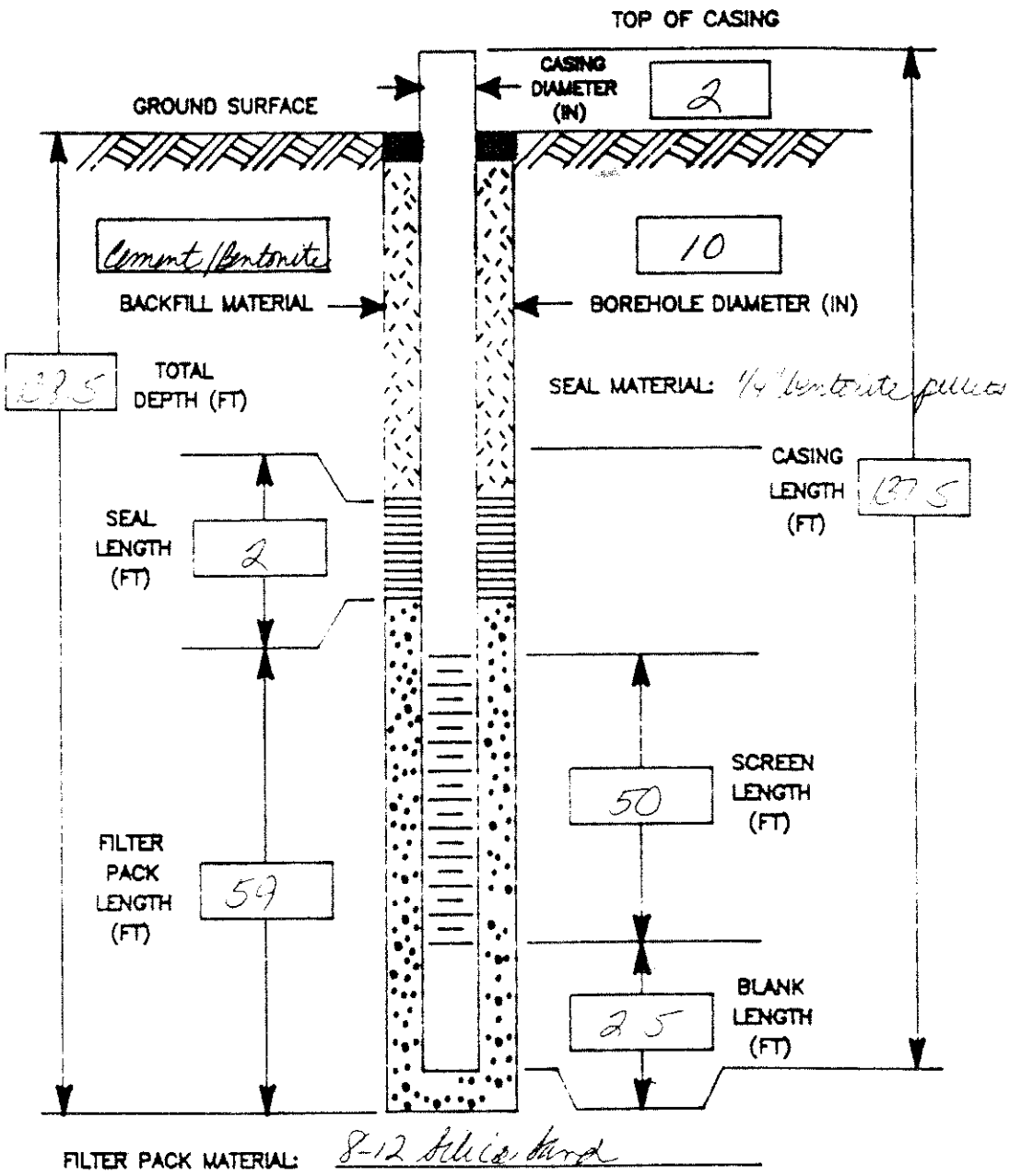
D Kristiano 3Sep92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

WELL COMPLETION INFORMATION

FACILITY CODE AV838

LOCATION ID 22 INSTALLATION DATE 3 SEP 92



COMMENTS

D Austin 3 Sep 92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38
LOCATION ID 03
COORDINATES (FT):
NORTH _____ EAST _____
GROUND ELEVATION (FT MSL) _____
LOCATION TYPE BH
COMMENTS Pz-3

DRILLER CODE LAYNE
COMPLETION DATE 4SEP92
DIAMETER (IN) 10
DEPTH (FTFD) 138
CONSTRUCTION METHOD P
ACCEPTANCE CODE _____

GROUNDWATER LEVELS

DATE	TIME	DEPTH (FT)
4SEP92	1109	85

LOCATION DESCRIPTION
300 feet due south of RID#84, SW of 67th Ave/ Van Buren

LITHOLOGIC LOG

LOGGER CODE WESTON

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
0-10								ML	Sandy silt some gravel. VF sand
10-20								ML	Same as above.
20-30								ML	Same as above. VF to F sand. Cobbles to 4 inches. Moderate yellowish brown 10YR 5/4
30-40								SC-SM	Silty, clayey sand. Moderately cohesive. 50% silt and clay. 50% VF sand. Some cobbles to 2 inches. Moderate brown 5YR 4/4
40-50								SP	Poorly graded sand with gravel. 5% silt, 25% gravel, cobbles to 4 inches. F to m sand.

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

CONSTRUCTION METHODS:
A – AIR ROTARY
B – BORED OR AUGERED
C – CABLE–TOOL
D – DUG
H – HYDRAULIC–ROTARY
J – JETTED
P – AIR–PERCUSSION
R – REVERSE ROTARY
T – TRENCHING
V – DRIVEN
W – DRIVE AND WASH
Z – OTHER (SPECIFY)

SAMPLE METHODS:
A – AUGER CUTTINGS
S – 2" O.D. 1.38" I.D. DRIVE SAMPLE
U – 3" O.D. 2.42" I.D. TUBE SAMPLE
T – 3" O.D. THIN–WALLED SHELBY TUBE
O – OTHER (SPECIFY)

D Montana 4Sep92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUG31

LOCATION ID 03

COMPLETION DATE 4SEP92

LITHOLOGIC LOG

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
50-55								SP	Same as above. Some cobbles, white.
55-60								SP	Same as above. 25% boulder gravel, cobbles to 4 inches. F to med sand. Dark yellowish brown, 10YR 4/2.
60-70								SP	Same as above. Cobbles to 6 inches. F to med sand.
70-78								SP	Same as above. Cobbles to 6 inches, coarse gravel. 5% med to coarse sand.
78-80								SP-SC	Poorly graded sand with clay and gravel, 10% clay, coarse gravel, med to coarse sand. Slightly plastic, slightly moist
80-90								SP	Poorly graded sand with gravel, med to coarse sand, med to coarse rounded gravel. Cobbles to 6 inches. Water at 85-87 ft approx.
90-100								SP	Same as above
100-110								SP	Same as above.
110-120								SP	Same as above. Bedrock at 115'
~~120-130~~									
120-130								SP	Same as above.
130-132								SP	Same as above.
132-139								CL	Sandy lean clay. TD = 132 ft

D Austriano 4 Sep 92

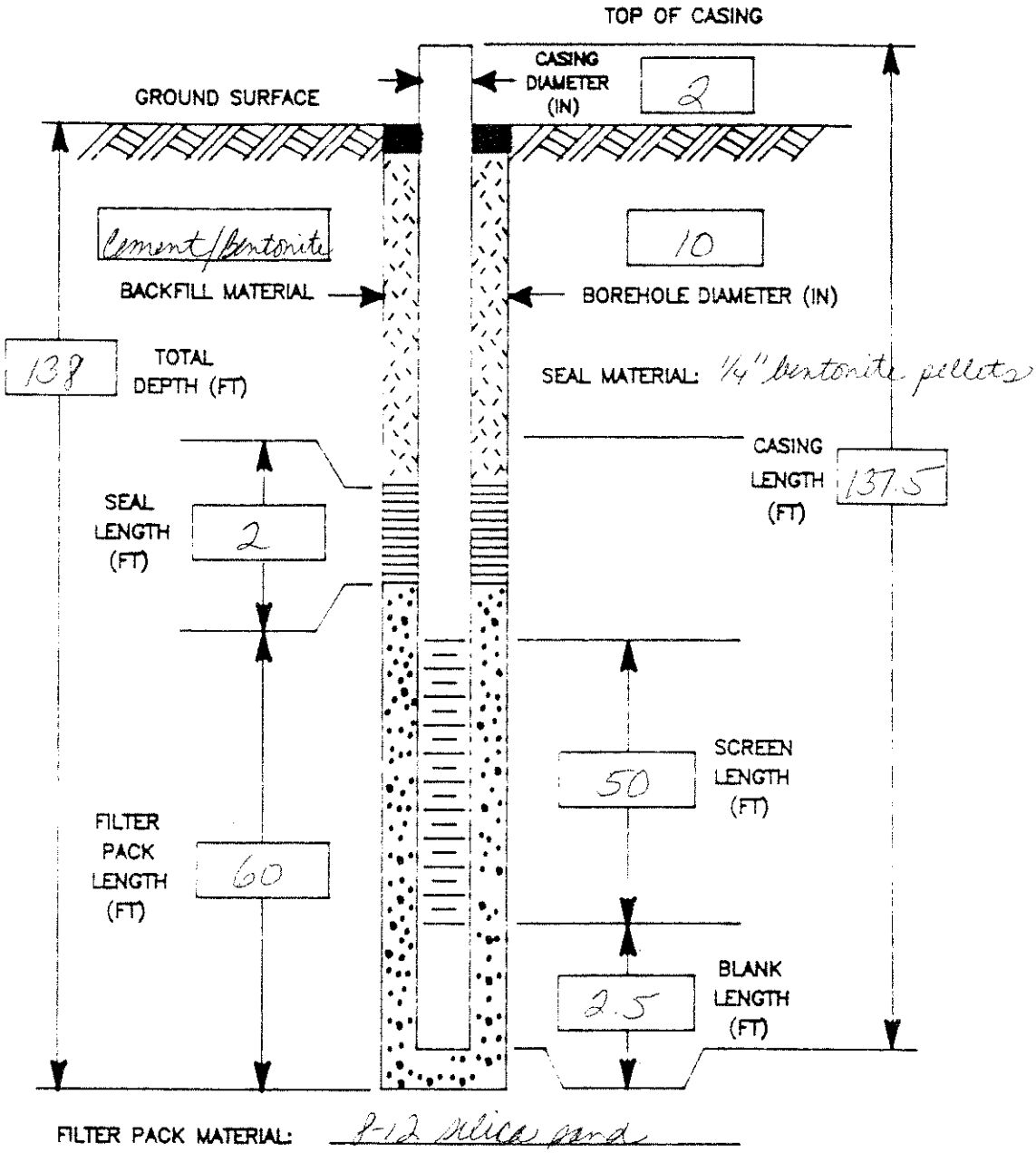
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

WELL COMPLETION INFORMATION

FACILITY CODE AUB38

LOCATION ID 03 INSTALLATION DATE 4SEP92



COMMENTS

D Martinez 4Sep92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38
LOCATION ID 04
COORDINATES (FT):
NORTH _____ EAST _____
GROUND ELEVATION (FT MSL) _____
LOCATION TYPE BH
COMMENTS P2-4

DRILLER CODE LAYNE
COMPLETION DATE 2SEP92
DIAMETER (IN) 10
DEPTH (FTFD) 130
CONSTRUCTION METHOD P
ACCEPTANCE CODE _____

GROUNDWATER LEVELS

DATE	TIME	DEPTH (FT)
2SEP92	0950	90

LOCATION DESCRIPTION
200 feet due west of RD484
SW of 62th Ave, West Van Buren

LITHOLOGIC LOG

LOGGER CODE WESTEN

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
0-10								ML	Sandy silt with gravel. 40% silt, 40% fine sand, 20% coarse gravel, cobbles to 4 inches. 10YR 6/2
10-20								ML	Same as above
20-30								SM	Silty sand. 60% F to med sand, 40% silt and clay. Some cobbles to 2 inches. 10YR 6/2.
30-40								SM	Same as above. Moderately cohesive.
40-44								SC-SM	Silty, clayey sand. 30% silt and clay. 60% F to med sand. 10% rounded gravel. Slightly cohesive.

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

CONSTRUCTION METHODS:

A – AIR ROTARY	P – AIR–PERCUSSION
B – BORED OR AUGERED	R – REVERSE ROTARY
C – CABLE–TOOL	T – TRENCHING
D – DUG	V – DRIVEN
H – HYDRAULIC–ROTARY	W – DRIVE AND WASH
J – JETTED	Z – OTHER (SPECIFY)

SAMPLE METHODS:

A – AUGER CUTTINGS
S – 2" O.D. 1.38" I.D. DRIVE SAMPLE
U – 3" O.D. 2.42" I.D. TUBE SAMPLE
T – 3" O.D. THIN–WALLED SHELBY TUBE
O – OTHER (SPECIFY)

D Whittier 2Sep92
FORM COMPLETED BY/DATE

_____
TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE AUB38

LOCATION ID 04 COMPLETION DATE 2SEP92

LITHOLOGIC LOG

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
44-50								SC-SM	Same as above. Some gravel. Moderately cohesive. Moderate brown 5YR 4/4.
50-60								SC-SM	Silty, clayey sand with gravel. 20% gravel, cobbles to 4 inch 5YR 4/1. Slightly moist.
60-70								SP	Poorly graded sand with gravel. Cobbles to 3 inches. 2 to med sand. 10YR 6/2.
70-80								SP	Same as above. Cobbles to 6 inches.
80-90								SP	Same as above. Med to coarse sand. Very moist.
90-100								GP	Poorly graded gravel with sand. 30% med to coarse sand, 50% course gravel. Cobbles to 6 inches
100-110								GP	Same as above
110-120								GP	Same as above. Cobbles to 8 inch
120-125								GP	Same as above.
125-126								CH	Fat clay. Hard
126-								CL	Sandy lean clay. Soft 10% VF sand. TD = 130 ft

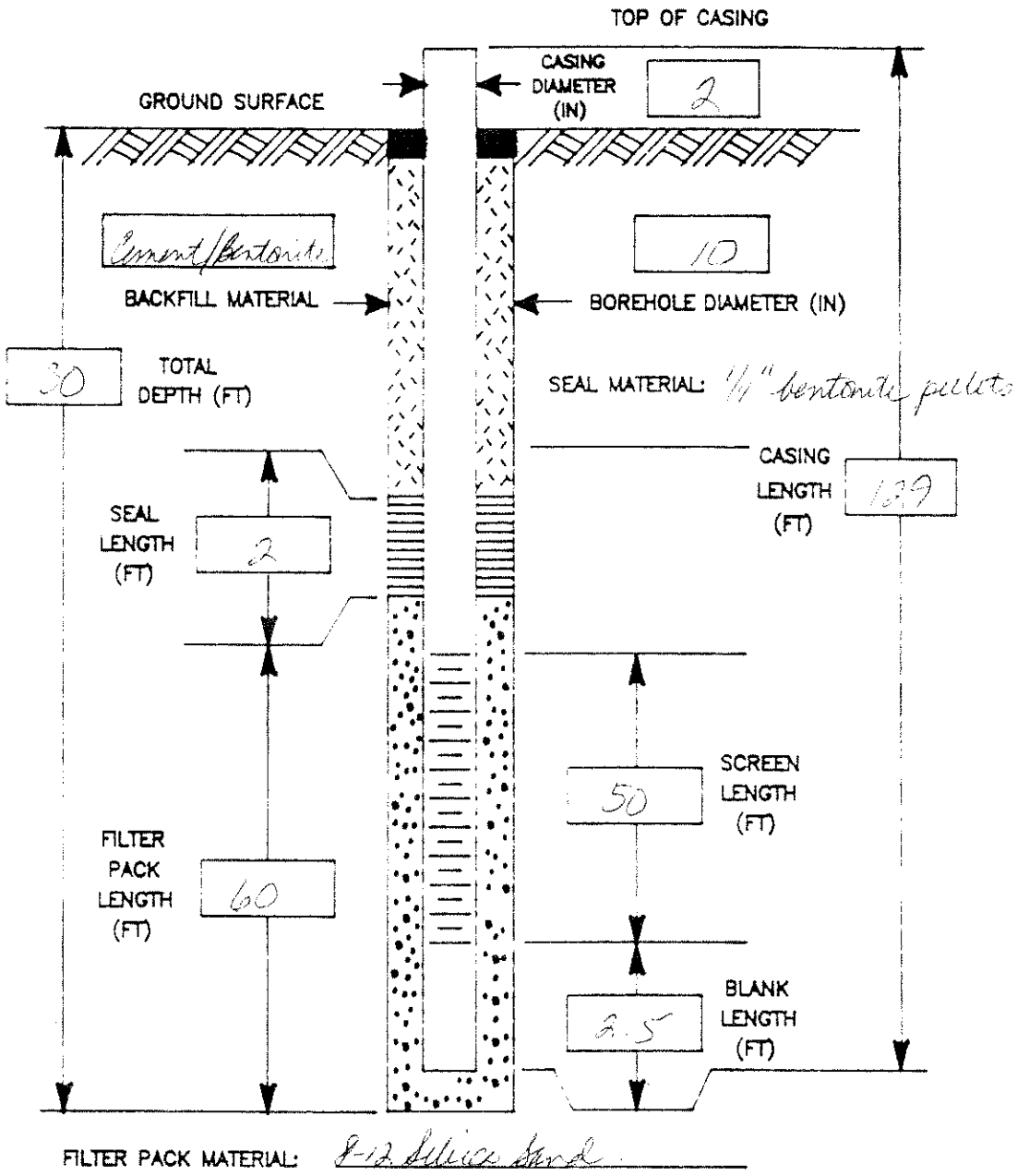
D Christensen 2Sep92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

WELL COMPLETION INFORMATION

FACILITY CODE AUB39

LOCATION ID 04 INSTALLATION DATE 25SEP92



COMMENTS

Debra Moore 2Sep92
FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE