

Appendix B-1
Well Completion Diagrams

POWERTECH WELL AND PUMP DATA

Location of Well Dewey, SD	Drilling Contractor Davis Drilling	Driller Tony	Well Name DB07-32-4C
County Custer	Type of Rig	Drilling Fluid mud	Well Depth 595'
LAT 4815507N	LONG 578846E	Elevation 3640'	Datum point from which all measurements are taken

Screened Monitoring Well Completion Detail

Screened Well No. _____

A. Stick-up Length 2.0'

B. Key No. NA

C. Protective Casing
 Diameter NA
 Material NA
 Length NA
 Depth to Bottom NA

D. Surface Completion
 Diameter NA
 Depth NA
 Material NA

E. Well Casing Data
 Diameter 4" ID
 Material PVC
 Length 582'
 Weight SCH 40
 Depth to Bottom 580'

F. Grout cement Date 12/5/07
 Depth to Top 0'
 Depth to Bottom 582'
 Material sulfate resis. cement
 Density 15.1 lb/gal
 Volume 17.4 bbls
 % Excess 70
 Method of Installation displacement
 Depth to Cement in Casing 480'
 Return Constant Yes No
 Volume of Grout Return 0

G. Borehole Diameter
 Drilling Dates 6.25" 12/4/07

H. Pack Type/Size NA Date NA
 Depth to Top NA
 Depth to Bottom _____
 Material _____
 Method of Installation _____
 Gradation _____

I. Screen Date 2/4/08
 Depth to Top 580-595'
 Depth to Bottom _____
 Manufacturer _____
 Material PVC
 Slot .01"

J. Bottom Cap
 Material PVC
 Length 1"
 Driller Tommy

Boring Depth 630'

Method of Drilling Date: 12/4/07

Cabel Tool Hollow Rod
 Direct Rotary Air Rotary
 Bucket Auger Reverse Rotary
 Flight Auger Jetted
 Dug Driven
 Other mud rotary

Use

Domestic Public Supply
 Industrial Irrigation
 Municipal Commercial
 Test Well Heating or Cooling
 Monitoring
 Other _____

One well volume (V) = _____ gallons

Initial Development Water

Water Level (TIC) _____
 Well Depth _____
 Color _____
 Odor _____
 Clarity _____
 Developed By _____
 Date _____
 Well Development Date _____
 Description of Development Technique _____

Pump

Date Installed _____ Type _____
 Manufacturer _____ Model No. _____
 H.P. _____ Volts _____
 Capacity _____
 Depth of Pump Intake Setting _____
 No. of Stages _____
 Oil Water Lubrication

Power Source _____
 Material of drop pipe _____
 Bowls _____
 Shafting _____ Impellers _____
 Bowl Diameter _____
 Column Pipe Diameter _____ Length _____
 Modification _____

Geophysical Logs Run Gamma, Resistivity, SP, ran 12/4/07

*****Mechanical Integrity Test*****

PSI Increments _____ Calibration Date of Gage _____
 PSI Full Scale _____
 Test Run By Stan Davis, Len Eakin Date Test Run 1/28/08
 Time Beginning of Test 1000 Time End of Test 1200
 Initial Pressure 35.0 PSIG Initial Fluid Level 6.0 inches

Final Pressure 35.0 PSIG Final Fluid Level 6.0 inches

Water Quality

Sample taken? Yes No
 Where analyzed? _____

Date well completed 2/4/08

Additional Information _____

POWERTECH WELL AND PUMP DATA

Location of Well Dewey, SD	Drilling Contractor Davis Drilling	Driller Tony	Well Name DB07-32-9C
County Custer	Type of Rig	Drilling Fluid mud	Well Depth 505'
LAT 4815586N	LONG 578744E	Elevation 3683"	Datum point from which all measurements are taken

Screened Monitoring Well Completion Detail

Screened Well No. _____

A. Stick-up Length 2.0'

B. Key No. NA

C. Protective Casing
 Diameter NA
 Material NA
 Length NA
 Depth to Bottom NA

D. Surface Completion
 Diameter NA
 Depth NA
 Material NA

E. Well Casing Data
 Diameter 6" ID
 Material PVC
 Length 492'
 Weight SCH 40
 Depth to Bottom 490'

F. Grout cement Date 2/20/08
 Depth to Top 0'
 Depth to Bottom 491'
 Material sulfate resis. cement
 Density 15.2 lb/gal
 Volume 24.8 bbls
 % Excess 50
 Method of Installation displacement
 Depth to Cement in Casing 370'
 Return Constant Yes No
 Volume of Grout Return 8 bbls

G. Borehole Diameter
 Drilling Dates 6.25" 1/15/08

H. Pack Type/Size NA Date NA
 Depth to Top NA
 Depth to Bottom _____
 Material _____
 Method of Installation _____
 Gradation _____

I. Screen Date 3/10/08
 Depth to Top 490-505'
 Depth to Bottom _____
 Manufacturer _____
 Material PVC
 Slot .01"

J. Bottom Cap
 Material PVC
 Length 1"
 Driller Tommy

Boring Depth _____

Method of Drilling Date: 1/15/08

Cabel Tool Hollow Rod
 Direct Rotary Air Rotary
 Bucket Auger Reverse Rotary
 Flight Auger Jetted
 Dug Driven
 Other mud rotary

Use

Domestic Public Supply
 Industrial Irrigation
 Municipal Commercial
 Test Well Heating or Cooling
 Monitoring
 Other _____

One well volume (V) = _____ gallons

Initial Development Water
 Water Level (TIC) _____
 Well Depth _____
 Color _____
 Odor _____
 Clarity _____
 Developed By _____
 Date _____
 Well Development Date _____
 Description of Development Technique _____

Pump

Date Installed _____ Type _____
 Manufacturer _____ Model No. _____
 H.P. _____ Volts _____
 Capacity _____
 Depth of Pump Intake Setting _____
 No. of Stages _____
 Oil Water Lubrication

Power Source _____
 Material of drop pipe _____
 Bowls _____
 Shafting _____ Impellers _____
 Bowl Diameter _____
 Column Pipe Diameter _____ Length _____
 Modification _____

Geophysical Logs Run Gamma, Resistivity, SP, ran 1/15/08

Water Quality
 Sample taken? Yes No
 Where analyzed? _____

Date well completed 3/10/08

Additional Information Dewey pump test site - upper Fall River sand lens (not in pumped lens)

*****Mechanical Integrity Test*****

PSI Increments		Calibration Date of Gage	
PSI Full Scale			
Test Run By	Stan Davis, Len Eakin	Date Test Run	3/9/08
Time Beginning of Test	0800	Time End of Test	1000
Initial Pressure	35.0 PSIG	Initial Fluid Level	4.0 inches
Final Pressure	35.0 PSIG	Final Fluid Level	4.0 inches

POWERTECH WELL AND PUMP DATA

Location of Well Dewey, SD	Drilling Contractor Davis Drilling	Driller Tony	Well Name DB07-32-11
County Custer	Type of Rig	Drilling Fluid mud	Well Depth 930'
LAT 4815572N	LONG 578734E	Elevation 3664"	Datum point from which all measurements are taken

Screened Monitoring Well Completion Detail

Screened Well No. _____

A. Stick-up Length 2.0'

B. Key No. NA

C. Protective Casing
Diameter NA
Material NA
Length NA
Depth to Bottom NA

D. Surface Completion
Diameter NA
Depth NA
Material NA

E. Well Casing Data
Diameter 6" ID
Material PVC
Length 912'
Weight SCH 40
Depth to Bottom 910'

F. Grout cement Date 2/12/08
Depth to Top 0'
Depth to Bottom 911'
Material sulfate resis. cement
Density 15.2 lb/gal
Volume 55.0 bbls
% Excess 70
Method of Installation displacement
Depth to Cement in Casing 760'
Return Constant Yes No
Volume of Grout Return 8 bbls

G. Borehole Diameter
Drilling Dates 6.25" 2/7/08

H. Pack Type/Size NA Date NA
Depth to Top NA
Depth to Bottom _____
Material _____
Method of Installation _____
Gradation _____

I. Screen Date 3/8/08
Depth to Top 910-930"
Depth to Bottom _____
Manufacturer _____
Material PVC
Slot .01"

J. Bottom Cap
Material PVC
Length 1"
Driller Tommy

Boring Depth _____

Method of Drilling Date: 2/7/08

Cabel Tool Hollow Rod
 Direct Rotary Air Rotary
 Bucket Auger Reverse Rotary
 Flight Auger Jetted
 Dug Driven
 Other mud rotary

Use

Domestic Public Supply
 Industrial Irrigation
 Municipal Commercial
 Test Well Heating or Cooling
 Monitoring
 Other _____

One well volume (V) = _____ gallons

Initial Development Water
Water Level (TIC) _____
Well Depth _____
Color _____
Odor _____
Clarity _____
Developed By _____
Date _____
Well Development Date _____
Description of Development Technique _____

Pump
Date Installed _____ Type _____
Manufacturer _____ Model No. _____
H.P. _____ Volts _____
Capacity _____
Depth of Pump Intake Setting _____
No. of Stages _____
 Oil Water Lubrication

Power Source _____
Material of drop pipe _____
Bowls _____
Shafting _____ Impellers _____
Bowl Diameter _____
Column Pipe Diameter _____ Length _____
Modification _____

Geophysical Logs Run Gamma, Resistivity, SP, ran 2/8/08

Water Quality
Sample taken? Yes No
Where analyzed? _____

Date well completed 3/8/08

Additional Information _____

*****Mechanical Integrity Test*****

PSI Increments		Calibration Date of Gage	
PSI Full Scale			
Test Run By	Stan Davis, Len Eakin	Date Test Run	3/5/08
Time Beginning of Test	0830	Time End of Test	1000
Initial Pressure	35.0 PSIG	Initial Fluid Level	4.0 inches
Final Pressure	35.0 PSIG	Final Fluid Level	4.0 inches

