POWERTECH (USA) INC.

ATTACHMENT B

Additional Alluvial Characterization Well Completion Report

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
· ENVIRONMENTAL
· GEOTECHNICAL
· MATERIALS
· FORENSICS

November 5, 2012

Mr. Frank Lichnovsky
Powertech (USA), Inc.
PO Box 812
Edgemont, SD 57735

Subject: Well Completion Reports
Powertech Inc.
Sites NW of Edgemont, South Dakota
AET No. 17-01493

Dear Frank:

Please find the attached boring location maps, well construction logs, and South Dakota well completion reports for six monitoring wells drilled on October 29-31, 2012. If you have any questions regarding the attached reports, please call our office at (605) 388-0029.

Respectfully,

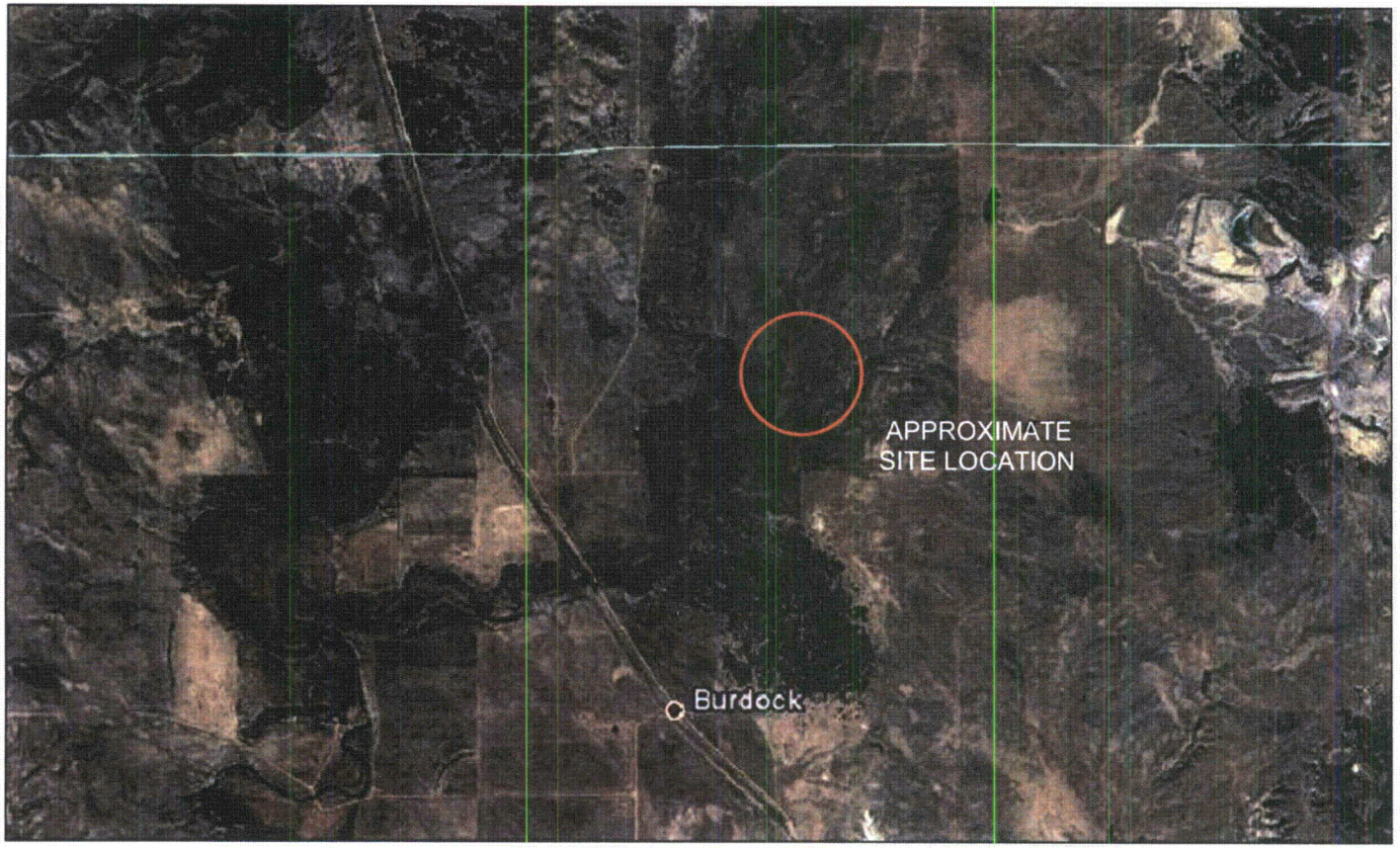
Kristen R. Yates

Kristen R. Yates, EI, CPRR
Geotechnical Project Manager

attachments

cc. Mr. Ken Buhler - SDDENR

1745 Samco Road | Rapid City, SD 57702
Phone (605) 388-0029 | Toll Free (800) 972-6364 | Fax (605) 388-0064 | www.amengtest.com | AA/EEO

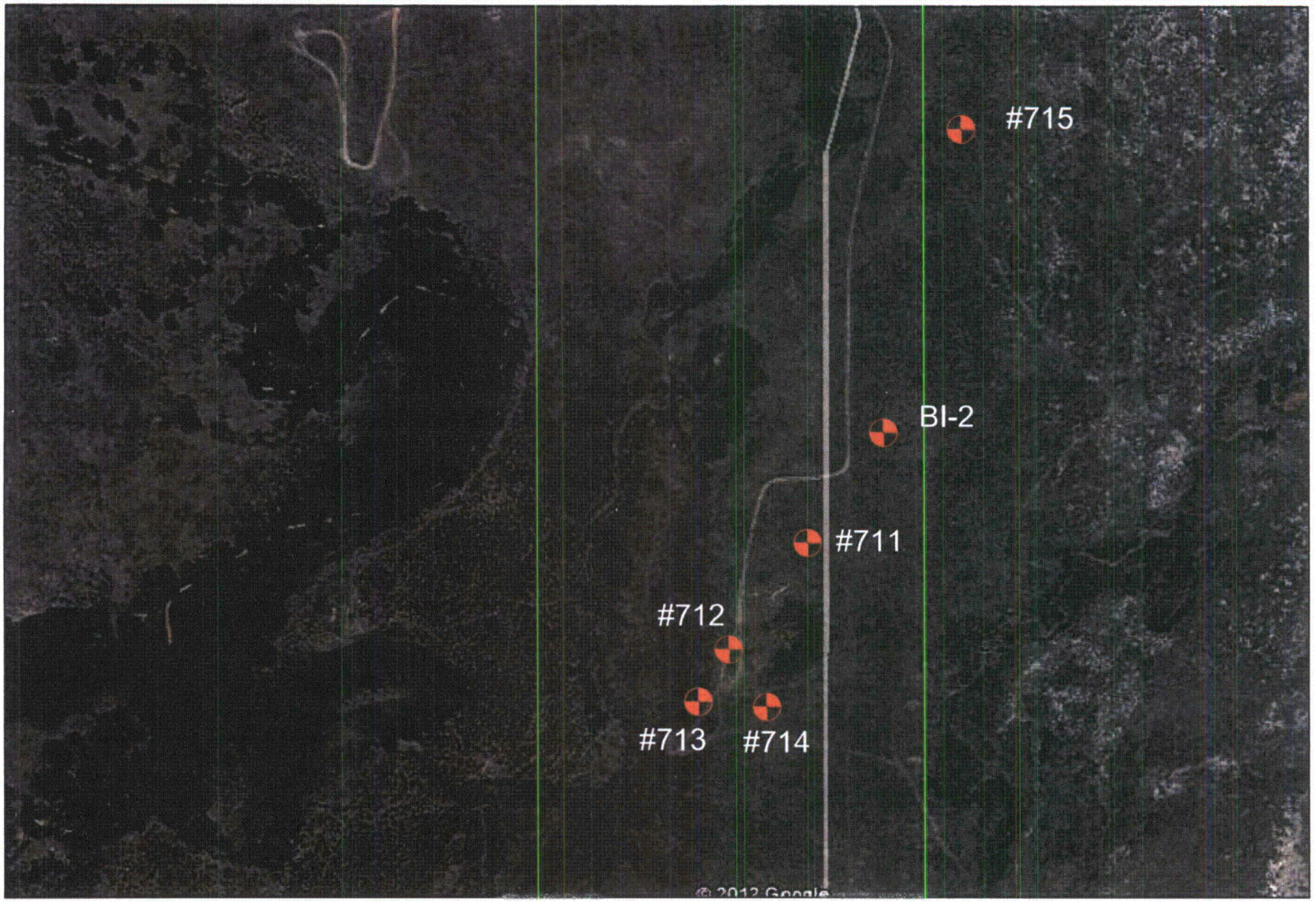


AMERICAN ENGINEERING TESTING, INC.	PROJECT: POWERTECH USA		PROJECT NO. 17-01593
	SUBJECT: SITE LOCATION MAP		DATE: NOVEMBER 5, 2012
	SCALE: 1 INCH = 3000 FEET	DRAWN BY: KY	REVIEWED BY: RNT

November 2012

B-3

Attachment B



N

SCALE (FEET)

0 400

AMERICAN ENGINEERING TESTING, INC.	PROJECT: POWERTECH USA		PROJECT NO. 17-01593
	SUBJECT: BORING LOCATION MAP		DATE: NOVEMBER 5, 2012
	SCALE: 1 INCH = 400 FEET	DRAWN BY: KY	REVIEWED BY: RNT

AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	#711
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/29/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	8-16 Silica Sand
GROUND ELEVATION	3643.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3646	**DEPTH TO WATER**	15.26
LOGGED BY	FL	**GROUND WATER ELEVATION**	3630.74
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
					1–8	FA		**Sand** fine to medium grained, orange to light brown
					9–18	FA		**Sandy Clay** red
					19–22	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet
					23–26	CA		**Gravel** red
					27	SHALE		**Shale** black
					28			End of Boring

GW LEVEL

BORING ABANDONED

- Concrete
- 2" PVC Riser
- Portland Cement Grout
- Hydrated Bentonite
- 2" PVC Screen
- Silica Sand Pack

AET_ENVI 17-01593.GPJ AET WITH PID INFO 11/5/12

AMERICAN ENGINEERING TESTING, INC.

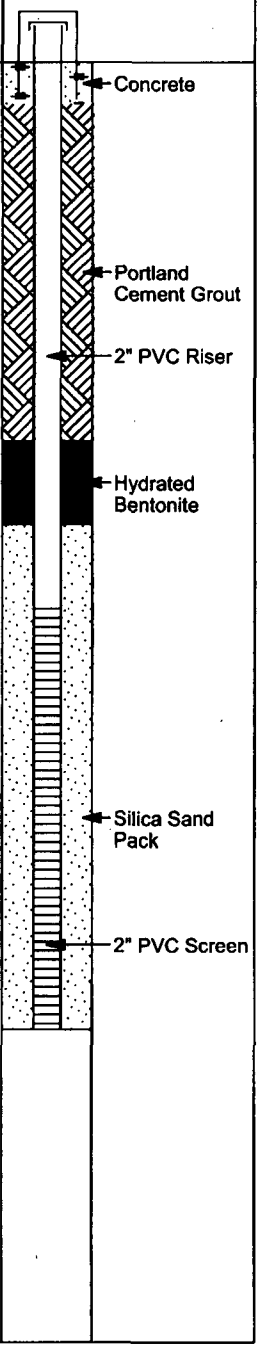
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	#712
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/29/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	8-16 Silica Sand
GROUND ELEVATION	3634.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3637	**DEPTH TO WATER**	7.63
LOGGED BY	FL	**GROUND WATER ELEVATION**	3629.37
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
					1	FA		**Sand** fine to medium grained, light yellow
					2			
					3			
					4	FA		**Sandy Clay** light yellow
					5			
					6			
					7			
					8			
					9	FA		**Sandy Clay** red
					10			
					11			
					12			
					13			
					14			
					15	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet
					16			
					17			
					18			
					19			
					20			
					21	CA		**Gravel** red
					22			
					23			
					24	SHALE		**Shale** black
					25			End of Boring

GW LEVEL

BORING ABANDONED



AET_ENVI 17-01593.GPJ AET WITH PID INFO 11/5/12

AMERICAN ENGINEERING TESTING, INC.

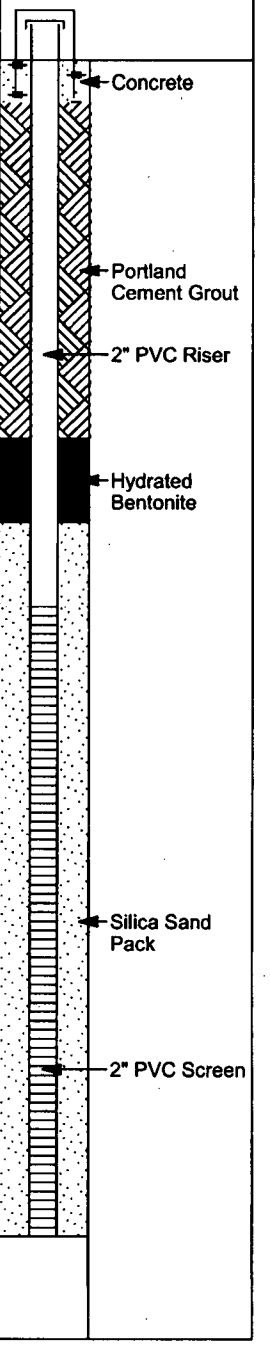
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	#713
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/29/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	8-16 Silica Sand
GROUND ELEVATION	3635.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3638	**DEPTH TO WATER**	20.59
LOGGED BY	FL	**GROUND WATER ELEVATION**	3617.41
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
					1–3	FA		**Sand** fine to medium grained, light yellow to tan
					3–8	FA		**Sandy Clay**light yellow to tan
					8–14	FA		**Sandy Clay** red
					14–21	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet
					21–26	CA		**Gravel** red
					26–27	SHALE		**Shale** black
					28			End of Boring

GW LEVEL

BORING ABANDONED



AET_ENVI 17-01593.GPJ AET WITH PID INFO 11/5/12

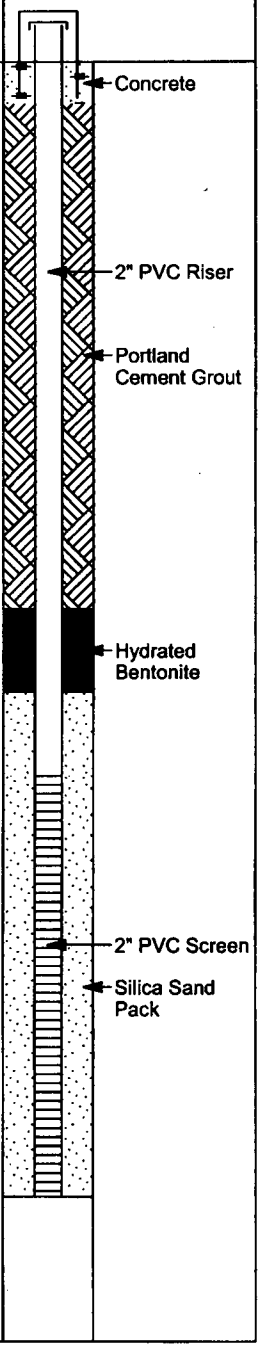
AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	#714
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/29/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	8-16 Silica Sand
GROUND ELEVATION	3639.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3642	**DEPTH TO WATER**	8.62
LOGGED BY	FL	**GROUND WATER ELEVATION**	3633.38
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	GW LEVEL
					1–3	FA		**Sand** fine to medium grained, light red	
					3–13	FA		**Sandy Clay** dark red	▼
					13–15	FA		**Sandy Clay** red	
					15–25	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet	
					25–27	CA		**Gravel** red	
					27–28	SHALE		**Shale** black	
					28			End of Boring	

BORING ABANDONED



AET_ENVI 17-01593.GPJ AET WITH PID.INFO 11/5/12

AMERICAN ENGINEERING TESTING, INC.

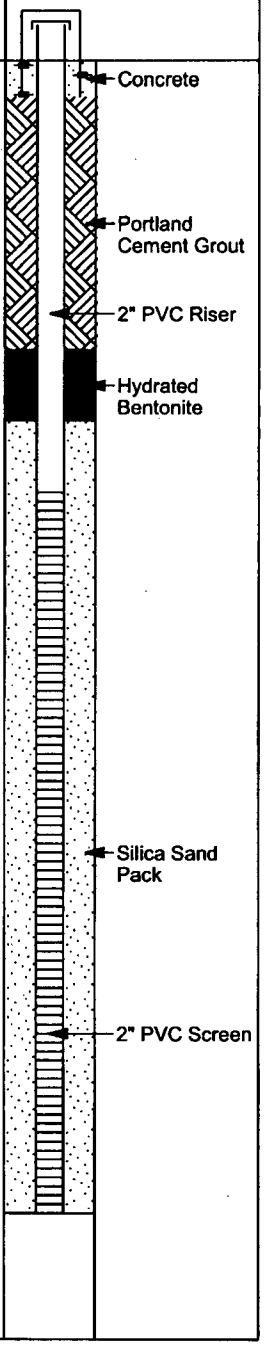
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	#715
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/30/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	10-20 Silica Sand
GROUND ELEVATION	3653.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3655	**DEPTH TO WATER**	16.29
LOGGED BY	FL	**GROUND WATER ELEVATION**	3638.71
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
					1–5	FA		**Sand** fine to medium grained, light yellow to tan
					5–13	FA		**Sandy Clay** red
					13–23	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet
					23–31	CA		**Gravel** red
					31–32	SHALE		**Shale** black
								End of Boring

GW LEVEL

BORING ABANDONED



AET_ENVI 17-01593.GPJ AET WITH PID INFO 11/5/12

AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	17-01593	**BORING/WELL NUMBER**	BI-2
PROJECT NAME	Powertech USA, Inc	**DATE DRILLED**	10/30/12
LOCATION	near Edgemont, South Dakota	**CASING TYPE/DIAMETER**	2-inch diam. Sch 40 PVC
DRILLING METHOD	4.25" HSA	**SCREEN TYPE**	2-inch diam. Sch 40 PVC 0.010 slot
SAMPLING METHOD	NA	**PACKING TYPE**	8-16 Silica Sand
GROUND ELEVATION	3649.00	**GROUT TYPE**	Portland Cement
TOP OF CASING	3652	**DEPTH TO WATER**	15.21
LOGGED BY	FL	**GROUND WATER ELEVATION**	3636.79
REMARKS			

PID (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
					1–4	FA		**Sand** fine to medium grained, light yellow to red
					5–6	FA		**Sandy Clay** brown
					7–12	FA		**Sandy Clay** red
					13–25	FA		**Clayey Sand** fine grained at top to coarse grained at bottom, red, wet
					26–34	CA		**Gravel** red
					34	SHALE		**Shale** black
					35			End of Boring

GW LEVEL

BORING ABANDONED

- Concrete
- Portland Cement Grout
- 2" PVC Riser
- Hydrated Bentonite
- Silica Sand Pack
- 2" PVC Screen

AET_ENVI 17-01593.GPJ AET WITH PID INFO 11/5/12

SD EForm - 1621LD V1

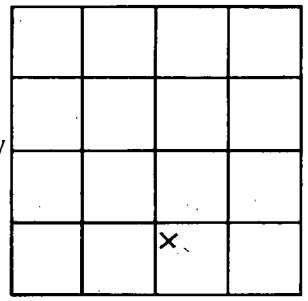
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location SW ¼ SE ¼ Sec 3 Twp 7S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date
10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
____ ft. from Unknown (identify source)

Well Owner: Powertech (USA) Inc.
Business Name: Powertech (USA) Inc.
Address: PO Box 812
City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand – orange to light brown	0	9
Sandy Clay – red	9	19
Clayey Sand – red	19	23
Gravel – red	23	27
Shale - black	27	28

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 28 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other
If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
___ LB/FT	2.00 IN	0.0 FT	18.0 FT	6.25 IN
___ LB/FT	___ IN	___ FT	___ FT	___ IN
___ LB/FT	___ IN	___ FT	___ FT	___ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	___	Lb/gal	0.0 Ft	14.0 Ft
Bentonite	___	Lb/gal	14.0 Ft	16.0 Ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☑ Manufactured
Diameter 2.00 Inches Length 10.0 Feet
Material Sch 40 PVC
Slot Size 0.010" Set From 18.0 Feet to 28.0 Feet
Other information 8-16 Silica Sand from 16' to 28'

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No
If so, what material?
Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?
☐ Yes, How?
Lab to which water quality sample sent for analysis ☑ No, Why Not? Monitoring Well Only

STATIC WATER LEVEL 15 FEET
If flowing: closed in pressure ___ PSI
GPM flow ___ through ___ Inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ___
Reduced flow rate ___ GPM
Can well be completely shut in?

WELL TEST DATA:
☐ Pumped Describe: NA
☐ Bailed
☐ Other
Pumping Level Below Land Surface
___ Ft. After ___ Hrs. pumped ___ GPM
___ Ft. After ___ Hrs. pumped ___ GPM
If pump installed, pump rate: GPM

REMARKS
Monitoring Well #711
Lat/Long (43.4673N, 103.98602W) from PWE handheld GPS

This well was drilled under license # 678 and this report is true and accurate.
Drilling firm: American Engineering Testing, Inc.
Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

SD EForm - 1621LD V1

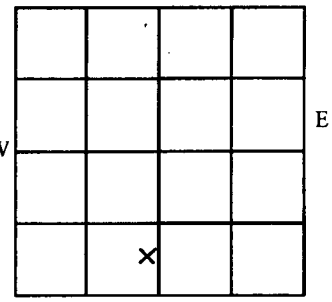
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location SE ¼ SW ¼ Sec 3 Twp 7S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

_____ ft. from Unknown (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 23 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2.00 IN	0.0 FT	13.0 FT	6.25 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	____	____ Lb/gal	0.0 Ft	9.0 Ft
Bentonite	____	____ Lb/gal	9.0 Ft	11.0 Ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 2.00 Inches Length 10.0 Feet

Material Sch 40 PVC

Slot Size 0.010" Set From 13.0 Feet to 23.0 Feet

Other information 8-16 Silica Sand from 11' to 23'

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No

If so, what material? _____

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____

☑ No, Why Not? Monitoring Well Only

Lab to which water quality sample sent for analysis

Well Owner: Powertech (USA) Inc.

Business Name: Powertech (USA) Inc.

Address: PO Box 812

City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand –light yellow	0	3
Sandy Clay – light yellow to red	3	14
Clayey Sand – red	14	20
Gravel – red	20	23
Shale - black	23	25

STATIC WATER LEVEL 7 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: NA

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS
Monitoring Well #712
Lat/Long (43.46653N, 103.98682W) from PWE handheld GPS

This well was drilled under license # 678 and this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative: Ryan B. Hodson

Signature of Well Owner or Equitable Property Holder:

Date: _____

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

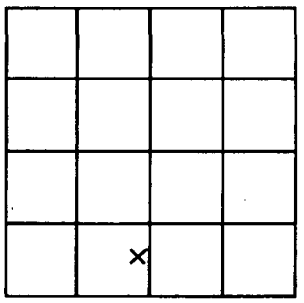
Location SE ¼ SW ¼ Sec 3 Twp 7S Rg 1E

County Custer

North

Please mark well location with an "X"

W E



Well Completion Date:

10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

ft. from Unknown (identify source)

Well Owner: Powertech (USA) Inc.

Business Name: Powertech (USA) Inc.

Address: PO Box 812

City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand –light yellow to tan	0	3
Sandy Clay – light yellow to red	3	14
Clayey Sand – red	14	21
Gravel – red	21	26
Shale - black	26	28

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes

☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 28 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	2.00 IN	0.0 FT	13.0 FT	6.25 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement		Lb/gal	0.0 Ft	9.0 Ft
Bentonite		Lb/gal	9.0 Ft	11.0 Ft

Describe grouting procedure

STATIC WATER LEVEL 21 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: NA

☐ Bailed

☐ Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 2.00 Inches Length 15.0 Feet

Material Sch 40 PVC

Slot Size 0.010" Set From 13.0 Feet to 28.0 Feet

Other information 8-16 Silica Sand from 11' to 28'

REMARKS

Monitoring Well #713

Lat/Long (43.46615N, 103.9871W) from PWE handheld GPS

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?

Lab to which water quality sample sent for analysis ☑ No, Why Not? Monitoring Well Only

This well was drilled under license # 678 and this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

SD EForm - 1621LD V1

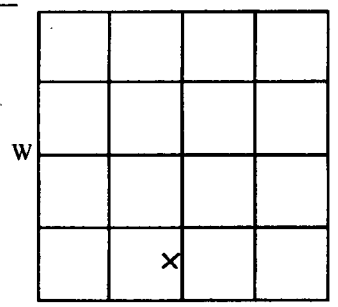
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location SE ¼ SW ¼ Sec 3 Twp 7S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

_____ ft. from Unknown (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 28 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2.00 IN	0.0 FT	17.0 FT	6.25 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	____	____ Lb/gal	0.0 Ft	13.0 Ft
Bentonite	____	____ Lb/gal	13.0 Ft	15.0 Ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 2.00 Inches Length 10.0 Feet

Material Sch 40 PVC

Slot Size 0.010" Set From 17.0 Feet to 27.0 Feet

Other information 8-16 Silica Sand from 15' to 27'

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No

If so, what material? _____

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____

☑ No, Why Not? Monitoring Well Only

Lab to which water quality sample sent for analysis

Well Owner: Powertech (USA) Inc.

Business Name: Powertech (USA) Inc.

Address: PO Box 812

City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand –light red	0	3
Sandy Clay – dark red to red	3	15
Clayey Sand – red	15	25
Gravel – red	25	27
Shale - black	27	28

STATIC WATER LEVEL 9 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: NA

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS
Monitoring Well #714
Lat/Long (43.46611N, 103.98643W) from PWE handheld GPS

This well was drilled under license # 678 and this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative: B. Hoo

Signature of Well Owner or Equitable Property Holder:

Date: _____

SD EForm - 1621LD V1

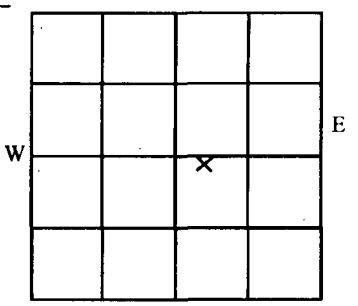
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location NE ¼ SE ¼ Sec 3 Twp 7S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

_____ ft. from Unknown (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 28 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2.00 IN	0.0 FT	12.0 FT	6.25 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	____	____ Lb/gal	0.0 Ft	8.0 Ft
Bentonite	____	____ Lb/gal	8.0 Ft	10.0 Ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 2.00 Inches Length 20.0 Feet

Material Sch 40 PVC

Slot Size 0.010" Set From 12.0 Feet to 32.0 Feet

Other information 10-20 Silica Sand from 10' to 32'

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No

If so, what material? _____

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____

☑ No, Why Not? Monitoring Well Only

Lab to which water quality sample sent for analysis

Well Owner: Powertech (USA) Inc.

Business Name: Powertech (USA) Inc.

Address: PO Box 812

City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand –light yellow to tan	0	5
Sandy Clay – red	5	13
Clayey Sand – red	13	23
Gravel – red	23	31
Shale - black	31	32

STATIC WATER LEVEL 16 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: NA

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Monitoring Well #715

Lat/Long (43.47031N, 103.98447W) from PWE handheld GPS

This well was drilled under license # 678 and this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative: B. Hoeh

Signature of Well Owner or Equitable Property Holder:

Date: _____

SD EForm - 1621LD V1

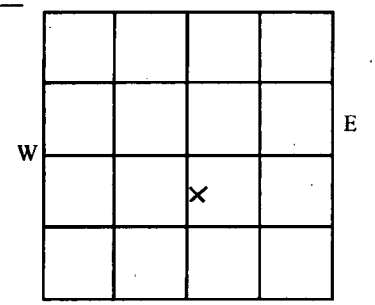
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location NE ¼ SE ¼ Sec 3 Twp 7S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 10/31/12

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

_____ ft. from Unknown (identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☑ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING:
3.25" ID, 6.25 OD HSA
to 28 feet

CASING DATA: ☐ Steel ☑ Plastic ☐ Other
If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2.00 IN	0.0 FT	14.0 FT	6.25 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	____	____ Lb/gal	0.0 Ft	10.0 Ft
Bentonite	____	____ Lb/gal	10.0 Ft	12.0 Ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☑ Manufactured
Diameter 2.00 Inches Length 20.0 Feet
Material Sch 40 PVC
Slot Size 0.010" Set From 14.0 Feet to 34.0 Feet
Other information 8-16 Silica Sand from 12' to 34'

WAS A PACKER OR SEAL USED? ☐ Yes ☑ No
If so, what material? _____
Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?
☐ Yes, How? _____
☑ No, Why Not? Monitoring Well Only
Lab to which water quality sample sent for analysis

Well Owner: Powertech (USA) Inc.
Business Name: Powertech (USA) Inc.
Address: PO Box 812
City, State, Zip: Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand –light yellow to tan	0	5
Sandy Clay – brown to red	5	13
Clayey Sand – red	13	26
Gravel – red	26	34
Shale - black	34	35

STATIC WATER LEVEL 15 FEET
If flowing: closed in pressure _____ PSI
GPM flow _____ through _____ Inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other _____
Reduced flow rate _____ GPM
Can well be completely shut in?

WELL TEST DATA:
☐ Pumped Describe: NA
☐ Bailed
☐ Other
Pumping Level Below Land Surface
_____ Ft. After _____ Hrs. pumped _____ GPM
_____ Ft. After _____ Hrs. pumped _____ GPM
If pump installed, pump rate: _____ GPM

REMARKS
Monitoring Well BI-2
Lat/Long (43.4681N, 103.98526W) from PWE handheld GPS

This well was drilled under license # 678 and this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative: B. Hoo

Signature of Well Owner or Equitable Property Holder:

Date: _____