Shawver Well Company, Inc.
2700 Stanley Avenue
Fredericksburg, IA 50630

(563) 237-5341
(800) 568-4449

Location of Well

1998 Quinlan Avenue
Lawler, IA 52154
T95N R12W

County **Chickasaw**
Township **New Hampton**
Section **01**
Quarters **SW**

Customer Information

Homeland Energy Solutions, LLC
Pat Boyle
106 West Main, P.O. Box C
Riceville, IA 50466

Contact Date
Confirmation Date **9/7/2007**

Contact Information

Home Ph: **563-547-9801 - Pat Boyle**
Work Ph: **641-985-4025**
Cell Ph:
Fax: **641-985-4046**

Best time to call:
Email:
Customer since: **12/11/2006**
Referred By:

Job Information

Area **CM T95N R12W**
Latitude
Longitude
PWTS # **1970801**
Permit Number **2007-0460W**

Confirmation **9/7/2007**
Start Date **9/18/2007**
End Date **9/25/2007**
Warranty Date
Warranty

Well Site Information

Actual Size **6.9"**
Depth **278'**
Elevation
SWL **86'**
RPS
Max GPM **40+ GPM**
Air Lift **140' @ 40 GPM**
Exploratory -- To Ft
Mock Rock -- Acidize --
Well Use
Rig **50K - 2007**
Driller **Dave Halweg**; Cert #: **2814**
Driller 2 **Dale S., Luke K., Jusin E.**

Pump Inst --
Liner ✔ 39ft
Sulfide --
Screen--
Made Water **256' - 260', 264' - 271'**
Screen Size
Slot Size
Riser Pipe
Set From **217' to 256'**
Perforated From **222' to 251'**
Tail Pipe

Description:
A 17" hole was drilled to 3'. A 6.25" exploratory hole was drilled to 278'. The hole was then reamed to 12.25" to a depth of 247' and 249' of 6.9" OD, PVC, SDR 17 casing was installed. A 6" hole was then drilled to a final depth of 278'. A 5" PVC liner was set from 217' to 256', and is perforated to admit water. The base of the casing was grouted with neat cement grout and the balance of the annular space was sealed with Bariod, EZ seal bentonite grout. The static water level upon completion was 98'. The well was test pumped for 6.5 hours at a rate of 35 gallons per minute with the water level lowering to 99'6".
Remarks:

Well Formation Log

From-To	Color	Formation
0 - 74	Blue	Clay
74 - 94		Sand & Gravel, medium
94 - 196	Blue	Clay
196 - 214		Sand & Gravel w/ Clay Seams
214 - 241	Blue	Clay
241 - 243	Blue - Green	Shale & Limerock
243 - 246	Blue - Green	Shale & Limerock
246 - 249	Yellow	Limerock, Soft
249 - 253	Black & Blue	Shale & Limerock
253 - 260	Yellow	Limerock, Broken
260 - 264	Brown	Limerock, Porous
264 - 270	Brown - Gray	Limerock
270 - 278	Gray	Limerock

Bore Log

From-To	Bit Size - Number	
0 - 3	17 1/2" Tri-Cone Tooth	EW5323
3 - 247	12 1/4" Bi-Cone	19309
247 - 278	6" Tri-cone	ML 4121

Well Casing Log

From-To	Casing
0 - 247	6.9" x PVC
217 - 256	5" x PVC

Screen Size
Slot Size
Riser Pipe
Set From **217` to 256`**
Tail Pipe

Well Grout Used

Amount	Type
18 sacks	Neat Cement
18 sacks	High Early
8 sacks	Holeplug
47 sacks	EZ Seal
6 sacks	Casing Seal
36 sacks	Quick Jel
14 sacks	Quick Trol LV