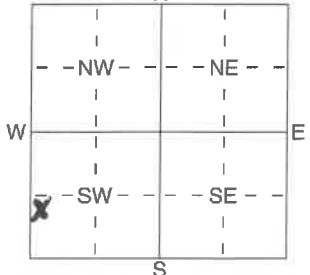


1 LOCATION OF WATER WELL: Fraction NW 1/4 SW 1/4 SW 1/4 Section Number 20 Township Number T 13 S Range Number R 22 E
 County: Jackson

Distance and direction from nearest town or city street address of well if located within city?
Sunflower Army Ammunition Plant southwest of De Soto

2 WATER WELL OWNER: Koch Sulfur Products
 RR#, St. Address, Box #: 4111 E. 37th Street North Board of Agriculture, Division of Water Resources
 City, State, ZIP Code: Wichita, KS. 67220 Application Number:

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:  4 DEPTH OF COMPLETED WELL 182.0 ft. ELEVATION:
 Depth(s) Groundwater Encountered 1 ft. 2 ft. 3 ft.
 WELL'S STATIC WATER LEVEL 75.24 ft. below land surface measured on mo/day/yr 5-14-04
 Pump test data: Well water was ft. after hours pumping gpm
 Est. Yield gpm: Well water was ft. after hours pumping gpm
 WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
 1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)
 2 Irrigation 4 Industrial 7 Domestic (lawn & garden) 10 Monitoring well
 Was a chemical/bacteriological sample submitted to Department? Yes No X; If yes, mo/day/yr sample was submitted
 Water Well Disinfected? Yes No

5 TYPE OF BLANK CASING USED: 1 Steel 3 RMP (SR) 5 Wrought iron 8 Concrete tile CASING JOINTS: Glued Clamped
2 PVC 4 ABS 6 Asbestos-Cement 9 Other (specify below) Welded
 7 Fiberglass Threaded ✓
 Blank casing diameter in. to 16.9 ft. Dia in. to ft. Dia in. to ft.
 Casing height above land surface 32 in., weight lbs./ft. Wall thickness or gauge No. sch 40
 TYPE OF SCREEN OR PERFORATION MATERIAL: 1 PVC 10 Asbestos-Cement
 1 Steel 3 Stainless Steel 5 Fiberglass 8 RMP (SR) 11 Other (Specify)
 2 Brass 4 Galvanized Steel 6 Concrete tile 9 ABS 12 None used (open hole)
 SCREEN OR PERFORATION OPENINGS ARE: 5 Gauzed wrapped 8 Saw cut 11 None (open hole)
 1 Continuous slot 3 Mill slot 010 6 Wire wrapped 9 Drilled holes
 2 Louvered shutter 4 Key punched 169 7 Torch cut 10 Other (specify) ft.
 SCREEN-PERFORATED INTERVALS: From 0 ft. to 182 ft., From ft. to ft.
 From ft. to ft., From ft. to ft.
 GRAVEL PACK INTERVALS: From 166.9 ft. to 182 ft., From ft. to ft.
 From ft. to ft., From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other
 Grout Intervals: From 0 ft. to 166.9 ft., From 166.9 ft. to 166.9 ft., From ft. to ft.
 What is the nearest source of possible contamination: 10 Livestock pens 14 Abandoned water well
 1 Septic tank 4 Lateral lines 7 Pit privy 11 Fuel storage 15 Oil well/Gas well
 2 Sewer lines 5 Cess pool 8 Sewage lagoon 12 Fertilizer storage 16 Other (specify below)
 3 Watertight sewer lines 6 Seepage pit 9 Feedyard 13 Insecticide storage Rainwater
 Direction from well? 999 How many feet? 999

FROM	TO	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
			<u>0</u>	<u>.5</u>	<u>Cement cap</u>
			<u>.5</u>	<u>161.9</u>	<u>neat cement</u>
			<u>161.9</u>	<u>166.9</u>	<u>Bentonite chips</u>
			<u>166.9</u>	<u>182</u>	<u>10/20 sand</u>

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 4/23/04 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's Licence No. 665 This Water Well Record was completed on (mo/day/yr) 5/13/04 under the business name of Proff Well Environmental by (signature) Steven E. Gill



SHAW Environmental, Inc.

BORING LOGS

PROJECT NUMBER: 103353	PROJECT NAME: KOCH INDUSTRIES DeSoto, Kansas
BORING NUMBER: DG-5	COORDINATES: _____ DATE: 4/22/04
ELEVATION: _____	GWL: Depth ^{75.24 ft} BTOC Date 5/14/04 DATE STARTED: 4/22/04
ENGINEER/GEOLOGIST: Rick Ellis	Depth _____ Date _____ DATE COMPLETED: 4/22/04
DRILLING METHODS: Air Hammer w/ 6 1/2" Bit	PAGE: 1 OF 8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
0 1 — 2 — 3 — 4 — 5 6 — 7 — 8 — 9 — 10 11 — 12 — 13 — 14 — 15 16 — 17 — 18 — 19 — 20 21 — 22 — 23 — 24 — 25	Gravel at surface Brown fill dirt w/ gravel ,some clay, slightly plastic, slightly moist Dark brown silty clay to clay,plastic Bedrock @ 11ft. Gray limestone,mostly unweathered, dry Gray shale, somewhat soft, friable, no staining, dry Limestone w/ some shale, gray, dry Gray shale; friable, dry ,some gray limestone	Started drilling at 12:55 Logged cuttings collected every 5ft

Drilling Contractor: Pratt Well Service
Drilling Equipment: Failing SD300 w/air
Driller: Mac McCaskey



SHAW Environmental, Inc.

BORING LOGS

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BORING NUMBER:	DG-5	COORDINATES:	DATE:	4/22/04
ELEVATION:		GWL: Depth	75.24ft BTOC	Date 5/14/04
ENGINEER/GEOLOGIST:	Rick Ellis	Depth	Date	DATE COMPLETED: 4/22/04
DRILLING METHODS:	Air Hammer w/ 6 1/2" Bit			PAGE: 2 OF 8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
25 26 — 27 — 28 — 29 — 30 31 — 32 — 33 — 34 — 35 36 — 37 — 38 — 39 — 40 41 — 42 — 43 — 44 — 45 46 — 47 — 48 — 49 — 50	— Gray shale, friable, dry, some gray limestone — Shale, gray, friable, dry to slightly moist — Limestone, light gray to gray, dry — Shaley limestone, gray, dry — Shaley limestone, gray, dry — Shaley limestone, gray, dry	40ft @13:22

Drilling Contractor: Pratt Well Service
Drilling Equipment: Failing SD300 w/air
Driller: Mac McCaskey



Shaw[®] SHAW Environmental, Inc.

BORING LOGS

PROJECT NUMBER:	103353	PROJECT NAME:	KOCH INDUSTRIES DeSoto, Kansas	
BORING NUMBER:	DG-5	COORDINATES:	DATE:	4/22/04
ELEVATION:		GWL: Depth	^{75.24ft} BTOC	Date 5/14/04
ENGINEER/GEOLOGIST:	Rick Ellis	Depth	Date	DATE COMPLETED: 4/22/04
DRILLING METHODS:	Air Hammer w/ 6 1/2" Bit			PAGE: 3 OF 8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
50	Shaley limestone, gray, dry	
51		
52		
53		
54		
55	Limestone, light gray, unweathered, dry	
56		
57		
58		
59		
60	Limestone, light gray, micrite, non-fossiliferous, no staining so interpreted to be unweathered, dry	60ft @ 13:35
61		
62		
63		
64		
65	Shaley limestone, gray, unweathered, dry	65ft @ 13:46
66		
67		
68		
69		
70	Limestone, light gray, dry	70ft @ 13:50
71		
72		
73		
74		
75	Fossiliferous limestone, gray, bryozoans, dry	

Drilling Contractor: Pratt Well Service
 Drilling Equipment: Failing SD300 w/air
 Driller: Mac McCaskey



SHAW Environmental, Inc.

BORING LOGS

PROJECT NUMBER:	103353	PROJECT NAME:	KOCH INDUSTRIES DeSoto, Kansas	
BORING NUMBER:	DG-5	COORDINATES:	DATE:	4/22/04
ELEVATION:		GWL: Depth	75.24ft BTOC	Date 5/14/04
ENGINEER/GEOLOGIST:	Rick Ellis	Depth	Date	DATE COMPLETED: 4/22/04
DRILLING METHODS:	Air Hammer w/ 6 1/2" Bit			PAGE: 4 OF 8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
75 76— 77— 78— 79— 80 81— 82— 83— 84— 85 86— 87— 88— 89— 90 91— 92— 93— 94— 95 96— 97— 98— 99— 100	Fossiliferous limestone, gray, fossils are bryozoans, dry Fossiliferous limestone, gray, bryozoans, dry Shale, dark gray, dry Gray limestone & dark gray shale, dry Predom fossiliferous (bryozoan) limestone, w/ some very dark gray shale, dry Limestone, light gray, very angular cuttings (very hard), dry	 80ft @ 14:00 85ft @ 14:09 100ft @ 14:16, drilling becomes very hard

Drilling Contractor: Pratt Well Service
Drilling Equipment: Failing SD300 w/air
Driller: Mac McCaskey



SHAW Environmental, Inc.

BORING LOGS

PROJECT NUMBER: 103353	PROJECT NAME: KOCH INDUSTRIES DeSoto, Kansas		
BORING NUMBER: DG-5	COORDINATES:	DATE: 4/22/04	
ELEVATION:	GWL: Depth ^{75.24ft} BTOC	Date 5/14/04	DATE STARTED: 4/22/04
ENGINEER/GEOLOGIST: Rick Ellis	Depth	Date	DATE COMPLETED: 4/22/04
DRILLING METHODS: Air Hammer w/ 6 1/2" Bit	PAGE: 5 OF 8		

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
100	Limestone, light gray, very angular cuttings (very Hard), dry	
101		
102		
103		
104		
105	Limestone, light gray, very angular cuttings (very hard), micritic, homogeneous, dry	105ft @ 14:23
106		
107		
108		
109		
110	Limestone, gray, angular cuttings (hard), fossiliferous, dry	
111		
112		
113		
114		
115	Limestone, gray, angular cuttings (hard), fossiliferous, dry	115ft @ 14:30
116		
117		
118		
119		
120	Limestone, gray, angular cuttings (hard), micrite w/ fossils, dry	
121		
122		
123		
124		
125	Limestone, micrite, angular cuttings (hard), brownish gray, trace fossils, dry	

Drilling Contractor: Pratt Well Service
 Drilling Equipment: Failing SD300 w/air
 Driller: Mac McCaskey



SHAW Environmental, Inc.

BORING LOGS

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BORING NUMBER:	DG-5	COORDINATES:	DATE:	4/22/04
ELEVATION:		GWL: Depth	75.24ft BTOC	Date 5/14/04
ENGINEER/GEOLOGIST:	Rick Ellis	Depth	Date	DATE COMPLETED: 4/22/04
DRILLING METHODS:	Air Hammer w/ 6 1/2" Bit			PAGE: 6 OF 8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	REMARKS
125	Limestone, micrite, angular cuttings (hard), brownish gray, trace fossils, dry	
126		
127		
128		
129		
130	Limestone, micrite, angular cuttings (hard), brownish gray, trace fossils, dry	130ft @ 14:41
131		
132		
133		
134		
135	Limestone, micrite, angular cuttings (hard), brownish gray, trace fossils, dry	
136		
137		
138		
139		
140	Shale, gray, soft, dry	140ft @ 14:46
141		
142		Shut down for approx. 15 mins.
143		
144		
145	Shale, gray, soft, dry	
146		
147		
148		
149		
150	Shale, gray, soft, dry	150ft @ 15:09

Drilling Contractor: Pratt Well Service
 Drilling Equipment: Failing SD300 w/ air
 Driller: Mac McCaskey

