

Huntingdon

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January 19, 1995

Mr. Ken Buhler
Department of Environment and Natural Resources
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501



Dear Ken:

Subject: South Dakota Monitoring Well Plugging Reports
South Dakota Water Well Completion Reports

Enclosed please find the monitoring well plugging reports and well completion reports for the following sites:

MONITORING WELL PLUGGING REPORTS

Amoco Service Station #8725, Murdo, SD - five soil borings

Former Lowell's Service, Rapid City, SD - two monitoring wells abandoned by excavation

WELL COMPLETION REPORTS

Amoco Service Station #8725, Murdo, SD - three monitoring wells

As we discussed, I have attached soil boring/monitoring well logs and site sketches where necessary. For details, please refer to the attached reports. If you have any questions or need additional information please contact our office at (605) 348-5850.

Sincerely,

Jackie M. Barbo

Jackie M. Barbo
Environmental Scientist
Staff Professional

JMB/jmb

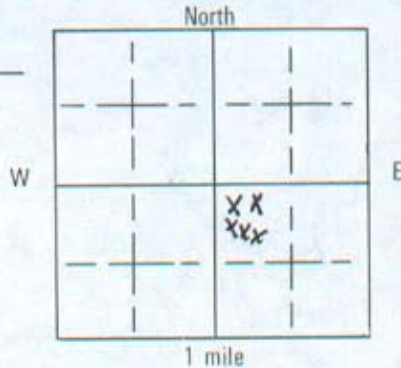
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SOUTH DAKOTA WELL AND TEST HOLE PLUGGING REPORT

10-85

Location NE 1/4 SE 1/4 Sec 12 Twp 25 Rg 28E

County

JONESPlease mark well
location with
an "X"

Well Owner:

Name AMOCO OIL COMPANYAddress TWIN CITIES DISTRICT
SOUTHGATE OFFICE PLAZA, SUITE 890
5001 WEST 80TH STREET
MINNEAPOLIS, MN. 55437-1108Plugging completion Date 11-15/16-94

CHECK APPROPRIATE BOX

EXISTING WELL



TEST HOLE



Well depth

Casing material

Casing size(s)

Casing condition

Hole depth

Hole size

25'-30'
6"
SEE ATTACHED SOIL BORING LOGS
FOR SB-18, AND SB-22-25Describe plugging procedure: PRESSURE GROUTED. A HOSE WAS LOWERED
INTO HOLE AND GROUTED TO SURFACE WITH GROUT.Describe grout or plugging material: 3-94 lb BAGS OF CEMENT TO 1/4 BAG
OF BENTONITE PER BATCH.

Type of non-slip plug:

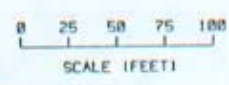
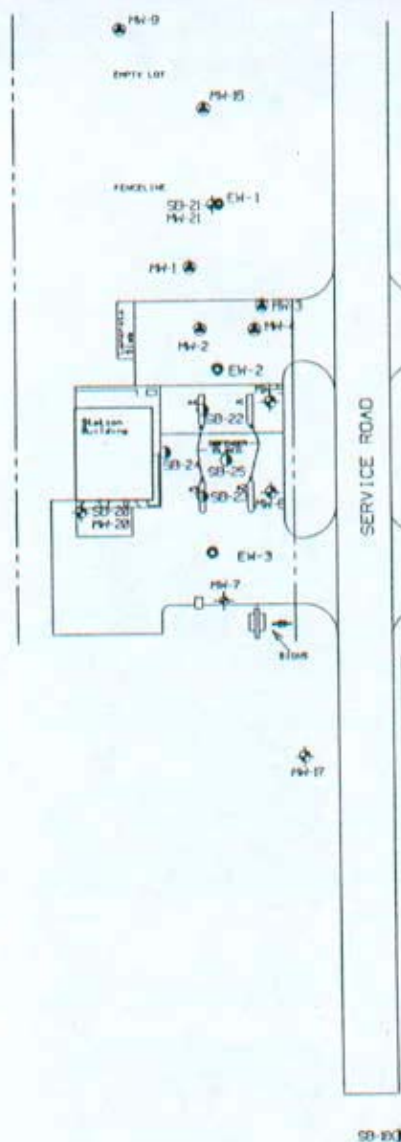
This well or test hole was plugged under license # 565 And this report is true and accurate.Drilling firm HUNTINGDON ENG. AND ENVIRONMENTAL, INC.

Signature of Licensed Representative

Signature of Well Owner

Date

1/19/95



- LEGEND**
- ⊕ MONITORING WELL
 - ⊙ SOIL BORING (SB)
 - ⊖ EXTRACTION WELL
 - ⊗ ABANDONED MONITORING WELL
 - MW-1 1-28-94
 - MW-916 3-1-94
 - MW-23,4 4-27-94

TITLE: FIGURE 2 SITE SKETCH AMOCO STATION #8723 MURDO, SOUTH DAKOTA	
PROJECT #: 6100 94-0082/ 94-0174	
DATE: 1-16-95	SCALE: 1"=100'
DRAWN BY: KBJ	CHECKED BY: JMB



STATEMENT: THE SCALE OF THIS MAP IS NOT TO SCALE

SB-8
MW-9

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SOIL BORING AND MONITORING WELL LOG

JOB NO. 6100-94-0082 VERTICAL SCALE 1" = 5' WELL NO. n/a BORING NO. SB-18
 PROJECT Amoco 8723 Murdo, South Dakota

Depth in Feet	Description of Material SURFACE ELEVATION <u>94.65</u>	Geologic Origin	Sample NO.	TYPE	hnu (ppm)	STANDPIPE ELEVATION <u>n/a</u> Well Construction
	TOPSOIL WITH ORGANICS	Fine Alluvium	1	SB	ND	
	FAT CLAY, brown, moist (CH)	Fine Alluvium	2	SB	ND	
5			3	SB	ND	
			4	SB	ND	
10			5	SB	ND	
			6	SB	ND	
15	(with gypsum lenses)		7	SB	ND	
			8	SB	ND	
20			9	SB	ND	
			10	SB	ND	
25			11	SB	ND	
			12	SB	190	
30	END OF BORING					
35						

WATER LEVEL MEASUREMENTS						START <u>11-14-94</u>	COMPLETE <u>11-14-94</u>
DATE	TIME	SAMPLED DEPTH	CAVE-IN DEPTH	WATER LEVEL	WATER ELEVATION	METHOD	@
11-15-94	8:00	30.0	-	-	-	6" HSA to 30.0'	17:00
CREW CHIEF						Diers	

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SOIL BORING AND MONITORING WELL LOG

JOB NO. 6100-94-0082 VERTICAL SCALE 1" = 5' WELL NO. n/a BORING NO. SB-22
 PROJECT Amoco 8723 Murdo, South Dakota

Depth in Feet	Description of Material	Geologic Origin	Sample NO.	TYPE	hnu (ppm)	STANDPIPE ELEVATION <u>n/a</u>
	SURFACE ELEVATION <u>99.52</u>					Well Construction
	GRAVEL AND CONCRETE DEBRIS	Fill	1	SB	ND	
			2	SB	ND	
5	FAT CLAY, gray stained, moist (CH)	Fine Alluvium	3	SB	85	
			4	SB	210	
10			5	SB	210	
			6	SB	210	
15			7	SB	220	
			8	SB	200	
20			9	SB	210	
	(with gypsum lenses, wet)		10	SB	260	
25			11	SB	190	
	(water bearing)		12	SB	190	
30	END OF BORING					
35						

WATER LEVEL MEASUREMENTS						START <u>11-16-94</u>	COMPLETE <u>11-16-94</u>
DATE	TIME	SAMPLED DEPTH	CAVE-IN DEPTH	WATER LEVEL	WATER ELEVATION	METHOD	
11-16-94	9:15	30.0	-	-	-	6" HSA to 30.0'	@ 9:15
						CREW CHIEF	Diers

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SOIL BORING AND MONITORING WELL LOG

JOB NO. 6100-94-0082 VERTICAL SCALE 1" = 5' WELL NO. n/a BORING NO. SB-23
 PROJECT Amoco 8723 Murdo, South Dakota

Depth in Feet	Description of Material SURFACE ELEVATION <u>98.95</u>	Geologic Origin	Sample NO.	TYPE	hnu (ppm)	STANDPIPE ELEVATION <u>n/a</u> Well Construction
	GRAVEL AND CONCRETE DEBRIS	Fill	1	SB	ND	
			2	SB	ND	
5	FAT CLAY, gray to black stain, moist (CH)	Fine Alluvium	3	SB	260	
			4	SB	220	
10	LEAN TO FAT CLAY, brown, moist (CL-CH)		5	SB	250	
			6	SB	100	
15			7	SB	75	
			8	SB	280	
20	WEATHERED FAT CLAY, brown, moist (CH) (water bearing)		9	SB	240	
			10	SB	200	
25			11	SB	205	
			12	SB	180	
30	END OF BORING					
35						

WATER LEVEL MEASUREMENTS						START <u>11-16-94</u>	COMPLETE <u>11-16-94</u>
DATE	TIME	SAMPLED DEPTH	CAVE-IN DEPTH	WATER LEVEL	WATER ELEVATION	METHOD	
11-16-94	10:20	25.0	25.0	-	-	6" HSA to 30.0'	@ 10:20
CREW CHIEF						Diers	

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SOIL BORING AND MONITORING WELL LOG

JOB NO. 6100-94-0082 VERTICAL SCALE 1" = 5' WELL NO. n/a BORING NO. SB-24
 PROJECT Amoco 8723 Murdo, South Dakota

Depth in Feet	Description of Material SURFACE ELEVATION <u>99.47</u>	Geologic Origin	Sample NO.	TYPE	hnu (ppm)	STANDPIPE ELEVATION <u>n/a</u>
						Well Construction
	CONCRETE AND BASE COURSE	Fill	1	SB	ND	
	FAT CLAY, brown, moist (CH)	Fine Alluvium	2	SB	ND	
5	LEAN TO FAT CLAY, brown, moist (CL-CH)		3	SB	ND	
			4	SB	ND	
10			5	SB	ND	
			6	SB	ND	
15	WEATHERED FAT CLAY, brown, moist (CH)		7	SB	2	
			8	SB	5	
20			9	SB	3	
	(water bearing)		10	SB	220	
25	END OF BORING					
30						
35						

WATER LEVEL MEASUREMENTS

START 11-16-94 COMPLETE 11-16-94

DATE	TIME	SAMPLED DEPTH	CAVE-IN DEPTH	WATER LEVEL	WATER ELEVATION	METHOD	@
11-16-94	11:30	25.0	-	-	-	6" HSA to 25.0'	11:30
						CREW CHIEF	Diers

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SOIL BORING AND MONITORING WELL LOG

JOB NO. 6100-94-0082 VERTICAL SCALE 1" = 5' WELL NO. n/a BORING NO. SB-25
 PROJECT Amoco 8723 Murdo, South Dakota

Depth in Feet	Description of Material SURFACE ELEVATION <u>98.92</u>	Geologic Origin	Sample NO.	TYPE	hau (ppm)	STANDPIPE ELEVATION <u>n/a</u>
						Well Construction
	CONCRETE AND BASE COURSE	Fill	1	SB	105	
	SAND, tan, moist		2	SB	50	
5	LEAN TO FAT CLAY, brown, moist (CL-CH)	Fine Alluvium	3	SB	10	
			4	SB	10	
10			5	SB	6	
			6	SB	4	
15	WEATHERED FAT CLAY, brown, moist (CH)		7	SB	6	
			8	SB	45	
20			9	SB	210	
	(water bearing)		10	SB	190	
25	END OF BORING					
30						
35						

WATER LEVEL MEASUREMENTS

START 11-16-94 COMPLETE 11-16-94

DATE	TIME	SAMPLED DEPTH	CAVE-IN DEPTH	WATER LEVEL	WATER ELEVATION	METHOD <u>6" HSA to 25.0'</u>	@ <u>13:00</u>
11-16-94	12:45	25.0	-	-	-		
						CREW CHIEF	Diers

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