

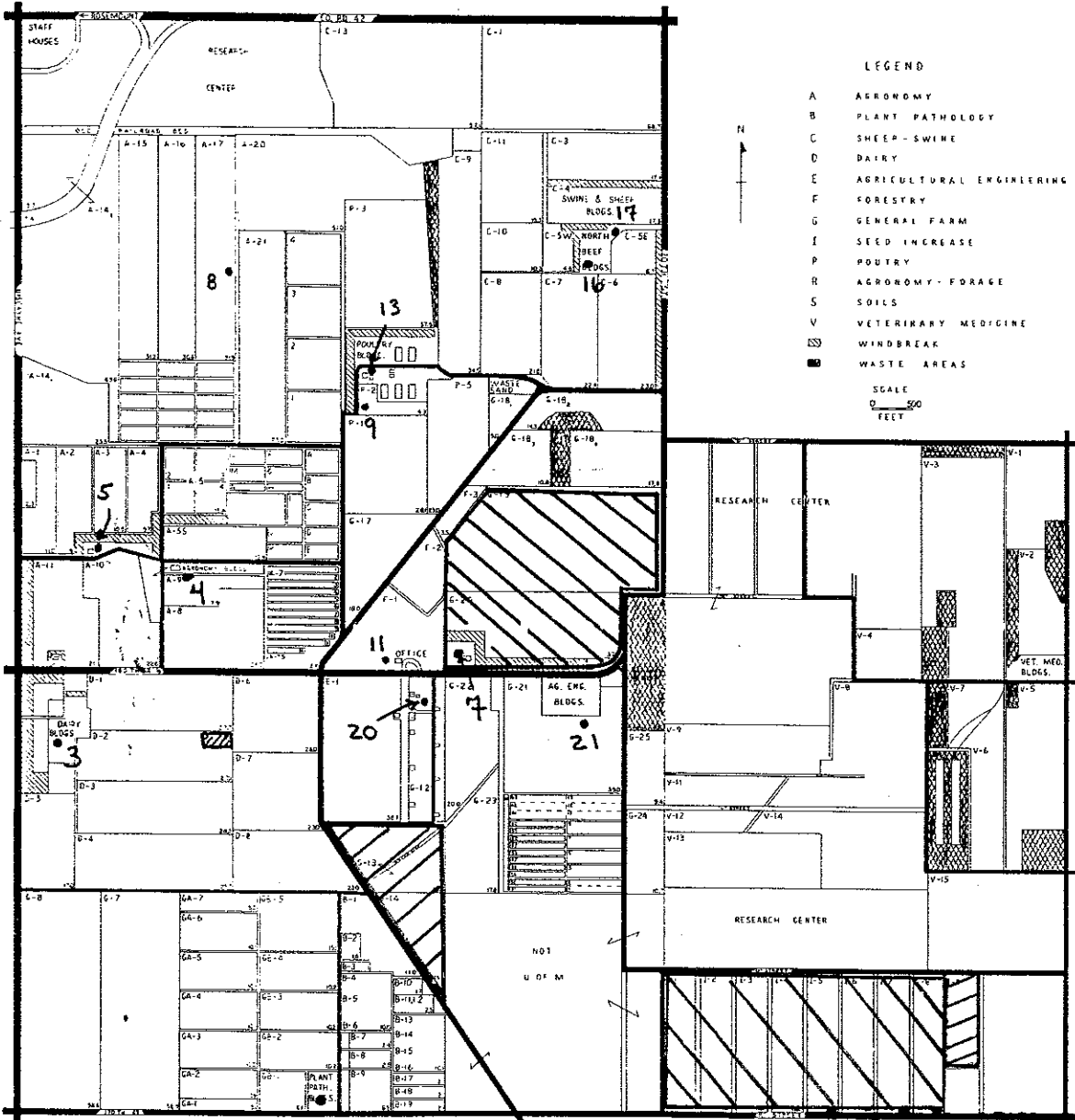
Well Inventory - Agricultural Research Center

Map Designation (#)

Site Description

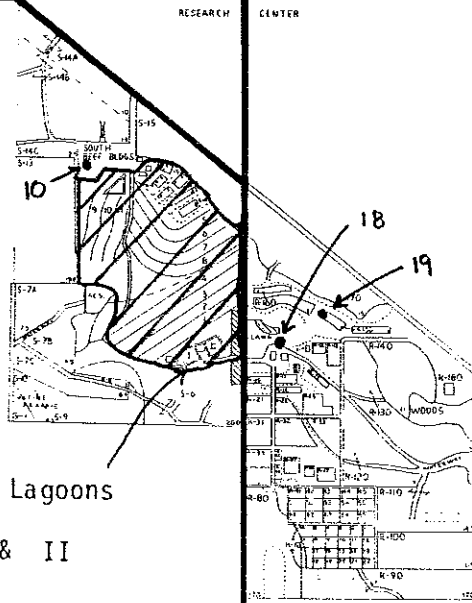
| | |
|-----|------------------------------------|
| 1* | RRC Well #1 |
| 2* | RRC Well #2 |
| 3 | Dairy Farm |
| 4 | Near Elliot Farm (No. 1) |
| 5 | Farm House |
| 7 | Superintendent's Residence |
| 8 | Abandoned Well |
| 9 | Poultry Well No. 1 (Field Well) |
| 10 | South Beef Farm |
| 11 | Office - U of M A.R.S. |
| 12* | (not used) |
| 13 | Poultry Farm No. 2 |
| 14 | Plant Pathology |
| 15* | Swine Farm Field |
| 16 | North Beef Farm (old) |
| 17 | North Beef Farm (new) |
| 18 | |
| 19 | Agronomy Farm |
| 20 | Service Area Well |
| 21 | Agricultural Engineering |
| 22* | Home of Norm Ellingson (Bill Cook) |

UNIVERSITY OF MINNESOTA
 AGRICULTURAL EXPERIMENT STATION
 ROSEMOUNT MINNESOTA



Sludge fields- ▨
 Agricultural Experiment Station Wells- ●
 (Well logs are available)

Sludge Lagoons
 I & II



Source: Labno, B.A.

" The Hydrogeologic Implication of
Chemical Disposal in a Glaciated
Terrain, Rosemount, Minnesota,"
MS Thesis, U of M, 1973.

LOCAL STUDY AREA WELL LOGS

| LOCATION | WELL LOG | DEPTH | ELEVATION (Feet) |
|----------------|--------------------------------------|----------------------|---------------------|
| T114N, R19W | | | |
| SECTION: 2 BBD | TEST BORING | | 933 [±] |
| | Sand and gravel | 0-49 | |
| | Brown to dark brown | 49-63.5 | |
| | Clay with a little gravel | | |
| | Osp sandstone | 63.5-75.1 | |
| | Source: Britzius (1965) | | |
| SECTION: 3 CCD | FARM RUINS | | 935 [±] |
| | Sand and gravel | 0-50 | |
| | Osp Sandstone | 50-80 [±] | |
| | Source: Schwartz (1936) | | |
| 3BBA | AGRICULTURAL ENGINEERING BUILDING | | 941 [±] |
| | Clay | 0-18 | |
| | Sand and gravel | 18-60 | |
| | Clavey gravel and boulders | 60-78 | |
| | Brown clay | 78-89 | |
| | Blue clay | 89-130 | |
| | Clavey gravel | 130-139 | |
| | Brown clavey gravel and boulders | 139-151 | |
| | Opc Limestone | 151-206 [±] | |
| | Source: Agricultural Station Records | | |
| 3BBD | DAIRY FARM ✓ | | 954 [±] |
| | Black topsoil | 0.0-1.5 | |
| | Sandy clay | 1.5-5.0 | |
| | Hardpan(?) | 5.0-102.0 | |
| | Sandy blue clay | 102.0-125.0 | |
| | Sandy Brown Clay | 125.0-135.0 | |
| | Fine brown rotten sandrock (Osp?) | 135.0-153.0 | |
| | Fine dirty sand and gravel | 153.0-161.6 | |

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|-----------------------------------|-------------|-----------|
| | Opc dolomite | 161.6-263.0 | |
| | Dolomite (streaks of sandrock) | 263.0-325.0 | |
| | Dolomite | 325.0-355.0 | |
| | Dolomite (traces of sandrock) | 355.0-366.0 | |
| | 6j sandrock | 366.0-429.2 | |

Source: Agricultural Station Records

SECTION: 4 AAA WORKMAN'S CHANGE HOUSE (1966) 945[±]

| | |
|--|---------|
| Clay | 0-5 |
| Gravel | 5-35 |
| Blue clay | 35-130 |
| Red clay and sand | 130-150 |
| Red clay and gravel, hardpan very hard, | |
| Opc limestone | 150-170 |

Source: Agricultural Station Records

4 DDB PLANT PATHOLOGY (1961) ✓ 942[±]

| | |
|----------------------|---------|
| Soil | 0-2 |
| Sand | 2-72 |
| Sandstone? | 72-105 |
| Sandstone and gravel | 105-120 |
| Shale ? and gravel | 120-130 |
| Sand and gravel | 130-148 |
| Opc dolomite | 148-340 |
| 6j sandstone | 340-415 |

Source: Agricultural Station Records

SECTION: 10 ACB SOUTH BEEF FARM (1951) 983[±]

| | |
|-----------------------------|---------|
| Black dirt | 0-3 |
| Yellow clay, some stones | 3-22 |
| Dry sand | 22-25 |
| Blue clay | 25-55 |
| Hardpan | 55-110 |
| Sandy clay | 110-125 |
| Opc dolomite | 125-350 |
| 6j sandstone | 350-432 |

Source: Agricultural Station Records

LOCATION WELL LOG DEPTH ELEVATION

SECTION: 11DCD TEST BORING

Soil 0.0-4.0
 Light brown medium
 to coarse sand with
 a little gravel 4.0-13.5
 Osp light brown
 sandstone 13.5-17.9+
 Source: Britzius (1965)

11DCD TEST BORING 923

Soil 0.0-1.5
 Light brown to
 medium sand with
 a little gravel 1.5-17.0
 Osp light brown to
 white sandstone 17.020.4+
 Source: Britzius (1965)

11DCA TEST BORING 922

Soil 0.0-2.0
 Light brown to brown
 medium to coarse
 sand with a little
 gravel 2.0-56.6
 Osp light brown
 sandstone 56.6-72.8
 Opc light brown
 dolomite 72.8-77.8
 Source: Britzius (1965)

11CCB AGRONOMY FARM (1947)

Clay and loam 0-5
 Sand and gravel 5-10
 Dirty sand 10-90
 Osp sandstone (dark) 90-120
 Sandstone (light-
 er color) 120-140
 Sandstone (lighter) 140-180
 Opc limestone 180-220

Source: Agricultural Station Records

T115N, R19W

SECTION: 26DAD HOME OF NORM ELLINGSON (1969) 955

Clay 0-20

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|----------|-------|-----------|
|----------|----------|-------|-----------|

| | | | |
|--|--------|---------|--|
| | Gravel | 20-110 | |
| | Clay | 110-140 | |
| | Gravel | 140-150 | |
| | Clay | 150-160 | |
| | Gravel | 160-170 | |

Source: Rosemount Research Center Records

26 DCD ABANDONED WELL (1960) 930+

| | | | |
|--|----------------------|---------|--|
| | Sand and gravel | 0-75 | |
| | Blue clay | 75-84 | |
| | Yellow clay | 84-90 | |
| | Sand and gravel | 90-130 | |
| | Opc broken limestone | 130-145 | |
| | Hard limestone | 145-156 | |

Source: U.S. Geological Survey, St. Paul Office

26 CCA ROSEMOUNT RESEARCH CENTER 936.5
Well #1 (1942)

| | | | |
|--|---------------------------------|-------------|--|
| | Loam | 0.0-4.0 | |
| | Sand and gravel | 4.0-110-0 | |
| | Gravel, some clay | 110.0-131.5 | |
| | Sand | 131.5-160.5 | |
| | Opc sand and broken limerock | 160.5-168.5 | |
| | Limerock | 168.5-305.5 | |
| | Ej Yellow sandstone | 305.5-370.5 | |
| | Gray sandstone | 370.5-410.5 | |

Source: Rosemount Research Center Records

26 AAD HOME OF RANDALL HED (1972) 920[±]

| | | | |
|--|---------------|---------|--|
| | Clay | 0-145 | |
| | Opc limestone | 145-177 | |

Source: Genz-Ryan Plumbing and Heating,
Rosemount

26 CBC PRIVATE HOME 940[±]

| | | | |
|--|---------------|---------|--|
| | Drift | 0-170 | |
| | Opc limestone | 170-215 | |

Source: U.S. Geological Survey, St. Paul Office

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|----------|-------|-----------|
|----------|----------|-------|-----------|

| | | | |
|----------------|----------------------------------|--|------------------|
| SECTION:27 ADC | VILLAGE HALL OF ROSEMOUNT (1965) | | 935 [±] |
|----------------|----------------------------------|--|------------------|

| | |
|---------------|---------|
| Gravel | 0-100 |
| Osp sandstone | 100-120 |
| Opc limestone | 120-155 |

Source: Genz-Ryan Plumbing and Heating,
Rosemount

| | | | |
|----------------|------------------------|--|------------------|
| SECTION:33 ADB | POULTRY FARM (1960) #2 | | 953 [±] |
|----------------|------------------------|--|------------------|

| | |
|--|---------|
| Brown sandy drift | 0-45 |
| Gray clay | 45-120 |
| Sand and gravel | 120-142 |
| Osp remnants of St. Peter sandstone | 142-181 |
| Opc Oneota-Shako- pee limerock | 181-350 |
| ej Jordan sandstone | 350-432 |

Source: Agricultural Station Records

| | | | |
|--------|-------------------|--|------------------|
| 33 ABB | FIELD WELL (1959) | | 954 [±] |
|--------|-------------------|--|------------------|

| | |
|----------------------------|---------|
| Loam and clay | 0-3 |
| Sand and gravel | 3-60 |
| Gravel and clay mixture | 60-93 |
| Osp sandstone | 93-153 |
| Opc limestone | 153-221 |

Source: Agricultural Station Records

| | | | |
|--------|--|--|------------------|
| 33 DDD | UNIVERSITY OF MINNESOTA AGRICULTURAL RESEARCH STATION OFFICE (1957) | | 948 [±] |
|--------|--|--|------------------|

| | |
|--------------------------|---------|
| Clay, gavel in layers | 0-30 |
| Clay in layers | 30-158 |
| Water bearing sand | 158-161 |
| Opc limerock | 161-166 |

Source: Agricultural Station Records

| | | | |
|--------|----------------------|--|------------------|
| 33 CDB | SWINE AND SHEEP FARM | | 950 [±] |
|--------|----------------------|--|------------------|

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|--|---------|-----------|
| | Sandy loam and sand | 0-12 | |
| | Clay-mixed with gravel | 12-72 | |
| | Sand | 72-92 | |
| | Coarse sand and gravel-dirty | 92-102 | |
| | Hardpan | 102-116 | |
| | Sand and clay | 116-130 | |
| | Clay and gravel | 130-146 | |
| | Clay and sand | 146-168 | |
| | Opc dolomite | 168-273 | |
| | Dolomite (streaks of sandrock and shale) | 273-291 | |
| | Dolomite | 291-359 | |
| | Dolomite (with sand-rock - gray | 359-373 | |
| | ej Jordan sandrock | 373-434 | |

Source: Agricultural Station Records

SECTION:34 ABA NAVAL ASTRONAUTICS BASE (1968) 930⁺

| | |
|----------------------|---------|
| Top soil | 0-2 |
| Sand | 2-15 |
| Coarse gravel | 15-93 |
| Yellow clay | 93-130 |
| Gravel and clay | 130-148 |
| Sand and gravel | 148-162 |
| Opc broken limestone | 162-188 |

Source: Aamot Well Drilling Co.

34 BAB NORTH BEEF FARM, OLD (1957) 945⁺

| | |
|---------------------------------|---------|
| Sand and gravel | 0-35 |
| Sand | 35-50 |
| Sand and gravel | 50-75 |
| Sand, gravel, clay in layers | 75-100 |
| Water Bearing Sand | 100-115 |

Source: Agricultural Station Records

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|----------|-------|-----------|
|----------|----------|-------|-----------|

| | | | |
|--------|-----------------------------|--|------------------|
| 34 BAA | NORTH BEEF FARM, NEW (1970) | | 940 [±] |
|--------|-----------------------------|--|------------------|

| | | | |
|--|-----------------|---------|--|
| | Black dirt | 0-2 | |
| | Gravel and sand | 2-90 | |
| | Blue clay | 90-120 | |
| | Water sand | 120-134 | |

Source: Agricultural Station Records

| | | | |
|--------|-----------------------------------|--|------------------|
| 34 CCC | SUPERINTENDENT'S RESIDENCE (1953) | | 953 [±] |
|--------|-----------------------------------|--|------------------|

| | | | |
|--|------------------------------------|---------|--|
| | Clay to almost loam at lower depth | 0-140 | |
| | Sandy clay | 140-180 | |
| | Sand to coarse sand and gravel | 180-195 | |
| | Gravel to limestone (Opc) | 195-235 | |

Wood samples were taken from approximately 185-192 feet depth.

Source: Agricultural Station Records

| | | | |
|----------------|--|--|-----|
| SECTION:35 BAB | ROSEMOUNT RESEARCH CENTER Well #2 (1942) | | 937 |
|----------------|--|--|-----|

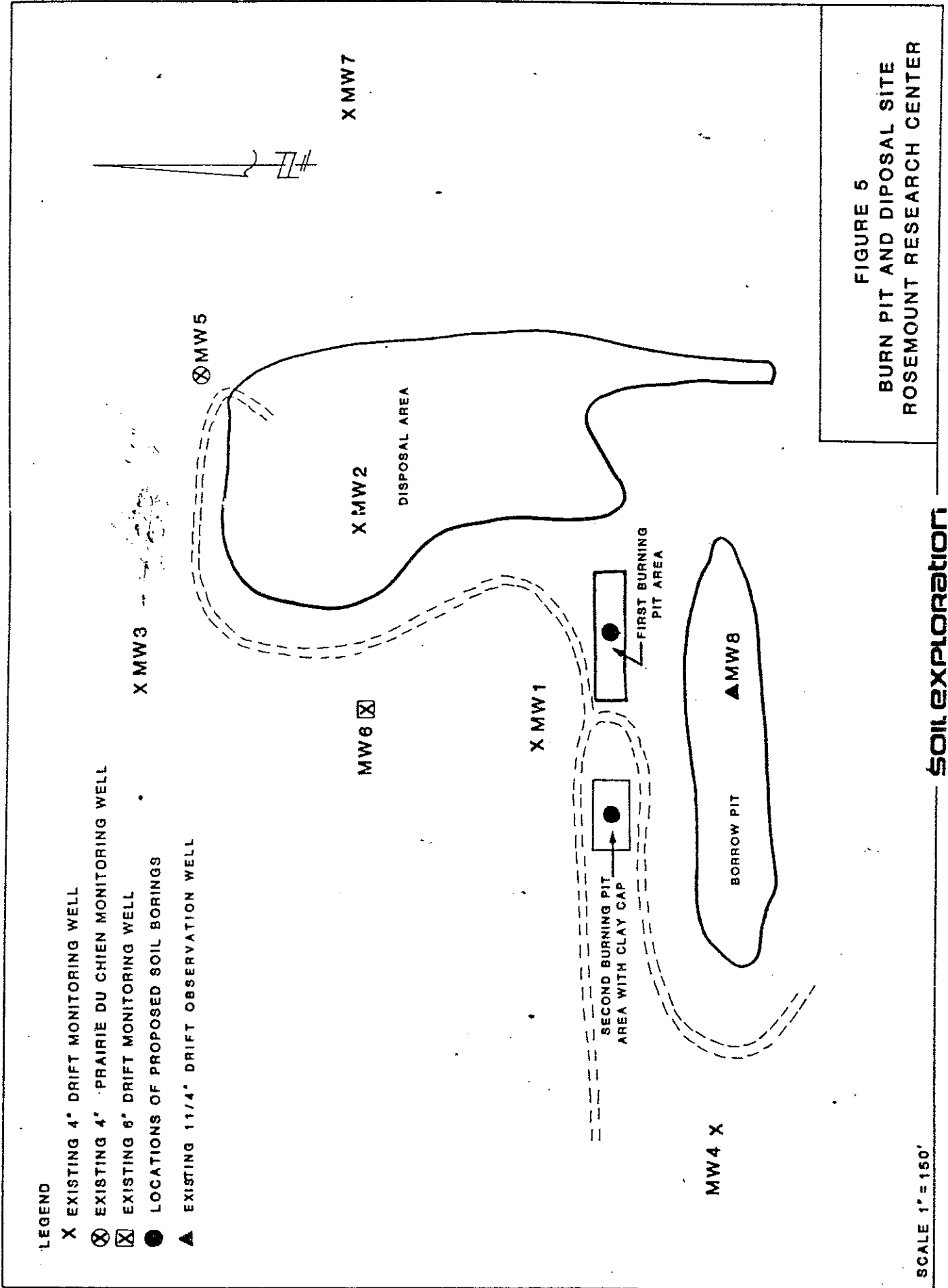
| | | | |
|--|-----------------------------|-------------|--|
| | Gray loam | 0.0-2.0 | |
| | Sand and gravel | 2.0-78.0 | |
| | Hardpan | 78.0-80.0 | |
| | Blue clay | 80.0-101.0 | |
| | Sandy blue and yellow clay | 101.0-110.0 | |
| | Gray sand | 110.0-131.0 | |
| | Yellow sand | 131.0-153.0 | |
| | Opc rotten dolomite | 153.0-154.5 | |
| | Dolomite | 154.5-294.0 | |
| | Ej white sandrock | 294.0-298.0 | |
| | Yellow sandrock | 298.0-353.0 | |
| | Esl gray sandrock and shale | 353.0-383.0 | |
| | Gray or blue shale | 383.0-390.0 | |

Source: Rosemount Research Center Records

| LOCATION | WELL LOG | DEPTH | ELEVATION |
|----------|----------|-------|-----------|
|----------|----------|-------|-----------|

MONITORING WELLS AT THE CHEMICAL WASTE
DISPOSAL SITE: T115N, R19W, SEC. 35, C.
(See Map p. 13).

| | | | |
|----------------------|---------|--|--------|
| Well #1 | | | 931.08 |
| Sand and gravel | 0-73 | | |
| Well #2 | | | 910.45 |
| Sand and gravel | 0-30 | | |
| Fine sand and gravel | 30-40 | | |
| Sand and gravel | 40-51 | | |
| Well #3 | | | 928.61 |
| Sand and gravel | 0-40 | | |
| Fine sand and gravel | 40-65 | | |
| Clayish gravel | 65-73 | | |
| Well #4 | | | 928.43 |
| Sand and gravel | 0-73 | | |
| Clay and gravel | 73-78 | | |
| Well #5 | | | 929.82 |
| Sand and gravel | 0-78 | | |
| Red clay | 78-80 | | |
| Gray clay | 80-110 | | |
| <u>Opc limestone</u> | 110-120 | | |
| Well #6 | | | 929.04 |
| Sand and gravel | 0-40 | | |
| Sandy clay | 40-63 | | |
| Sand and gravel | 63-72 | | |
| Yellow clay | 72-83 | | |
| Well #7 | | | 930.76 |
| Sand and gravel | 0-85 | | |
| Well #8 | | | 921.89 |
| Sand and gravel | 0-20 | | |
| Fine sand | 20-30 | | |
| Sand and gravel | 30-65 | | |
| Gray clay | 65-100 | | |
| Opc dolomite chips | at 100 | | |



- LEGEND**
- X EXISTING 4" DRIFT MONITORING WELL
 - ⊗ EXISTING 4" PRAIRIE DU CHIEN MONITORING WELL
 - ⊠ EXISTING 6" DRIFT MONITORING WELL
 - LOCATIONS OF PROPOSED SOIL BORINGS
 - ▲ EXISTING 1 1/4" DRIFT OBSERVATION WELL

FIGURE 5
BURN PIT AND DISPOSAL SITE
ROSEMOUNT RESEARCH CENTER

SOIL EXPLORATION
Company

SCALE 1" = 150'