102834

R-585-8-5-36

NON-SAMPLING SITE RECONNAISSANCE SUMMARY REPORT
BERKS LANDFILL
PREPARED UNDER

TDD NO. F3-8506-19
EPA NO. PA-180
CONTRACT NO. 68-01-6699

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 17, 1985

NUS CORPORATION
SUPERFUND DIVISION

NUS CORPORATION
992 OLD EAGLE SCHOOL ROAD
SUITE 918
WAYNE, PENNSYLVANIA 19087
(215) 687-9510

September 17, 1985
R-585-8-5-36
68-01-6699

Mr. Harold Byer
U.S. Environmental Protection Agency
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, PA 19107

Subject: Non-sampling Site Reconnaissance Summary Report
TDD No. F3-8506-19
Berks Landfill
Sinking Spring, Pennsylvania

Dear Mr. Byer:

NUS FIT III was tasked to conduct a Non-sampling Site Reconnaissance for the subject site. Based on our review of available data and the site visit, we have concluded that EPA should consider the following:

- A low priority site inspection should be performed at the subject site.

Background Information

The site, owned and operated by Robert DeMeno since January 1984, is comprised of 2 areas, the active landfill and the inactive landfill. The permitted, active landfill, which accepts municipal refuse and demoliton debris, is approximately 48 acres in size. The inactive landfill consists of approximately 10 acres. Reports indicate that this portion of the site was permitted to receive industrial sludge. However, information prepared by E.M.S. Resource Group, Incorporated, consultants to Berks Landfill, dated September 20, 1984, states that the only waste disposed of in this area was a stabilized sludge that was generated by Carpenter Technology Corporation of Reading. The sludge was deposited in the south end of the inactive landfill and a monitoring well was installed in the center. Laboratory analysis of the leachate from the stabilized sludge and the groundwater results suggest there are no immediate threats to public health.

Prior to receiving industrial waste, the site was granted a water quality permit to discharge treated leachate from their solid waste operation (surface impoundments) into an unnamed tributary to the Cacoosing Creek. However, the site was in violation for noncompliance of water quality standards. As a result, discharging practices were haulted and the potential for impoundment overflow was high. Surface leachate was also finding its way to the tributary. A site reconnaissance performed by NUS FIT III on July 10, 1985 reported that the owner is currently in the process of relining the impoundments and 3 are to be completed by the end of this year. One impoundment was empty and the other 3 had approximately 3 feet of freeboard. The leachate has been hauled away to a treatment plant for a least 1 year at the rate of 3 truck loads per day.

The site is monitored by 7 monitoring wells along with natural drainage patterns and a leachate collection system. Four surface impoundments, with a holding capacity of approximately 2 million gallons, are situated at the base of the northwestern portion of the active landfill. The monitoring points were jointly sampled by Pennsylvania Department of Environmental Resources (PA DER) and Century Laboratories, Incorporated, contractors to E.M.S. Resource Group, Incorporated, on March 19, 1985. This analysis, which is normally conducted quarterly, detected the presence of trichloroethene (TCE) and other constituents in the groundwater. However, 16 home wells were reported to have been sampled in the area of the site and have shown no signs of contamination.

The solid waste permit for the active landfill is presently under review by PA DER. Since the recent change in ownership of the facility, a citizens group is demanding that PA DER deny the reissuance of the permit to the landfill. A geo-hydrological study is currently being conducted by E.M.S. Resource Group, Incorporated and information obtained from this study will soon be available.

Contacts

Prior to Field Trip

Robert DeMeno
President
Berks Landfill
R.D. No. 8348, Wheatfield Road
Sinking Spring, PA 19608
(215) 584-9880

Joseph Pomponi
PA DER
520 E. Broad Street
Bethlehem, PA 18018
(215) 861-2070

Roger McGuigan
Consultant
Berks Landfill
Sumney Forge Square
Valley Forge Road at
Sumneytown Pike
Lower Level
Lansdale, PA 19446
(215) 362-6116

John Kilcoyne
Attorney
Berks Landfill
36 South Trooper Road
Norristown, PA 19403
(215) 630-0300

At the Site

Robert DeMeno
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James A. Dolan
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Bethlehem, PA 18018
(215) 861-2070

Drinking Water Supply

Citizens Utility Water Company supplies the towns of Springmont, West Lawn, Sinking Spring, and West Wyomissing; 4 of their well sources are within a 1-mile radius and 4 other wells are within a 2-mile radius of the site.[5,6,7] Shillington Borough Water Department obtains their water from Western Berks Water Authority, which is supplied by Tulpehocken Creek, approximately 5 miles north of the site.[5,6] Colonial Hills, Gougherville, Pennwyn, Mohns Hill, Vinemont, Fritztown, and Montello residents rely on private well sources.[6] Camps within a 3-mile radius (i.e., Camp Orenda, Mohnton Boy Scout Camp, Camp Indiandale, YMCA Camp), restaurants, drive-in theaters, stores, trailer parks, and industrial plants may have private well sources as well as other sources.

Groundwater Information

Most groundwater in the Hammer Creek Formation reportedly is found and moves through bedding planes, joints, and faults.[4] These fractures are interconnected. Some groundwater may occur in the intergranular spaces of the sandstones.[4] The development of fracturing varies, and often is dependent on the texture and composition of the rock. In areas underlain by diabase, the weathered zone reportedly holds groundwater.[4] This zone is reported as having a maximum depth of 30 feet.[4] Water moves through joints and fractures in the diabase.[4] Diabase is generally considered to be a poor aquiferous unit.[4] Attached are well records from the Bureau of Topographical and Geological Survey, PA DER. This inventory lists most wells in Spring Township as having been constructed in the Brunswick Formation (TR); several are in the Hammer Creek Formation and only 1 well was in diabase.

Geology Information

Due to landfill operations, the original soil cover has probably been disturbed and altered. Soils mapped in the area belong to the Neshaminy Brecknock Series. Soils include No. C 3, Neshaminy silty clay loam, which have 8 to 15 percent slopes and are severely eroded; NsD, Neshaminy very stoney silt loam, with 5 to 25 percent slopes; BsC2, Brecknock channery silt loam, with 8 to 15 percent slopes; and Au, Atkins silt loam. Atkins silt loam is found along the streams draining the site area. It is considered a poorly drained soil, and it is described as having a black surface layer. Both the Brecknock and Neshaminy soils are deep and well drained. They are generally reddish in color and formed from the material weathered from the sedimentary rocks of the area, primarily shale and siltsone.[1] In the case of Brecknock silts, they were formed from the contact sedimentary rocks that were metamorphased by the heat and pressure accompanying diabase intrusion. Both soils are generally stoney. Neshaminy soils generally contain large boulders.

The site is situated in the Triassic Lowland section of the Piedmont Physiographic Province. The topography is characterized by an upland ridge (possibly formed of intruded diabase) whose steep flanks are incised by streams.[2] The site area has been mapped as being underlain by Triassic age rocks, sandstones of the Hammer Creek Formation, and a diabase sill, an igneous intrusive that is generally concordant with bedding.[3,4] Hammer Creek sandstones are described as being reddish-brown, fine- to coarse-grained quartzose sandstones.[3,4] Beds dip approximately 28 degrees to the northwest.[4] The diabase is grayish black, and is fine to medium grained in texture. The Gettysburg-Newark Triassic Basin is bounded to the north of the site by faults. Less than 1 mile east of the site area, a major fault sinuously trends in a northwest-southeast direction. Wells in Spring Township are primarily constructed in the Brunswick Formation. Some are listed as being constructed in the Hammer Creek Formation and in diabase.

Summary of Activities

On Wednesday, July 10, 1985, NUS staff members Thomas Pearce and Richard Callahan met with Robert MeMeno, owner, Roger McGuigan, consultant, and James Dolan, of PA DER, to perform a site reconnaissance of the subject site. On-site activities included visual inspection of the active and the inactive landfill, lagoons, and the locations of monitoring wells. Weather conditions at the time of the visit was partly sunny and the temperature was approximately 80°F.

Observations

- No readings above background were recorded with the HNU or mini-alert while on site.
- Leachate was noticed along the northern face of the active landfill. The leachate ponded at the base of the slope. There was also some drainage coming from the eastern portion of the fill; this drainage accumulated in the same area as the leachate.
- Natural drainage patterns and trees border the site on all sides.
- There was a total of 4 holding lagoons on site. One lagoon was empty and the other 3 had about 3 feet of freeboard.
- The diameter of all the on-site monitoring wells was at least 3 inches.
- The old landfill appeared to be well vegetated.
- Two on-site buildings were used for the repair and painting of equipment.

Conclusions

A site inspection for the subject site is recommended because of the recent sampling, which indicated possible contamination of the groundwater. A low priority has been assigned because it was reported that home wells in the area have shown no signs of contamination and that there are no known reports of complaints from local residents concerning their drinking water. Therefore, the site poses no known imminent threat to public health.

Proposed Sample Plan

- At least 4 on-site monitoring wells should be sampled. These will include 1 upgradient of the old landfill, 1 at the old landfill, and 2 downgradient of the site.
- Two drainage patterns outline the active landfill to the north and west. These drainage patterns junction in the vicinity and downgradient of the surface impoundments. Aqueous and sediment samples should be taken at both upgradient points and downgradient where the 2 streams meet.
- An aqueous and sediment sample should be taken where the leachate collection system discharges to the surface impoundments.

- Leachate was noticed along the northern face of the active landfill. This leachate ponded at the base of the slope. There was also some drainage coming from the eastern portion of the fill, which accumulated in the same area as the leachate. An aqueous and sediment sample should be taken here.

- Aqueous samples should be taken of any ponded water on site.

- Three home wells samples should be taken, 1 upgradient or southwest of the site and 2 downgradient of the site.

If you have any questions, please contact me.

Respectfully submitted,	Reviewed by,	Approved by,
Thomas Pearce	Thomas W. Fromm	
Thomas Pearce Environ. Technician	Thomas W. Fromm Assistant Manager	Garth Glenn Manager, FIT III

TP/rmk

Attachments

ORIGINAL

ATTACHMENT 1

1. COST CENTER:	REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD)	2. NO.:
ACCOUNT NO.:		F3-8506-19

3. PRIORITY:	4. ESTIMATE OF TECHNICAL HOURS:	5. EPA SITE ID:	6. COMPLETION DATE:	7. REFERENCE INFO.:
[X] HIGH [ ] MEDIUM [ ] LOW	40	PA-180	7/31/85	[X] YES [ ] NO [X] ATTACHED [ ] PICK UP
	4A. ESTIMATE OF SUBCONTRACT COST:	5A. EPA SITE NAME: Berks Landfill Sinking Springs, PA		

8. GENERAL TASK DESCRIPTION: Conduct a site reocn and develop a sampling plna for the subject site.

9. SPECIFIC ELEMENTS:

1.) Review background information.
2.) Contact state and local agencies for relevant information.
3.) Arrange for site access.
4.) Conduct a brief on and off site inspection to identify proposed sampling locations.
5.) Prepare and submit lerter report including proposed sampling plan & rationale, if applicable.
6.) All work onthis project to be performed according to: WP-PA-1, Rev 1

10. INTERIM DEADLINES:

11. DESIRED REPORT FORM: FORMAL REPORT [ ] LETTER REPORT [X] FORMAL BRIEFING [ ]

OTHER (SPECIFY):

12. COMMENTS: State Code 042 County Code 011

13. AUTHORIZING RPO: Harold G Byer (SIGNATURE)

14. DATE: 6/28/85

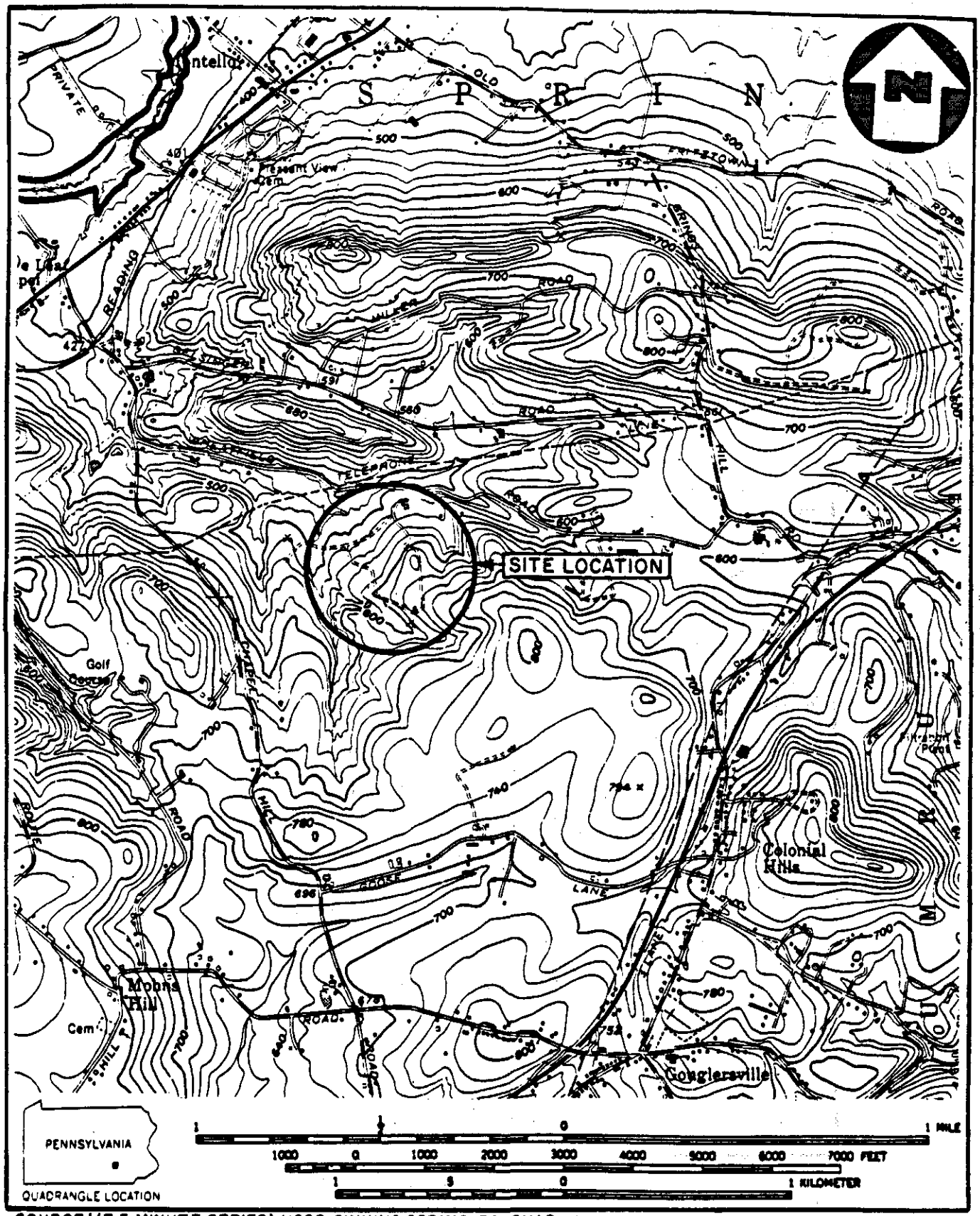
15. RECEIVED BY: [X] ACCEPTED [ ] ACCEPTED WITH EXCEPTIONS [ ] REJECTED

(CONTRACTOR RPM SIGNATURE)

16. DATE: 7/2/85

Sheet 1 White – FITL Copy
Sheet 2 Canary – DPO Copy
Sheet 3 Pink – Contracting Officer's Copy (Washington, D. C.)
Sheet 4 Goldenrod – Project Officer's Copy (Washington, D. C.)

ATTACHMENT 2



SOURCE: (7.5 MINUTE SERIES) USGS SINKING SPRING, PA. QUAD.

FIGURE 1

SITE LOCATION MAP

BERKS LANDFILL, SINKING SPRING, PA.

SCALE 1:24000

NUS CORPORATION

A Halliburton Company

AR100029

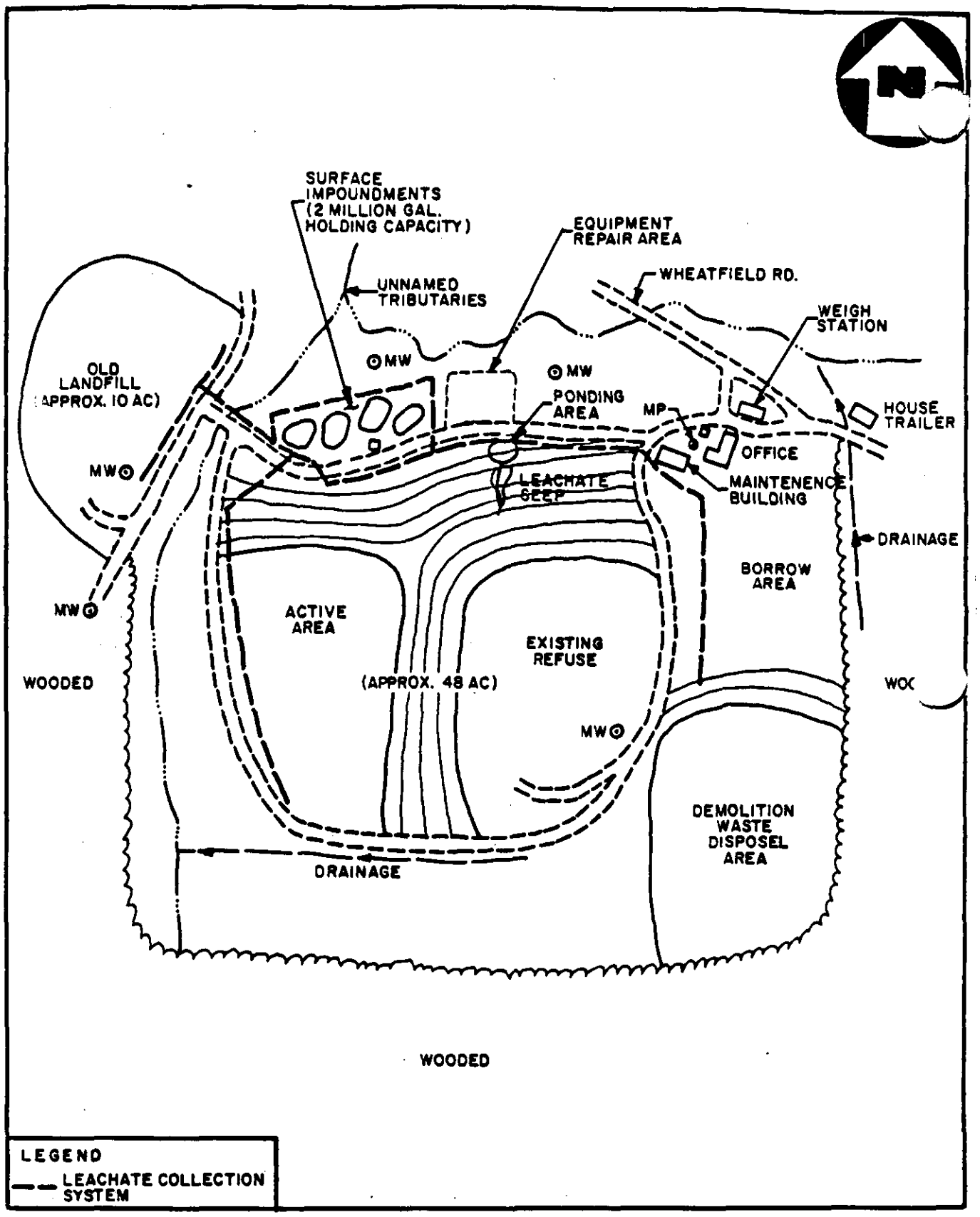


FIGURE 2

SITE SKETCH

BERKS LANDFILL, SINKING SPRING, PA.

(NO SCALE)

NUS CORPORATION

A Halliburton Company

AR100030

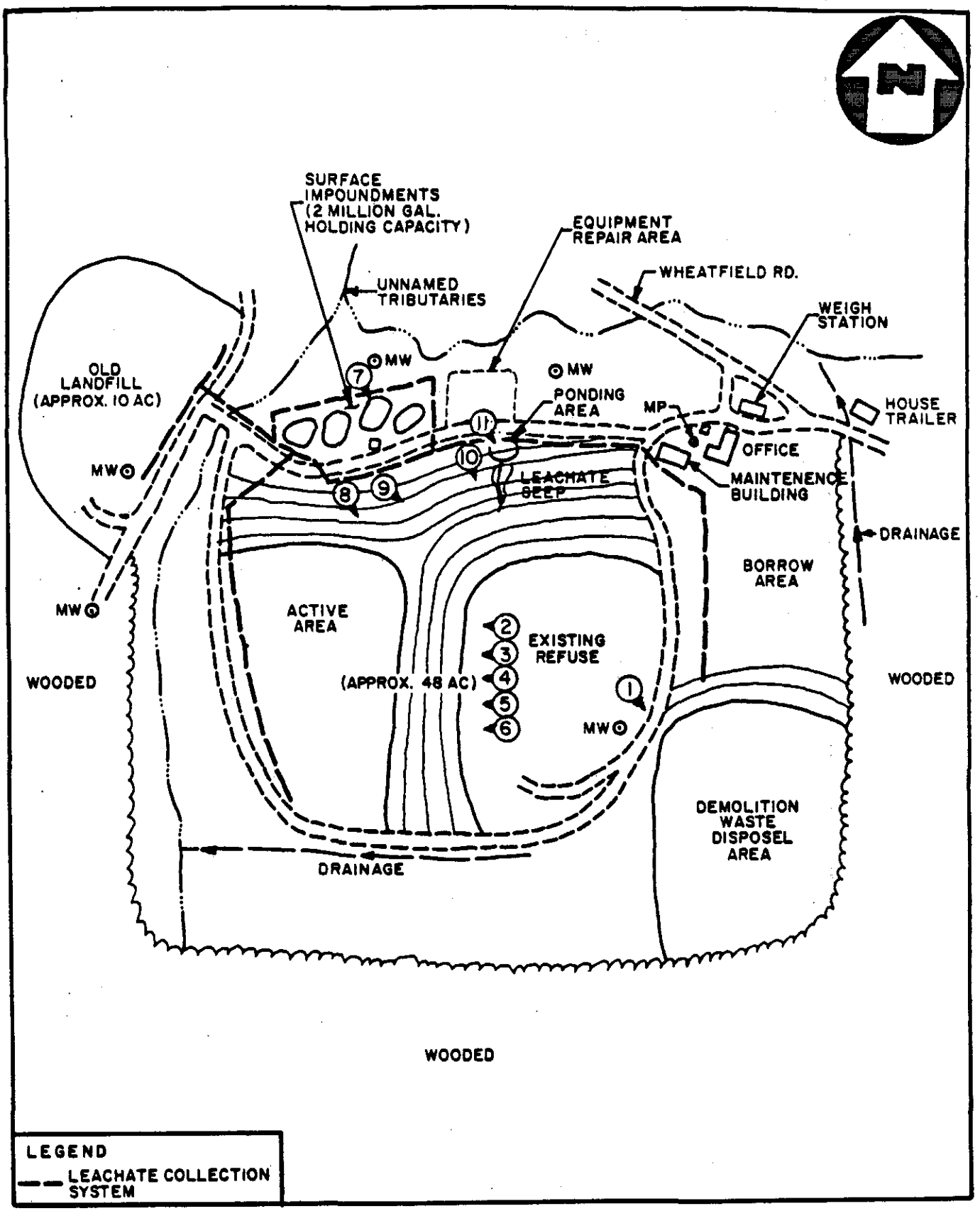


PHOTO LOCATION MAP

BERKS LANDFILL, SINKING SPRING, PA.

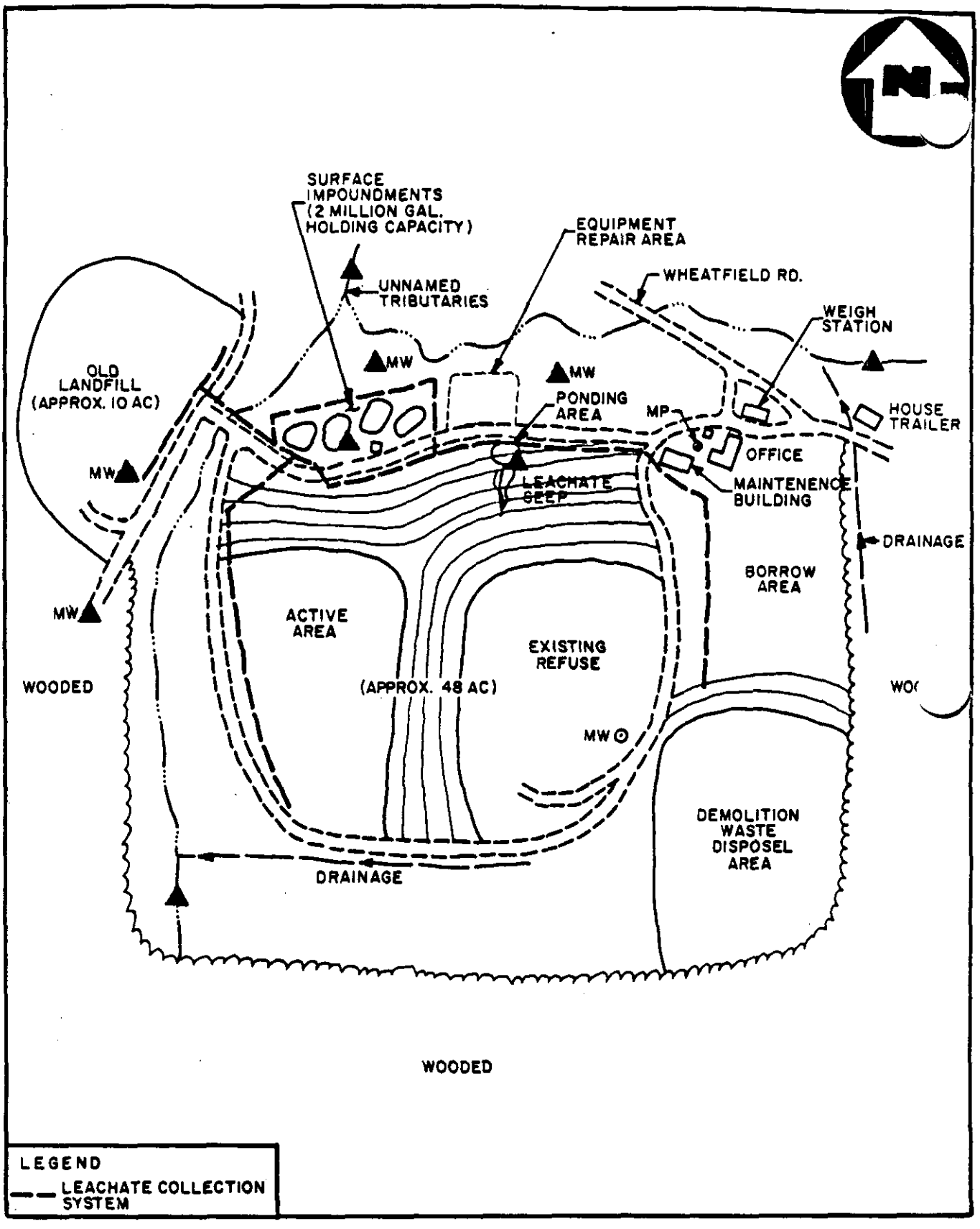
(NO SCALE)

FIGURE 3

NUS CORPORATION

A Halliburton Company

AR100031



PROPOSED SAMPLE LOCATION MAP

BERKS LANDFILL, SINKING SPRING, PA.

(NO SCALE)

FIGURE 4

NUS CORPORATION

A Halliburton Company

AR100032

ATTACHMENT 3

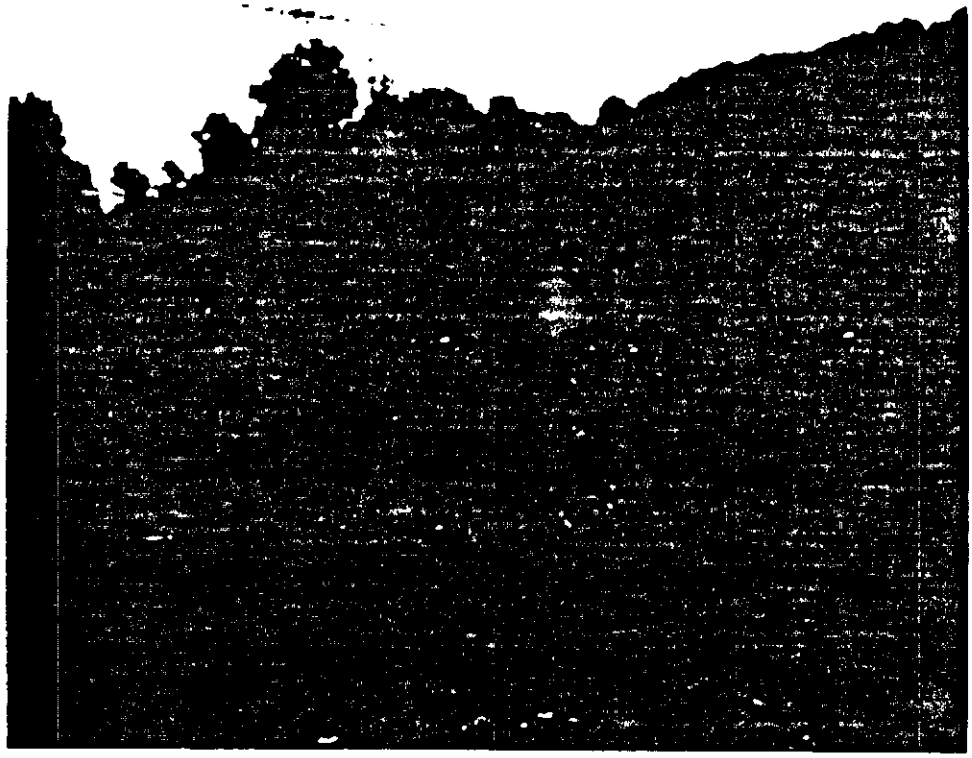


Photo 1 - Demolition Waste area

BERKS LANDFILL
F3 8506 19
[illegible]

RIPI
Page 1

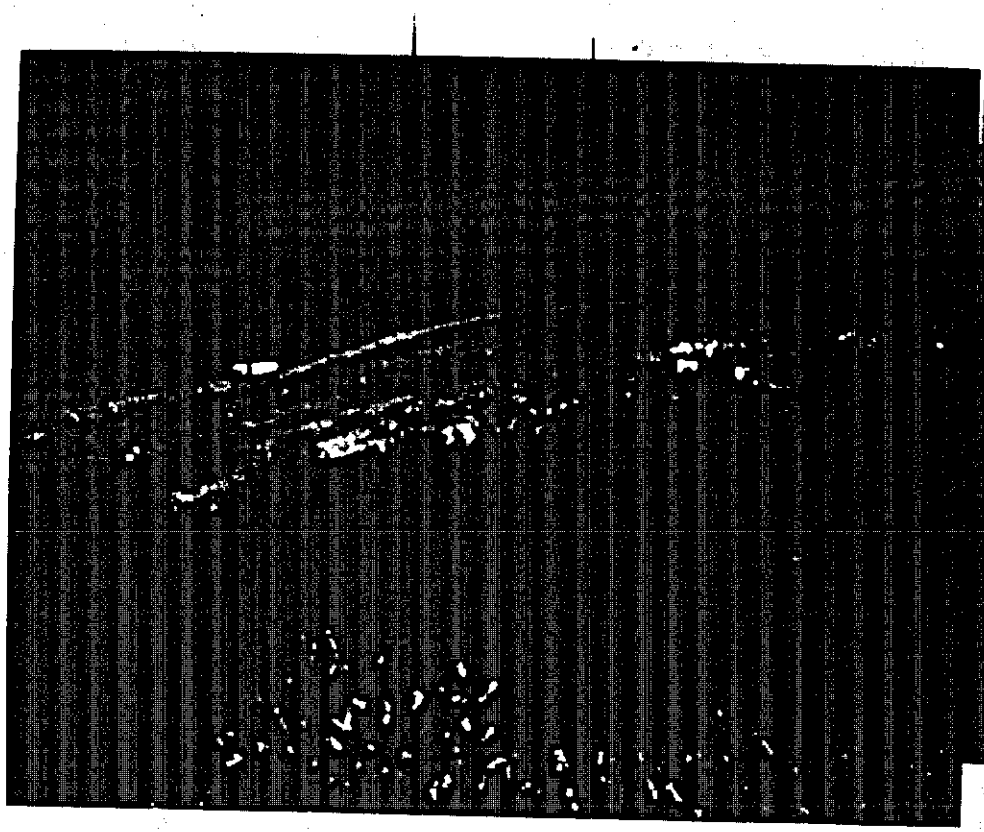
DEMOLITION WASTE AREA

7/10/85

[illegible] 10:15

TIMMINS PEARCE

AR100035



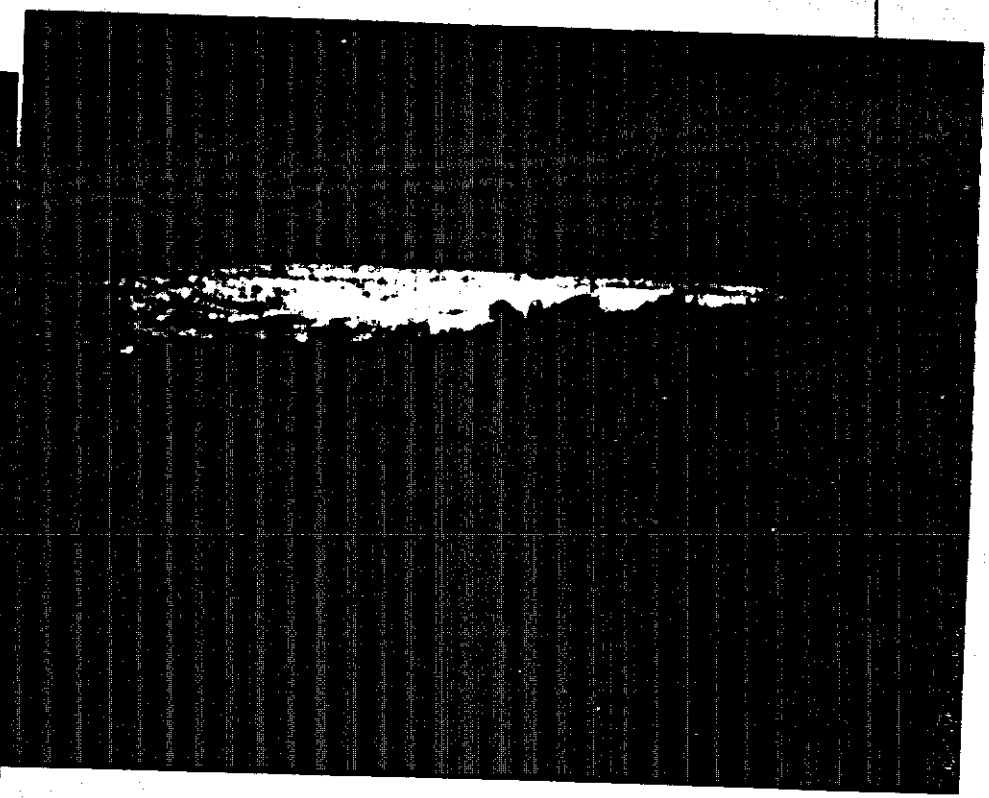


Photo 2 & 3 - West side active L.F.

AR100036

BERKS LANDFILL
F3 8506 19
PA 180

RIP2
PHOTO 2

WEST SIDE ACTIVE LF.

7/10/85
THOMAS PEARL
THOMAS PEARL

10:20

BERKS LANDFILL
F3 8506 19
PA 180

RIP3
PHOTO 3

WEST SIDE ACTIVE LF

7/10/85
THOMAS PEARL
THOMAS PEARL

10:20

AR100037

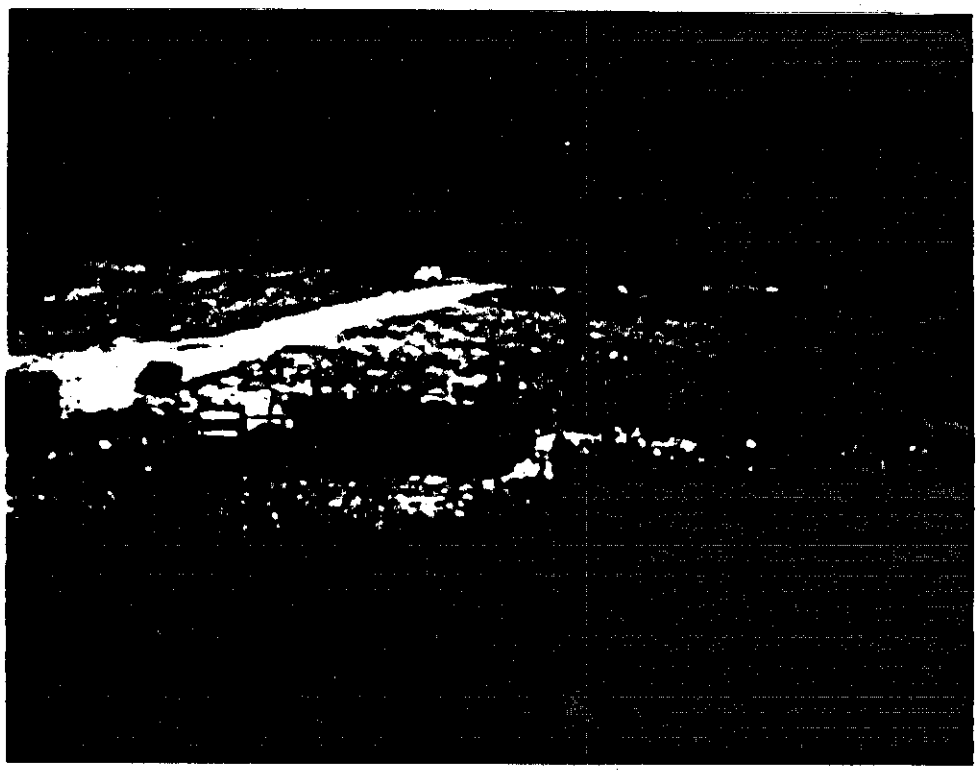


Photo 4 - West side active landfill.

[illegible]

FS 85-6-19

PA-130

R1.P4

PHOTO 4

WEST SIDE ACTIVE GF

7/10/85

Thomas Pearce

10 20

THOMAS PEARCE

AR100039

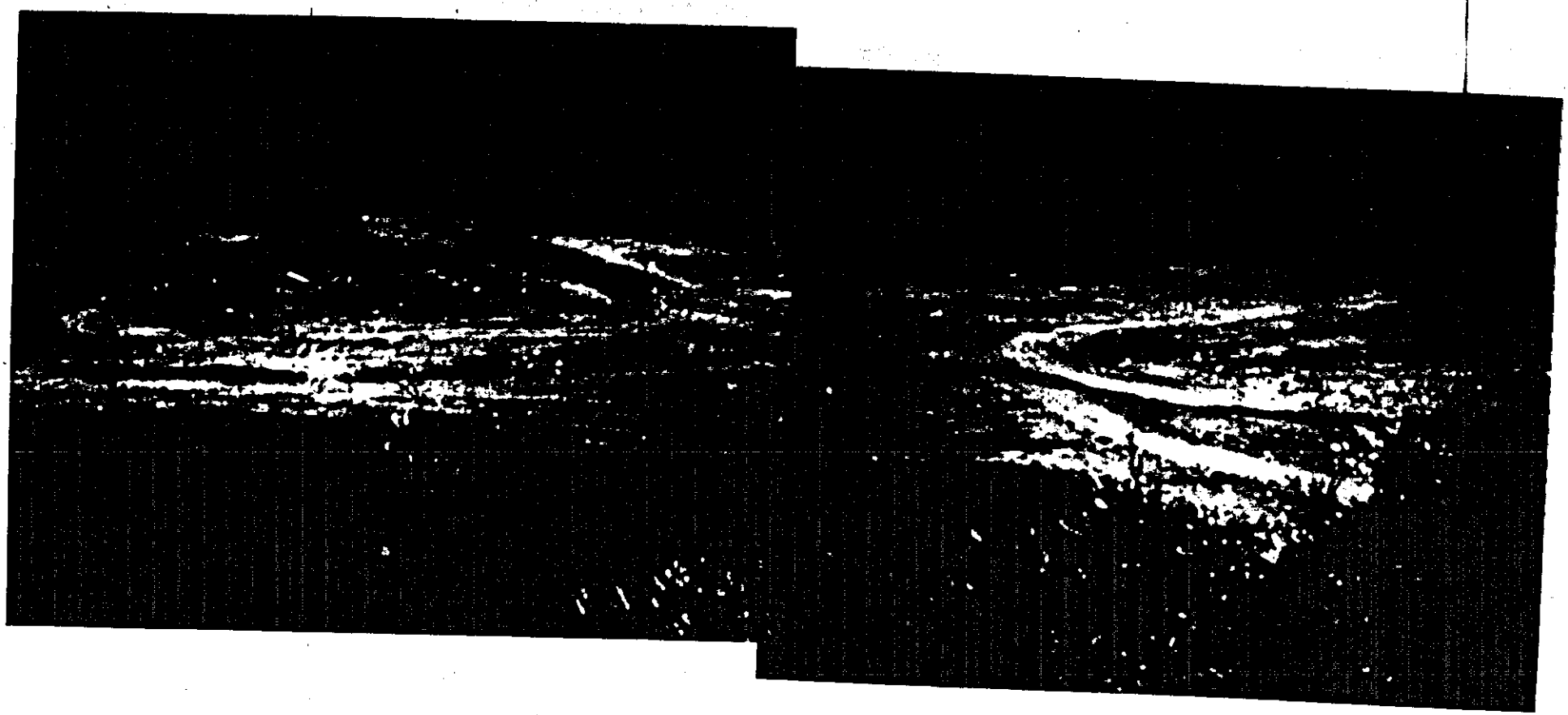


Photo 5 & 6 - West side active Landfill

BERKS LANDFILL
F3 8506-19
PA-180

RIP5
Photo 5

WEST SIDE ACTIVE CF

7/10/85
Thomas Pearce
THOMAS PEARCE

10:20

BERKS LANDFILL
F3-8506-19
PA-180

RIP6
Photo 6

WEST SIDE ACTIVE CF

7/10/85
Thomas Pearce
THOMAS PEARCE

10:20

AR100041

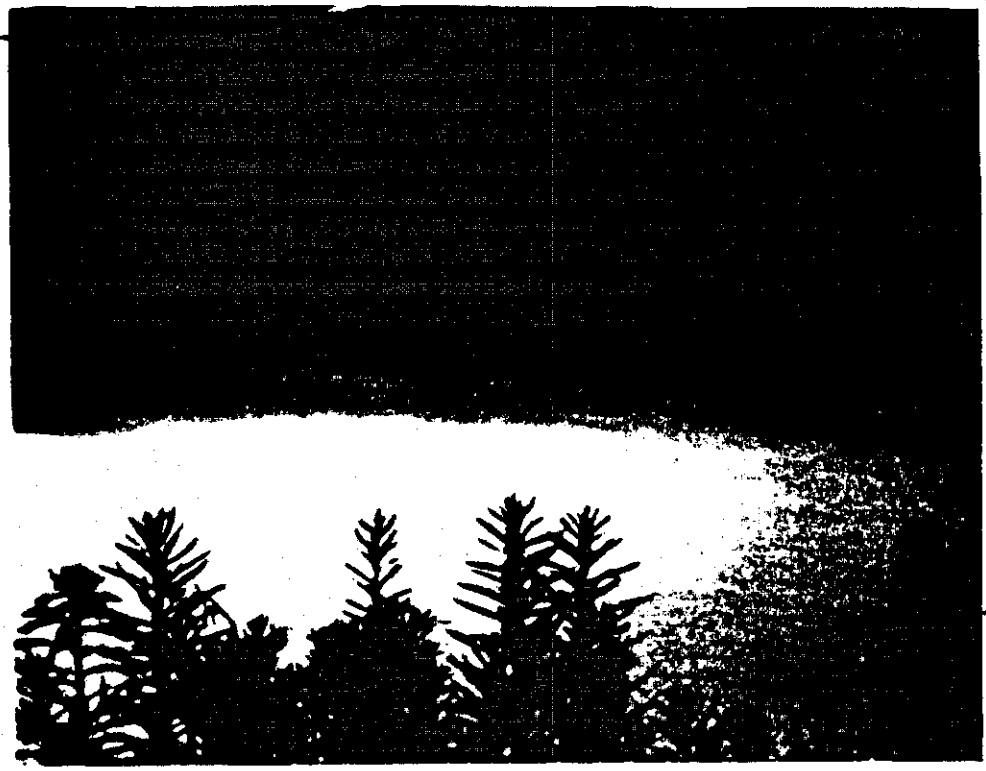


Photo 7 - One of 4 impoundments

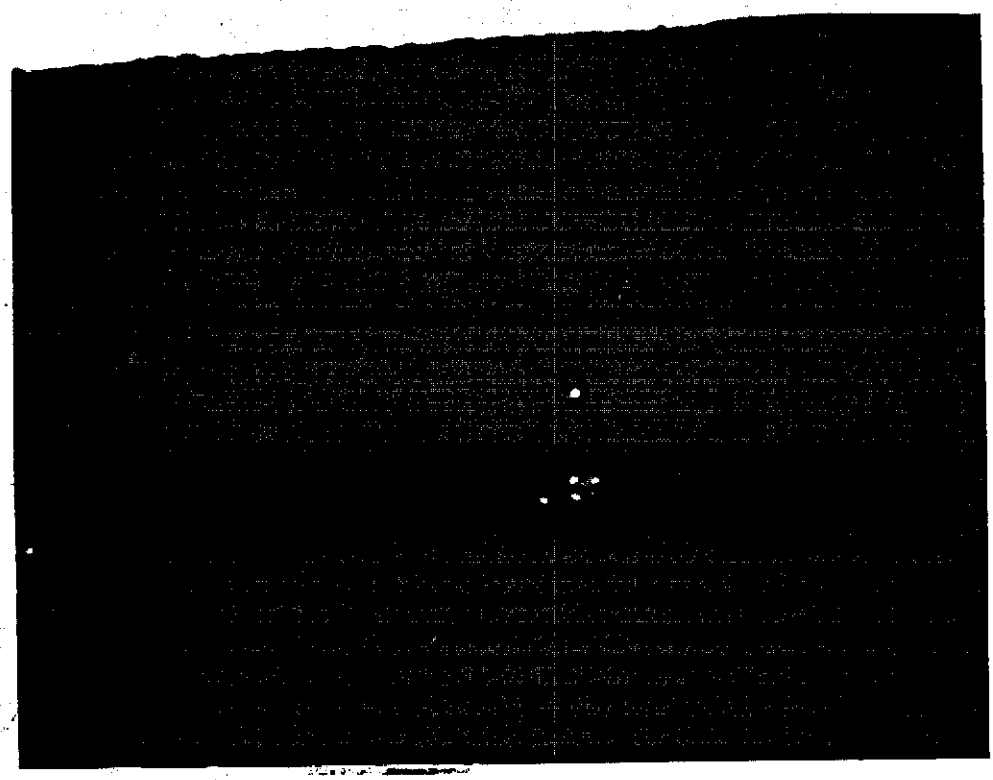


Photo 8 - North face of active landfill.

BERKS LANDFILL
FD 8506-19
PA 180

RIP 7
PHOTO 7

ONE OF 4 SURFACE IMPOUNDMENTS

7/10/85
Thomas Pearce
THOMAS PEARCE

10:40

BERKS LANDFILL
FD 8506-19
PA-180

RIP 8
PHOTO 8

N. FACE OF ACTIVE LANDFILL

7/10/85
Thomas Pearce
THOMAS PEARCE

10:55

AR100043

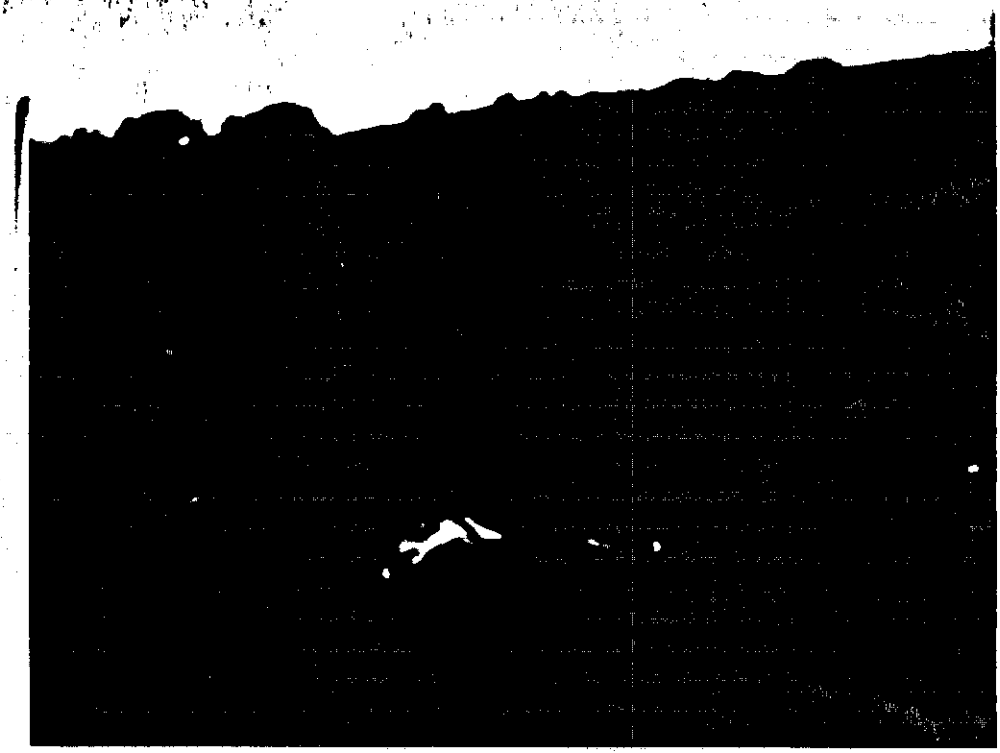


Photo 9 - North face of active landfill.

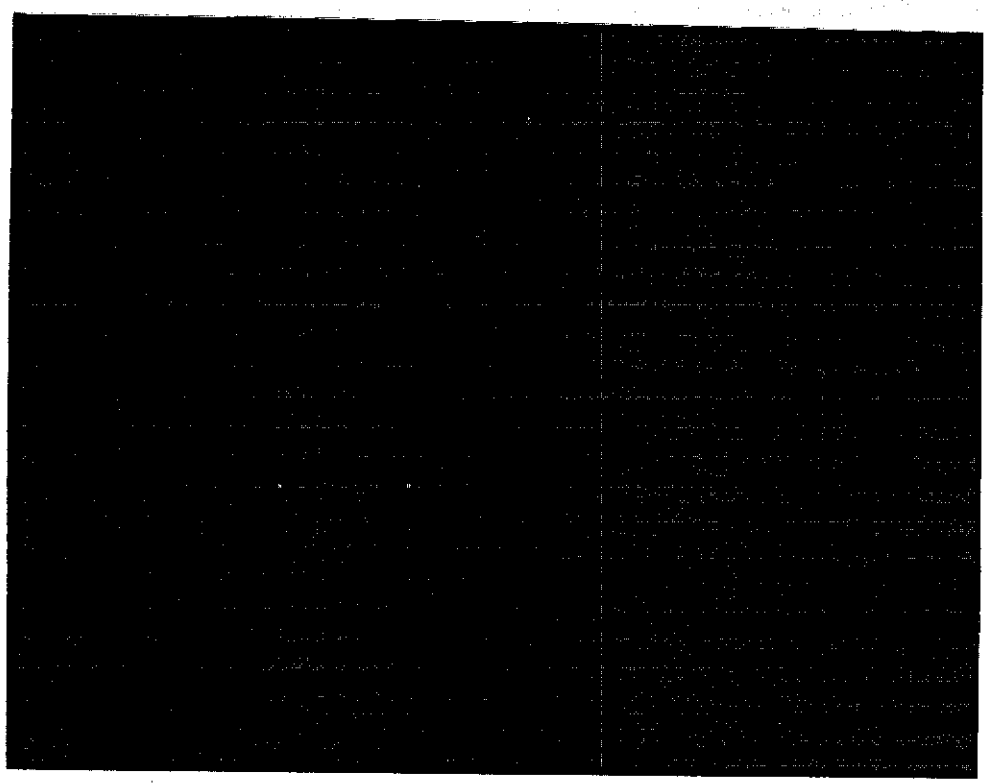


Photo 10 - Leachate seep on north face of active landfill

BERKS LANDFILL
F3-8506-19
PA-180

P1P9
PHOTO 9

N FACE OF ACTIVE LF

7/10/85
Thomas Pearce
THOMAS PEARCE

10:18

BERKS LANDFILL
F3-8506-19
PA-180

P1P10
PHOTO 10

LEACHATE SEEP ON N. FACE
OF ACTIVE LF

7/10/85
Thomas Pearce
THOMAS PEARCE

11:10

AR100045

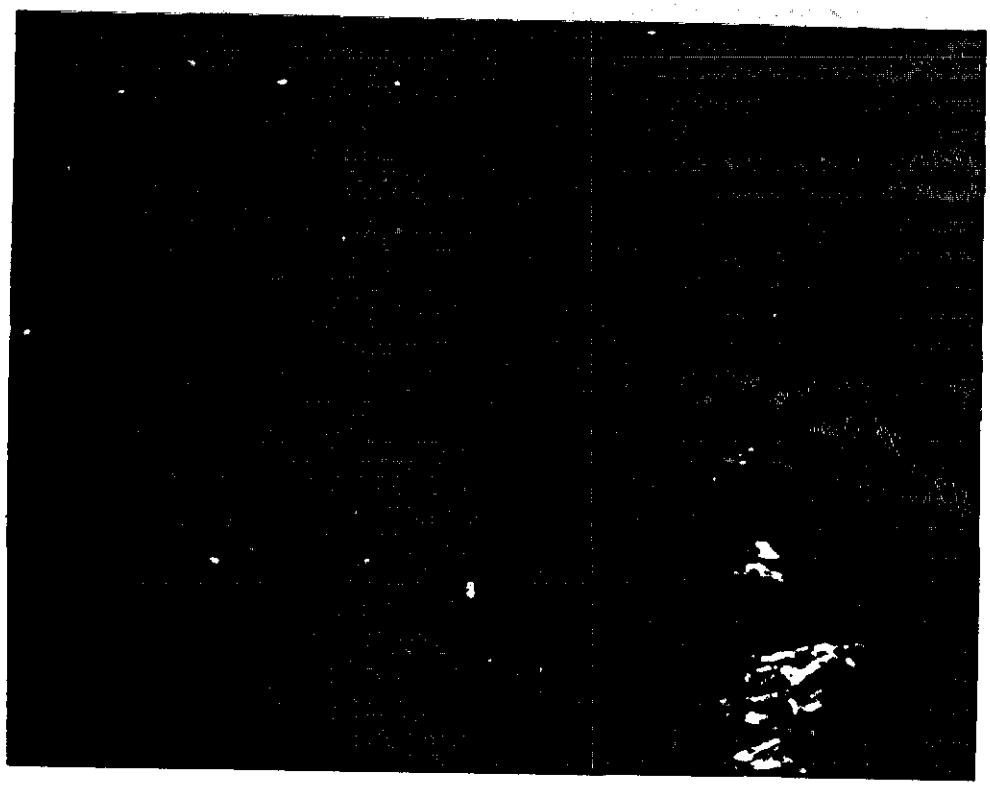


Photo 11 - Leachate ponding at the base of the north face of the active landfill.

[illegible]
[illegible]
[illegible]

R1 P11
PHOTO 11

LEACHATE POWING AT THE
PASE OF THE N FACE OF THE
ACTIVE LF

7/10/85

[illegible]

THOMAS PEARCE

11:15

AR100047

ATTACHMENT 4

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

BERKS COUNTY

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE A

(WELL RECORDS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CT	** OWNER **	USGS SUB-BAS.	PA SUB-BAS.	QUAD CODE	LATITUDE DEG	MIN	SEC	LONGITUDE DEG	MIN	SEC	ACCURACY	AGRICULTURE	OWNER MUNICIPALITY	WATER SUPPLY	WELL DATA	FIELD CHECK	HYDROLOGIC	TYPE/USE	QUALITY	PUMPAGE	APPROVED	LOG DATA
XXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXXXXXXXXXXXX	XX-XX	XX-X	XXXX	XX	XX	XX	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	XX
SOUTH HEIDELBURG	972	1	6	TUSCONE GOLF	4-C		1770								S	N	C	W	3	0					
SOUTH HEIDELBURG	1273	1	6	LENGLE CLIFFORD	4-C		1170	40	17	26	76	5	57	3	S	P	H	W	3	0					0
SOUTH HEIDELBURG	1435	1	6	BEVENTO RALPH	4-C		1770	40	17	40	76	4	13	2	S	P	H	W	3	U					0
SOUTH HEIDELBURG	1436	1	6	PENNABELKEN BLD	4-C		1770	40	19	34	76	6	56	3	S	N	C	H		0					0
SPRING	339	1	6	MOREY BROS CO	4-0	7-J	1770	40	16	4	76	3	13	4	S	N	H	W	1	0					0
SPRING	341	1	6	MECKMAN HAROLD	4-C	3-C	1770	40	17	22	76	6	13	4	S	P	H	W	1	0					0
SPRING	342	1	6	TORAH WILLIAM	4-C	3-C	1770	40	17	58	76	2		4	S	P	H	W	1	0					0
SPRING	343	1	6	GROSS FRANK	4-0	7-J	1770	40	16	24	76	1	20	4	S	P	I	W	1	0					0
SPRING	344	1	6	MOREY BROS CO	4-C	3-C	1770	40	16	39	76	4	40	4	S	N	H	W	1	0					0
SPRING	346	1	6	BROUEL IRON	4-C	3-C	1770	40	16	7	76	3	21	4	S	N	H	W	5	0					0
SPRING	347	1	6	STIES ROBERT	4-C	3-C	1770	40	18	6	76	3	18	4	S	P	H	W	5	0					0
SPRING	348	1	6	SIEGFRIED L	4-C	3-C	1770	40	17	40	76	3	21	4	S	P	H	W	5	0					0
SPRING	352	1	6	MOYER CHARLES	4-0	7-J	1770	40	17	28	76	4	21	4	S	P	H	W	5	0					0
SPRING	353	1	6	KNICK ROB	4-0	7-J	1770	40	17	20	76	3	50	4	S	P	H	W	5	0					0
SPRING	354	1	6	MEYSLER W9	4-C	3-C	1770	40	17	55	76	3	40	4	S	P	H	W	1	U					0
SPRING	355	1	6	COLLEN	4-C	3-C	1770	40	17	50	76	3	33	4	S	P	H	W	5	U					0
SPRING	356	1	6	CITIZENS WATER	4-C	3-C	107C	40	20	27	75	59	33	4	S	W	P	W	1	0		P			0
SPRING	357	1	6	HOFFMAN INDUST	4-C	3-C		40	19	24	76		32	4	S	N	H	W	1	0					0
SPRING	358	1	6	BULLER PENNEIN	4-C	3-C	1770	40	17	45	76	1	49	4	S	P	H	W	1	0					0
SPRING	362	1	6	WOLFE VERLING	4-0	7-J	1770	40	16	9	76	1	45	4	S	P	H	W	1	0					0
SPRING	363	1	6	ATLAN RICHFIELD	4-C	3-C	107C	40	20	40	75	59	50	4	S	N	P	W	1	0					0
SPRING	447	1	6	EDGAR EDWARD	4-C	3-C	107C	40	19	46	75	57	57	4	S	P	H	W	5	0					0
SPRING	449	2	6	EDGAR EDWARD	4-C	3-C	107C	40	19	46	75	57	57	4	S	P	H	W	1	0					0
SPRING	957	1	6	HOSTETTER NERLE	4-C		1770								S	P	H	W	2	0					0
SPRING	958	1	6	PARK PLANNING	4-C		1770								S	N	P	W	2	0					0
SPRING	959	1	6	LEFFLER WILBUR	4-C		1770								S	P	H	W	3	0					0
SPRING	960	1	6	LOMBARDO EQUIP	4-C		1770								S	N	C	W	3	0					0

ARI0049

BUR. OF TOPO. AND GEOLOGIC SURVEY
DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120
GROUNDWATER INVENTORY SYSTEM
REPORT TYPE A

BERKS COUNTY

(WELL RECORDS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	** OWNER **	USGS SUB-BAS.	PA SUB-BAS.	QUAD CODE	LATITUDE DEG	MIN	SEC	LONGITUDE DEG	MIN	SEC	ACCURACY	OWNER	MEASURE	FUEL	FEET DEPTH	FEET CASING	WATER/MEAS	QUALITY	PUMP TYPE	PUMP RATE	ALTITUDE
XXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXXXXXXXXXXX	XX-XX	XX-X	XXXX	XX	XX	XX	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X
SPRING	961	1	6	ZIMMERMAN C	4-C		1770								S	P	H	W	2	0					0
SPRING	962	1	6	SWEITZER L'	4-C		1770								S	P	H	W	3	0					0
SPRING	963	1	6	FOX JOHN	4-C		1770								S	P	H	W	3	0					0
SPRING	964	1	6	SHEARER	4-C		1770								S	P	H	W	3	0					0
SPRING	965	1	6	BARNISH CONRAD	4-C		1770	40	18	16	76	1	2	3	S	P	H	W	4	0					0
SPRING	968	1	6	SWEITZER F	4-C		1770								S	P	H	W	3	0					0
SPRING	970	1	6	HESSNER JACOB	4-C		1770								S	P	H	W	3	0					0
SPRING	973	1	6	STRUMP PAUL	4-C		1770								S	P	H	W	3	0					0
SPRING	974	1	6	DOBBS W C	4-C		1770								S	P	H	W	3	0					0
SPRING	975	1	6	HARTMAN EDWARD	4-C		1770	40	21	9	76		2	2	S	P	H	W	2	0					0
SPRING	977	1	6	BANNITZA	4-C		1770								S	P	H	W		0					0
SPRING	978	1	6	PLEASANT VU CEM	4-C		1770	40	18	34	76	2	33	2	S	W	P	W	2	0					0
SPRING	979	1	6	MAHER RICHARD	4-C										S	P	H	W	2	0					0
SPRING	980	1	6	BERR THOMAS	4-C										S	P	H	W	3	0					0
SPRING	981	1	6	FRITZ ROY	4-C		1770								S	P	H	W	3	0					0
SPRING	1323	1	6	BRENNEMAN HARRY	4-C	3-C	1770	40	16	50	76	4	12	3	S	P	H	W	1	0					0
SPRING	1324	1	6	SMITH RICHARD	4-C	3-C	1170	40	18	25	76		59	2	S	P	H	W	1	0					0
SPRING	1437	1	6	GRING JOHN	4-C		1770	40	17	54	76		57	2	S	P	H	W		0					0
SPRING	1438	1	6	HUHLENBERG P	4-C		1770	40	17	41	76	4	2	2	S	P	H	W	2	0					0
SPRING	1439	1	6	GRUBER ALVIN L	4-C		1770	40	19	4	76	2	29	2	S	P	H	W	1	0					0
SPRING	1440	1	6	MOYER RICHARD	4-C		1770	40	16	38	76	3	4	3	S	P	H	W	2	0					0
SPRING	1441	1	6	METRICK WILLIAM	4-C		1770	40	18	4	76		8	4	S	P	H	W	2	0					0
SPRING	1442	1	6	KOHL LESTER	4-C		1770	40	16	38	76	5	11	2	S	P	H	W	2	0					0
SPRING	1477	1	6	BOHN ROBERT	4-0	5-J	1770	40	16	38	76	1	54	3	S	P	H	W		0					0
SPRING	2191	1	6	TULPENGCKEN REC	4-C	3-C	107C	40	22	10	75	58	37	2	S	P	H	W							
SPRING	2192	1	6	HERST ROBERT	4-0	7-J		40	16	32	76	2	10	2	S	P	H	W							
SPRING	2193	1	6	BRENNEMAN E INC	4-C	3-C		40	20	39	76		34	2	S	W	W	W							

ARTOUSO

BERKS COUNTY

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120
GROUNDWATER INVENTORY SYSTEM
REPORT TYPE A

(WELL RECORDS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	** OWNER **	USGS BAS.	PA SUBT BAS.	QUAD CODE	LATITUDE DEG	MIN	SEC	LONGITUDE DEG	MIN	SEC	ACCURACY	AQUIFER CODE	WELL TYPE	DEPTH/ALT	FEET/ALT	HYDRO	QUAL/HYDR	QUAL/PERC	PUMP TEST	AQUIFER CODE	LOG TYPE
SPRING	2194	1	6	CITIZENS WATER	4-C	3-C	187C	40	21	3	75	58	20	2	S	W	P	W						
SPRING	2195	1	6	BREITEGAM	4-C	3-C	177B	40	17	49	76	2	29	2	S	P	H	W						
SPRING	2196	1	6	MOYER BRIAN	4-B	7-J	177B	40	16	52	76	4	46	2	S	P	H	W						
SPRING	2197	1	6	MONROE WILLIAM	4-B	7-J	177D	40	16	46	76	4	45	2	S	P	H	W						
SPRING	2198	1	6	WOLFSKILL F B	4-B	7-J	177B	40	16	20	76	3	59	2	S	P	H	W						
SPRING	2199	1	6	VINEMONT FIRE C	4-B	7-J	177B	40	16	42	76	4	40	2	S	N	H	W						
SPRING	2200	1	6	UNKNOWN	4-C	3-C	177B	40	18	4	76	3	18	2	S	P	H	W						
SPRING	2201	1	6	BERKS CONST CO	4-C	3-C	177D	40	18	50	76	1	49	2	S	P	H	W						
SPRING	2202	1	6	DELP GEORGE	4-C	3-C	177D	40	18	4	76	3	8	2	S	P	H	W						
SPRNG	2190	1	6	BURKHOLDER	4-B	7-J	177D	40	16	52	76	4	48	2	S	P	H	W						
TEMPLE	1243	1	6	HERTZ HOWARD	4-C		187A								S	P	H	W	3	0				0
TILDEN	30	1	6	MILLS RONALD	4-C	3-B	186C	40	32	34	75	59	57	4	S	P	H	W	3	0				0
TILDEN	364	1	6	BLUE MT ACADEMY	4-C	3-B	176B	40	33	31	76	1	57	4	S	P	H	W	1	0				0
TILDEN	365	1	6	BLUE MT ACADEMY	4-C	3-B	176B	40	33	26	76	2	3	4	S	P	H	W	1	0				0
TILDEN	367	1	6	BLUE MT ACADEMY	4-C	3-B	176B	40	33	31	76	1	54	4	S	P	H	W	1	0				0
TILDEN	369	1	6	BLUE MT ACADEMY	4-C	3-B	176B	40	33	28	76	2		4	S	P	H	W	1	0				0
TILDEN	370	1	6	RADER CARL H	4-C	3-B	176B	40	33	3	76		14	4	S	P	H	W	1	0				0
TILDEN	371	1	6	BLUE MT ACADEMY	4-C	3-B	176B	40	33	24	76	2	28	4	S	P	H	W	1	0				0
TILDEN	431	1	6	STRAUSSER W	4-C	3-B	186C	40	32	27	75	57	56	4	S	P	H	W	1	0				0
TILDEN	468	1	6	MARSHLMER DON	4-C	3-B	186C	40	34	21	75	59	55	4	S	P	H	W	1	0				0
TILDEN	632	1	6	SCHAPPEL H	4-C		176B	40	31	37	76	2	25	2	S	P	H	W	2	0				0
TILDEN	896	1	6	HARTMAN DENNIS	4-C		176B								S	P	H	W	2	0				0
TILDEN	942	1	6	MILLS MOBILE	4-C		176B	40	32	49	76		4	2	S	P	C	W	1	0				0
TILDEN	983	1	6	BERRY JACK	4-C		176B	40	32	57	76		2		S	P	H	W	2	0				0
TILDEN	985	1	6	BERR ALLEN	4-C		176B	40	32	15	76	1	24	3	S	P	H	W	2	0				0
TILDEN	988	1	6	BLUE MT ACADEMY	4-C		176B								S	P	T	W	2	0				0
TILDEN	989	1	6	BLUE MT ACADEMY	4-C		176B	40	33	24	76	2	18	2	S	P	T	W	2	0				0

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BERKS COUNTY

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120
GROUNDWATER INVENTORY SYSTEM
REPORT TYPE B

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SEQ	CTY	WELL DEPTH	ACCURACY	DEPTH CASED	DIA IN.	FINISH	ORIGINAL	YR DRILLED	SPUT	LIFT	LEVEL/PUMP	ALT. LAND/ SURF/ DATUM	ACCURACY	WATER LEVEL	ACCURACY	DATE MEAS	YIELD (GPM)	NEW	DRAW DOWN (FT)	ACCURACY	PUMP	PERIOD HRS	SULFATE	CHLORIDE	SAMPLED
SOUTH HEIDELBURG	972	1	6	160	3	36	6	X	A	970						45	0	5/70	30.0	0			.00				
SOUTH HEIDELBURG	1273	1	6	103	3	100	6	X	C	969				680	5	32	0	9/69	6.0	1	60	3	.00			54	
SOUTH HEIDELBURG	1435	1	6	62	3	33	6	X	A	973				500	5			8/73	40.0	1	60	3	1.00				
SOUTH HEIDELBURG	1436	1	6	198	3	41	6	X	A	973		A		500	5	50	0	8/73	15.0	1	140	3	2.00				
SPRING	339	1	6	95	3	40	6	X	A	969				855	5	40	0	2/69	30.0	1	40	3	2.00				
SPRING	341	1	6	82	3	48	6	X	C	968				520	5	33	0	9/68	10.0	3	40	3	.00				
SPRING	342	1	6	91	3	53	6	X	C	968				570	5	10	0	9/68	3.0	3	41	3	.00				
SPRING	343	1	6	200	3	100	6	X	C	968				780	5	40	0	8/68	30.0	3	10	3	2.00			55	8/68
SPRING	344	1	6	117	3	56	6	X	A	968				570	5	50	0	7/68	30.0	1	50	0	2.00				
SPRING	346	1	6	63	3	45	6	X	A	967				435	5			4/67	20.0	1			.00				
SPRING	347	1	6	130	3	74	6	X	A	967				430	5	19	0	7/67	30.0	1			5.00			55	7/67
SPRING	348	1	6	200	3	35	6	X	C	967				520	5	11	0	2/67	6.0	1			2.00			54	2/67
SPRING	352	1	6	50	3	10	6	X	C	968				520	5		0		.0				.00				
SPRING	353	1	6	140	3	52	6	X	C	968				700	5	50	0	1/68	.0			3	.00				
SPRING	354	1	6	81	3	70	6	X	C	968				460	5	6	0	5/68	.0		10	3	.00				
SPRING	355	1	6	102	3	22	6	X	C	968				560	5	30	0	3/68	.0			3	.00				
SPRING	356	1	6	325	3	190	8	X	A	967				330	5	70	0	7/67	375.0	4	60	3	40.00				
SPRING	357	1	6	320	3	56	8	X	C	967				350	5	45	0	8/67	682.0	4	3	3	60.00				
SPRING	358	1	6	70	3	33	6	X	C	968				520	5	7	0	8/68	6.0	3	71	3	.00				
SPRING	362	1	6	135	3	32	6	X	C	967				770	5	40	0	9/67	15.0	1	6	3	2.00				
SPRING	363	1	6	120	3	83	6	X	A	966				312	5	50	0	6/66	100.0	5	62	3	6.00				
SPRING	447	1	6	154	3	40	6	X	C	968				305	5	25	0	5/68	33.0	3	65	3	1.00			52	5/68
SPRING	449	2	6	180	3	40	6	X	C	968				305	5	25	0	5/68	30.0	3	110	3	1.00			51	
SPRING	957	1	6	160	3	32	6	X	A	972						47	0	6/72	15.0	1	113	3	2.00				
SPRING	958	1	6	435	3	26	12	X	A	971		S				30	0	8/71	55.0	7	94	3	.00				
SPRING	959	1	6	127	3	40	6	X	C	969						75	0	6/69	15.0	3	45	3	.00				
SPRING	960	1	6	300	3	30	6	X	A	968						30	0	5/68	3.0	0			.00				

ARI0052

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

BERKS COUNTY

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE B

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.) ** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SEQ	CTY	WELL DEPTH	ACCURACY	DEPTH CASED	DIA IN.	FINISH	ACCURACY	WATER LEVEL	ACCURACY	DATE MEAS	YIELD (GPM)	DRAWDOWN (FT)	ACCURACY	PUMP	PERIOD (HRS)	SULFATE	CHLORIDE	SPEC. CONDUCT	TEMP	DATE SAMPLED
SPRING	961	1	6	30	3	22	6	X	C	966			12	0	N/66	16.0	3	17	3	.00		
SPRING	962	1	6	102	3	48	6	A	C	967			65	0	8/67	10.0	3	37	3	.00		
SPRING	963	1	6	121	3	114	6	X	C				33	0		20.0	3	1	3	.00		
SPRING	964	1	6	120	3	53	6	X	C	970			45	0		20.0	3	27	3	.00		
SPRING	965	1	6	355	3	249	5					750 5				.0				.00		
SPRING	968	1	6	91	3	74	6	X	C	968			24	0	N/68	9.0	3	47	3	.00		
SPRING	970	1	6	41	3		6	X	C				10	0		10.0	3	24	3	.00		
SPRING	973	1	6	160	3	93	6	X	A	970	A		46	0	1/70	10.0		114	3	.00		
SPRING	974	1	6	80	3	51	6	X	A	970	A		21	0	N/70	12.0	1	30	3	2.00		
SPRING	975	1	6	138	3	40	6	X	A	969		260 5	40	0	6/69	20.0	1	95	3	.00		
SPRING	977	1	6	153	3	86	6	X	C	972			53	0	5/72	20.0	3	57	3	.00		
SPRING	978	1	6	171	3	60	4	X	C	973	A	420 5	60	0	1/73	10.0	1	20	3	2.00		
SPRING	979	1	6	110	3	57	6	X	C	973			65	0	3/73	30.0	3	25	3	.74		
SPRING	980	1	6	100	3	44	6	X	P	972						.0				.00		
SPRING	981	1	6	116	3	60	6	X	A	972	A		116	0	9/72	60.0	5	24	3	2.00		
SPRING	1323	1	6	106	3	57	6	X	C	973	05		46	0	6/73	22.0	3	49	3	.49		
SPRING	1324	1	6	195	3	49	6	X	C	973			50	0	8/73	13.0	3	33	3	1.00	0	1
SPRING	1437	1	6	130	3	34	6	X	C	973		660 5	40	0	7/73	10.0	3	7	3	3.00		
SPRING	1438	1	6	425	3	41	6	X	A	973		540 5	65	0	9/73	4.0	1	360	3	2.00		
SPRING	1439	1	6	105	3	80	4	X	C	973	A	340 5	40	0	N/73	10.0	1	20	3	2.00		
SPRING	1440	1	6	95	3	52	6	X	A	973	A	860 5	8	0	7/73	30.0	1	87	1	2.00		
SPRING	1441	1	6	265	3	241	6	X	C	974		590 5	135	0	1/74	6.0	3	15	3	3.00		49 1/74
SPRING	1442	1	6	137	3	41	6	X	A	973	A	600 5	50	0	8/73	20.0	1	87	3	2.00		
SPRING	1477	1	6	160	3	99	6	X	C	974			65	0	8/74	14.0	3	25	3	2.00		
SPRING	2191	1	6	220	0	30	6	X	A				12		4/76	25.0	4	138		10.49		
SPRING	2192	1	6	73	0	51	6	X	C				10		8/75	20.0	3			.00		
SPRING	2193	1	6	290	0	154	[illegible]	X	A				50		9/74	264.0	4	17		2.00		

AR100053

BERKS COUNTY DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE B

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.) ** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SEQ	CTY	WELL DEPTH	ACCURACY	DEPTH CASED	DIA IN.	FINISH	ORIGINAL USE	YR PUMPING	SECTION	LIFT TYPE	DEPTH/SALE	ALT. LAND/SURF/DATUM	ACCURACY	WATER LEVEL	ACCURACY	DATE MEAS	YIELD (GPM)	DOWN (FT)	NET DRAW	ACCURACY	PUMP PERIOD (HRS)	SULFUR	CHLORIDE	HARDNESS	SPECIFIC CONDUCTANCE	EH	SAMPLED
SPRING	2194	1	6	500	0	80	8	X	A							80		9/77	302.0	4	217		40.00						
SPRING	2195	1	6	44	0	15	6	X	C							5		8/75	15.0				.00						
SPRING	2196	1	6	123	0	62	6	X	A							45		5/77	30.0	5	28		.42						
SPRING	2197	1	6		0													/77	.0				.00						
SPRING	2198	1	6	220	0	63	6	X	A							65		4/77	20.0				.00						
SPRING	2199	1	6	180	0	42	6	X	A							18		8/76	15.0		62		.48						
SPRING	2200	1	6	105	0	79	6	X	C							34		1/77	40.0	3	6		2.00						
SPRING	2201	1	6	123	0	81	6	X	A							50		4/76	50.0				.00						
SPRING	2202	1	6	210	0	26	6	X	A							140		9/73	5.0	5	20		.42						
SPRING	2198	1	6	160	0	27	6	X	C							55		4/77	30.0	3			.00						
TEMPLE	1243	1	6	144	3	20				968						27		8/68	36.0	3	63	3	.00					52	
TILDEN	36	1	6	180	3	21	6	X	C	968				515	5	55	D	1/68	.0	3		3	.00						
TILDEN	364	1	6	98	3	62	6	X	A	968				540	5	10	D	5/68	30.0	1	70	3	2.00						
TILDEN	365	1	6	200	3		6	X	A	966				540	5	45	D	5/68	20.0	1	135	3	2.00						
TILDEN	367	1	6	98	3	58	6	X	A	968				545	5	15	D	5/68	20.0	1	65	3	2.00						
TILDEN	369	1	6	180	3	42	6	X	C	966				525	5	7	D	6/66	20.0	1	93	3	2.00						
TILDEN	370	1	6	140	3	92	6	X	A	966				515	5	85	D	6/66	15.0	1	55	3	2.00						
TILDEN	371	1	6	200	3	104	6	X	A	968				610	5	55	D	7/68	50.0	5	205	3	1.00						
TILDEN	431	1	6	48	3	33	6	X	C	968				540	5	23	D	7/68	30.0	3	28	3	.00					52	7/68
TILDEN	460	1	6	113	3	20		X	C	968				360	5	38	D	6/68	12.0	3	83	3	.00					52	6/68
TILDEN	632	1	6	79	3	25	6	X	C	967				420	5	12	D	6/67	20.0	3	38	3	1.00						
TILDEN	896	1	6	125	3	40	6	X	C	972						25	D	1/72	10.0	3	50	3	.00						
TILDEN	982	1	6	220	3	61	6	X	A	972		A		480	5	41	D	6/72	100.0	5	179	3	2.00						
TILDEN	983	1	6	97	3	78	5	X	C	972				480	5	8	D	6/72	22.0	3	17	3	1.00						
TILDEN	985	1	6	189	3	46	6	X	C	969				[illegible]	5	35	D		30.0	3	60	3	.00						
TILDEN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43	6	X	A	970						28	D	8/70	20.0	1	72	3	2.00						
[illegible]						51	6	X	A	967		A		600	5	44	D	6/67	60.0	5	122	3	2.00						

AR100054

BUR. OF TOPO. AND GEOLOGIC SURVEY
DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

BERKS COUNTY

GROUNDWATER INVENTORY SYSTEM
REPORT TYPE C

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	PHYSICAL CONDITION	BOTTOM OF CASING	SYSTEM SERVICE	SYSTEM TYPE	SOURCE	MAJOR AQUIFER	DEPTH TO MAJOR AQUIFER	TOTAL DEPTH OF WELL	SYSTEM SERVICE	SYSTEM TYPE	SOURCE	MINOR AQUIFER	DEPTH TO MINOR AQUIFER	TOTAL DEPTH OF WELL	PUMPING RATE	PUMPING TEST	SPECIFIC CAPACITY	SURF MAT.	TRANS COEF	STORE COEF
SOUTH HEIDELBURG	972	1	6	6 0		0 - V8		L		124	35							35	0		P		
SOUTH HEIDELBURG	1273	1	6	4 0		R 3 25		F		2	99							99	0		P		
SOUTH HEIDELBURG	1435	1	6	4 0	V	R 3 25		2F		29	62							29	0		F		
SOUTH HEIDELBURG	1436	1	6	6 0	V	C - 1E		F		157	37							37	0		DV		
SPRING	339	1	6	4 0	S			F		50	58			V			75	38	0		Z		
SPRING	341	1	6	6 0	C			Z		34	34			Z			52	40	0		Z		
SPRING	342	1	6	6 0	S			Z			51							32	0		D		
SPRING	343	1	6	4 0	S			F		92	80			F			135	60	0		Z		
SPRING	344	1	6	4 0	S			V		41	60			V			80	50	0		Z		
SPRING	346	1	6	6 0	C			L		18	48			L			50	40	0		P		
SPRING	347	1	6	6 0	C			L		64	55			V			110	40	0		P		
SPRING	348	1	6	6 0	S			Z		165	70			Z			180	18	0		Z		
SPRING	352	1	6	6 0	S			V		32	45							18	0				
SPRING	353	1	6	6 0	S			V		80	130							52	0				
SPRING	354	1	6	6 0	C			V		11	75							71	0				
SPRING	355	1	6	6 0	C			V		80	90							22	0				
SPRING	356	1	6	6 0	F			L		127	74			L			105	31	0		P		
SPRING	357	1	6	6 0	F			L		264	85			L			160	52	0		Z		
SPRING	358	1	6	6 0	S			Z		45	4			Z			37	28	0		Z		
SPRING	362	1	6	4 0	S			V		103	65			V			130	15	0		S		
SPRING	363	1	6	6 0	F			L		37	109			L			114	12	0		P		
SPRING	447	1	6	6 0	U					114								154	0		F		
SPRING	449	2	6	6 0	U					140											F		
SPRING	957	1	6	4 0		R 3 25		2V		128	21							21	0		V		
SPRING	958	1	6	4 0		R 3 25		V		240	195							13	0		P		
SPRING	959	1	6	4 0		R 3 25		V		79	13										V		
SPRING	960	1	6	4 0		- - -X		N		270	8							30	0		P		

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DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

BERKS COUNTY

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE C

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	PROVIDENT	SUPPLIED	SEASONS	TIMES	FOR	MAJOR AQUIFER LITHOLOGY	MAJOR AQUIFER THICKNESS	MAJOR AQUIFER DEPTH TO TOP	MAJOR AQUIFER DEPTH TO BOTTOM	MINOR AQUIFER LITHOLOGY	MINOR AQUIFER THICKNESS	MINOR AQUIFER DEPTH TO TOP	MINOR AQUIFER DEPTH TO BOTTOM	DEPTH TO WATER	DEPTH TO PUMP	HORSEPOWER	SOURCE	DEPTH	HARDNESS	SURF. MAT.	TRANS. COEF	STORE. COEF
XXXXXXXXXXXXXXXX	XXXX	X	XX	XX	X	X	X	X	XX	XX	X	XXX	XXXX	XXXX	X	X	XX	XX	X	XXX	XXXX	XXXX	XXXXX	X	XXXXX	X	XX	X	XX	X	XX	X
SPRING	961	1	6	4	B		R	3	2S	F			8	18									18	D			BP				
SPRING	962	1	6	4	B		R	3	2T	V			54	40									41	D			dP				
SPRING	963	1	6	4	B		R	3	2S	V			7	17									18	D			nP				
SPRING	964	1	6	4	B		R	3	2S														37	D			BP				
SPRING	965	1	6	4	B	S	R	3	2S																						
SPRING	968	1	6	4	B		R	3	2S	F			17	61									62	D			SF				
SPRING	970	1	6	4	B		R	3	2S	F				35									17	D			F				
SPRING	973	1	6	4	B		R	0	2S	V			67	40									87	D			V				
SPRING	974	1	6	4	B		R	3	2S	V			29	28									47	D			V				
SPRING	975	1	6	6	D	U	D	-	V8	L			98	35									35	B			P				
SPRING	977	1	6	6	D		R	3	2T	V			67	33									32	D			R				
SPRING	978	1	6	6	D	S	C	-	4G	L			111	58																	
SPRING	979	1	6	6	D	N	R	3	2S	dV			55	52									52	D							
SPRING	980	1	6	6	D					V			56	18									18	D			N				
SPRING	981	1	6	6	D		C	-	4G	L			56	56									56	D			U				
SPRING	1323	1	6	6	D		R	3	2S	nF			49	68			NF			82			52	D			SF				
SPRING	1324	1	6	6	D		R	3	2S	/L			106	55			/L			73			40	B			P				
SPRING	1437	1	6	6	D	S	C	-	9H	V			96	14									14	D			G				
SPRING	1438	1	6	6	B	S	C	-	9H	V			389	36									36	D							
SPRING	1439	1	6	6	D	V	C	-	9H																						
SPRING	1440	1	6	4	B	S	R	3	2S	F			43	49									49	B			BU				
SPRING	1441	1	6	6	B	S	C	-	1E	L			24	240									240	B			N				
SPRING	1442	1	6	4	B	S	R	3	2S	V			96	36									36	B			BF				
SPRING	1477	1	6	4	B		R	3	2T	V													92	D							
SPRING	2191	1	6	6	D		D	-	T8	L													4								
SPRING	2192	1	6	4	W		R	-	-0	H													51								
SPRING	2193	1	6	6	D		D	-	E8														15								

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BERKS COUNTY

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE C

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	PROV	TOPO	SITE	MAJOR AQUIFER SYS	SER	FORM	LITH	THICK	DEPTH TO TOP	DEPTH TO BOT	MINOR AQUIFER SYS	SER	FORM	LITH	THICK	DEPTH TO TOP	DEPTH TO BOT	DEPTH	SRC	NAT.	TRANS COEF	STOR COEF
XXXXXXXXXXXXXXXX	XXXX	X	XX	XX	X	X	X	X	XX	XX	X	XXX	XXXX	X	X	XX	XX	X	XXX	XXXX	XXXXX	X	XX X	XX X	XX X
SPRING	2194	1	6	6	0		C	-	46	L											79				
SPRING	2195	1	6	4	0		R	-	-0	N											15				
SPRING	2196	1	6	4	0		R	3	2S	V											55				
SPRING	2197	1	6	4	0		R	3	2S	3V															
SPRING	2198	1	6	4	0		R	3	2S												60				
SPRING	2199	1	6	4	0		R	3	2S	V											36				
SPRING	2200	1	6	4	0		0	-	N-	V											70		P		
SPRING	2201	1	6	4	0		C	-	JG	L											76		-V		
SPRING	2202	1	6	4	0		0	-	N-	N											12		P		
SPRNG	2190	1	6	4	0		R	3	2S																
TEMPLE	1243	1	6	6	0		0	-	N-	0		119	25								25	0	F		
TILDEN	30	1	6	6	0	S				V		79	90								15	0			
TILDEN	364	1	6	6	0	S				V		36	70				F			94	56	0	Z		
TILDEN	365	1	6	6	0	S				0		119	140				0			170	75	0	Z		
TILDEN	367	1	6	6	0	S				V		48	64				V			89	52	0	Z		
TILDEN	369	1	6	6	0	S				0		58	51				0			74	37	0	Z		
TILDEN	370	1	6	6	0	S				0		40	103				0			132	27	0	Z		
TILDEN	371	1	6	6	0	S				V		176	140				0			170	90	0	P		
TILDEN	431	1	6	6	0	S				R		15	28				V			45	29	0	N		
TILDEN	460	1	6	6	0	C				F		93	45				F			65	20	0	F		
TILDEN	632	1	6	6	0	F	0	-	N-	3F		54	10								10	0	-I		
TILDEN	896	1	6	6	0		0	-	N-	3F		85	17								17	0	-F		
TILDEN	902	1	6	6	0	P	0	-	N-	F		111	109	0	-	N-	-V	66	48	43	43	0	F		
TILDEN	903	1	6	6	0	P	0	-	N-	3V			51								21	0	P		
TILDEN	985	1	6	6	0	F	0	-	N-	0		61	40								40	0	F		
TILDEN	988	1	6	6	0		0	-	N-	0		57	28								29	0	F		
TILDEN	989	1	6	6	0	S	0	-	N-	L		99	76								76	0	F		

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Wyomissing Hills
Athletic Field
Golf Course
Sinking Spring
West Lawn
West Wyomissing
Lincoln Park
Montrose
Mohutow
P R I N G
READING
BORO
OLD
FRITZTOWN
STATE
HILL
ROAD
SPYDERS RD
FRANKLIN
BENJAMIN
CAMBRIDGE
(READING)
724
300
400
500
600
700
800

FLOOD PRONE AREA
Cacoosing
PRIVATE
Drive-in Theater
Gasoline
Gasoline
Citizens Utility Water
Olive Leaf Chapel
Pleasant View Cem
Cushion Peak
Fritztown
Cacoosing
Little
Creek
Cacoosing
Creek
BORO
OLD
ROAD
TELEPHONE
ROAD
Golf Course
AR100059

S P R I N G
Colonial Hills
Mohnton
Mohnton Boy Scout Camp
Camp Orenda
Gouglersville
700
800
600
500
740
780

AR100060

I D E L B E R G
Town Sch
Citizens Utility
Grand View Chapel
YMCA Camp
Olive Leaf Chapel
Fritztown
Vinemont
Camp Indiandale
Mohns Hill
Cem

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ATTACHMENT 5

References

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