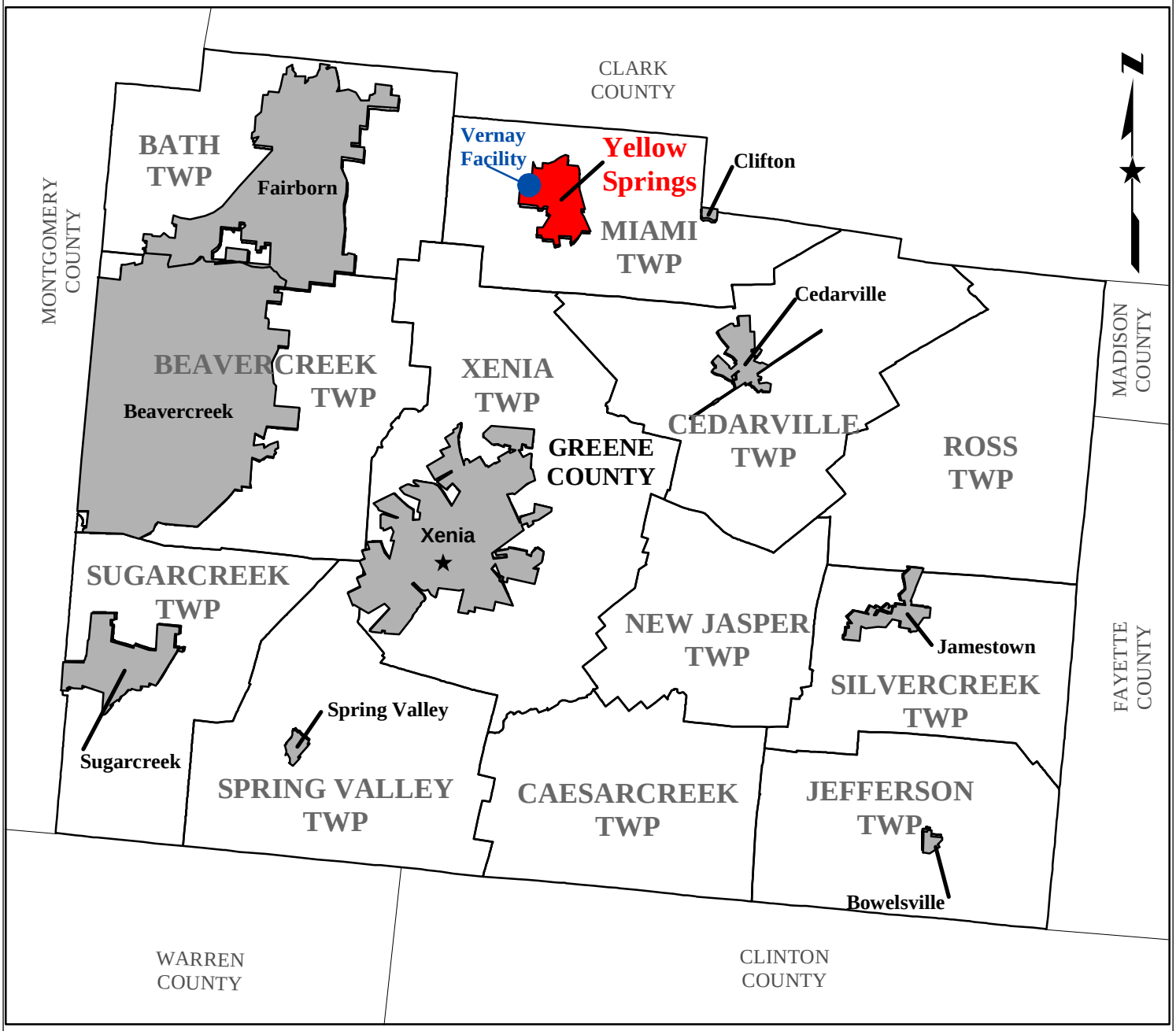

DRAWN BY	APPROVED BY	PROJECT NO.	DATE	FIGURE
ALH	KDK	292.11.31	4/15/04	1

CLIENT: *VERNAY LABORATORIES, INC.*

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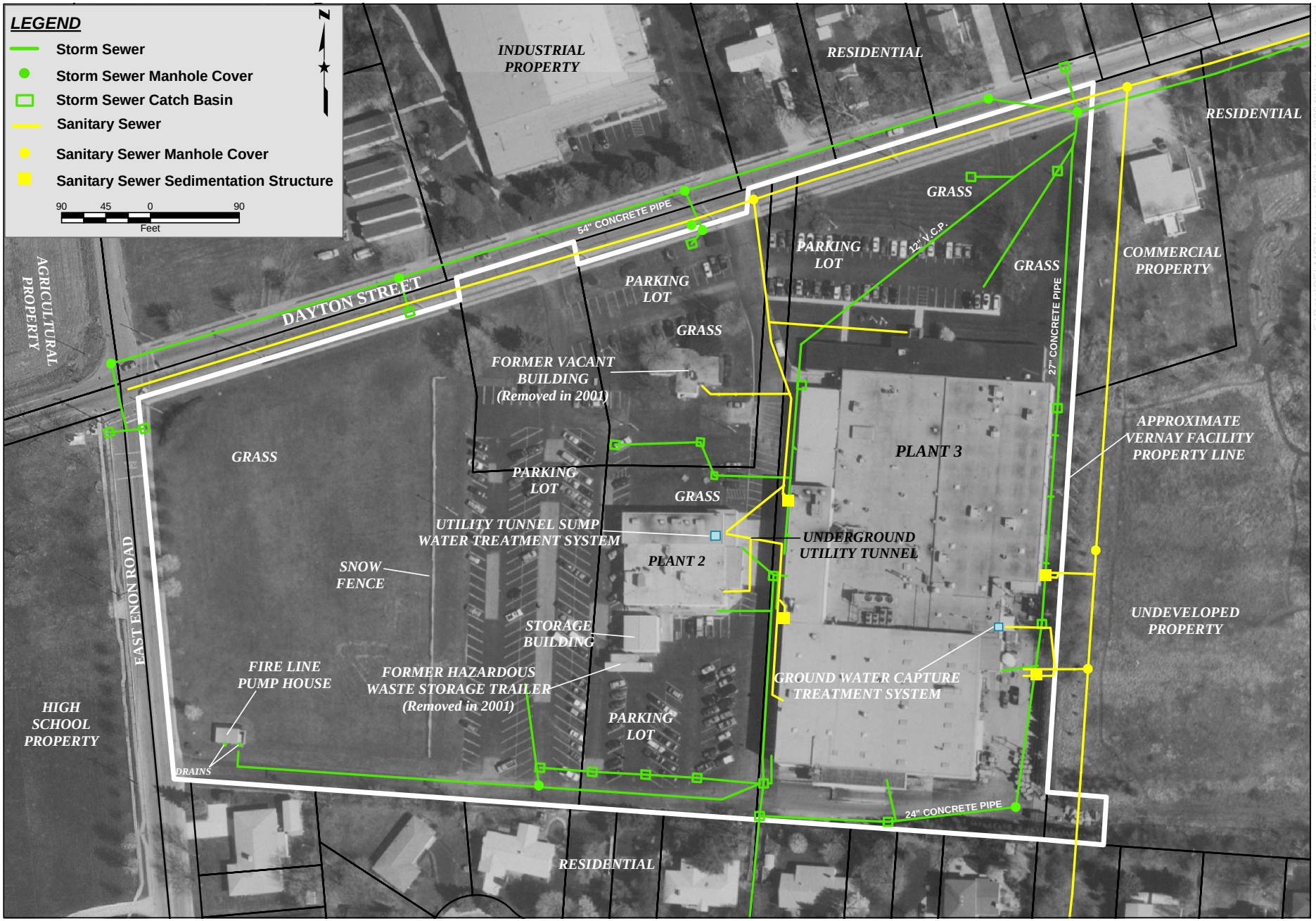
Cincinnati, Ohio

TITLE: ***FACILITY LOCATION***

REFERENCE: *Greene County Auditors, Digital Data: City, Township, and County Boundaries*

F:/DATA/PFI-MGT/VERNAY/GIS/Q1-2004/Site Location.mxd



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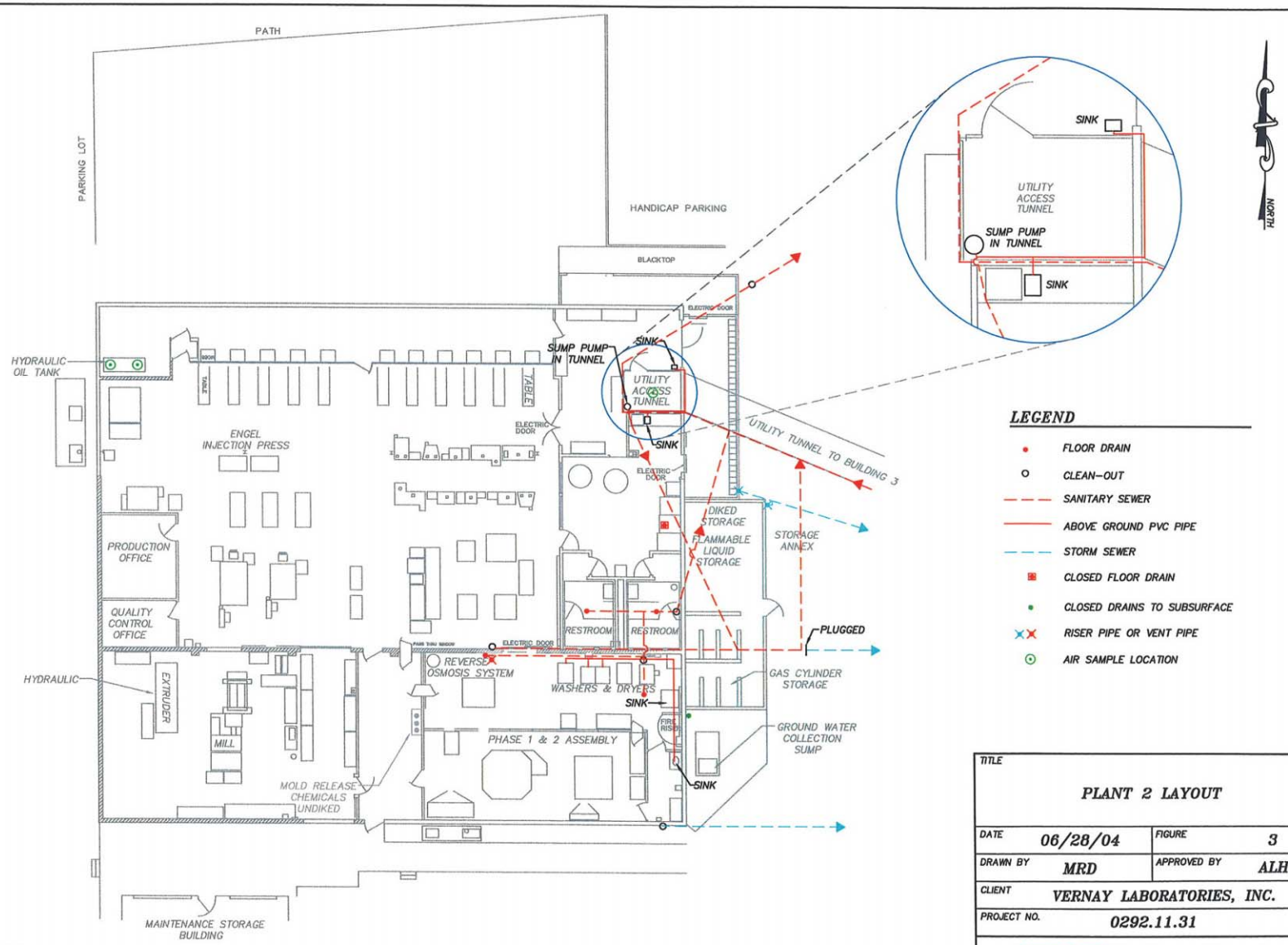
Cincinnati, Ohio

DATE	6/29/04
APPROVED BY	KDK
FIGURE NO.	2
DRAWN BY	ALH
PROJECT NO.	292.11.31

CLIENT: VERNAY LABORATORIES, INC.

TITLE: FACILITY FEATURES

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)



APPROXIMATE SCALE: 1 INCH = 18 FEET

LEGEND

- FLOOR DRAIN
- CLEAN–OUT
- SANITARY SEWER
- ABOVE GROUND PVC PIPE
- STORM SEWER
- CLOSED FLOOR DRAIN
- CLOSED DRAINS TO SUBSURFACE
- RISER PIPE OR VENT PIPE
- AIR SAMPLE LOCATION

TITLE	***PLANT 2 LAYOUT***		
DATE	***06/28/04***	FIGURE	***3***
DRAWN BY	***MRD***	APPROVED BY	***ALH***
CLIENT	***VERNAY LABORATORIES, INC.***		
PROJECT NO.	***0292.11.31***		

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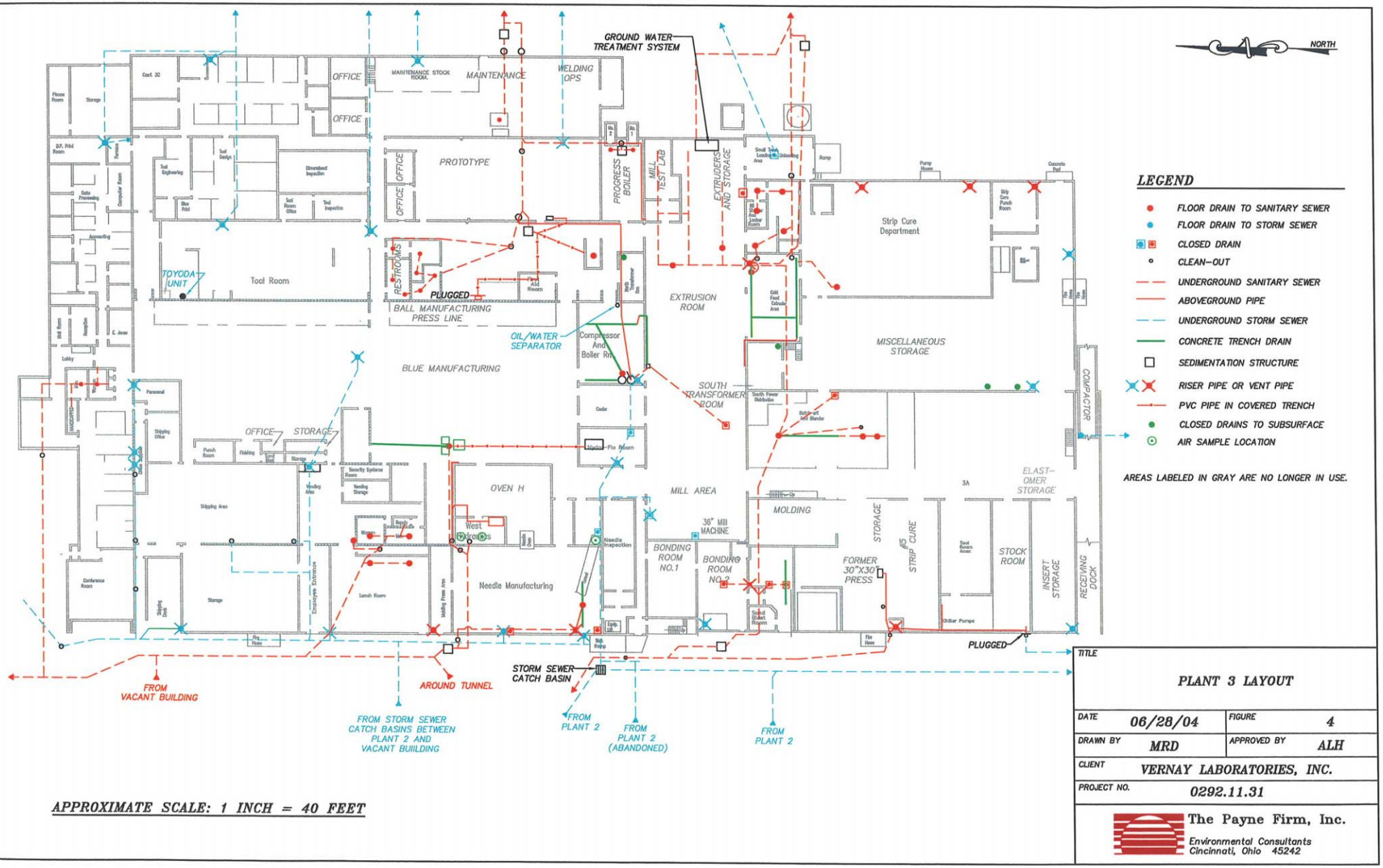

LEGEND

- FLOOR DRAIN TO SANITARY SEWER
- FLOOR DRAIN TO STORM SEWER
- CLOSED DRAIN
- CLEAN–OUT
- UNDERGROUND SANITARY SEWER
- ABOVEGROUND PIPE
- UNDERGROUND STORM SEWER
- CONCRETE TRENCH DRAIN
- SEDIMENTATION STRUCTURE
- RISER PIPE OR VENT PIPE
- PVC PIPE IN COVERED TRENCH
- CLOSED DRAINS TO SUBSURFACE
- AIR SAMPLE LOCATION

AREAS LABELED IN GRAY ARE NO LONGER IN USE.

APPROXIMATE SCALE: 1 INCH = 40 FEET

TITLE	PLANT 3 LAYOUT
DATE 06/28/04	FIGURE 4
DRAWN BY MRD	APPROVED BY ALH
CLIENT	VERNAY LABORATORIES, INC.
PROJECT NO.	0292.11.31

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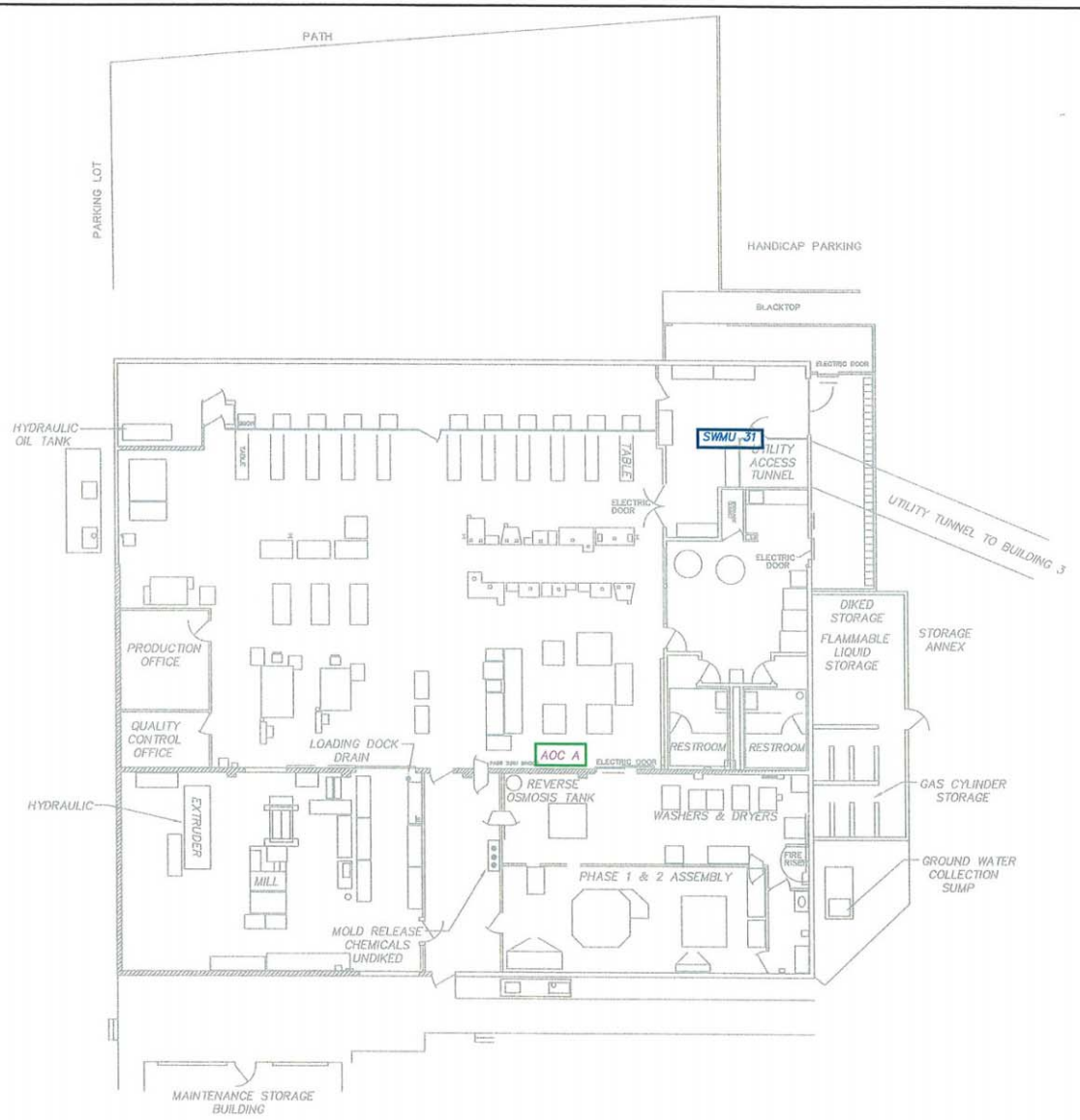
Environmental Consultants
Cincinnati, Ohio 45242



APPROXIMATE SCALE: 1 INCH = 18 FEET

HILSON

LEGEND

SWMU 34 — *SOLID WASTE MANAGEMENT UNIT IDENTIFIED IN THE JUNE 1, 2001 TECHLAW REPORT*

AOC A — *AREA OF CONCERN IDENTIFIED IN THE JUNE 1, 2001 TECHLAW REPORT*

RELEASE POTENTIAL

- *HIGH*
- *MEDIUM*
- *LOW*

NOTE: REFER TO TABLES 13 AND 14 IN THE RFI PHASE I FOR A SUMMARY OF SWMU's AND AOC's

TITLE	*PLANT 2 SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN*
DATE *06/28/04*	FIGURE *5*
DRAWN BY *MRD*	APPROVED BY *ALH*
CLIENT	*VERNAY LABORATORIES, INC.*
PROJECT NO.	*0292.11.31*

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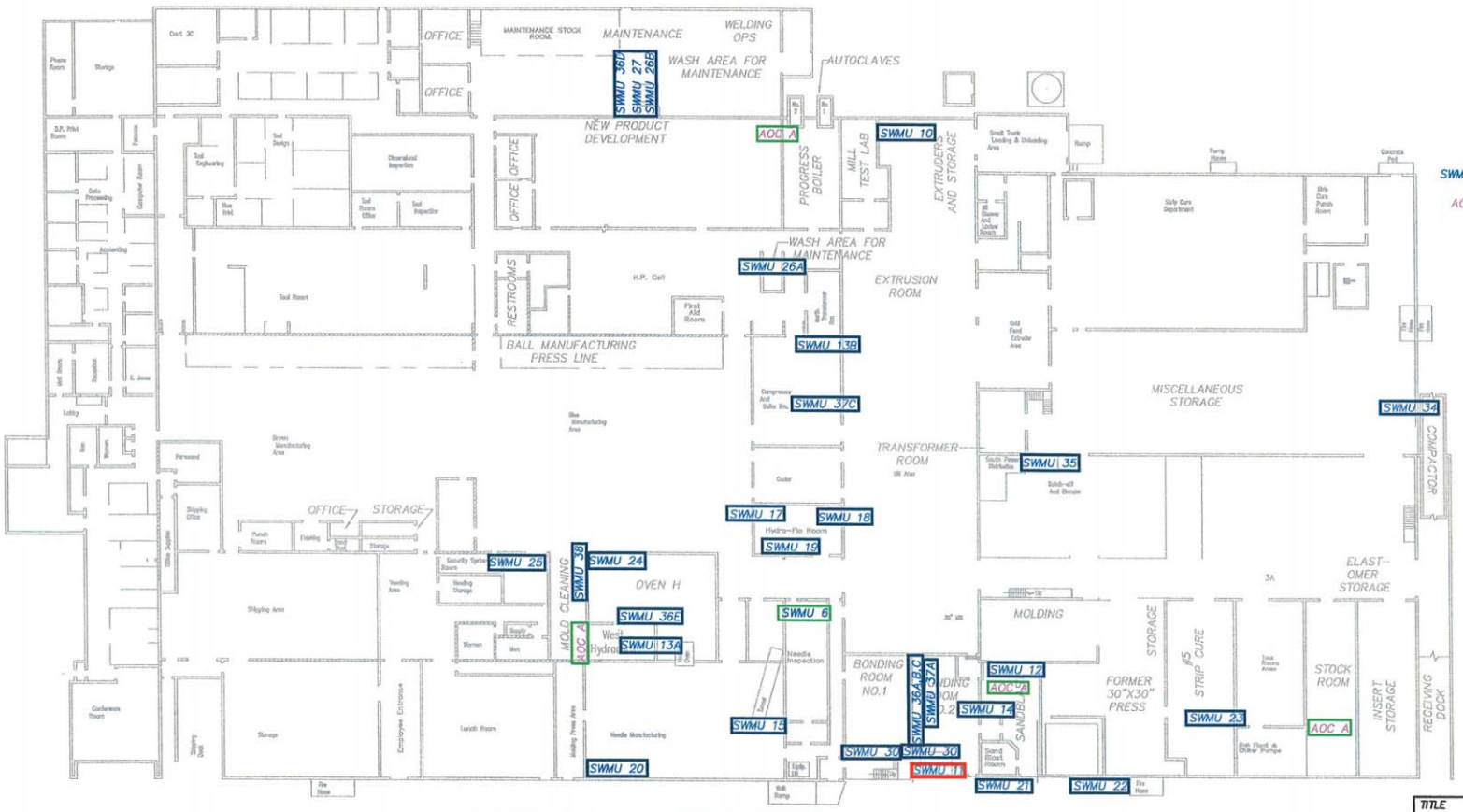
Cincinnati, Ohio 45242



SWMU 1 – PROCESS SEWER LINES AND FLOOR DRAINS

SWMU 2 – STORM SEWER SYSTEM

SWMU 29 – HYDRAULIC OIL TRENCH SYSTEM

SWMU 33 – TRASH TOTES

LEGEND

SWMU 34 SOLID WASTE MANAGEMENT UNIT IDENTIFIED IN THE JUNE 1, 2001 TECHLAW REPORT

AOC A AREA OF CONCERN IDENTIFIED IN THE JUNE 1, 2001 TECHLAW REPORT

RELEASE POTENTIAL

- HIGH
- MEDIUM
- LOW

AREAS LABELED IN GRAY ARE NO LONGER IN USE.

NOTE: REFER TO TABLES 13 AND 14 IN THE RFI PHASE I FOR A SUMMARY OF SWMU's AND AOC's

APPROXIMATE SCALE: 1 INCH = 40 FEET

TITLE	PLANT 3 SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
DATE 06/28/04	FIGURE 6
DRAWN BY MRD	APPROVED BY ALH
CLIENT	VERNAY LABORATORIES, INC.
PROJECT NO.	0292.11.31

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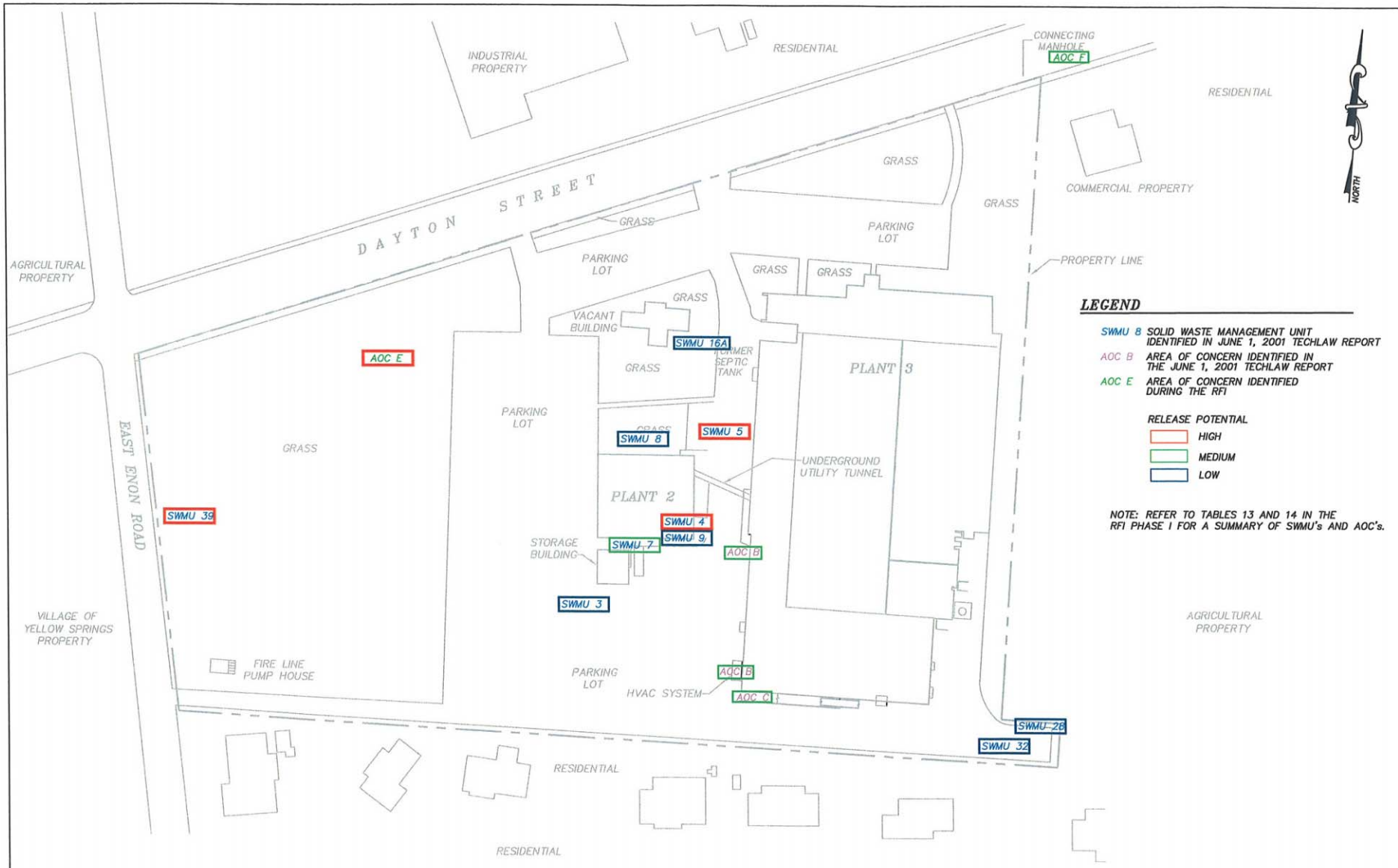

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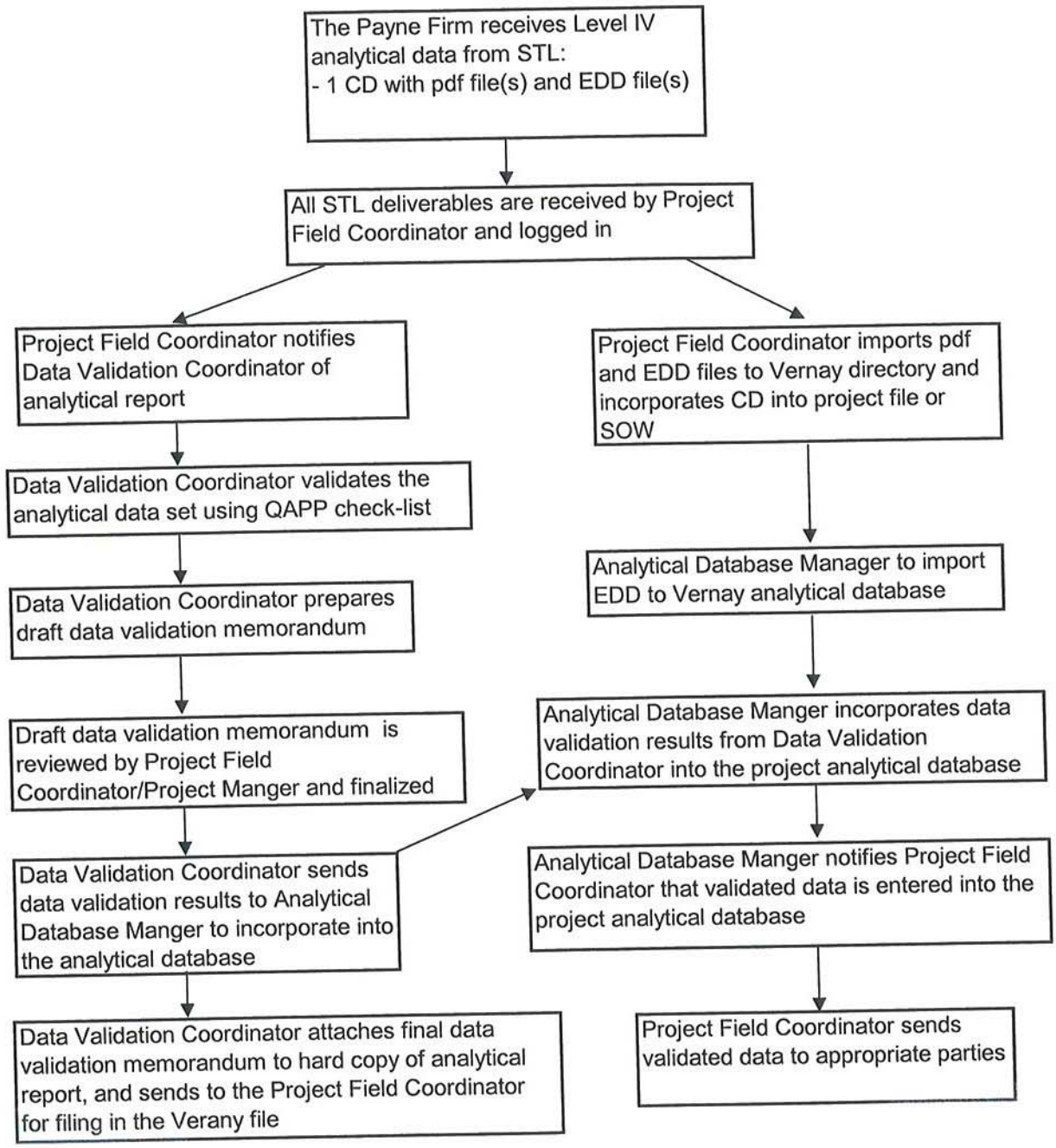
CLIENT	VERNAY LABORATORIES, INC.
TITLE	OUTDOOR FACILITY SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
FIGURE	7
DRAWN BY	MRD
PROJECT NO.	0292.11.31
DATE	06/28/04
APPROVED BY	ALH



DRAWN BY	APPROVED BY	PROJECT NO.	DATE	FIGURE
MRD	KDK	0292.11.31	06/28/04	8

CLIENT: VERNAY LABORATORIES, INC.

TITLE: RCRA FACILITY INVESTIGATION
ANALYTICAL DATA HANDLING FLOW CHART

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WEST

EAST

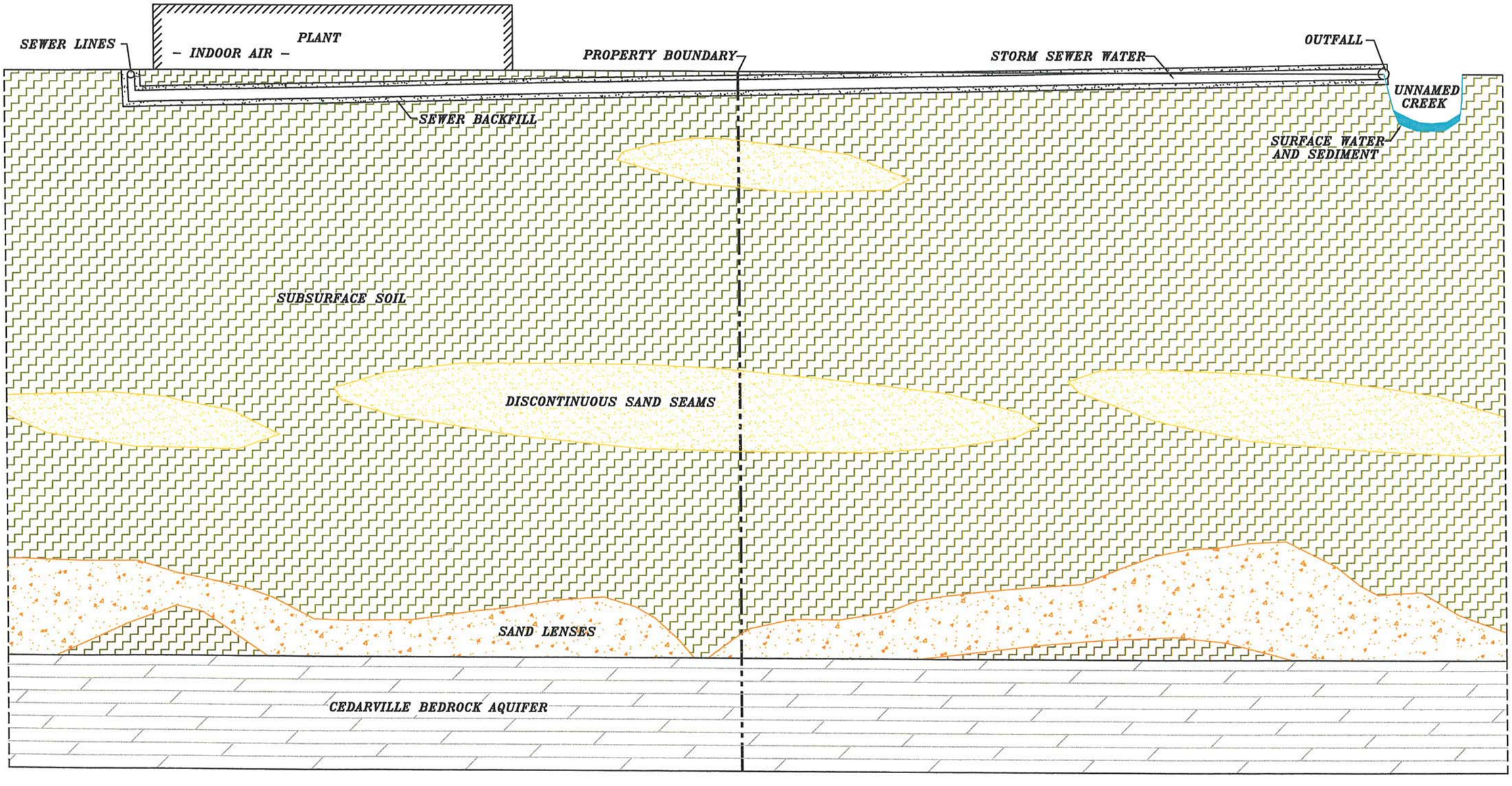

FIGURE NOT TO SCALE

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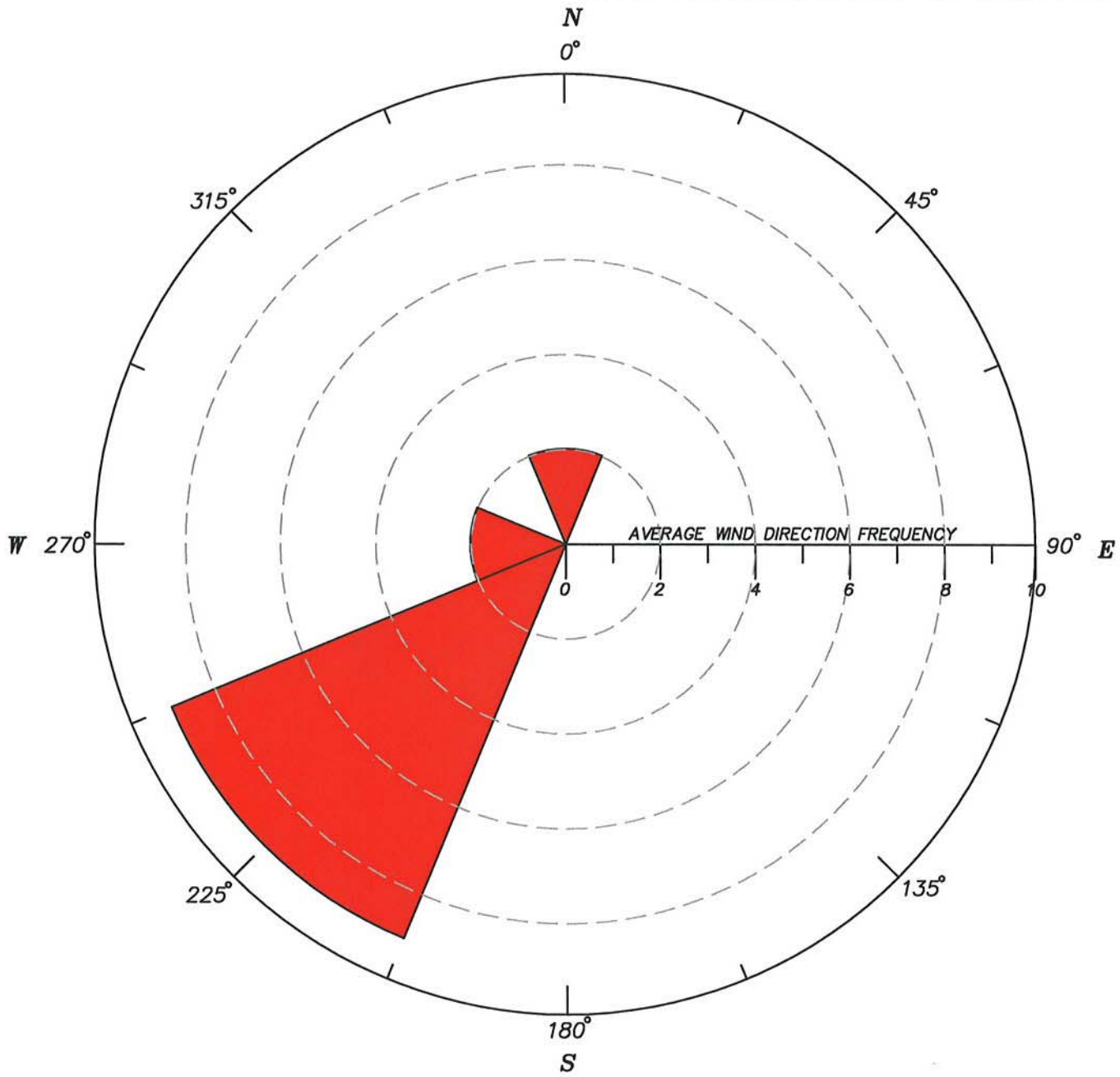
DATE	06/28/04
APPROVED BY	KDK
FIGURE	9
DRAWN BY	MRD
PROJECT NO.	0292.11.31

CLIENT: VERNAY LABORATORIES, INC.

TITLE: SAMPLING MEDIUM



MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
AVERAGE WIND DIRECTION	W	SW	SW	SW	SW	SW	SW	N	N	SW	SW	W	SW
AVERAGE WIND SPEED	8	7	8	7	5	5	4	4	4	5	7	7	6
MAXIMUM WIND GUST	64	85	76	58	68	69	57	70	57	56	59	56	85

NOTE 1: WINDS ARE GIVEN IN THE DIRECTION THEY ARE BLOWING FROM WITH SPEEDS IN KNOTS. FOR EXAMPLE, SW–5 MEANS THE WINDS ARE BLOWING FROM THE SOUTHWEST AT 5 KNOTS.

NOTE 2: DATA FROM THE WRIGHT PATTERSON AIR FORCE BASE – DAYTON, OHIO

DRAWN BY	APPROVED BY	PROJECT NO.	DATE	FIGURE
MRD	KDK	0292.11.31	06/28/04	10

CLIENT: VERNAY LABORATORIES, INC.

TITLE: MONTHLY AVERAGE WIND ROSE DIAGRAM

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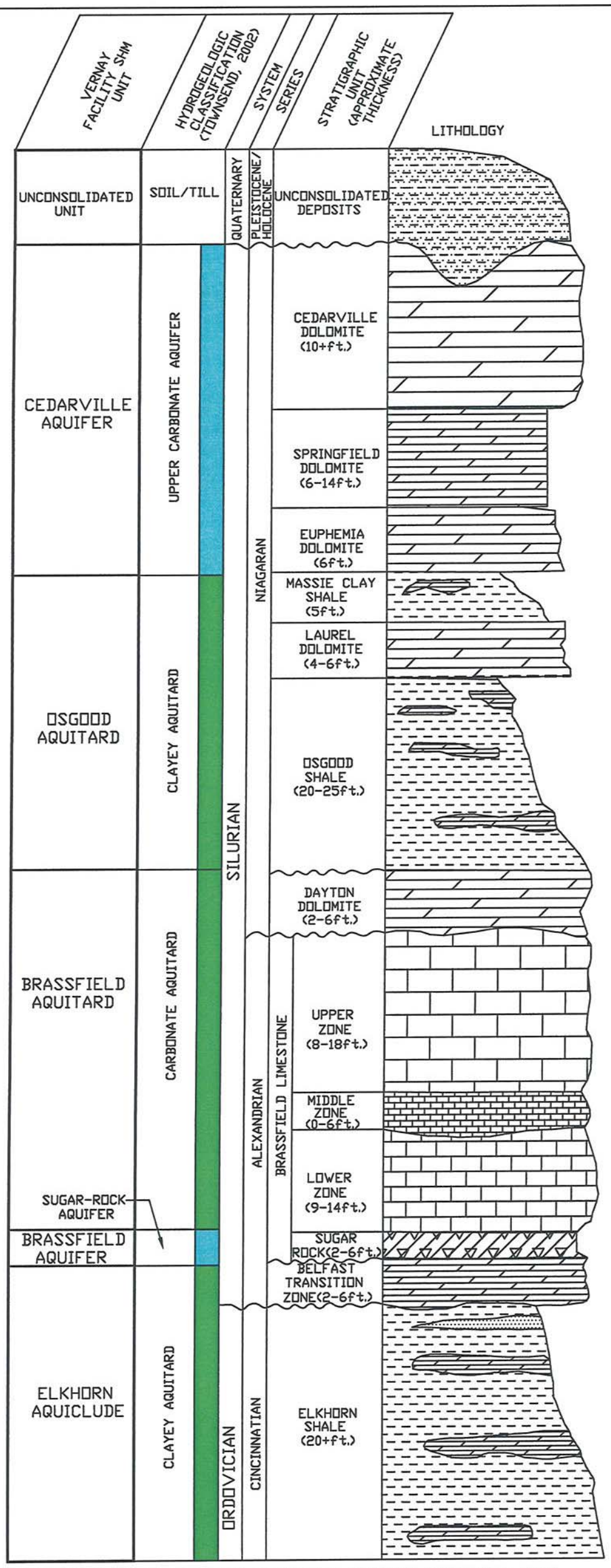


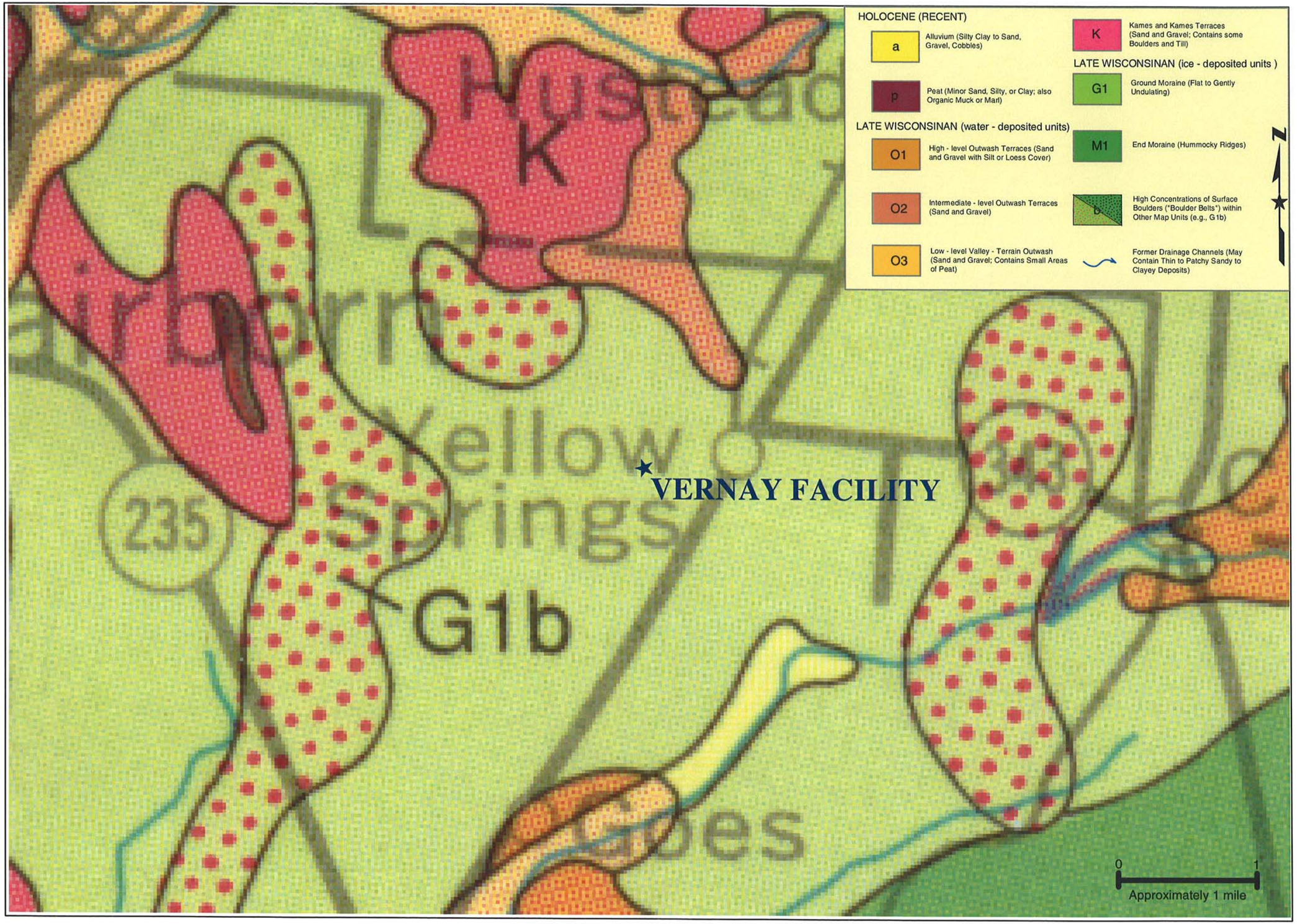
GEOLOGIC COLUMN FROM OUTCROP DESCRIPTION (MODIFIED FROM FROST, 1977)
HYDROGEOLOGIC CLASSIFICATION FROM ANTIOCH COLLEGE BORING (TOWNSEND, 2002)

LEGEND

- UNCONSOLIDATED DEPOSITS
- DOLOMITE ROCK
- SHALE
- LIMESTONE
- SUCROSIC DOLOMITE ROCK
- SILTSTONE
- UNCONFORMITY
- GRADATIONAL CONTACT
- AQUIFER
- AQUITARD/AQUICLUDE

FIGURE NOT TO SCALE

SITE: *VERNAY LABORATORIES, INC.*	FIGURE: *11*	DATE: *06/28/04*	The Payne Firm, Inc.
TITLE: *SITE HYDROGEOLOGIC MODEL (SHM)*	DRAWN BY: *MRD*	APPROVED BY: *KDK*	*Environmental Consultants*
	PROJECT NO.: *0292.11.31*		*Cincinnati, Ohio 45242*



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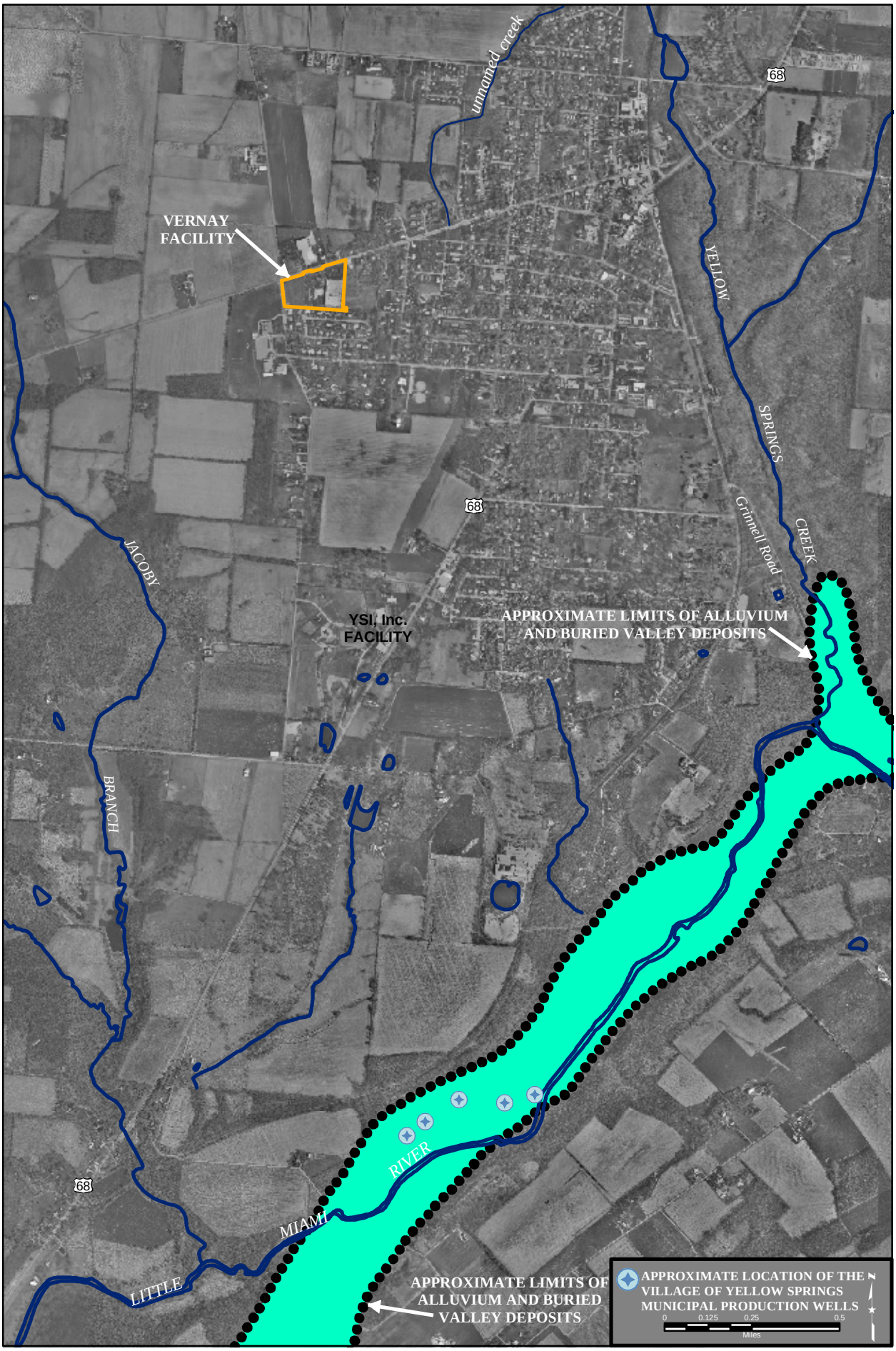
Cincinnati, Ohio

DATE	11/22/02	FIGURE NO.	12
APPROVED BY	KDK	DRAWN BY	JAW
	292.11.31	PROJECT NO.	

CLIENT: VERNAY LABORATORIES, INC.

TITLE: QUATERNARY GEOLOGY OF THE YELLOW SPRINGS AREA

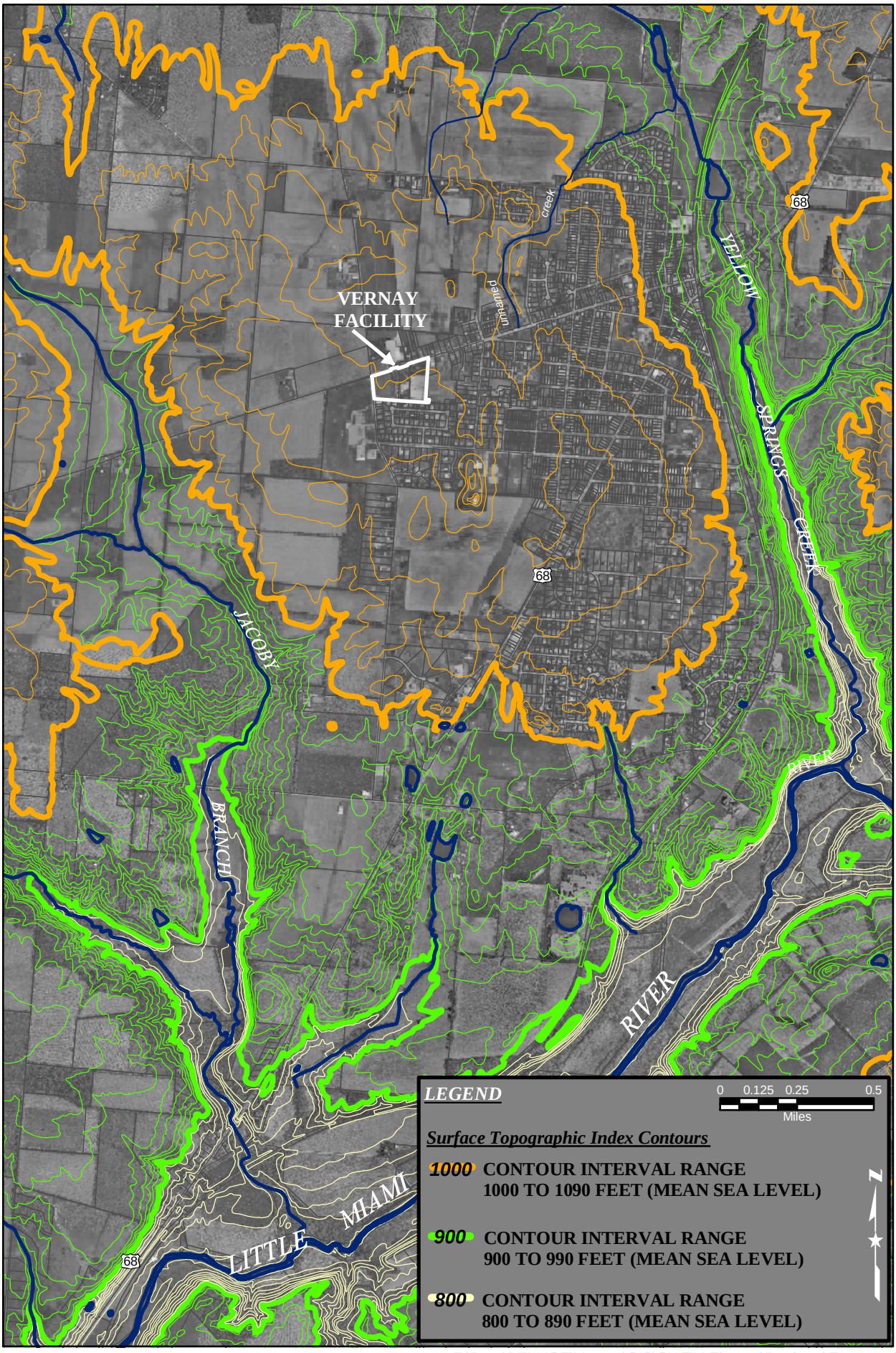
REFERENCE: Modified from the 1999 Quaterary Geology of Ohio: Ohio DNR Division of Geological Survey Map No.2



F:\Data\PFI-MGT\Vernay\GIS\GWTM Figures\WellheadProtectionArea.mxd

CLIENT: VERNAY LABORATORIES, INC.	FIGURE: 13	DATE: 6/29/04	The Payne Firm, Inc. Environmental Consultants Cincinnati, Ohio
TITLE: BURIED VALLEY AQUIFER AND VILLAGE OF YELLOW SPRINGS WELL FIELD	DRAWN BY: JAW	APPROVED BY: KDK	
	PROJECT NO.: 292.11.31		

REFERENCE: Greene Co. Auditors, Orthophotograph (1998); Village of Yellow Springs 2001 Wellhead Protection Management Plan; Ground Water Resources of Greene Co., Ohio DNR Division of Water



F:\Data\PFI-MGT\Vernay\GIS\GWTM Figures\Regional Topo.mxd

CLIENT: VERNAY LABORATORIES, INC.	FIGURE: 14	DATE: 6/29/04	The Payne Firm, Inc. Environmental Consultants Cincinnati, Ohio
TITLE: REGIONAL SURFACE TOPOGRAPHY OF THE YELLOW SPRINGS AREA	DRAWN BY: ALH	APPROVED BY: KDK	
	PROJECT NO.: 292.11.31		

REFERENCE: Modified from 1975 Topographic Map of the Yellow Springs, Ohio, 7.5-Minute Quadrangle: United States Geological Survey

LEGEND

1022 — Topographic Contour Line of the Ground Surface (2.5-foot Contour Interval above MSL)

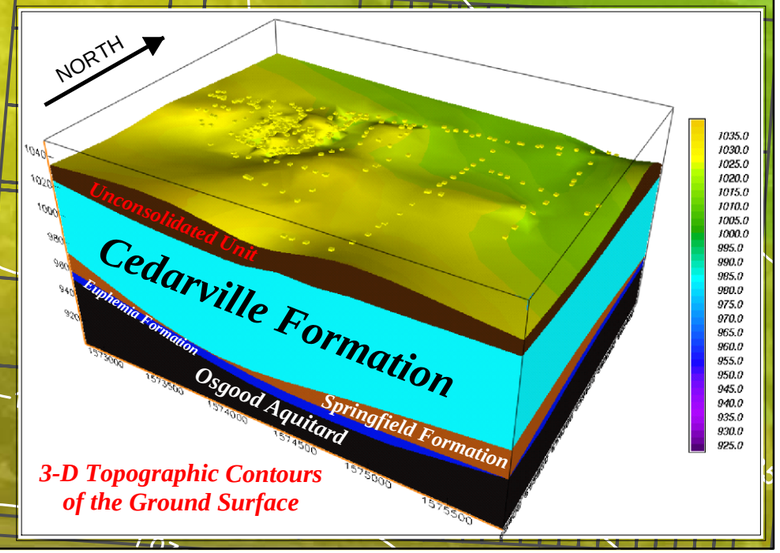
Surface Data Point

Vernay Facility Boundary

190 95 0 190
Feet

N

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
W N COLLEGE ST
E.ENON
OMAR CIRCLE
BARBARA STREET
W S COLLEGE ST
PLANT 3
PLANT 2
1 027.5
1 022.5
1 020
1 017.5
1 032.5



3-D Topographic Contours of the Ground Surface

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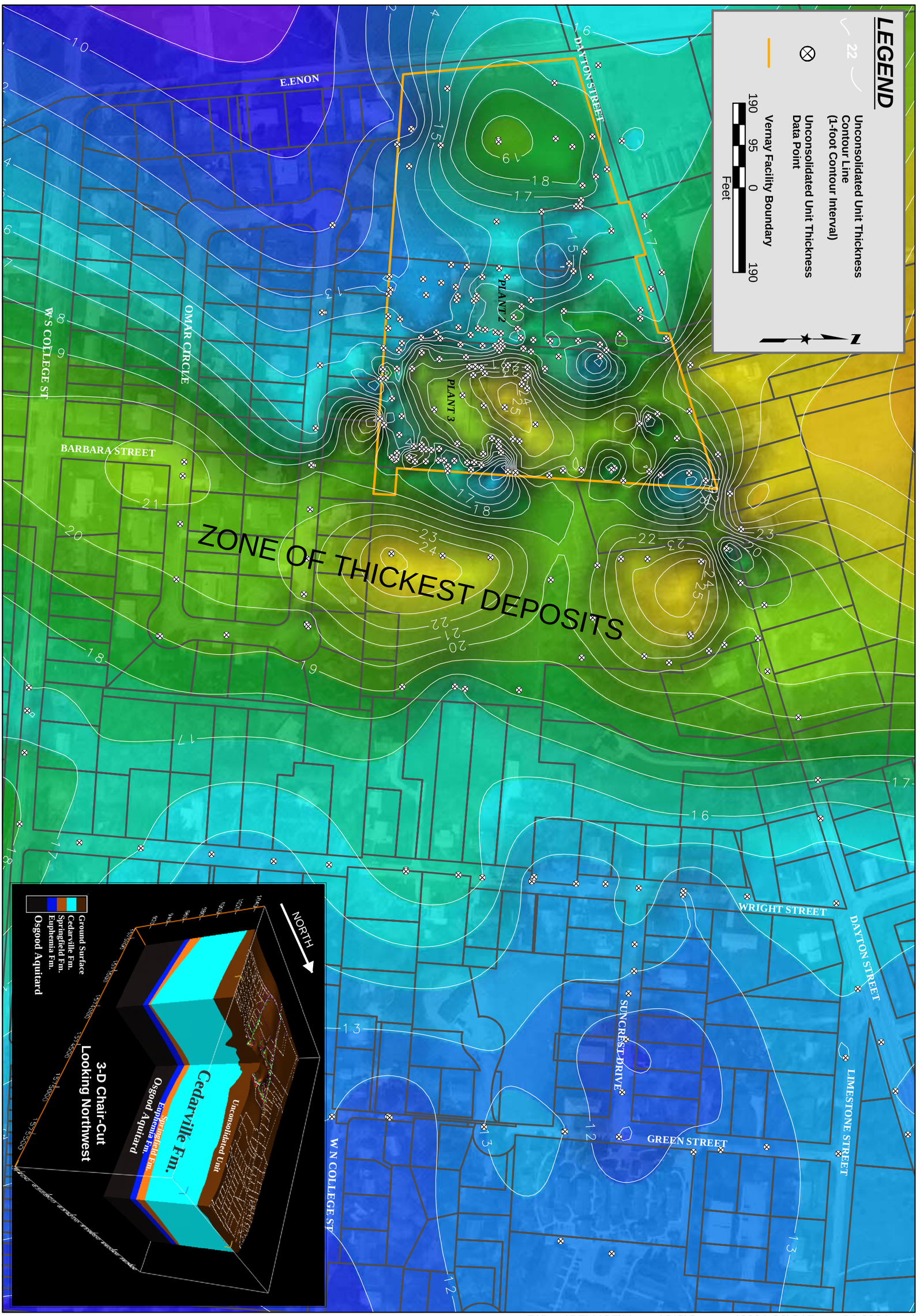
Cincinnati, Ohio

DATE	6/29/04
APPROVED BY	KDK
FIGURE NO.	15
DRAWN BY	ALH
PROJECT NO.	292.11.31

CLIENT: VERNAY LABORATORIES, INC.

TITLE: SURFACE TOPOGRAPHY AT THE FACILITY AND VICINITY

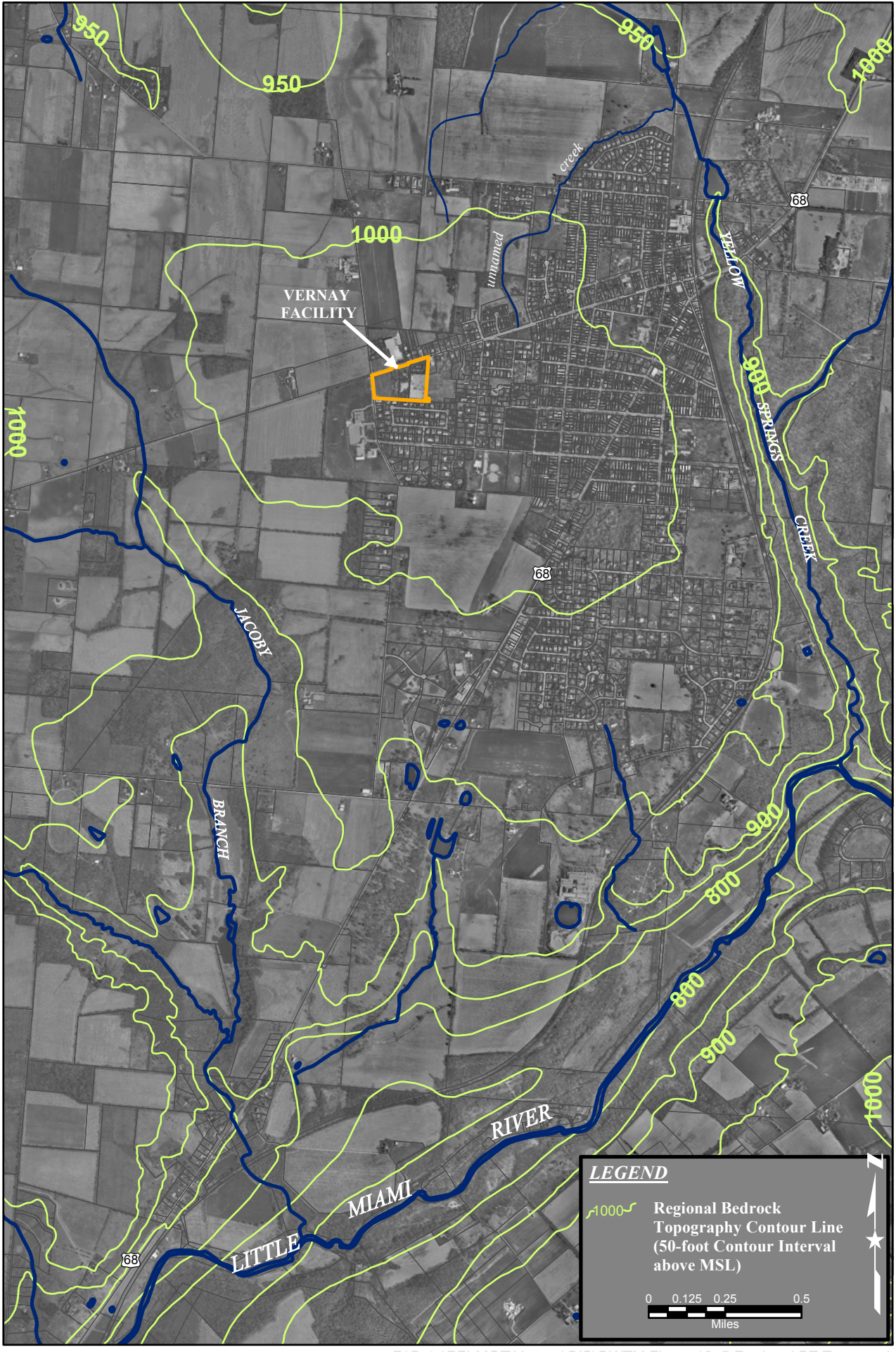
REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)



F:\Data\PFI-MGT\Vernay\GIS\Contours\2004-Q2\CATopo_Q2-2004.mxd

CLIENT: VERNAY LABORATORIES, INC.	FIGURE NO. 16	DATE 6/29/04	The Payne Firm, Inc. Environmental Consultants Cincinnati, Ohio
TITLE: THICKNESS CONTOURS OF THE UNCONSOLIDATED UNIT	DRAWN BY ALH	APPROVED BY KDK	
	PROJECT NO. 292.11.31		

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)



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CLIENT: VERNAY LABORATORIES, INC.	FIGURE: 17	DATE: 6/29/04	The Payne Firm, Inc. Environmental Consultants Cincinnati, Ohio
TITLE: REGIONAL BEDROCK TOPOGRAPHY OF THE YELLOW SPRINGS AREA	DRAWN BY: ALH	APPROVED BY: KDK	
	PROJECT NO.: 292.11.31		
REFERENCE: Modified from 2001 Bedrock Topography of the Yellow Springs, Ohio, 7.5-Minute Quadrangle: Ohio DNR Division of Geological Survey Open-File Map BT-B4G8			

LEGEND

1007 — Bedrock Surface Topographic Contour Line of the Cedarville Formation (2.5-foot Contour Interval above MSL)

⊗ — Bedrock Surface Data Point of the Cedarville Formation

Vernay Facility Boundary

190 95 0 190
Feet

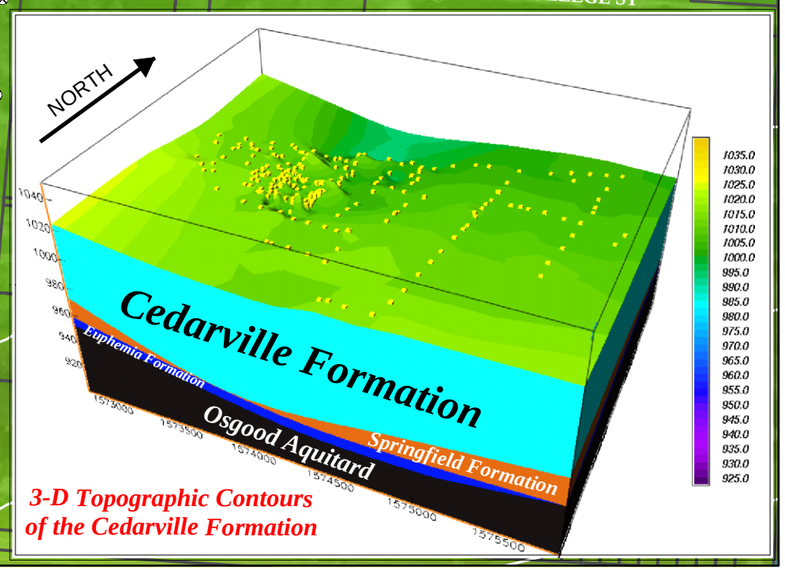
N

995
1 000
1 002.5
1 005
1 007.5
1 010
1 015
1 017.5
1 020

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
W N COLLEGE ST
W S COLLEGE ST
E ENON
OMAR CIRCLE
BARBARA STREET

PLANT 2
PLANT 3

ZONE OF LOWER BEDROCK TOPOGRAPHY



3-D Topographic Contours of the Cedarville Formation

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The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

CLIENT	VERNAY LABORATORIES, INC.
TITLE	CEDARVILLE FORMATION BEDROCK TOPOGRAPHIC CONTOURS
FIGURE NO.	18
DRAWN BY	ALH
PROJECT NO.	292.11.31
DATE	6/29/04
APPROVED BY	KDK

REFERENCE Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

LEGEND

80 — Cedarville Aquifer Thickness Contour Line (1-foot Contour Interval)

⊗ — Cedarville Aquifer Thickness Data Point

— Vernay Facility Boundary

200 100 0 200
Feet

N

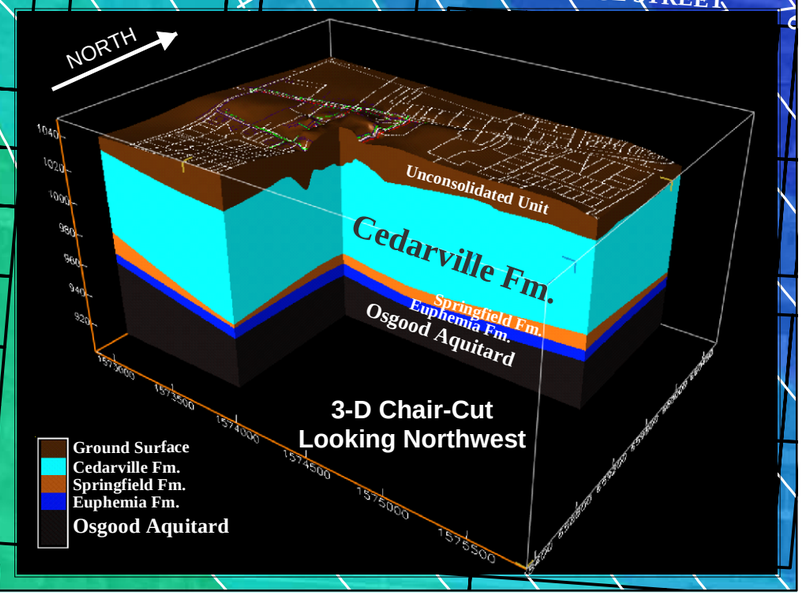
CW01-02
MW01-02SE
MW01-04SE
MW02-03SE
MW02-06CD
MW02-08SE
MW02-11SE
MW02-14CD
MW02-15CD
MW02-16CD
MW02-18CD

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
SUNCREST DRIVE
GREEN STREET
OMAR CIRCLE
E. ENON RD.
BARBARA STREET
W S COLLEGE STREET
W N COLLEGE STREET

PLANT 2
PLANT 3

ZONE OF THICKEST DEPOSITS

NORTH



CLIENT	VERNAY LABORATORIES, INC.
TITLE	THICKNESS CONTOURS OF THE CEDARVILLE AQUIFER
FIGURE NO.	19
DRAWN BY	ALH
PROJECT NO.	292.11.31
DATE	6/29/04
APPROVED BY	KDK

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

REFERENCE Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

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