

KANSAS GEOLOGICAL SURVEY

The University of Kansas
1930 Constant Ave
Lawrence KS 66047-3726
phone 785-864-3965
fax 785-864-5317
www.kgs.ku.edu

August 8, 2006

Mr. John L. Sheets, P. E.
Kaw Valley Engineering, Inc.
2319 N. Jackson
P. O. Box 1304
Junction City, Kansas 66441

**Re: Construction and Demolition Landfill and Tire Monofill
Blixt C&D Landfill, KDHE Permit No. 669
Dickinson County, Kansas**

Dear Mr. Sheets,

I have received your request for comment by the Kansas Geological Survey (KGS) on a permit modification for the construction and demolition landfill and tire monofill—Blixt C&D Landfill in Dickinson County. The landfill site is located within SW¼ of S28 T12S R4E, east of Chapman, Kansas.

Your letter included a street map showing the location and a map of the planned expansion of the C&D Landfill. Additionally, I examined the U. S. Geological Survey Kansas Falls 7½-minute topographic quadrangle, a 2002 orthophotograph, and unpublished data on quarries in Kansas. The landfill location is in an abandoned limestone quarry (<http://www.kgs.ku.edu/Magellan/Minerals/index.html>). The unpublished data indicates that the Permian-age Towanda Limestone was mined at this location. Natural fractures and those produced by quarrying may be potential pathways for fluid migration away from the quarry (landfill site). The KGS water well completion records (<http://www.kgs.ku.edu/Magellan/WaterWell/index.html>) show two domestic water wells in the SW¼ of section 28. Below the Towanda Limestone is the Holmesville shale and the Fort Riley Limestone. The Fort Riley has caves in other parts of Kansas (Young and Beard, 1993, KGS Educational Series 9). The KGS has no data on caves near Chapman.

Except for the geologic issues mentioned above, the Kansas Geological Survey has no knowledge of landslide or other geologic concerns at this landfill site.

The above discussion represents our best assessment based on the information that the Kansas Geological Survey has about this locality and/or proposed project at the time of this writing. Other geologic conditions, not discussed herein, or for which the Kansas Geological Survey has no knowledge, may affect the viability or safe operation of this facility or property. The information provided in this letter is from regional or countywide studies and should not be used as a substitute for detailed site

characterization by a licensed geologist or engineer. It is the responsibility of the applicant to provide any required site characterizations.

If you have any questions about my comments, feel free to contact me at (785) 864-2194 or ohlmac@kgs.ku.edu.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Ohlmacher', with a stylized, sweeping flourish extending to the right.

Gregory C. Ohlmacher, P.G.
Engineering Geologist

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KAW VALLEY ENGINEERING, INC.

July 25, 2006
A03D1138

Mr. Will Banks
Kansas State Historical Society
6425 S.W. South Avenue
Topeka, Kansas 66615

Mr. William Harrison
Kansas Geological Survey
1930 Constant Avenue
University of Kansas, West Campus
Lawrence, Kansas 66047-3726

Mr. Doug Blex
Kansas Department of Wildlife and Parks
1500 W. 7th Street, P.O. Box 777
Chanute, Kansas 66720

Mr. Bob Lytle
Division of Water Resources
Kansas Department of Agriculture
109 S.W. 9th Street, 2nd Floor
Topeka, Kansas 66612-1283

Mr. Kenny Edgecomb
U.S. Army Corps of Engineers
Pomona Regional Field Office
5260 Pomona Dam Road
Vassar, Kansas 66543

Mr. Paul Liechti
Kansas Biological Survey
2101 Constant Avenue, Higuchi Hall
The University of Kansas
Lawrence, Kansas 66047-3759

**RE: Permit Modification for Construction and Demolition Landfill and
Tire Monofill – Blixt C&D Landfill, KDHE Permit No. 669,
Dickinson County, Kansas**

Gentlemen:

Kaw Valley Engineering, Inc. is preparing a permit modification for the subject C&D landfill and tire monofill. The Kansas Department of Health & Environment (KDHE), Bureau of Waste Management (BWM) requests we notify the agencies listed on page 4 of the required application, a copy of which is enclosed for your reference, and ask if they have any comments relative to regulatory compliance or human, health, environmental, and cultural resource issues regarding the permit modification.

The enclosed map shows the location of the existing facility proposed for expansion at Township 12S, Range 4E, and Southwest Quarter of Section 28 or at 2646 Sage Road, one-half mile North of Old Highway 40, East of Chapman, Kansas.

The permit modification is to increase the landfill to an estimated 18.3 acres, site plan enclosed. A revised operating plan was approved by KDHE in June 2003, but this permit modification form has not been reviewed by BWM. Your comments are requested in accordance with BWM

o t h e r l o c a t i o n s

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14700 W. 114th Terrace Lenexa, Kansas 66215 Tel: 913-894-5150 LX@kveng.com

July 25, 2006

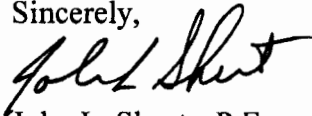
Page 2 of 2

policy and because of time constraints, in conjunction with the formal permit modification submission to KDHE for review.

Please don't hesitate to contact me if you have any questions about the site or its operation. Additional information is available upon request.

Thank you for your time and assistance in your review.

Sincerely,

A handwritten signature in black ink, appearing to read "John L. Sheets", with a stylized flourish at the end.

John L. Sheets, P.E.
Project Manager

JLS:jmt

Enclosure

\\cserver2\Projects\A03_1138\Design\Correspondence\Ltr re Permit Modification 071306.doc

Application for Solid Waste Landfill Permit

____ Leaching tests

Required for industrial landfills when the waste characterization identifies constituents that pose a risk to groundwater quality.

Submit leaching test results using an EPA or ASTM method that most closely simulates the landfill environment.

____ Hydrogeologic investigation (see K.A.R. 28-29-104(b))

Required for all municipal solid waste landfills, and required for industrial landfills used for disposal of non-inert waste.

Hydrogeologic reports may be submitted prior to submission of this application form.

____ Request for Location Demonstration Information Regarding Distance from the Nearest Intake Point of a Public Surface Water Supply System[†]

____ Location demonstrations (see K.A.R. 28-29-23(d), 102, 302, and Policy 02-02)

____ Agency notifications and requests for comments

- ____ Kansas Biological Survey
- ____ Kansas Corporation Commission
- ____ Kansas Department of Agriculture - Division of Water Resources
- ____ Kansas Department of Wildlife and Parks
- ____ Kansas Geological Survey
- ____ Kansas State Conservation Commission
- ____ Kansas State Historical Society
- ____ Kansas Water Office
- ____ U.S. Department of the Army - Corps of Engineers
- ____ Other _____

Input from other agencies may be required.

____ Map and description of abutting properties including location and land use, names and mailing addresses of property owners. If the proposed site is adjacent to a public road, include property across the road.

____ Design drawings and calculations (see K.A.R. 28-29-6, 23, 103, 104, 304, 325)

____ Groundwater monitoring plans and reports (see K.A.R. 28-29-111 through 113)

Required for all municipal solid waste landfills, and required for industrial landfills used for disposal of non-inert waste.

Groundwater monitoring plans and reports may be submitted separate from this application form.

____ Operations plan (see K.A.R. 28-29-23, 108, 308, 325)

____ Closure and post-closure plans (see K.A.R. 28-29-12, 121, 304, 321, 325)

____ Closure, post-closure, and estimated life worksheets[†]

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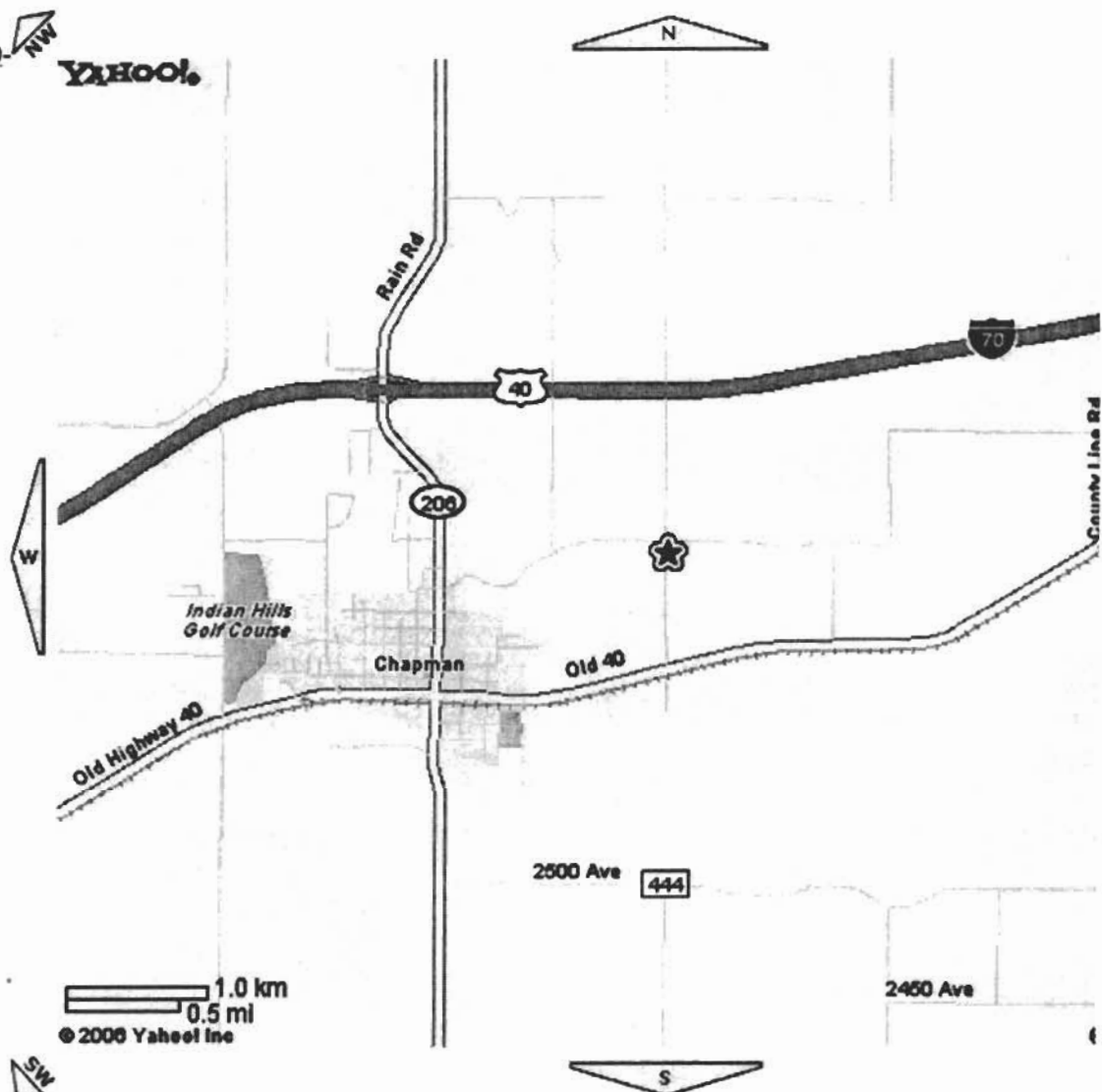
Your trip to the Central U.S. starts here.



★ Map for: 2646 Sage Rd Chapman, KS 67431-88

Driving Directions: [To Here](#) - [From Here](#) [Printable Version](#) [Email Map](#) [Link to this Map](#)

[1st.3city567state910-](#)
[Zoom](#)
[Out](#)
 [small map](#)

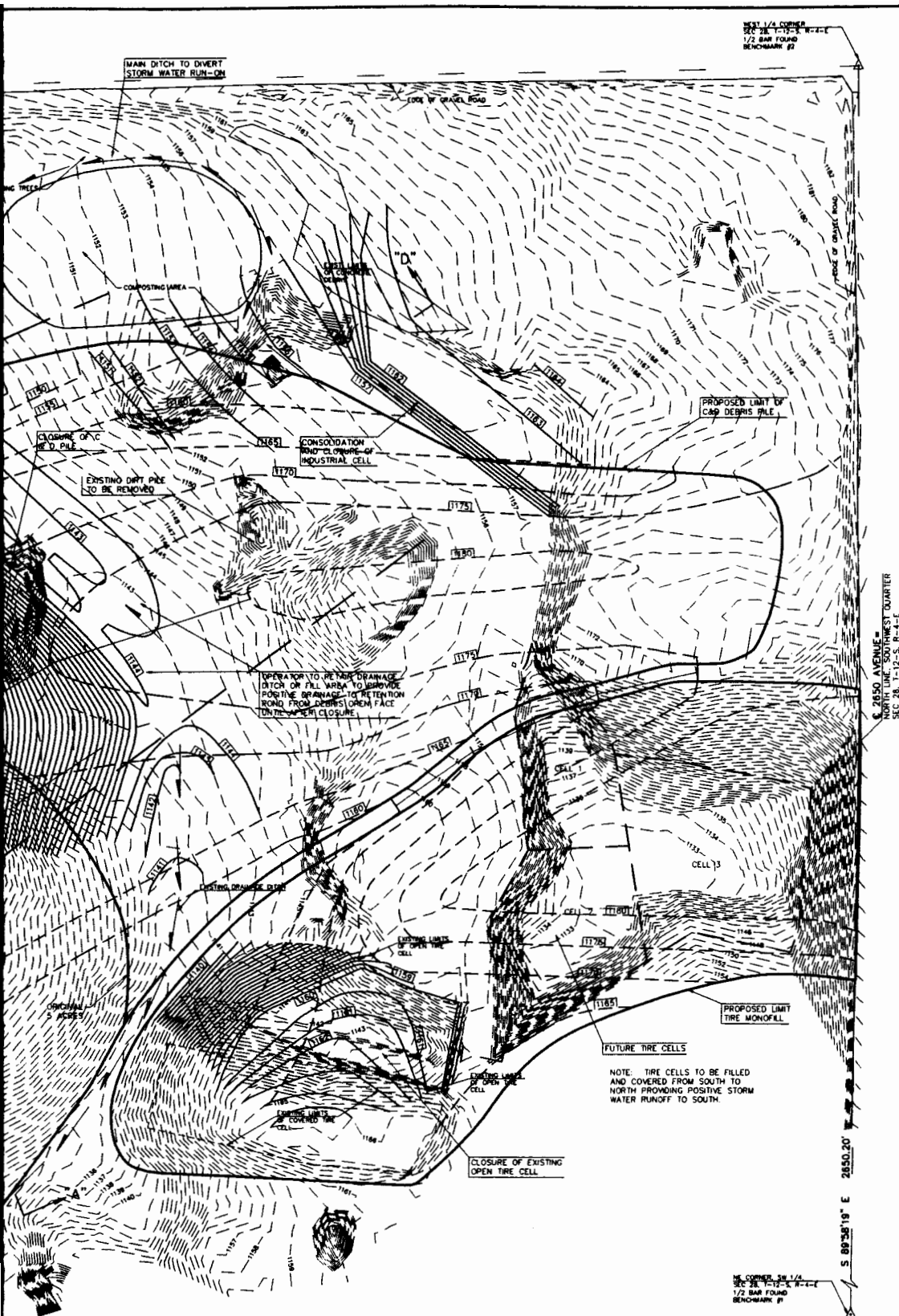


See these business locations on this map



NOTES

1. CLOSURE OF THE C & D PILE WILL SEAL THE OPEN FACE OF THE PILE WITH SEMI-IMPERMEABLE MATERIAL. THE COVER LAYER CONSISTS OF 18 INCHES OF COMPACTED SITE MATERIAL TOPPED WITH 12 INCHES OF TOPSOIL AND SEEDING. SEEDING SHOULD BE A NATIVE GRASS MIXTURE TO ESTABLISH A SOLID VEGETATIVE COVER.
2. THE BERM IS TO BE MAINTAINED AT THE TOE OF THE LAST OPEN FACE EVEN AFTER CLOSURE IS COMPLETE AND UNTIL SUCH TIME AS AUTHORIZED TO REMOVE. THE BERM AND DITCH SHALL CONTINUE TO DIRECT FLOW OFF THE PILE (OPEN FACE AREA) TO THE RETENTION POND.
3. DRAINAGE DITCHES FOR STORMWATER SHOULD BE MAINTAINED DURING AND AFTER CLOSURE TO CONTROL RUNOFF FROM THE SITE, SEPARATE FROM THE RUNOFF INTO THE RETENTION POND.
4. THE TIRE CELLS IDENTIFIED IN THE PIT ON THE NORTH SIDE OF THE SITE ARE FOR FUTURE USE AND ARE NOT A PART OF THIS CLOSURE PLAN. THIS PLAN ONLY ADDRESSES CLOSURE OF THE EXISTING OPERATING OPEN TIRE CELL. AS IT REACHES CAPACITY OF THE PIT, IT WILL BE CLOSED TYING COVER MATERIAL INTO THE ADJACENT CLOSED CELL.
5. THE INDUSTRIAL CELL IS FOUNDRY SAND RECEIVED AND STOCKPILED IN THE PAST. NO FURTHER DEBRIS OF THIS TYPE IS EXPECTED THEREFORE THE SAND IS TO BE CONSOLIDATED INTO A MORE COMPACT PILE AND CLOSED WITH THE SAME REQUIREMENTS AS THE C & D PILE. CLOSURE OF THE VARIOUS PILES WILL BE IN ACCORDANCE WITH THE OPERATING PLAN AND KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT GUIDELINES.



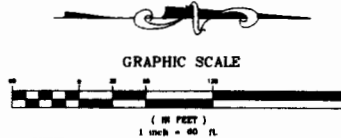
EXISTING LEGEND

- △ SECTION CORNER
- TREE LINE
- 1130 — 1' CONTOUR INTERVAL

LEGEND (PROPOSED)

- FLOW DIRECTION
- 1127 — FINISHED 1' CONTOUR INTERVALS
- 1130 — PROJECTED 5' CONTOUR INTERVALS
- PROJECTED LIMITS OF CELLS

	EXISTING	FUTURE PLANNED DEVELOPMENT
AREA OF ACTIVE LANDFILL OPERATION NOT COVERED	115,200 SQ FT	100,000 SQ FT
MAXIMUM RUNOFF FOR 25 YEAR, 24 HOUR STORM 6.0 INCHES	57,600 CU FT	50,000 CU FT



BENCHMARKS:
 BM #1: 1/2" REBAR AT THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER, SECTION 28, T-12-S, R-4-E, DICKINSON COUNTY, KANSAS ELEV=1148.49
 BM #2: 1/2" REBAR AT THE WEST 1/4 CORNER OF SECTION 28, T-12-S, R-4-E, DICKINSON COUNTY, KANSAS ELEV=1180.53
 BM #3: 1/2" REBAR AT THE SOUTHWEST CORNER OF SECTION 28, T-12-S, R-4-E, DICKINSON COUNTY, KANSAS ELEV=1172.44

LARRY BLUNT
 SAGE AVENUE & 2650 AVENUE
 DICKINSON COUNTY, KANSAS

PROJECTED CLOSURE PLAN

K&V
 K&V VALLEY ENGINEERING, INC. - CONSULTING ENGINEERS
 2319 NORTH JACKSON
 JUNCTION, MO 64441
 785-782-5040 FAX 785-782-7744
 E-MAIL jck@kvw.com
 WEB SITE www.kvw.com

REV	DATE	DESCRIPTION	DSN	DWN	CHK
1	7-14-04	RECEIVED PER CLIENT			
0	3-24-04	INITIAL DESIGN			