

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of WOLVERINE )  
PIPE LINE COMPANY for authority under 1929 PA 16 )  
to construct, operate and maintain a pipe line for the ) Case No. U-13225  
transportation of liquid petroleum products. )  
\_\_\_\_\_ )

PREFILED DIRECT TESTIMONY  
OF  
STEVEN J. KOSTER  
ON BEHALF  
OF  
WOLVERINE PIPE LINE COMPANY

DYKEMA GOSSETT • A PROFESSIONAL LIABILITY COMPANY • 800 MICHIGAN NATIONAL TOWER • LANSING, MICHIGAN 48933-1742

- 1 Q<sub>1</sub> PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.
- 2 A<sub>1</sub> My name is Steven J. Koster. I am a principal of Environmental Resources Management,  
3 Inc. (“ERM”) and manager of the firm’s Holland, Michigan office. My business address  
4 is 3352 128th Avenue, Holland, MI 49424-9263.
- 5
- 6 Q<sub>2</sub> PLEASE BRIEFLY DESCRIBE YOUR BACKGROUND AND WORK  
7 EXPERIENCE.
- 8 A<sub>2</sub> I have been a registered Professional Engineer in the state of Michigan since 1989. I  
9 received a Bachelor of Science Degree in Civil Engineering from the University of  
10 Michigan in 1984, and a Bachelor of Science Degree in Letters and Engineering, from  
11 Calvin College in 1984. In 1985, I received a Masters of Science Degree in Environmental  
12 Engineering from the University of Michigan. I have more than 15 years of experience in

1 environmental site assessments and remediation and have managed such diverse projects  
2 as multi-site environmental property assessments; underground storage tank management  
3 programs; environmental impact assessments; ground water hydrogeological  
4 investigations; and soil and ground water corrective actions at sites of environmental  
5 contamination. A copy of my curriculum vitae is incorporated into Exhibit A-\_\_ (SJK -  
6 1) at Section 8.

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8 **Q<sub>3</sub> DO YOU BELONG TO ANY PROFESSIONAL ORGANIZATIONS?**

9 **A<sub>3</sub>** Yes, I belong to The National Ground Water Association and the American Society of  
10 Civil Engineers.

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12 **Q<sub>4</sub> WHAT ARE YOUR RESPONSIBILITIES WITH ERM?**

13 **A<sub>4</sub>** As manager of the Holland office, I am responsible for supervising and directing staff  
14 members of ERM in performing engineering and other project-related activities, and I also  
15 perform engineering and design activities myself, specializing in the areas of  
16 environmental assessments, groundwater hydrogeological investigations, and underground  
17 storage tank management

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19 **Q<sub>5</sub> WHY WERE YOU RETAINED BY WOLVERINE PIPE LINE COMPANY IN**  
20 **THIS CASE?**

21 **A<sub>5</sub>** Wolverine engaged ERM to conduct the environmental impact review of the proposed  
22 pipeline project.

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**Q<sub>6</sub> WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A<sub>6</sub> To present an Environmental Impact Review on behalf of Wolverine for the proposed liquid petroleum products pipeline.

**Q<sub>7</sub> DID YOU PROVIDE COMPARABLE TESTIMONY ON BEHALF OF WOLVERINE IN CASE NO. U-12334?**

A<sub>7</sub> Yes, I did.

**Q<sub>8</sub> HOW DID COMMISSION RESOLVE THE SUBJECT OF YOUR TESTIMONY IN CASE NO. U-12334?**

A<sub>8</sub> With respect to the items identified at page 6, lines 3 through 11 of Mr. Cole’s testimony, the Commission found that the pipeline was designed and routed in a reasonable manner. Specifically, the Commission stated as follows:

“The Commission agrees with Wolverine’s contention for the following three reasons.

First, as can be seen from a review of the “route maps” provided in this case, nearly all of Wolverine’s new pipeline facilities – beyond those previously removed from consideration in this case – will be located in rural areas. . . . Moreover, . . . those facilities will be constructed either in or directly adjacent to existing utility easements. . . . As a result, . . . their construction and operation should cause a minimum of inconvenience, and the potential for third-party damage should be significantly limited. . . .

Second, . . . Wolverine’s proposed facilities will be constructed, operated, and maintained in a manner that meet or exceeds all federal safety requirements. . . .

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Third, as noted earlier in this order and set forth in the comprehensive environmental review prepared by Mr. Koster, construction of the facilities still at issue in this case “will not result in any significant environmental impact.” . . . According to Mr. Koster’s report, the manner in which Wolverine plans to construct its system should produce no noticeable harm to natural resources and will result in no loss of wetlands. . . . Moreover, the report indicates that all anticipated effects on land use “will be primarily short-term and the result of construction activities,” and that any problems experienced by residential and commercial property owners should likewise be relatively “minor.”

Disagreement will always arise concerning to the precise location of facilities like those proposed in Wolverine’s application. Nevertheless, the Commission finds the applicant’s proposal to be reasonable with regard to both the routing and type of construction . . . [emphasis added; order, pp 16 - 18].

**Q<sub>9</sub> HAVE YOU PREPARED OR CAUSED TO BE PREPARED UNDER YOUR DIRECTION AND SUPERVISION ANY EXHIBITS TO YOUR TESTIMONY?**

**A<sub>9</sub>** Yes, Exhibit A-\_\_ ( SJK -1) is the Environmental Impact Review of the remaining segment of the proposed pipeline system. As part of my analysis, I reviewed the route of the proposed remaining segment, and I am familiar with the environmental considerations involved in its proposed construction.

**Q<sub>10</sub> PLEASE DESCRIBE THE PROCESS EMPLOYED TO CONDUCT AND COMPLETE THE ENVIRONMENTAL IMPACT REVIEW FOR THE PROPOSED PROJECT.**

**A<sub>10</sub>** The environmental impact review was performed by a team of experienced engineers and scientists under my direction and supervision. This team included licensed environmental

1 engineers, hydrogeologists, environmental scientists, resource scientists, wetland  
2 scientists, archaeologists, and various support staff. The team's tasks consisted of a  
3 combination of records research and field survey activities. Research activities were  
4 designed to catalogue natural resource and other features of interest along the proposed  
5 route, and encompassed records of aerial photographs, soil survey maps, topographic  
6 maps, contaminated sites, threatened and endangered species, known historic sites, and  
7 the like. Field survey tasks were conducted concurrently with this research in the fall of  
8 2001. Field tasks included walkover inspections by wetland scientists and archaeologists  
9 to identify specific natural resources and areas of interest. Utilizing this information, my  
10 staff and I evaluated the existing geologic and physiographic characteristics of the  
11 proposed route, and determined the effects thereon of construction for the proposed  
12 pipeline system. This process corresponds to the process that was previously used in Case  
13 No. U-12334.

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15 **Q<sub>11</sub> WHAT DOES EXHIBIT A- \_\_\_ (SJK - 1) SHOW?**

16 **A<sub>11</sub>** Exhibit A-\_\_\_ (SJK - 1) reflects a comprehensive review and evaluation of the proposed  
17 route of the pipeline system and the environmental considerations associated with the  
18 construction, operation, and maintenance of the pipeline system along the proposed route.  
19 Based upon that review and evaluation, the Environmental Impact Review reflects that  
20 the construction and continued operation of Wolverine's proposed pipeline system will  
21 not result in any significant environmental impact along the proposed route.  
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1 Impacts to natural resources are anticipated to be minimal, mainly because most of the  
2 proposed pipeline is located within an existing highway corridor. In addition,  
3 preventative measures, mitigation, and restoration will be employed to minimize impacts  
4 to the extent practicable and to protect and restore trees and other vegetation, soils,  
5 groundwater, and cultural and historic resources as indicated in the Environmental Impact  
6 Review. There will be no net permanent loss of wetlands due to the construction and  
7 operation of the pipeline. This will be accomplished by crossing rivers, streams, drains  
8 and ditches by a combination of directional drilling, straight bore, and open cut techniques  
9 following the construction practices described in both the Environmental Impact Review  
10 and Wolverine's engineering specifications as well as complying with any conditions  
11 contained in permits obtained from state and local environmental agencies.

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13 **Q<sub>12</sub> DID YOU EVALUATE ANY ALTERNATIVES TO THE PROPOSED PIPELINE?**

14 **A<sub>12</sub>** Yes. The alternatives to the proposed project that I considered included: (i) a no-action  
15 alternative; (ii) alternative actions other than a pipeline; and (iii) alternatives to the  
16 proposed pipeline route.

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18 **Q<sub>13</sub> IN YOUR OPINION, IS A NO-ACTION ALTERNATIVE FEASIBLE? PLEASE**  
19 **EXPLAIN.**

20 **A<sub>13</sub>** No. A no-action alternative is not considered feasible because the final objectives are  
21 not achieved. The existing distribution system's capacity is inadequate to meet the  
22 projected demand for refined petroleum products in the service area. Further, the existing

1 system has a higher risk during operation than the proposed system. The existing system  
2 route passes through residential, multifamily housing and high impact public areas (*e.g.*,  
3 school yard and parks) which have encroached near the existing pipeline. The resolution  
4 of the existing encroachments will be both expensive and disruptive to the communities  
5 along the existing route. The existing system will also require a higher level of  
6 expenditures to maintain pipeline integrity versus the proposed action of a new pipeline  
7 for both reconditioning and right of way clearing. The proposed action will permanently  
8 shutdown the existing pipeline through Meridian Township for use in hydrocarbon service  
9 and will make it available only for nonhazardous service, *e.g.*, as a conduit for fiber optic  
10 service.

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12 **Q<sub>14</sub> DID YOU EVALUATE ANY ALTERNATIVES TO THE PROPOSED PIPELINE?**

13 **A<sub>14</sub>** Yes. There are essentially two alternatives to the proposed pipeline. The first alternative  
14 is to construct a new refinery in east-central Michigan to replace the production lost when  
15 the Total refinery was closed in Alma, Michigan. Another alternative is to use continuous  
16 trucking or rail haul operations to transport the refined petroleum to distribution centers  
17 via the existing network of roads and railroads. Petroleum distribution by trucking or rail  
18 at the 55,000 barrel per day capacity of the proposed pipeline would require the use of  
19 approximately 180 tanker trucks per day or 70 rail cars per day.

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21 **Q<sub>15</sub> IN YOUR OPINION, ARE THESE PIPELINE ALTERNATIVE FEASIBLE?**  
22 **PLEASE EXPLAIN.**

1 A<sub>15</sub> No. These pipeline alternatives are not feasible because they are not within Wolverine’s  
2 capabilities. Wolverine is a common carrier pipeline that does not own or operate  
3 refineries, railroads or petroleum transport trucks. Moreover, a new refinery or vehicle-  
4 based transport system poses a greater potential for environmental impacts, including  
5 permitted emissions and accidental releases.  
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7 **Q<sub>16</sub> DID YOU EVALUATE ANY ALTERNATIVES TO THE PROPOSED PIPELINE**  
8 **ROUTE?**

9 A<sub>16</sub> Yes. In addition to the proposed route, three alternative routes were identified that begin  
10 at I-96/Meridian Road and run to the Lansing Terminal in Watertown Township. These  
11 include: (i) the route of the existing 8-inch pipeline through Meridian Township and then  
12 following I-69; (ii) the Powerline/I-69 route east of Lansing (identified by MPSC Staff  
13 in Case No. U-12334) extending down I-69; and (iii) an I-96/Consumers Energy route  
14 which is similar to the proposed route but deviates from I-96 for a portion of the route  
15 through south Lansing, following a Consumers Energy utility corridor.  
16

17 **Q<sub>17</sub> PLEASE DESCRIBE EACH ALTERNATIVE ROUTE.**

18 A<sub>17</sub> The existing 8-inch pipeline/ Meridian Township/I-69 alternative follows the existing 8-  
19 inch pipeline Right-of-way from I-96 near Meridian Road northwest through Alaiedon  
20 and Meridian Townships in Ingham County and DeWitt Township in Clinton County to  
21 I-69. The route then follows the I-69 Right-of-way west through DeWitt and Watertown  
22 Townships to just north of the Lansing Terminal. The route then crosses primarily

1 agricultural land for less than one mile to the terminal. Established road and utility rights-  
2 of-way for all but the northern end characterize the route. Surrounding land is heavily  
3 developed with commercial and residential uses for most of the route, particularly along  
4 the existing pipeline easement.

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6 The Powerline/I-69 route alternative is a route partially identified by the MPSC  
7 Staff (for the Stockbridge to LaPaugh route in U-12334) with an extension to the  
8 Lansing Terminal. The southern end of this route follows the existing 8-inch  
9 pipeline easement to a Consumers Energy right-of-way that crosses the existing  
10 easement near the intersection of Jolly and Dobie Roads in Meridian Township.  
11 The route travels east along the Consumers Energy corridor approximately ½  
12 mile, then turns northeast for approximately ½ mile. The route subsequently turns  
13 north with the utility corridor for approximately 4 miles to the Grand Trunk  
14 Western Railroad, where it turns and runs east with the railroad Right-of-way for  
15 less than one mile. The route then turns north approximately 2 miles on new  
16 easements into Bath Township in Clinton County until it reaches interstate  
17 highway I-69. At I-69, the alternate route turns west and travels along the  
18 highway right-of-way as with the existing 8-inch pipeline/Meridian Township/I-69  
19 alternative. Established road and utility rights-of-way characterize much of the  
20 route. Surrounding land use is primarily residential with some open fields and  
21 commercial development. Significant wetland and surface water areas are  
22 present, especially in the northeast portion of the route.

1 The I-96/Consumers Energy alternative route follows the path of the proposed  
2 route up the east side of Meridian Road in Wheatfield Township and along the I-  
3 96 right-of-way. The route lies within the eastbound side of the I-96 right-of-way  
4 from Meridian Road westerly through Alaeidon and Delhi Townships to the  
5 Norfolk Southern railroad right-of-way that runs between US-127 and Cedar  
6 Street. The route then follows the railroad right-of-way northerly approximately  
7 one mile through Delhi Township and the City of Lansing to a Consumers Energy  
8 utility right-of-way that runs east/west between Jolly and Miller Roads. The route  
9 follows the Consumers Energy corridor westerly approximately 6.5 miles through  
10 the City of Lansing and Windsor Township to I-96. The route crosses under I-96  
11 and turns north to follow the path of the proposed route, continuing along the  
12 eastbound I-96 right-of-way through Windsor, Delta, and Watertown Townships  
13 and then through primarily agricultural land for the final approximately 1.5 miles.  
14 Established road and utility rights-of-way characterize the route for all but the  
15 northern and southern ends. Surrounding land is heavily developed with  
16 commercial and residential uses for most of the route.

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18 **Q<sub>18</sub> IN YOUR OPINION, ARE ANY OF THE ALTERNATIVE ROUTES**  
19 **PREFERABLE OVER THE PROPOSED ROUTE?**

20 **A<sub>18</sub> No.**

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22 **Q<sub>19</sub> PLEASE EXPLAIN.**

1 A<sub>19</sub> With respect to the Existing 8-inch Diameter Pipeline/Meridian Township Alternative,  
2 MPSC Staff opposed use of the existing 8-inch pipeline easement through Meridian  
3 Township as originally proposed in 2000. This portion of the route is heavily developed  
4 with residential and commercial properties, which in several areas have closely  
5 approached the existing pipeline. As with all the identified alternatives, use of the I-69  
6 right-of-way is advantageous in that the risk of third-party damage to the pipeline is  
7 greatly reduced, and in that environmental impacts are minimized in a developed highway  
8 right-of-way. Use of highway right-of-ways for public utilities is accommodated under  
9 state law. This route was eliminated from further consideration since it required use of  
10 the existing 8-inch pipeline corridor.

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12 With respect to the Powerline/I-69 alternative, MPSC staff proposed the eastern  
13 portion of this route as an alternative to the original route proposed by Wolverine  
14 in 2000. Review of this route indicated that a significant quantity of wetlands  
15 would be crossed. These wetlands encompass an area of increased environmental  
16 sensitivity due to an extensive wetland area interconnected with Lake Lansing, a  
17 significant environmental and recreational feature. A county park and gravel pits  
18 are also found in the vicinity. Further, much of the route south of I-69 is  
19 developed with residential areas, with the likelihood of future development  
20 pressure associated with the greater Lansing area. Use of the I-69 right-of-way is  
21 allowed under permitted conditions, but new easements would be required for the  
22 remainder of the route. This alternative is the longest of the identified routes.

1 Given these characteristics, the Powerline/I-69 alternative was eliminated from  
2 further consideration.

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4 The area surrounding the I-96/Consumers Energy right-of-way alternative is  
5 heavily developed for all but the western end. Uses of land immediately adjacent  
6 to the Consumers and Conrail corridors include soccer fields, commercial and  
7 industrial development, residential development, parks, a Lansing Board of Water  
8 and Light (“BWL”) water treatment plant, and schools. This route also involves  
9 crossing some drains, the Grand River, and a small number of woodlots, farmed  
10 fields, and fallow fields. High voltage transmission lines and a buried natural gas  
11 pipeline lie within the Consumers Energy corridor. This route was not supported  
12 by local officials, including those of the City of Lansing, Ingham County, Lansing  
13 Board of Water and Light, and Delhi and Windsor Townships. These officials  
14 expressed preference for the proposed route over this route, citing concerns over  
15 impacts to residential neighborhoods, schools, and the water treatment plant as  
16 well as existing infrastructure within the Consumers Energy right-of-way. Based  
17 on these reasons, this alternative was eliminated from further consideration.

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19 **Q<sub>20</sub> IN YOUR OPINION, IS THE PROPOSED PIPELINE ROUTE THE BEST**  
20 **ROUTE?**

21 **A<sub>20</sub> Yes.**

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**Q<sub>21</sub> PLEASE EXPLAIN.**

A<sub>21</sub> The proposed pipeline route is superior to the alternative routes. The proposed route minimizes unavoidable environmental impacts by making the greatest use of limited access highway right-of-way, following the I-96 corridor for most of its length. Constructing the pipeline in previously disturbed roadside areas results in impact to fewer natural resources such as cultural and historic resources, wetlands, drains, and prime farmland. Placement of the pipeline at the edge of the highway clear zone also reduces the number of trees that are permanently removed.

Further, by restricting public access, this location also reduces the risk of third-party damage to the pipeline, the leading cause of pipeline accidents. Construction activities are more easily coordinated and monitored with the Michigan Department of Transportation (“MDOT”) than with numerous private and public landowners.

In addition, from discussions with county, city, and township officials, we believe that they strongly prefer the proposed route compared to the I-96/Consumers Energy route. MPSC staff has not supported the use of Wolverine’s existing 8-inch pipeline easement. The proposed route minimizes the need for new easements, and use of highway right-of-way for public utilities is accommodated under state law.

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Based on this assessment process, it was concluded that this proposed pipeline alternative minimizes environmental impacts to the greatest degree, reduces risk of pipeline accidents, and has a higher level of acceptability to the public.

**Q<sub>22</sub> DOES THIS CONCLUDE YOUR TESTIMONY?**

**A<sub>22</sub> Yes, it does.**

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