

## EA Appendix B

### Comments and Responses

*A summary of comments received during the notice for comment period on the EA are disclosed below in bold type with responses directly following. Copies of the actual letters are included in the project file.*

**1. Concern cited over uncertainty as to the date the EA was published in the Cadillac News. Commenter was unable to search the Cadillac News' Archives and Notices.**

*Response:* The first Notice and Opportunity to Comment was published in the Cadillac News on August 14, 2004. A second Notice was published on September 13, 2004 due to a printing error in the environmental assessment. Comments must be received or postmarked within 30 days of the date this notice is published. An e-mail response was sent August 31, 2004 (comment received during the first comment period).

**2. Commenter requested that a copy of the Decision Notice be mailed to them.**

*Response:* A copy of the decision documents will be mailed.

**3. A question was raised as to whether this was an EXPLORATORY well.**

*Response:* The proposal is for a single exploratory gas well as described in Section 1.1, Proposed Action, page 1, of the EA.

**4. Has foreseeable development been addressed if gas is found?**

*Response:* If gas is found in economic quantities, a pipeline would be installed and a production facility would be constructed as described in Section 1.1, Proposed Action, page 1 of the EA. As described in the EA, Section 3.1, pages 29 – 30, and throughout the Effects Section, pages 29 - 68, if the exploratory well proves to be economical to produce, the operator would likely request a permit to drill additional wells to further develop the formation. Up to three additional wells may be drilled. Based on the information provided by the operator, additional drilling would be east and southeast of Hickey Creek Road. The area east and southeast of Hickey Creek Road is outside the semiprimitive nonmotorized area and would be farther from the Mason Tract than the proposed exploratory well. Additional drilling in the area would require the submission of additional drilling permit applications, a foreseeable development plan, consultation with concerned publics, and environmental analysis and documentation.

**5. Commenter requests that “Alternative 1” be pursued. Do not allow drilling to occur.**

*Response:* Alternative 1 was considered and analyzed fully; see Section 2.5, pages 20 - 28, of the EA.

**6. This area is not worth risking environmental damage and alteration that wasn't planned for this habitat.**

*Response:* The action is consistent with the Forest Plan direction, see Section 1.3, page 4 of the EA. The agencies didn't consider in detail the initial location of the production facility and the wellhead as proposed by Savoy due to its proximity to the Mason Tract, Mason Chapel, and Forest Service Road (FSR) 4209 (Mason Chapel Road). The actions proposed under Alternative 2 are expected to be unnoticed by most visitors to the Mason Tract, the South Branch of the Au Sable and the semiprimitive nonmotorized area. Road widening may be noticed by users of FSR 4209.

Water quality is protected. The South Branch of the Au Sable River is the closest perennial stream to the well site at 2,900 feet. This issue was addressed in Appendix A, number 1, page 68 of the EA. No riparian areas, floodplains, or wetlands would be disturbed or affected, nor are any effects expected to open bodies of water, creeks or trout streams. Also, Michigan's Department of Environmental Quality's (MDEQ) drilling permit requires automatic shut down valves at the wellhead and flow lines in case of leakage or changes in pressure. MDEQ permit requires excavation, and removal of all reserve pit materials and liner. The steel pipe (casing) cemented in the hole prevents hydrocarbons from moving into the groundwater and the groundwater moving into the well. Savoy's application for drilling has been reviewed and evaluated for effects to groundwater by BLM and MDEQ geologists and engineers. This review ensures compliance with existing state and federal regulations for ground and surface water protection (Onshore Order #2 and MDEQ regulations). See Section 3.0 in the EA, pages 29 - 63, for a discussion of the effects on visual quality, noise, odor, wildlife (including threatened, endangered, and sensitive species), plants (sensitive), heritage resources, minorities, and low income populations. Also, see the EA, Appendix A, pages 68 – 70, and numbers 1, 3, 4, and 10 of this document, for a discussion of measures to protect the environment.

See Section 2.5 in the EA, pages 23 - 27, for mitigation measures that reduce the impacts of noise from production related activities. A consultant was hired to evaluate potential effects of noise. Hoover and Keith, Inc. has experience conducting noise abatement studies for similar oil and gas production equipment. The report (Noise Impact Assessment for Proposed Production Facility Associated with USA and State South Branch 1-8 – in project file) recommendations were designed to eliminate sounds above ambient levels on the Mason Tract under most conditions. The recommendations were incorporated into the environmental analysis as mitigation measures under Alternative 2. The predicted sound levels are considered a conservative estimate due to the fact that the consultant did not consider environmental factors such as topography, wind direction, intervening vegetation, etc. With implementation of the recommended mitigation measures, most visitors to the Mason Tract are not expected to hear noise related to production of oil and gas. Operations will be monitored and if it is determined that sound levels exceed the established thresholds, the operator will be required to perform a sound survey within 60 days of notification by the Forest Service. A copy of the sound survey will be submitted to the Forest Service for approval. Remedial actions will be taken as necessary.

**7. There is concern that the Mason Tract area remains available to future generations as a quality nature experience.**

*Response:* The Mason Tract is managed by the Michigan Department of Natural Resources (MDNR). The Forest Service intends to manage the South Branch semiprimitive nonmotorized area (area east of Mason Tract) to provide an area that is characterized by few and/or subtle human modifications and the probability of a user's isolation from the sights and sounds of others would be high. Over the long-term, the actions proposed under Alternative 2 are expected to be unnoticed by most visitors to the Mason Tract, the South Branch of the Au Sable, and the semiprimitive nonmotorized area. Road widening may be noticed by users of FSR 4209.

Despite the presence over the last 13 years of a gas production facility (State South Branch 1-19) approximately 1.4 mile closer to the South Branch of the Au Sable and 1.25 miles closer to the Mason Tract than that proposed in Alternative 2, most visitors perceive the recreational experience of the Mason Tract and the South Branch of the Au Sable as "pristine". We do not expect the proposed production facility to alter this experience. The effects on the recreational experience are discussed in Section 3.3 of the EA, pages 32 – 52.

**8. Although Alternative 1 (no action) is preferred, the Modified Proposal seems to provide reasonable control over noise and odor.**

*Response:* Alternatives and the effects are disclosed in the EA, pages 15 - 28 and pages 29 - 63, respectively.

**9. There is concern that increased traffic on FSR 4208 and 4209 would degrade the recreational experience for visitors to the area.**

*Response:* There are two activities, the proposed exploratory gas well and logging in the Mason Tract (MDNR), that would require improvement of FSR 4208 and 4209. The EA, Section 3.3, page 35, states that improving FSR 4208 and 4209 could result in a minor increase in traffic. Both are dead end roads and would not be improved the entire length. As a result, there is not expected to be an increase in the amount of traffic at the Mason Chapel parking lot (EA page 35). In addition, to help mitigate for minor increases in traffic, specific mitigation measures for road width, rehabilitation, etcetera, have been included in the design of Alternative 2 (refer to appendices to DN/FONSI for detailed information on Alternative 2 and mitigation measures). The No Action Alternative, page 20, was also evaluated, pages 29 – 63, in the EA to give a range of effects for the decisionmaker to consider. Overall, based on the effects disclosed for all Alternatives, the decisionmaker determined that any potential effects were nonsignificant and that Alternative 2 best addressed the purpose and need while addressing issues and concerns. Please refer to the DN/FONSI for detailed information.

**10. The proposed well drilling would cause the loss of the area's pristine character.**

*Response:* Both the Mason Tract (MDNR) and the semiprimitive nonmotorized area are managed forest areas. Activities such as logging, trail grooming, and campground maintenance are planned and on-going in the Mason Tract. The Forest Service allows mineral development (one

location per square mile) and logging in the semiprimitive nonmotorized area per the Huron-Manistee Forest Plan. The Forest Service manages this area for a semi-primitive recreational experience.

Over the long-term, the actions proposed under Alternative 2 are expected to be unnoticed by most visitors to the Mason Tract, the South Branch of the Au Sable, and the semiprimitive nonmotorized area. Road widening may be noticed by users of FSR 4209. Despite the presence over the last 13 years of a gas production facility approximately 1.4 miles closer to the South Branch of the Au Sable and 1.25 miles closer to the Mason Tract than that proposed in Alternative 2, most visitors perceive the recreational experience of the Mason Tract and the South Branch of the Au Sable as “pristine”. We do not expect the proposed production facility to alter this experience. During the initial drilling phase, some visitors can be expected to hear the drilling rig. There may be an intermittent odor within 200 feet of the drilling operation. The drilling phase, approximately 45 days, is scheduled for winter months when visitation is low. See Description of Relevant Affected Resources in the EA, pages 33 – 34.

Overall, effects analysis for Alternative 2 (with mitigation measures) indicated little to no effect on the recreational quality for the area (which includes the ‘pristine’ characteristics). Please refer to DN/FONSI for a more detailed write-up on how Alternative 2 addresses this concern/issue.

**11. If there has been a similar facility in the area active since 1991 which doesn't make noise or odors on the South Branch, one could not reasonably object to the project as outlined in Alternative 2.**

*Response:* A similar facility has been operating in the area since 1991 with no record of complaints from visitors to the Mason Tract. See the DN/FONSI, Appendix 2 for the location of the existing facility, State South Branch 1 - 19.

**12. Is the risk worth the reward?**

*Response:* See number 6 above for a discussion of risk. The federal government has a number of policies, regulations, and laws to encourage the development of mineral resources. The Mineral and Mining Policy Act, 1970, states “Foster and encourage private enterprise in the development of economically sound and stable industries, and in the orderly and economic development of domestic resources to help assure satisfaction of industrial, security, and environmental needs.” See Section 1.3, Purpose, pages 3 - 5, of the EA for others. Savoy controls the mineral estate in the 640 acre drilling unit. The 640 acre drilling unit defined by this proposal includes three Federal leases as well as three State of Michigan leases (the drilling unit is the area from which gas would be captured). Federal leases grant the lessee the “exclusive right to drill for, mine, extract, remove and dispose of all the oil and gas (except helium) in the lands described.....together with the right to build and maintain necessary improvements thereupon for the term indicated” subject to applicable laws and regulations. See the EA, Appendix A, pages 68 - 71, and Section 1.9, Applicable Regulatory Requirements, pages 11 - 13 for additional discussion of measures to reduce risk.

**13. Why should we allow drilling at this time?**

*Response:* Through the existing state and federal leases, the operator has acquired the right to extract and dispose of the specific mineral resource covered by the lease, subject to the terms and conditions of the lease. The operator has submitted the necessary documentation to the federal government and a decision (see Section 1.5, pages 7 - 8, of the EA) is required by two federal agencies (Bureau of Land Management (BLM) and the Forest Service). A drilling permit has been issued by Michigan's Department of Environmental Quality. This action is consistent with the Forest Plan and all other applicable laws, regulations and policies (refer to DN/FONSI for more information). Also, please refer to number 12 above and Section 1.3, Purpose, pages 3 - 5, of the EA for supporting information.

**14. Why not wait until sometime in the future when drilling techniques will surely improve?**

*Response:* The Forest Service and the BLM have the responsibility to respond to requests for development on authorized leases. See Section 1.2, Need, page 3, of the EA.

**15. What would an environmental accident in this area mean to the people of Michigan?**

*Response:* See numbers 6 and 12 above and the EA, Section 1.9, pages 11-13, and Appendix A, numbers 1, 2, 4, & 10, pages 68 - 70, for a discussion of measures to protect the environment. Also, MDEQ's drilling permit requires automatic shut down valves at the wellhead and flow lines in case of leakage or changes in pressure.

**16. Commenter was initially opposed to drilling in his club but now believes there are five or six wells there and unless you walk to where they are, there is very little if any noticeable sound from the pumping activities nor any smell. When the second processing unit was planned, an engineering company in the sound business came and determined sound levels and came to the conclusion that the wind rattling the tree leaves was a greater cause than anything else. In winter, leaves are down yet the wind thru the pine trees is still the source. Today, the land, about 1400 acres, is still there, intact, service men come in to check the well heads and leave without disturbance. If Savoy meets all the restrictions placed on them, one cannot stop them, not with the present need for energy.**

*Response:* See discussion of effects of noise in Section 3.3, pages 44 - 52, of the EA.

**17. Noise would degrade the recreational experience in the Mason Tract and semiprimitive nonmotorized area.**

*Response:* This is part of the issue discussed in the EA. See discussion of effects of noise in Section 3.3, pages 44 - 52. As a result of this concern, a noise analysis was conducted and utilized to help determine any potential impacts. Results of this analysis are included in the project file and referenced in the EA. Specific mitigation measures are incorporated into Alternative 2 to address this concern and mitigate for potential impacts. Based on the design of Alternative 2 and analysis disclosed, it was determined that implementation of Alternative 2

would not have a significant adverse impact to the recreational experience in the Mason Tract and semiprimitive nonmotorized area. Please refer to the DN/FONSI for detailed information.

**18. If a high capacity compressor is installed, additional noise would be generated.**

*Response:* The effects of a more powerful compressor are evaluated in Section 3.3 page 50, of the EA. Noise and potential impacts from noise resulting from the proposed operation was an issue identified in the NEPA analysis. As a result, Alternative 2 was developed with additional mitigation measures that would be required. Please refer to the DN/FONSI for detailed information on these mitigation measures. In summary, these mitigation measures include that if, at any time, the District Ranger determines that the sound standards identified in the mitigation measures are not being met, the operator will perform a sound survey within 60 days of notification by the Forest Service. A copy will be forwarded to the Forest Service and remedial actions will be taken as necessary.

**19. The proposed well drilling would reduce tourism to Crawford County and the State of Michigan.**

*Response:* There are currently over 280 oil and gas wells in Crawford County. No effects on tourism are known due to these wells (EA, Appendix A, number 12). Mitigation measures to address concerns regarding noise and visual quality have been incorporated into the design of Alternative 2 (see DN/FONSI appendices).

**20. What was the size of the compressor used in the Noise Assessment? What was the noise standard used in the EA? Can you hear the existing well in the semiprimitive nonmotorized area? Has anyone complained about the noise from the existing well? What about short term noises (like blow down event) at the production facility? Does the Forest Service have a noise standard? Timing of noise verification above (leaf on or off) could affect measurements.**

*Response:* The size of the compressor analyzed was 500 horsepower for initial development and 2,000 horsepower for foreseeable development. The noise standards used were 33 dBA at 1,320 feet for one well and 36 dBA at 1,320 feet for multiple wells and apply year round. The existing well could be heard at 4,800 feet as a barely perceptible background sound. No records of complaints exist regarding the existing well. See Mitigation Measures specific to Alternative 2, page 27, which states, “Noise during venting or blow down events will not exceed 60 dBA at 300 feet.” The noise standards above apply to continuous noise and not single or intermittent events. The noise standard for Kirtland’s warbler found in the Forest Plan (IV-172) is 85 decibels or less at 100 feet.

**21. When can a workover rig be at the well?**

*Response:* Access by equipment after drilling is completed is discussed in the EA, Section 2.5, page 25, mitigation measure for sensitive species. The mitigation measure states, “... the March 1 – August 31 timing restriction for northern goshawks will apply to maintenance activities... that result in a high level of ground disturbance and/or human presence ... prior to these actions,

the Mio Ranger District will be notified to allow the district's wildlife biologists to determine whether the activity would have potential adverse impact(s) on northern goshawks ...".

**22. What is SPNM?**

*Response:* Semiprimitive Nonmotorized.

**23. Is the State planning activities in the area?**

*Response:* MDNR has proposed logging at the end of FSR 4208 and the Chapel Road (FSR 4209) on the Mason Tract; see the EA, foreseeable future activities in the Mason Tract, SPNM and KW Management Areas, page 34. A drilling permit has been issued by Michigan's Department of Environmental Quality for the USA and State South Branch 1-8 well.

**24. Where will the pipeline be located?**

*Response:* The pipeline would be located on the south side of spur road (FSR 4208), north side of Chapel road (FSR 4209), and along the northwest side of the county road. See the effects section in the EA, pages 37 - 40.

**25. After the comment period what is the timeline?**

*Response:* The decision documents are expected to be out at the end of January. After the Forest Service issues their decision, there is a 45-day appeal period. If there are no appeals, implementation cannot begin any sooner than 5 days after the close of the appeal period. If appeals are filed, implementation cannot begin any sooner than 15 days following appeal resolution. Appeals have a 45-day resolution period.

**26. The proposed action violates the intent of the gift of the Mason Tract to the State of Michigan.**

*Response:* The Michigan Department of Natural Resources (MDNR) manages the Mason Tract. The MDNR provided comments on the EA on behalf of Governor Granholm. The Department concurred with the agencies preference for Alternative 2 (see letter dated 9/13/04 in the project file). The MDEQ issued a State drilling permit for this proposal.

**27. Has Savoy invested in alternative energies?**

*Response:* This is outside the Forest Service authority. Leases do not require any investment in alternative energy sources.

**28. The application should not be processed until the seismic data is analyzed.**

*Response:* See 13 above.

**29. Risk of spills from the reserve pit.**

*Response:* See Appendix A in the EA, number 1, page 68, and MDEQ drilling permit condition #10 which requires excavation, and removal of all pit materials and liner.

**30. Who will enforce current law?**

*Response:* Enforcement of regulations is by Forest Service, BLM, and MDEQ personnel, see Section 1.3, Purpose, page 3 and Section 2.5, Monitoring, page 25 of the EA.

**31. Will the Forest Service hire a consultant to ensure compliance with applicable regulations?**

*Response:* The three administrative agencies have experienced personnel to ensure compliance.

**32. Will the Forest Service monitor for potential releases of hydrocarbons at the well head and production facility?**

*Response:* There will be inspections conducted by the BLM, Forest Service, and MDEQ. The operator will be on-site once or twice a day to inspect the well head and the production facilities including monitoring of hydrocarbon releases. Also, see 30 above.

**33. Will the Forest Service monitor construction of the production facilities?**

*Response:* The Forest Service will inspect construction activities.

**34. The bottom hole would be within 700 horizontal feet of the River, albeit at depth. A hydro geologist should be employed to determine any likelihood of migration of hydrocarbons into the groundwater and any effects extraction of the oil and gas would have on the water table and subsequent groundwater flow into the River.**

*Response:* The steel pipe (surface casing) cemented in the hole prevents hydrocarbons from moving into the groundwater and the groundwater moving into the well. Savoy's application for drilling has been reviewed and evaluated for effects to groundwater by BLM and MDEQ geologists and engineers. This review ensures compliance with existing state and federal regulations for ground and surface water protection (Onshore Order #2 and MDEQ regulations).

**35. The drilling of a water well adjacent to the well pad site is not mandated under federal regulations as water is not considered a mineral resource. Alternative 1 could be invoked on this item.**

*Response:* In this area, it is standard operating procedure to drill a water well on-site as opposed to hauling water with trucks. Freshwater is needed during the drilling process. The MDEQ approved drilling permit allows drilling a "temporary" water well that will be plugged upon final

completion. MDEQ regulations Part 615, administrative rules section R 324.403 (2) regulates the drilling and plugging, as well as providing measures that protect the groundwater, for “temporary” wells. See Section 1.9, pages 11 -13, of the EA for a list of applicable regulatory requirements and Appendix A, number 1, page 68. Commenter did not provide reasons for not allowing the drilling of a water well on-site.

**36. On pages 29 - 30, "Existing and Reasonable Foreseeable Oil and Gas Development Scenario," and page 34," foreseeable future activities in the Mason Tract, SPNM and KW Management Area," Savoy states the possibility of drilling additional wells in the area if the South Branch 1-8 well is productive. This is just the scenario those against the proposed exploratory well warned would happen from the beginning.**

*Response:* In response to comments from the original scoping process, this was addressed in the EA, Appendix A, number 13, page 71. The effects of future foreseeable development are disclosed in Section 3 of the EA, pages 29 - 68. Additional drilling in the area would require the submission of additional drilling permit applications, a foreseeable development plan, consultation with concerned publics, and environmental analysis and documentation. Additional bottomhole locations of wells would be 1 in 640 acres per MDEQ spacing regulations. Any additional drilling is expected to be east and southeast of River Lake Road outside the SPNM area and further from the Mason Tract. It is projected that a larger compressor at the production facility may be needed if additional productive wells are drilled. There is no change in total sound level at the Mason Tract or the Mason Chapel as a result of the larger compressor. Within 5,500 feet of the production facility, a one decibel increase is expected in sound level and this change should not be detected by the human ear. Within 100 feet of the production facility, outside of the semiprimitive nonmotorized area, there may be a detectable change in sound level (3 decibels).

**37. There are many threats continued exploration, drilling, and production would pose to the Mason Tract and South Branch of Au Sable River. There are few places more deserving of special protection. Find an alternative to granting Savoy Energy the right to drill for oil and gas in this area. There is only one South Branch of the Au Sable River and contiguous Mason Tract on this planet. To knowingly permit the degradation of this area would be criminal.**

*Response:* See 5, 7 and 15 above.

**38. Commenters suggest angle drilling anywhere from 1000 yards to 2 or more miles from the Mason Tract boundary.**

*Response:* Savoy submitted an initial application for a permit to drill on May 7, 2003. Following the receipt of responses to scoping on this proposal, multiagency meetings were held in the field, to try to identify other potential locations for the wellhead and production facility (see field notes dated 7/9/03, 7/16/03, and 7/23/03 in the project file). As a result of the 7/23/03 meeting, Savoy submitted a second application on September 11, 2003. This application was in response to the public comments and was their attempt to *try* to address concerns raised while still exercising their legal rights for access to the leased minerals.

The new application (9/11/03) included moving the production facility approximately 1.5 miles to the east, in the vicinity of one location recommended (Mr. Roberson's letter dated 7/22/03 is included in the project file—please note that he was one of many that commented regarding potential changes in location). In addition, the surface hole (wellhead) location was moved approximately 1/4 mile to the southeast off of Forest Service Road 4208. It is important to note that the public asked for the wellhead to be moved further away from the Mason Tract Boundary than submitted in the proposal dated 9/11/03. Although, the proposal did move the wellhead further, it did not move it as far away as some members of the public would prefer. Moving it further away, in response to the comments and suggestions received was considered and looked at seriously. It was not moved further and analyzed in more detail, however, because based on technology available and safety concerns it was determined to be impractical. As stated in the permit application accepted by the MDEQ, the new surface hole is located at the limit of feasible distance based on safety issues and technological limitations for testing the formation.

Specifically, moving the well's surface location to be co-located with the proposed production facility or even further, as suggested by Mr. Roberson and others, was considered impractical because the engineering problems associated with drilling a well with such a great horizontal offset would represent an unacceptable risk to the environment, public health and safety. Even though drilling such an offset distance is technically feasible, it is not without risk. Moving the surface hole location (SHL) approximately 8000 feet east of the proposed location (to the proposed production facility site) increases the total horizontal distance from bottom hole location (BHL) to SHL to approximately 10,200 feet and the angle of "dogleg" (deviation from vertical) to approximately 45 to 50 degrees. This additional horizontal distance would increase the time spent drilling the well which also increases the potential for wear damage to critical casing strings. If the casing is damaged, the fresh water aquifer could be contaminated. Given the geology of area, this increase in horizontal distance substantially increases the possibility for the well bore to collapse and cause the drill string to get stuck while drilling. If this were to occur while drilling through the potential high pressure/hydrogen sulfide (H<sub>2</sub>S) zone, the ability to maintain control of the well would be severely jeopardized, and the possibility of a blow-out increased. Also, as the angle of dogleg increases, the ability to cement the casing in place becomes more difficult, raising the possibility of migration of fluid and/or H<sub>2</sub>S gas behind the casing, again an environmental hazard. The proposed location would be a vertical hole through the high pressure/H<sub>2</sub>S formations, greatly reducing the chance of the drill string getting stuck, ensuring the integrity of critical casing strings and representing a better situation for protecting the environment and public health and safety.

Drilling from the production facility, as suggested, would increase measured drilling distance to the bottom hole location by approximately 3,150 feet and pose a risk to the environment and public health and safety. Further, 43 CFR Section 3101.1-2, Surface Rights states, "At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold;" locating the wellhead at the production facility far exceeds this regulation and could be considered a violation of the operator's lease rights.

The current proposed action is to directionally (angle) drill approximately 0.3 miles from the Mason Tract boundary. The permit application accepted by the MDEQ states that the new surface hole is located at the limit of feasible distance based on safety issues and technological limitations for testing the formation. Therefore, moving it anywhere from 1000 yards to 2 or more miles from the Mason Tract boundary was not analyzed or considered further.

**39. The lease should have never been granted.**

*Response:* This comment is outside the scope of this project as the leases have already been legally granted by the State of Michigan and the BLM between 1997 and 2002 (see page 5 of the EA). Forest Service consent to lease was based on appropriate environmental analysis (see project file). These analyses identified lease stipulations which were provided to BLM as a condition of Forest Service consent. Also, the Forest Service provided recommendations on lease stipulations to the State of Michigan prior to leasing.

**40. The operator should be required to provide the information about the gas bearing formation.**

*Response:* There is no requirement that the operator provide information about the potential for natural gas reserves in the target formation. There are other producing gas wells in the area that were drilled into the same formation as the proposed well as discussed on page 30 of the EA.

**41. What is a relevant comment? Would tourism dollars from Florida be considered relevant?**

*Response:* The letter sent out with the EA defined substantive comment as comments that are within the scope of the proposed action, are specific to the proposed action, have a direct relationship to the proposed action, and include supporting reasons for the Responsible Official to consider. The definition for substantive comment should be used when submitting comments. The definition of substantive comment was sent by e-mail on September 2, 2004. Tourism was addressed in 10 and 19 above and as a non-significant issue in Appendix A, number 12, pages 70 – 71 of the EA.

**42. Commenter hopes the repeal of the logging road prohibition is cancelled under your watch too.**

*Response:* This comment is outside the scope of this project.

**43. Commercial use of public lands is already handled quite poorly. To state an example of the misuse of public lands, commenter cites the permitting system for boat traffic on rivers. It is inherently unfair (livery owners allowed to act on their word only) and mostly unenforceable.**

*Response:* This comment is outside the scope of this project.

**44. Commenter understands the need for self sufficient energy resources.**

*Response:* Some of the regulations identified in Section 1.9, pages 11 – 13, of the EA also recognize the need for energy self sufficiency.

**45. Foresight in the future leasing of mineral rights on state and federal lands must include the value to the soul. If it takes tax dollars to get out of these present leases, then so be it. It would be a worthwhile use of these dollars.**

*Response:* This comment is outside the scope of this project.

**46. Has the well location been moved off the Mason Chapel Road?**

*Response:* Yes. The well location has been moved off the Mason Chapel Road (FSR 4209) to a spur road (FSR 4208) off the Mason Chapel Road; see Map 2 on page 19 of the EA.

**47. What are the major differences between Savoy's Proposal and Alternative 2?**

*Response:* The major differences are found on pages 26 and 27 of the EA and in appendices to the DN/FONSI. These differences focus on mitigation designed to reduce the impacts of long-term noise, visual quality, and provide an additional safety margin for dike capacity around the oil and brine tanks. These mitigation measures were specifically designed to address issues and concerns raised by the public during the planning process.

**48. Has the preferred alternative been identified?**

*Response:* The cover letter sent out with the EA identifies Alternative 2 as the preferred alternative, but the letter states that a final selection will be made after receiving public comments.

**49. Noise would surely disturb and frighten animals and birds as well.**

*Response:* See page 16 of the EA for the noise standards for Kirtland's warbler. Also, see Section 3.4, pages 52 – 61, of the EA for the predicted effects to wildlife, threatened, sensitive, and endangered species and management indicator species. Based on the noise assessment completed and overall design of Alternative 2, the effects analysis indicated no adverse significant effects were expected. A biological evaluation/assessment was completed and the US Fish and Wildlife Service was consulted for concurrence on the determination of "no effect" to threatened and endangered species. The US Fish and Wildlife Service concurred with these determinations in a letter dated 8/30/04 (located in the project file).

**50. We are an energy-dependent society. We are also a profligate, wasteful people and nowhere have we heard a serious call for energy conservation, a practice of frugality that would reduce considerably our reckless pursuit of new energy sources. Despite the "spin" and promise of the power profiteers, no one has ever replaced a rain forest, a pristine river, a wetland, grassy prairies, topsoil or giant redwoods.**

*Response:* This comment is outside the scope of this project.

**51. The environmental assessment is woefully lacking in content.**

*Response:* This comment is not substantive and instead very general in nature with no specific information provided in order to respond.

**52. The EA does not address previous comments.**

*Response:* Comments received prior to the initial 30-day comment period have been addressed in the EA (see appendix A). Comments received during the initial 30-day comment period and the second comment period are listed here with responses. All original comments and letters are part of the project file record.

**53. Not all reasonable options have been discussed such as moving the drill site back to the proposed production facility location only adding 10% of pipe. It should be demonstrated why it is not a reasonable option.**

*Response:* A number of reasonable drilling sites were evaluated; see number 38 above, the project file on proposal history and references, and Section 2.4, pages 17 – 19 of the EA. The production facility was moved approximately 1.5 miles to the east of the original location. The horizontal drilling distance on the proposed surface hole location (SHL) filed on September 11, 2003, was increased by over 1,300 feet when compared to the original proposal. If one were to move the surface hole to the production facility and calculate the increase in measured distance (i.e., length of wellbore), there would be an increase of at least 36% as compared to the original location and 26% as compared to the proposed location. For further details and support documentation please refer to the project file and response #38 above.

**54. Nowhere in the Forest Service Plan does it allow for drilling under someone else's land.**

*Response:* The Forest Plan allows for one surface location per 640 acres in Management Prescription Area 6.1, page 17 of the EA. The drilling unit (i.e., leasehold) is made up of state and federal leases. The surface hole location is on a state lease with federal surface and the bottomhole location is in a federal lease with state surface. This proposal is in compliance with the Forest Plan.

The 640 acre drilling unit defined by this proposal includes three Federal leases as well as three State of Michigan leases (the drilling unit is the area from which gas would be captured). Regulations outlining Forest Service requirements for authorization of occupancy of National Forest Service lands for oil and gas development are found starting at Section 228.105 of Title 36 of the Code of Federal Regulations (36 CFR 228.105). This section is titled "Authorization of Occupancy Within A Leasehold." A "leasehold" is defined as "the area described in a Federal oil and gas lease, communitized, or unitized area." The proposed communitized area for this proposal includes the entire 640 acre drilling unit. Federal leases grant "the lessee the right to

drill, extract, and sell federally owned oil/gas” subject to the stipulations attached to the lease. The lessee has similar rights under the State leases. Although the lease in which the bottomhole is located contains a “no surface occupancy” stipulation, occupancy is allowed on much of the remaining acreage under lease within the 640 acre drilling unit. The lessee does have the right to occupy National Forest System in order to develop this leasehold.

**55. The operator must demonstrate the ability to extract in a manner consistent with federal and state regulations.**

*Response:* Savoy’s proposed application for permit to drill (APD) and surface use plan of operations (SUPO), with agencies’ conditions of approval, meet or exceed all federal and state regulations. Appendix A, number 2, page 68 of the EA, states that Savoy has no reportable violations at their existing operations in Michigan. MDEQ has issued a drilling permit confirming that Savoy has demonstrated compliance with state regulations.

**56. There is a misrepresentation of the social and economic value of the Mason Tract on which the well is proposed to be drilled.**

*Response:* The Savoy proposal is to drill 1,655 feet from the Mason Tract boundary with the production facility approximately 1.7 miles from the Mason Tract boundary. The effects are described on pages 29 - 52 of the EA.

The Proposed Action was Savoy’s second APD which moved the well location and the production facility from FSR 4209, the Mason Chapel Road, in response to concern from the public. Alternative 2 was developed with additional mitigation recognizing the aesthetic and social values of the adjacent Mason Tract. Most visitors to the Mason Tract will not be able to see, hear, or smell the well or the production facility. The analysis conducted indicates that some individual visitors, however, may choose to recreate elsewhere. The EA emphasized that visitors in the immediate vicinity of the production facility and those using the area during the 45 day drilling period could be displaced in the short term.

No attempt was made to put an economic value on the Mason Tract. The commenter did not provide additional data to support his assertion that the analysis was in error.

The State South Branch 1-19 well and production facility adjacent to the Mason Tract and near the South Branch of the Au Sable River has not reduced adjacent private property values as stated on page 70 of the EA, Appendix A, number 11. This production facility, which has operated for 13 years, is closer to the Mason Tract and the South Branch of the Au Sable River than the proposed production facility. Since the production facility generates the long-term effects, the comparison of effects is valid.

The EA, pages 23-27, discloses the mitigation to protect the environment. The risk to the environment is addressed in 6, 15 and 55 above.

**57. A more detailed environmental impact statement is necessary.**

*Response:* See page 7 of the EA. Page 7 states that if the responsible officials determine the selected alternative would significantly affect the quality of the human environment, then an Environmental Impact Statement and Record of Decision must be prepared. Based on review of the analysis disclosed in the EA, BE/BA and project file it was determined that an Environmental Impact Statement was not necessary. Refer to the DN/FONSI for more detailed rationale and information on this determination.

**58. Concern with the Kirtland's warbler.**

*Response:* The biologists made a “no effect” finding for the Kirtland's warbler. See pages 53 and 53a of the EA. The US Fish and Wildlife Service concurred with this determination (8/30/04 letter in project file)

**59. There is a concern for the watershed and "blue ribbon" trout streams.**

*Response:* Mitigation measures included as part of Alternative 2 include steps to be taken to ensure protection of water quality, including the Au Sable. Please refer to DN/FONSI appendices as well as EA, Appendix A, number 1, page 68 for more information.

No riparian areas, floodplains, wetlands, or open water would be affected by this project. Also, MDEQ's drilling permit requires automatic shut down valves at the wellhead and flow lines in case of leakage or change in pressure and requires excavation, and removal of all reserve pit materials and liner. The steel pipe (surface casing) cemented in the hole prevents hydrocarbons from moving into the groundwater and the groundwater moving into the well. The SUPO/APD has been reviewed by MDEQ and BLM geologists and engineers to ensure compliance with existing state and federal regulations for ground and surface water protection (DN/FONSI).

**60. There is a concern regarding smelling H<sub>2</sub>S and other hydrocarbon odors.**

*Response:* See pages 29 – 52 of the EA, and Appendix A, number 2, page 68.

**61. There is a concern for species of wildlife and plants affected.**

*Response:* The EA states on pages 52 – 62 that individuals may be impacted but there would be no effect on the viability of the species within the project area. The US Fish and Wildlife Service concurred with the determination of “no effect” on threatened and endangered species (8/30/04 letter included in project file).

**62. The Forest Service should take into consideration the concerns of the impacted communities.**

*Response:* Several comments and concerns were received from members of the public residing in local communities as well as other areas. All comments received were considered as part of

the planning process. The comments received and how they were considered are included in the EA, project file and DN/FONSI.

**63. The effects on the local tourism economy must be examined with the locals not imposed from without.**

*Response:* See 19 and 62 above.

**64. The people of Michigan feel a responsibility for stewardship towards the Mason Tract. Oil and gas development threaten our responsibility to that tract.**

*Response:* The potential impacts of this proposal to the area known as the Mason Tract was an issue carried through the planning process. Analysis disclosed in the EA, BE/BA and project file indicated that there would not be a long-term adverse impact from implementation of Alternative 2 on this area. After the initial 45 day drilling period, most visitors to the Mason Tract would not be able to see, hear, or smell the wellhead or production facility. Please refer to DN/FONSI for more information.

**65. The Forest Service should analyze reservations of local DNR officials.**

*Response:* All comments were considered including those from other agencies. Please refer to the DN/FONSI for further information. In a letter dated 9/13/04, the DNR concurred with the selection of the preferred alternative.

**66. The environmental assessment is flawed. It is not an analysis.**

*Response:* The commenter does not provide any specific information detailing how the assessment is flawed but instead makes a general comment. The EA complies with the National Environmental Policy Act and all other laws, regulations and policies and therefore is not considered 'flawed'. See the EA, BE/BA, project file and DN/FONSI for support documentation.

**67. The EA offers no science and no list of participants' credentials.**

*Response:* Environmental Consequences, section 3.0, pages 29 – 63 of the EA, contains the scientific analysis of the alternatives and a list of participants can be found on page 64 of the EA. The best available science was used in this analysis. Bureau of Land Management petroleum engineers and Michigan Department of Environmental Quality geologists have reviewed the drilling program to ensure compliance with applicable regulations. Forest Service biologists, botanists, archaeologists, foresters, recreation specialists, and mineral specialists have reviewed the surface use plan of operations to ensure protection of other resources. Professional noise abatement specialists with Hoover and Keith, Inc. were contracted to complete a noise impact assessment.

**68. Concerns were raised on the costs to the taxpayers of the approval process and monitoring any subsequent operations.**

*Response:* The process for responding to lease applications is defined by law and regulation as cited in the EA page 11-14. The monitoring of subsequent operations is set by regulations and Federal policies to ensure lease stipulations and operating conditions are met. The agencies are required to respond to requests and to monitor leases.

**69. Legitimate objections such as odor, noise and tourism dollars have been relegated to non-substantive status.**

*Response:* All three were considered in the planning process. Noise and odor were evaluated in detail, see page 11 and pages 43-52 of the EA. Tourism was discussed in Appendix A, number 12, page 70 - 71 of the EA. Please refer to the DN/FONSI for supporting documentation. Also, see 19 above.

**70. The drilling will violate regulations by producing a “nuisance odor”.**

*Response:* Odor is discussed on pages 43-52 of the EA. The State drilling permit has been approved by the MDEQ and they have jurisdiction over “nuisance odor”. All laws, regulations and policies will be met (DN/FONSI)

**71. The EA is unclear on the distance from the semiprimitive nonmotorized area to the production facility.**

*Response:* The table on page 28 of the EA refers to 5500 feet. This is the distance to the sound sampling location representing the semiprimitive nonmotorized area, not the boundary of the semiprimitive nonmotorized area. The production facility is located approximately 200 feet from the semiprimitive nonmotorized area boundary.

**72. The EA failed to follow the Multiple Use Sustained Yield Act (MUSYA) by failing to provide for recreation.**

*Response:* The MUSYA states that nothing in the act shall be construed so as to affect the use of lands or administration of the mineral resources on National Forest System lands. The EA provided for recreational opportunities and provided mitigation to limit the impacts, see pages 23-27 and 29-52 of the EA. MUSYA does not require an opportunity for recreation on every acre of National Forest System lands. All laws, regulations and policies will be met, including MUSYA. See DN/FONSI for supporting documentation.

**73. The production facility would negatively impact the majority of the semiprimitive nonmotorized area.**

*Response:* The noise impact assessment showed that without considering wind, topography, or vegetation, noise from the production facility (with the largest compressor) would be 12 decibels greater than ambient sound level within 1,320 feet of the production facility. This is

approximately twice as loud as the ambient noise level. At 5,500 feet from the production facility the sound level would be approximately 2 decibels greater than ambient sound and the human ear can not detect that level of change. A portion of the semiprimitive nonmotorized area falls within each of these zones, see pages 43-52 and 71 of the EA. The existing State South Branch 1-19 facility is in the SPNM area.

**74. Encourage a land swap to prevent this well from being drilled near the Mason Tract.**

*Response:* The purpose and need for this analysis and subsequent decision was to decide whether or not to move forward on a submitted SUPO by Savoy Energy, LP. Therefore, consideration of a land swap does not fall within the purpose and need and is outside the scope of this project. See 13 above.

**75. The production facility and additional wells will impact views along River Lake Road. Encourage the company to drill east and southeast of River Lake Road.**

*Response:* See 4 above and 3.0 Environmental Consequences, Visuals, pages 40-41 of the EA. No significant adverse impacts to visual resources are expected.

**76. The only party that benefits economically is the oil company.**

*Response:* If the well is successful Federal revenue is shared between the federal treasury, state and county. State leases also generate revenue. See Appendix A, number 5, page 69 of the EA.

**77. The impacts will escalate and never be reversed.**

*Response:* See 4, 5, 6, and 15 above, mitigation measures, pages 23-27, and predicted effects pages 29-63 of the EA.

**78. Move the well to a less sensitive location.**

*Response:* The project is consistent with the Forest Plan, see 1.2 Need and 1.3 Purpose, pages 3 - 5, and 2.0 Alternatives, including the Proposed Action, pages 15 - 27, of the EA. Also, see 53 above.

Several reasonable alternative locations were considered. Please refer to response #38 above and the alternatives not considered in detail as well as the action alternatives considered in detail (EA).

**79. Make use of the United States' natural resources.**

*Response:* See 1.1 Proposed Action, page 1, and 2.5 Description of Alternatives..., page 20 of the EA.

**80. Limit the consumption of oil and gas and use corn.**

*Response:* This comment is not within the purpose and need for the project and therefore was considered outside the scope of this project.

**81. There is too much traffic noise and traffic pollution. Don't need more.**

*Response:* Potential effects, including traffic, were analyzed and included in the Environmental Consequences of the EA, page 34 – 42. Potential impacts from noise resulting from implementation of this project was also analyzed and disclosed in Chapter 3 of the EA. No significant adverse impacts were noted.

**82. Birds will drink brine water from the pit and die.**

*Response:* Unlike western states, birds have adequate fresh water available, e.g. the South Branch of the Au Sable River. It is not expected that this will be a problem, especially since drilling will occur during the winter months. In addition, the US Fish and Wildlife Service concurred with the determination of “no effect” for the Kirtlands warbler (See DN/FONSI and project file documentation for support).

**83. Because Departments of Agriculture and Interior appointments have ties to the Wise Use Movement, this project was proposed.**

*Response:* The purpose and need for this project, as described in the EA pages 1-14, is to respond to the filing of a SUPO/APD from Savoy Energy, LP.

**84. The project violates environmental laws and standards.**

*Response:* The project is in compliance with laws and standards see pages 11 - 13 of the EA, and Appendix A, number 9, page 70 of the EA. Also refer to the DN/FONSI. No specific violation was identified by the commenter.

**85. The Forest Service and the BLM are not meeting their responsibilities to see that the operations are conducted in a manner which protects the environmental quality and that the proposed plan of operations is sound from an environmental stand point.**

*Response:* The project is in compliance with applicable laws, standards and guidelines as described in 1.0 Purpose of and Need for the Proposed Actions, pages 1 – 14 in the EA and DN/FONSI. The effects of the action are disclosed in 3.0 Environmental Consequences, pages 29 – 63 of the EA with no significant adverse effects disclosed.

**86. Despite the study, I am not convinced that the project is needed or the effects will be as described in the EA.**

*Response:* The commenter failed to provide specific evidence why they feel the effects are flawed. See 1.0 Purpose and Need for the Proposed Action, pages 1 -14, and 3.0 Environmental

Consequences, pages 29 – 63 of the EA for detailed information on the effect analysis conducted. Support documentation is located in the project file.

**87. Installation and operation of the well will cause noise of 115 dB, which is unacceptable to recreationists.**

*Response:* Noise of 115 dB could occur between December 1 and April 15 for a period of approximately 45 days in the immediate vicinity of the well site. As such any potential impact is considered short term and not significantly adverse. The effects of noise are disclosed on pages 44 – 52 of the EA. Noise was a concern carried forward as an issue and as such Alternative 2 was designed with additional mitigation measures to address this issue. In addition, a noise assessment was conducted and utilized as part of the effects analysis and Alternative 2 design. No significant adverse impacts were disclosed as expected to occur with the implementation of Alternative 2. Please refer to the DN/FONSI appendices for more detailed information.

**88. Odor for fisherman and other recreationists is unacceptable.**

*Response:* See Odor in the Effects Section, pages 43 – 44 in the EA. Based on experience with drilling operations on the Forest, odor beyond 200 feet from the well drilling and construction activities are not expected to be detectable.

**89. Visual quality of the Mason Chapel and the Mason Tract area will be scarred.**

*Response:* There are no effects from this project expected to the visual quality of the Mason Chapel and Mason Tract, pages 34 – 41 of the EA. The State of Michigan is planning to harvest timber along FSR's 4208 and 4209 which could impact the visual quality of the Mason Tract. Refer to the project file and DN/FONSI for support documentation.

**90. Construction will disturb the forest wildlife habitat.**

*Response:* Individuals may be impacted by habitat modification but there would be no effect on the viability of the species within the project area. See 3.4 Predicted Effects of all Alternatives on Relevant Affected Resources, pages 52 – 61 of the EA, BE/BA and project file for support documentation. In addition, the US Fish and Wildlife Service concurred with the findings of “no effect” to threatened and endangered species. See 8/30/04 letter in project file.

**91. There is a concern about property values.**

*Response:* There are no effects expected to the property values, see Appendix A, number 11, page 70 of the EA as well as DN/FONSI for support documentation.

**92. Not in my backyard.**

*Response:* See the Purpose and Need, pages 3 – 5, in the EA.

**93. MDNR regulations restrict the construction of homes along the river to preserve the beauty of the river. Well drilling would cause more damage than 40 homes.**

*Response:* The commenter does not provide any specifics as to “how” they feel damage would occur and to what resources. The proposed surface hole location is 2,977 feet from the South Branch of the AuSable River. Potential impacts to environmental resources were analyzed and disclosed in the EA, BE/BA and project file. No adverse significant impacts were noted. See DN/FONSI for support documentation.

**94. The commenter is opposed to drilling on the Mason Tract.**

*Response:* Newspaper articles reported the drilling would occur on the Mason Tract. There is no proposal to actually drill on the Mason Tract. See 2.0 Alternatives, Including the Proposed Action, pages 15 – 28 of the EA. Also, see 56 above.

**95. Michigan should not have leased the oil and gas mineral rights in the area.**

*Response:* The purpose and need for this action and subsequent decisions to be made do not include whether or not to lease oil and gas mineral rights in the area; therefore this comment is outside the scope of this project.

**96. The proposed drilling would negatively impact the old growth.**

*Response:* See Section 2.3, page 16 of the EA. The proposed surface location is in designated old growth. Approximately 3 ½ acres of the 3,505 acres of old growth in the semiprimitive nonmotorized area (or 0.099 percent) would be cleared. Clearing this small percentage of the old growth in this area is not expected to have measurable effects. The wildlife and vegetation sections in the EA note that no species are expected to be lost to the area (also see the old growth report in the project file). For oil and gas development the Forest Plan permits 1 surface disturbance location per 640 acres within semiprimitive nonmotorized areas.

This area was designated as old growth in Forest Plan Amendment #24 (refer to Forest Plan documentation in the project file). One of the federal leases on National Forest System lands included in the 640 acre drilling unit was issued in 1997 (prior to Amendment #24) and the other in 2002 (after Amendment #24).

An old growth designation does not preclude activities from occurring; see pages 16 and 33 of the EA. Specifically the Forest Plan states:

“Land management decisions will not preclude the ability of private mineral owners to make reasonable use of the surface as defined by deed and public law.” (IV-64, I.A.)

“For lands nominated for oil and gas leasing in old growth, the surface versus no surface occupancy decision will be made for each parcel prior to consenting to lease. The surface occupancy determination will be based on the presence of reasonable access within old growth areas.” (IV-65, I.C.4.)

Pursuant to the Forest Plan (page IV-64, I.B), options of moving it outside of the designated old growth area were examined. As described in response #38 above, other locations for the surface hole (wellhead) were considered, which would have included moving it outside of designated old growth. The location was moved as far as practical while protecting the environment and public health and safety.

Furthermore, the Forest Plan goes on to state that the Forest Service will:

“cooperate with the Bureau of Land Management and the State of Michigan to administer minerals activities on lands administered by the Forest Service.” (IV-64, I.C.)

The lease upon which occupancy is proposed is a State of Michigan lease which was issued prior to Amendment #24. The Forest Plan states:

“the Forest Service will protect the rights of the Federal government, encourage inventory and development of Federal minerals, respect private mineral rights, and ensure operators take reasonable and prudent measures to prevent unnecessary disturbance to the surface.” (IV-65, D.)

Overall effects are described on pages 62 and 63 of the EA.

**97. Concerns regarding Kennecott and the Upper Peninsula of Michigan.**

*Response:* This comment is not within the purpose and need for action of this project and therefore is considered outside the scope of the project.

**98. There is a concern that the length of the document exceeds the compliance guidelines.**

*Response:* The size of the EA reflects the issues brought forth by the public in response to scoping and the 30-day comment period on the EA, not the need to prepare an EIS. Also, see 57 above.

**99. A 30-day review period is inadequate.**

*Response:* 36 CFR 215.6, states “1(i) Comments on the proposed action shall be accepted for 30 days following the date of publication of the legal notice.” “And (iv) the time period for the opportunity to comment on the environmental assessments shall not be extended.” The first Notice and Opportunity to Comment was published in the Cadillac News on August 14, 2004. A second Notice was published on September 13, 2004 due to a printing error in the environmental assessment. Comments must be received or postmarked within 30 days of the date this notice is published.

**100. The EA failed to address comments originally submitted by Marv Roberson regarding the location of the wellhead at the production facility.**

*Response:* All comments received, including Mr. Roberson's were addressed. Please refer to response #38 above for more details and also the project file and DN/FONSI for support documentation.

For the predicted effects to semiprimitive nonmotorized area, see Visuals, Odor, Noise, and Roads, pages 34 – 52 of the EA.

**101. There is concern that bonding is not covered in the EA.**

*Response:* The BLM requires the leaseholder to have a bond in place prior to issuing the drilling permit, not before the environmental assessment is prepared. The BLM currently has a \$25,000 state-wide lease bond for Savoy and could increase the amount with documented justification based on past performance. Minimum Federal bonds are set by regulation. The MDEQ currently has a \$250,000 blanket bond for Savoy covering all oil and gas operations in the State of Michigan. See 55 above. Current bonding amounts are deemed sufficient. The bonds remain in place until the well is plugged and abandoned and the site is rehabilitated. Bond issues are administrative and not part of this analysis.

**102. There is a concern regarding any conflicts between drilling for oil and gas and the Forest Plan and drilling under someone else's land that has non-surface development rights.**

*Response:* See 6 and 54 above. This is addressed in 1.0 Purpose of and Need for the Proposed Action, pages 1 - 5 of the EA, tying to the Forest Plan, Goals, Standards and Guidelines.

**103. The report does not address how it plans to address the loss of recreational activities due to the noise created.**

*Response:* See 17, 20, 69, 87, and 88 above. The 115 dBA at the sound source is for the 45 days of initial well drilling. See predicted effects pages 34 – 52 of the EA. After the initial 45 day drilling period, background noise may be heard at the Mason Tract boundary and within the semiprimitive nonmotorized area. There would be no sound higher than the ambient level at the Mason Chapel and beyond. The noise assessment states that at 1,320 feet, a sound level of 36 dBA for multiple wells would be met with mitigation identified in the EA, pages 23 - 27. See 20 above. After the initial 45 day drilling period, most visitors to the Mason Tract would not be able to see, hear, or smell the production facility.

**104. The EA is flawed because it does not provide sufficient evidence and analysis and the EA supports oil and gas drilling and minimizes the effects on the environment of the human element.**

*Response:* See the predicted effects to visual quality, odor, and noise in the EA, pages 34-52, and noise assessment in the project record. After the initial 45-day drilling period, few people would be able to see, hear, or smell the wellhead or production facility. It is important to note,

that despite the presence over the last 13 years of a gas production facility (State South Branch 1-19) approximately 1.4 miles closer to the South Branch of the Au Sable and 1.25 miles closer to the Mason Tract than that proposed in Alternative 2, most visitors perceive the recreational experience of the Mason Tract and the South Branch of the Au Sable as “pristine”. We do not expect the proposed production facility to alter this experience. Further information on what specifically the commenter feels is lacking was not provided and therefore a more detailed response was not possible.

**105. There is a concern that the proposed action will have an economic impact.**

*Response:* See 56 above and Appendix A, numbers 11 and 12, pages 70 - 71 of the EA. There is no evidence that the current number of wells operating in Crawford County (over 280) and a production facility (State South Branch 1-19) that has been operating within the semiprimitive nonmotorized area for the last 13 years, approximately one mile from the South Branch of the Au Sable and more than ½ mile from the Mason Tract, have had any impact on the recreational experience. Many people perceive the recreational experience of the Mason Tract and the South Branch of the Au Sable as “pristine”. Effects on recreationists were discussed in the EA on pages 34 – 52. It is expected that most users of the Mason Tract will not hear, see, or smell the wellhead or production facility. Long-term changes in the recreational experience are limited to changes in visual quality along FSR 4208, a low use road. Therefore, no measurable impacts on tourism are foreseen. The Social and Economic Assessment for the Michigan National Forests confirms that fishing earnings are not reported accurately because of disclosure concerns and that tourism is a large industry in Crawford County despite the existing wells.

Notice that some residents near the project area expressed concern over economic hardship to local communities due to decreased use of the area. The EA, however, emphasized that visitors in the immediate vicinity of the production facility and those using the area during the 45 day drilling period could be displaced. After the initial drilling period, visitors to the Mason Tract and Mason Chapel are unlikely to see, hear or smell the production facility or wellhead and these users will contribute income to the local businesses. Any displaced users within the initial 45 day drilling period could find similar recreational experiences in Crawford County such as cross country skiing at Wakeley Lake or Hanson Hills.

The EA concludes that, “Other wells drilled in the vicinity of, Hickey Creek, have not reduced the amount of recreation to the area” (Appendix A, number 12, page 70). The production facility associated with the State South Branch 1-19 well is approximately one mile from the South Branch of the Au Sable River while the production facility for the proposed project is over two miles from the river. Production facilities are the source of long-term noise and odor.

The EA stated that noise, odor and smell of the well had the “potential” to decrease property values and have a negative impact on local communities. However, based on experience and the fact that there are approximately 280 wells within Crawford County already (with no negative economic impacts known), negative economic impacts are not expected. In addition, the nearest private property is approximately ½ mile away from the wellhead location. The nearest private property is over a mile from the production facility. Citing communication with local county

officials, the EA (Appendix A, number 11, page 70) stated that no effect on property values was expected.

The commenter provided no citation to law, regulation, or policy requiring any economic analysis of any non-commodity resources. The National Forest Management Act (NFMA) and its regulations set forth no particular requirements for economic analysis at the site-specific level. Additionally, the National Environmental Policy Act (NEPA) does not require the disclosure of socio-economic impacts beyond those associated with the proposed action. The law does not require a quantitative, monetary analysis of non-commodity resources.

The Forest Service Manual (FSM 1970.6) provides non-binding guidance as to the scope of economic analysis required in project decision-making: “the responsible line officer determines the scope, appropriate level, and complexity of economic and social analysis needed.” An economic analysis was completed for the project and is documented on pages 70 and 71 of the EA. Also, see project file.

The Responsible Official clearly has considerable discretion in determining the appropriate level and type of economic analysis required for the project decision. This proposal responds to goals and objectives set forth in the Huron-Manistee Forest Plan. The EA did consider potential impacts to local communities in its economic analysis, see Appendix A, numbers 11 and 12, pages 70 – 71, and project file.

The Multiple-Use Sustained-Yield Act, 16 U.S.C. 528, states that the national forests shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. The statute requires the agency to give, “due consideration to the relative values of the various resources in particular areas.” The mandate to give “due consideration” to the “relative values” of “various resources” gives considerable discretion to the agency with regard to the type, amount, and degree of analysis needed to support its management actions.

Revenues would be derived from a productive well and could supplement local government revenues.

The comments presented did not provide sufficient evidence that our analysis of the effects on property values is not correct.

**106. There is a concern about noise during the winter.**

*Response:* See 17, 20 and 49 above.

**107. There is a concern regarding technology available to mute drilling.**

*Response:* The MDEQ drilling permit includes two conditions designed to mitigate the short-term noise expected during drilling (see project file). Permit condition 6 states that “drilling and completion activities shall be conducted only between December 1 and April 15.” This limits the short-term noise from drilling and completion to the non-peak recreation period. Permit condition 7 states “Minimization of noise is to be emphasized during drilling, completion, and

production operations. Hospital-type engines mufflers shall be used on drilling, completion, and the work over rigs, mud pumps, and compressors.” This condition will also help to reduce the effects of noise in the short-term. Alternative 2 includes measures to mitigate the long-term noise associated with production operations, pages 26 – 27 of the EA. The predicted effects with the mitigating measures are disclosed on pages 44 – 52 of the EA.

**108. There is a concern about the length of time it takes the DEQ to respond to a complaint.**

*Response:* This comment is outside the scope this project. It is not under federal jurisdiction.

**109. The noise study only addresses the first three months of the project.**

*Response:* The noise study addresses the life of the project and the effects are summarized on pages 44 – 52 of the EA. Copies of the study are part of the project file.

**110. The fauna and flora study omitted the endangered species.**

*Response:* See 3.4 Predicted Effects of all Alternatives on Relevant Affected Resources, pages 52 – 61 of the EA. Potential impacts to threatened and endangered species is included in the BE/BA.

**111. There is a concern that if the roads are not paved, the dust from the gravel road could become a major air quality issue in the area and along the Au Sable River ecology.**

*Response:* MDEQ permit restricts drilling activity to December 1 through April 15. Dust is not expected during this timeframe with frozen ground and snow. After the initial 45-day drilling period, traffic would be reduced to daily pick-up truck monitoring the site. The well site is 2,977 feet from the South Branch of the Au Sable River. Dust is not expected to affect the river. Cumulative traffic counts in Table 4, page 35 of the EA, show that the Mason Chapel Road averages 4-7 vehicles daily. Paving the roads would not be consistent with the intent of the semiprimitive nonmotorized area. Also, see 9 above.

**112. The Mason Tract Chapel provides a very unique connection between the biological and cultural (spiritual) world in a very unique place. The concept of developing unrenewable resources in the Mason Tract will do as much damage to our local culture as any potential pollution due to the reduced quality of the perceived natural experience.**

*Response:* The No Action Alternative responds to this issue. See the predicted effects analysis in the EA for noise, visuals, and odor, pages 34-52, and 2.4 Alternatives Considered but Eliminated from Detailed Study, pages 17-18. The original location was moved away from the Mason Tract. The original well site location was not considered due to these types of concern. Additional mitigation for Alternative 2 was identified in the EA, pages 26 - 27. Also, see 7, 10, 26, 46, 56, 89, 94, and 105 above.

**113. The Proposed Action and Alternative 2 do not move the management area to the desired future condition as described in the Forest Plan. Therefore, an adequate need for the project was not described.**

*Response:* The Forest Plan describes goods and services produced for Management Area 6.1 as including opportunities for mineral exploration and development. The purpose and need for the project are described in pages 1- 5 in the EA. Also, see 6, 13, and 14 above.

Alternative 2 is consistent with Forest Plan goals and objectives and this was an important part of the decision process. Please refer to the DN/FONSI for detailed information.

**114. The assessment makes no mention of PA 451 of 1994. Part 31, 91, 301, 303, 323.**

*Response:* The MDEQ has jurisdiction over State of Michigan environmental laws. The cited regulations include PA 451, Part 31, Water Resources and Floodplain Protection; Part 91, Soil Erosion and Sediment Control; Part 301, Inland Lakes and Streams; Part 303, Wetland Protection; and Part 323, Shorelands Protection and Management.

Part 91, R324.9115 (3) states, “A person is not required to obtain a permit from a county enforcing agency or a municipal enforcing agency for earth changes associated with well locations, surface facilities, flowlines, or access roads relating to oil or gas exploration and development activities regulated under part 615, if the application for a permit to drill and operate under part 615 contains a soil erosion and sedimentation control plan that is approved by the department under part 615. . . .” The soil erosion and sedimentation control provision was approved under part 615 by the MDEQ permit, and referenced under the MDEQ’s environmental impact assessment for this project. No further soil and erosion control permits are required by MDEQ.

Because no riparian areas, floodplains, or wetlands would be disturbed or affected, nor are any effects are expected to open bodies of water, creeks or trout streams, these Parts are not applicable. (See project file for communication with Rick Henderson, MDEQ)

**115. There is a concern of inadequate analysis of the effect on the aquatic habitat.**

*Response:* The South Branch of the Au Sable River is the closest perennial stream to the well site at 2,900 feet. This issue was addressed in Appendix A, number 1, page 68 of the EA. No riparian areas, floodplains, wetlands, or open water would be impacted by the proposal.

**116. In the application Savoy states that better opportunities for oil and gas development lie outside the proposed location. So why drill in the semiprimitive nonmotorized area or near the Mason Tract.**

*Response:* The purpose and need for this analysis and subsequent decision are to respond to the filing of a SUPO by Savoy Energy, LP; which included the proposed activity and location. See the Existing and Reasonable Foreseeable oil and gas Development Scenario, pages 29 - 30 in the EA and 3, 4, and 13 above for more information on other potential future activities.

**117. There is a concern that the visual quality objective would not be met.**

*Response:* No significant adverse impacts to visual quality objectives are expected with implementation of Alternative 2. See general mitigation measures, pages 23 -26 in the EA and DN/FONSI appendices. These measures, such as to require slash to lay within 12 inches of the ground for retention areas, and others were specifically designed to mitigate concerns regarding visual areas. The mitigation measure and subsequent treatment may vary depending on the “seen” area (Forest Plan, page IV – 73).

**118. The visual quality objective would not be met for FSR’s 4208 and 4209 and so another access road from River Lake Road is needed.**

*Response:* Visual quality objectives are outlined in the Forest Plan (see response #89 and #117 above). Along FSR 4209 and the majority of FSR 4208 visual quality objectives will be met within one growing season after activities are completed. A short segment (approximately 400 feet) of FSR 4208 where the well pad can be viewed may require 5-30 years to meet the visual quality objective (see mitigation measures in the EA pages 23 – 26). This well pad is approximately 50 feet from FSR 4208. Access to the production facility is off of River Lake/Hickey Creek Road. The production facility is located approximately 150 feet from River Lake Road. Screening is provided by the design of the access road and existing vegetation (see mitigation measures in the EA, pages 23 – 26). The Forest Plan states for Management Area 6.1 that “Access to oil and gas development is by low standard road with minimum clearing. These roads are gated.” (IV- 196). The reclamation described on page 24 of the EA is designed to establish natural regeneration over the disturbed areas. This method has proven successful on other well pads on the Mio Ranger District (Church Lake Development Field).

**119. The analysis of the flora and fauna is flawed. The drilling would have an impact on protected plant and animal life.**

*Response:* The commenter did not provide specific information as to why they feel the analysis is flawed. Potential impacts to wildlife and flora, were analyzed and disclosed in the EA pages 52 – 62. Due to lack of more information from the commenter, a more detailed response is not possible.

**120. The project will have negligible impacts on the Au Sable River and the environment in the area. The development density would minimize social and environmental impacts.**

*Response:* Comment noted.

**121. Residents need access to the natural resources and no group has the right to deny access. It can be done in a responsible manner.**

*Response:* See the 1.2 Need and 1.3 Purpose, pages 3 – 5 and the predicted effects, pages 30 – 63 in the EA. Access is not being denied. Please also refer to the DN/FONSI and project file for support documentation.

**122. A letter of support for Alternative 2 and the mitigation it contains was received from the MDNR on behalf of the Governor.**

*Response:* Comment noted.

**123. This is an invitation to build more and bigger roads.**

*Response:* See 2.5 Description of Alternatives, Including the Proposed Action and No Action, page 21, and the Existing and Reasonable Foreseeable oil and gas Development Scenario, pages 29 – 30 of the EA. Roadbed width will not exceed 14 feet. Total clearing will not exceed 20 feet (EA page 23). No additional permanent roads are expected for the semiprimitive nonmotorized area. Fifty feet of new access road (20' width) to the well site is proposed. This access road will be obliterated when the well is abandoned. Also, see response #118 above.

**124. There is a concern regarding drilling near a Wild and Scenic River.**

*Response:* The project is 2,900 feet from the South Branch of the Au Sable River, a State of Michigan designated Natural River. The portion of the Au Sable River that is designated as a Wild and Scenic River is approximately 18 miles from the project on the other side of the Mio Dam.