Appendix K

Visual Impact Analysis Report for Denali National Park

May 30, 2012
A Visual Impact Analysis Report
of the
Alaska Stand Alone Gas Pipeline Project
in the Area of the
Denali National Park and Preserve

May 30, 2012

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### 1.0 Executive Summary

The visual impact analysis evaluates the potential visual impact to resources surrounding the Denali National Park and Preserve (DNPP) as a result of the Alaska Stand Alone Gas Pipeline (ASAP) project proposed by Alaska Gasline Development Corporation (AGDC). The project will construct a 24-inch diameter natural gas pipeline stretching from the North Slope to the Cook Inlet Area of Southcentral Alaska. The routing of ASAP from Prudhoe Bay generally parallels established transportation and existing infrastructure corridors from the North Slope. At the entrance to DNPP, the pipeline follows the Parks Highway.

Observation points are locations within DNPP from which the pipeline route would likely be seen. In a joint meeting between the National Park Service (NPS), DNPP, AGDC, and Design Alaska, the observation points were chosen to evaluate concerns regarding the visual impacts of the proposed gasline route on the surrounding landscape. After the initial observation points were evaluated, six Key Observation Points (KOPs) were accepted by the stakeholders and subjected to in-depth analysis using the BLM contrast rating system. The basis of the visual impact assessment is to analyze the degree to which the project affects existing landscape features using the following KOPs:

- **KOP 1** – Government Hill is located on the Park Road. It provides an informal scenic view of the Riley Creek Bridge and the surrounding natural landscape.
- **KOP 2** – Alaska Railroad Depot is a main destination for many visitors to the DNPP. It is the information hub of the park and in the center of the project KOPs.
- **KOP 3** – Wilderness Access Center is where visitors go to obtain backcountry information. Of all the KOPs in the analysis, it is situated closest to the proposed pipeline route.
- **KOP 4** – Parks Highway South of Entrance represents the most direct view of the project route from the highway heading northbound. It is the only KOP on the Parks Highway considered for the proposed alignment.
- **KOP 5** – Mt. Healy Overlook Trail leads from the DNPP Visitor Center to Mt. Healy Overlook at 3500 feet elevation. It is the location where the project has the highest degree of visibility.
- **KOP 6** – Alaska Railroad Corridor shows the unique, moving view from the Alaska Railroad.

In addition, this visual analysis addresses a route variation ("DNPP route variation") that, unlike the proposed pipeline route, traverses through portions of DNPP adjacent to the Parks Highway. This route variation is one of the alternatives considered in the ASAP project environmental impact statement (EIS). The following two KOPs were investigated for this NEPA alternative alignment:

- **KOP 7** – Parks Highway MP 234 is a typical view of the driving surface and surrounding landscape from the highway.
- **KOP 8** – Mt. Healy Overlook Trail is the same view as from KOP 5. The change in alignment of the pipeline does not result in a significant change in the potential impacts.
Utilizing visual simulations and the contrast rating worksheets in the analysis, as summarized in Table 2, the two KOPs with the most potential impacts are KOP 1 (moderate) and KOP 4 (moderate/strong). Considering the views from all KOPs, the visual impacts of the ASAP project appear to be primarily between MP 538.5 and MP 540.2 of the pipeline route. The potential impacts might be mitigated by using such methods as directional boring on that section of the pipeline or rerouting the ASAP to avoid the area entirely if otherwise practicable.

The majority of the report details the analysis of the proposed alignment. The discussion of DNPP route variation is presented where appropriate to compare this NEPA alternative in regard to the potential visual impacts.

This report does not imply that mitigation alternatives are required and does not analyze either the practicability of such mitigation or the probable adverse impacts of such mitigation on other environmental values. Mitigation solutions are presented to fulfill the contrast rating system requirement to identify mitigation possibilities whenever they exist. The contrast rating system is to be used as a guide, applied with common sense, to identify and minimize potential visual impacts.

2.0 Introduction
This report is a visual impact analysis for the ASAP project in the area of DNPP from MP 438 to MP 552 of the pipeline along the George Parks Highway. The purpose of the visual impact analysis is to measure the project’s potential disturbance to the visual landscape. This report addresses both the proposed ASAP project route and the DNPP route variation presented as a NEPA alternative in the ASAP EIS.

2.1 Background
The need for a visual impact analysis is based on the NPS request to more thoroughly analyze the potential visual impacts of the ASAP project. The NPS has stated their concern over visual impacts of the project in the area of DNPP in the form of written comments during their review of the Preliminary Draft EIS. During a meeting held with the NPS, the US Army Corps of Engineers (USACE), and the AGDC team on July 6, 2011, it was agreed that AGDC would conduct a visual analysis in the area of the Park. Design Alaska has prepared this analysis at the request of AGDC. At the request of USACE, AGDC and Design Alaska subsequently amended this report to also address the DNPP route variation.

3.0 Project Summary
The proposed project consists of the construction of ASAP from the North Slope to the Cook Inlet Area in Southcentral Alaska. The purpose of the project is to provide a long-term, stable supply of up to 500 million standard cubic feet per day of natural gas and natural gas liquids from North Slope gas fields to markets in the Fairbanks and Cook Inlet areas by 2019.

The proposed ASAP is a 24-inch diameter natural gas pipeline which will be buried except in the following areas: MP 0 to MP 6, elevated bridge stream crossings, compressor stations, possible fault crossings, pigging facilities, and offtake valve locations. The pipeline system will be designed to transport a highly-conditioned natural gas highly-enriched in non-methane hydrocarbons.
The routing of ASAP is from Prudhoe Bay following the Trans-Alaska Pipeline System and Dalton Highway corridors, generally paralleling the highway corridor from the North Slope to near Livengood, northwest of Fairbanks. At Livengood, the pipeline route heads south, joining the Parks Highway corridor west of Fairbanks near Nenana. From there it continues south and terminates at MP 737 near Wasilla. It will connect at MP 39 of the Beluga Pipeline (ENSTAR’s distribution system). A lateral pipeline to Fairbanks (Fairbanks Lateral) will take off from the main pipeline just a few miles north of Nenana at Dunbar. The Fairbanks Lateral will travel northeast to Fairbanks, a distance of approximately 35 miles.

DNPP is visited by more than 400,000 visitors annually, most of whom visit between late May and early September. The main attraction to the park is the 20,320 foot tall Mt. McKinley (Denali). However, there are many activities throughout the 6-million-acre park that attract international visitors looking to experience DNPP.

The project area is adjacent to the park entrance and visible from various vantage points within DNPP. AGDC’s proposed ASAP project route is situated so that it bypasses the park while continuing in a north-south direction.

AGDC’s proposed ASAP mainline route comes within a quarter of a mile of DNPP along the Parks Highway, but does not enter the park boundaries. The NPS and USACE are interested in graphical depictions and visual analysis for the potentially-affected area of DNPP. This visual impact analysis report will support the visual impacts analysis in the ASAP EIS and will be used to inform decision-makers and the public about the visual effects of construction and operation of ASAP through land surrounding DNPP.

One of the NEPA alternatives identified during the planning stages of the ASAP project locates the proposed pipeline directly adjacent to the Parks Highway and within DNPP for 15 miles. This DNPP route alternative is included in the analysis to provide a comparison of one alternative route to the proposed alignment. All alignment alternatives considered for the proposed pipeline are discussed in the EIS.

4.0 Analysis Methodology

Visual resources are coordinated using a document that ensures future decisions and actions are consistent with environmental management objectives, called a Resource Management Plan (RMP). Normally, Visual Resource Management (VRM) objectives are identified using the RMP. However, no current RMP exists for DNPP. Without an RMP in place, this analysis will use interim VRM classes derived from guidelines in the Bureau of Land Management (BLM) Handbook H-8410-1 in addition to input from Paul Schrooten, Landscape Architect, with the NPS.

Lands are classified into one of four visual resource inventory classes (I, II, III, and IV). Class I lands are the most valued, while Class IV are the least valued. The VRM classification is the result of analyzing three factors: scenic quality evaluation, sensitivity level analysis, and delineation of distance zones. VRM classification serves two purposes: first, it is an inventory tool that portrays the relative value of visual resources; and second, it provides a management tool that portrays the visual management objectives.
The VRM classification defines the objectives of preserving the existing character of the land and outlines the level of change that the landscape can support.

The visual resource inventory process provides land managers with a means for determining visual values. The assessment involves four key components. The first is to establish observation points. Observation points are locations in the project area from which proposed actions are potentially visible. The second element is to select a few Key Observation Points (KOPs) from the identified observation points within the project area that might be affected. The criteria for selecting KOPs are detailed in Section 4.2. The third part of the assessment is to prepare visual simulations for each KOP in order to illustrate which activities or aspects of a project could create impacts to visual resources and to evaluate defined impacts at KOPs. The final step is to conduct a visual assessment for each KOP, which compares the contrast rating between existing conditions and the proposed project features.

4.1 Establish Observation Points
Observation points were established through discussion, research, and evaluations accomplished by senior, experienced personnel familiar with the DNPP, including representatives from DNPP, NPS, AGDC, and Design Alaska. Observation points were chosen with the intent to address concerns of the NPS regarding the visual impacts of the proposed gasline route. Criteria for selecting observation points involved considering the perspectives of three levels of users. The first group of users would view the project area from locations of historical and visual significance inside DNPP, such as the DNPP Visitor Center. The second group involved users inside motor vehicles or pedestrians along the Parks Highway who might see the project. The third group consists of passengers traveling by rail on the Alaska Railroad. The observation points were confirmed at an on-site meeting with stakeholder representatives on July 26, 2011. The locations of these observation points are shown in Figure 1 (following page).

The project team and NPS visited these observation points to gather more information. Photos were taken and data collected for each location. Some of the observation points were eliminated from future consideration due to various reasons, such as no line-of-sight to pipeline alignment, lack of importance of maintaining view due to surrounding commercial development, or a combination of factors. The DNPP Visitor Center (OP B on Figure 1), one of the most frequented stops and the information hub of the park, was one observation point eliminated due to lack of visibility of the pipeline alignment. The ARRC Depot (also denoted as OP B on Figure 1) was retained and is discussed in Section 5.2. Other observation points considered for this analysis, which were eliminated, include the DNPP Entrance Sign (OP D), the Park Road at Wilderness Access Center (WAC) Sign (OP E), and the Nenana River Pedestrian Lookout (OP G). Following the reduction of these four observation points, additional observation points were suggested by NPS for evaluation, specifically the Mt. Healy Overlook Trail (OP H), the Parks Highway South of Entrance (OP I), and Alaska Railroad Corridor (OP J).
4.2 Identify Key Observation Points (KOPs)

Following discussions with the NPS and project team site visits, the observation points were evaluated. In selecting KOPs for linear projects (such as ASAP), the BLM Manual 8431 – Visual Resource Contrast Rating suggests choosing viewpoints that represent:

- The most critical viewpoints, such as views from communities or road crossings;
- Typical views encountered in representative landscapes, if not covered by critical viewpoints; and
- Any special project or landscape feature, such as skyline, river and roadway crossings.

The contrast rating is done from the most critical viewpoints, usually along commonly traveled routes or at other likely observation points. Factors that should be considered in selecting KOPs are: 1) angle of observation, 2) number of viewers, 3) length of time the project is in view, 4) relative project size, 5) season of use, and 6) light conditions.

Utilizing input from the NPS and data from site visits, four of the original observation points were selected as KOPs. The two additional KOPs mentioned in Section 4.1 were agreed upon and added to the analysis. All KOP locations and associated VRM classifications were accepted by all interested parties for the mainline route. These include:

- KOP 1 – Government Hill
- KOP 2 – ARRC Depot
- KOP 3 – Wilderness Access Center (WAC)
- KOP 4 – Parks Highway South of Entrance
- KOP 5 – Mt. Healy Overlook Trail
- KOP 6 – Alaska Railroad Corridor

The two KOPs for the DNPP route variation have been agreed upon by all interested parties and are discussed in a similar manner to the previous six KOPs. They represent both typical and critical views where the potential impacts might be noticed. The KOPs for DNPP route variation are:

- KOP 7 – Parks Highway MP 234 – DNPP Route Variation
- KOP 8 – Mt. Healy Overlook Trail – DNPP Route Variation

Thorough visual assessments on the KOPs were conducted. The analysis of each KOP is discussed in Section 5.0 of this report. KOPs identified for this project are shown in Figure 2 (following page).
Figure 2: Accepted KOPs
4.3 Prepare Visual Simulations

Visual simulations are instrumental in determining potential impacts of the proposed project. The visual simulations were prepared to a high level of detail, consistent with the high visual value of DNPP and the surrounding area.

In order to create the visual simulations, a sequence of photos at each KOP was combined using Adobe Photoshop to form a panorama. Then, using Google Earth, a representation of the pipeline alignment was digitized, following the topographical features depicted in the satellite imagery. Each KOP was located in Google Earth and the initial three-dimensional model was manipulated to match the orientation of the photo. This manipulation simplified the visualization of the pipeline's course. In some cases, features in the imagery were measured to achieve a relative scale for the pipeline route. For instance, the width of the Parks Highway is about 100'; so, in some photos, the visual appearance of the highway at different distances would be similar to the proposed pipeline. Paths of approximately 100' were added perpendicular to the pipeline alignment at regular intervals, giving a better grasp of the pipeline limits. Figure 3 shows the manipulated Google Earth digital model for KOP 3.

Figure 3: Google Earth Three Dimensional Model

In Adobe Photoshop, features were matched up with the Google Earth satellite imagery. The alignment of the pipeline was sketched in and refined. The pipeline route was digitally painted on top of the existing photo, taking into account vegetative cover as well as the viewing angle. Photos from the different KOPs were referenced against each other to locate distinctive features (rock outcroppings, bare areas) and keep the representation of the pipeline path consistent. After the construction phase of the pipeline route was depicted, a second digital painting with a 50' right-of-way (ROW) and vegetation matched from the surrounding area was completed to represent the operations phase.
Finally, three images were created from the master file showing the existing, construction, and operations phases. The completed visual simulations are shown during the discussion of each KOP. These simulations are extremely important to evaluate the potential impacts of the ASAP project at the KOP locations.

4.4 Evaluate Potential Impacts at KOPs
The following subsections summarize the steps for evaluating impacts at KOPs as explained in the BLM VRM manual 8431.

4.4.1 Select Timeframe
Projects are typically rated on either a short- or long-term basis. Short-term projects are defined as five years or less. The long-term timeframe considers the impacts over the life of the project. The ASAP project could be evaluated for both, but this analysis will consider only the long-term effects due to the lack of significant differences in the scope of construction and operations phases.

4.4.2 Assess Contrast
KOPs provide several reference points for rating the impact of construction activities on visual resources. The project team has visited each of these KOPs and completed a Visual Contrast Rating Worksheet (BLM VRM Form 8400-4) in the field. Appendix A includes copies of the completed worksheets.

The characteristics for each KOP were analyzed using the visual resource inventory process, in order to measure visual impacts. Visual impacts are interruptions in the form, line, color, or texture of the natural landscape. Impacts to the visual scenery as a result of the proposed project may include the following:

- Clearing of native vegetation along proposed gasline alignment.
- Roads and trails caused by construction equipment.
- General construction including open excavation.
- Final condition – involving proposed route of cleared land, sparse vegetation, and operations roads.

Utilizing the matrix in Section D of BLM VRM Form 8400-4, the degree to which visual impacts affect the project area at each KOP was recorded as one of four magnitudes: None, Weak, Moderate, or Strong. The general criteria for the degree of contrast ratings are shown in Table 1.

<table>
<thead>
<tr>
<th>Degree of Contrast</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>The element contrast is not visible or perceived.</td>
</tr>
<tr>
<td>Weak</td>
<td>The element contrast can be seen but does not attract attention.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The element contrast begins to attract attention and begins to dominate the characteristic landscape.</td>
</tr>
<tr>
<td>Strong</td>
<td>The element contrast demands attention, will not be overlooked, and is dominant in the landscape.</td>
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</tbody>
</table>

Table 1: Degree of Contrast Criteria
Characteristics to keep in mind when classifying the degree of contrast are similar to those used previously when the KOPs were selected (see Section 4.2). In addition to the six factors listed in that section, evaluators should also consider recovery time, spatial relationships, atmospheric conditions, and motion, when evaluating the degree of contrast. The existing VRM classifications were concurred by NPS.

4.4.3 Determine Whether VRM Objectives are Met
The basic philosophy of the contrast rating system is that the effects of a project depend on the degree of contrast between the existing landscape and the final landscape as a result of work done on the project. The contrast is measured by comparing the features of the existing landscape with the proposed project features. The design elements of form, line, color, and texture are used to make the comparison and to describe the visual contrast created by the project.

An understanding of the contrast rating system is important in order to determine whether VRM objectives are met. For comparative purposes, the four levels of contrast (None, Weak, Moderate, and Strong) roughly compare with the BLM visual resource inventory classes (I, II, III, and IV, respectively). Additionally, a combination of ratings may indicate a stronger overall contrast than what the individual ratings show, such as multiple “moderate” ratings or a combination of ratings. In the discussion for each KOP in Sections 5.1 to 5.6, the classes will be identified for each KOP and it will be stated whether the VRM objectives are met.

4.4.4 Develop Potential Mitigating Measures
Since the VRM goal is to minimize visual impacts, mitigating measures will be discussed for all potential adverse contrasts due to the ASAP project. This includes KOPs where the VRM objectives are met, but where impacts can be reduced. Mitigation solutions presented in this report follow the discussion for each KOP.

5.0 KOPs
Each of the identified KOPs is evaluated in the following sections. The discussion for each KOP follows a general outline. First, there is an introduction of the KOP, including VRM classification and a figure establishing the existing view. Next follows a discussion of the potential impacts on the visual landscape as identified from the BLM VRM Form 8400-4. Third, it is stated whether the VRM objectives are met and any possible mitigation that could be implemented. And last, graphic simulations of the project are presented to depict the appearance of the existing landscape during the construction and operations phases. At locations where directional boring is identified as a possible mitigation solution, graphic simulations have been prepared to show the effect this solution could have on the visual landscape. The completed Form 8400-4 for each KOP is included in Appendix A.
5.1 KOP 1 – Government Hill

Although there is no formal pull-off, the observation point provides a view of the Riley Creek Railroad Bridge and the surrounding natural landscape. Other than the rail bridge and a brief glimpse of vehicles on the Parks Highway, there are no man-made features visible. The VRM classification of this view is Class II. Figure 4 shows the existing view from KOP 1.

![Figure 4: KOP 1 EXISTING](image)

Figure 5 shows the view from KOP 1 with the simulated 100-foot project route during construction. The 50-foot operations route is shown in Figure 6.

While there are no official VRM objectives for this area, the strong lines and contrast between vegetation and soil color created by clearing the utility alignment could draw viewers’ attention and potentially detract from the natural elements. Since there is no formal pullout and due to the limited time that the project is in view, moderate visual impact would be experienced with the proposed pipeline route. The prominent features of this view (the bridge and Riley Creek) remain the focal point. However, the line of the project route on the left side of the view does attract attention. As the pipeline passes the middle of the view and to the right, it disappears from view mostly due to the weak color contrast and the decreased viewing angle.

Mitigation measures for this KOP could include rerouting the pipeline to less visible areas or minimizing the surface disturbance using underground boring. Either of these measures could alleviate the introduction of defined lines seen in the landscape from this KOP (Figures 7 and 8). A reroute of the proposed pipeline from MP 538.5 to MP 540.2 could push the gasline from the south and west side of the slope at Glitter Gulch to the backside (north and east side) of the hill.
Figure 5: KOP 1 CONSTRUCTION PHASE

Figure 6: KOP 1 OPERATIONS PHASE
Figure 7: KOP 1 MITIGATED CONSTRUCTION PHASE

Figure 8: KOP 1 MITIGATED OPERATIONS PHASE
5.2 KOP 2 – Alaska Railroad Depot

As mentioned previously, the DNPP Visitor Center is a major public gathering space. Limited views are provided from the Visitor Center due to surrounding mature vegetation in most directions, including toward the pipeline route. A short distance from the DNPP Visitor Center is the Alaska Railroad (ARRC) Depot, which has an extensive view shed of the project route (shown in Figure 9). The VRM classification for this KOP is Class III.

![Figure 9: KOP 2 EXISTING](image)

While there is a more extensive panorama from the ARRC Depot area, the simulations in Figures 10 and 11 show that most of the proposed pipeline route will not be visible. The part that is visible is low on the mountain and partially hidden from view by existing vegetation.

There are no official VRM objectives for this area. With many man-made structures in the foreground, the visual contrast at this location is weak. The impact does not dominate the view of the casual observer.

Any mitigation considered for other KOPs would likely lessen the amount of the project route that remains partially visible at this location. Mitigation measures for this KOP could include rerouting the pipeline to less visible areas or minimizing the surface disturbance using underground directional boring. A reroute of the proposed pipeline from MP 538.5 to MP 540.2 pushing the pipeline to the backside of the hill would mitigate the impacts to the view. Similarly, an underground bore for the gasline from MP 539.5 to MP 540.2 would eliminate most, if not all, of the potential impacts at this KOP. The visual simulations for the effect of mitigation alternatives are illustrated in Figure 12 and Figure 13.
Figure 10: KOP 2 CONSTRUCTION PHASE

Figure 11: KOP 2 OPERATIONS PHASE
Figure 12: KOP 2 MITIGATED CONSTRUCTION PHASE

Figure 13: MITIGATED OPERATIONS PHASE
5.3 KOP 3 – Wilderness Access Center

The WAC is a major public gathering space. Limited views are provided from the southern parking lot looking to the northeast (see Figure 14). The VRM classification for this location is Class III.

Figure 14: KOP 3 EXISTING

Pipeline views that might be observed from this area would be just above the tree line and would be a perpendicular view to the alignment (shown in Figures 15 and 16).

There are no official VRM objectives for this area. The contrast rating is weak as the impact closely follows the break between contrasting textures and lines in the tree line and the mountain. As seen in the two preceding figures, a small portion of the gasline route would be visible just above the tree line, looking to the northeast. The impact does not dominate the view of the casual observer as it is mostly interrupted by RV’s and other vehicles using the parking lot.

Any mitigation considered for other KOPs would likely lessen the amount of the project route that remains partially visible at this location. Mitigation measures for this KOP could include rerouting the pipeline to less visible areas or minimizing the surface disturbance using underground directional boring. A reroute of the proposed pipeline from MP 538.5 to MP 540.2 pushing the pipeline to the backside of the hill would mitigate the impacts to the view. Likewise, underground drilling for the gasline from MP 539.5 to MP 540.2 would eliminate all of the potential impacts at this KOP. The view after mitigation at this KOP would remain unchanged from the existing shown previously in Figure 14.
Figure 15: KOP 3 CONSTRUCTION PHASE

Figure 16: KOP 3 OPERATIONS PHASE
5.4 KOP 4 – Parks Highway South of Entrance

The location on the Parks Highway (see Figure 17) was chosen as a representative location for users who experience views near DNPP from the highway. Speeds on this section of the highway are 55 miles per hour (mph) and reduce to 45 mph closer to the DNPP entrance. There is limited pedestrian activity. The VRM classification for this location is Class II.

Figure 17: KOP 4 EXISTING

Figure 18 shows the introduction of the pipeline route on the mountainside. The alignment is a defining feature on the mountain in the construction phase. In the operations phase (Figure 19) the revegetation softens the extents of the route but the cut line is still visible.

The contrast rating for this location is between moderate and strong. The prominent, undulating line created with the clearing of the pipeline route demands attention and will likely not be overlooked by the casual observer in the construction phase. During the operations phase, the impact is moderate as the cleared land begins to be revegetated. Although the route remains noticeable, it does not dominate the view as the focal point.

Possible mitigation for this location could include minimizing the effect on existing vegetation, such as feathering or thinning edges of the cut. Additionally, rerouting to a less visible area may make the cut less prominent in the overall view. Rerouting to blend with topographic forms in shape or placement might also be possible.

The resulting view from mitigation alternatives in the area between MP 539.5 to MP 540.2 is shown on the mitigation visual simulations. Both construction and operations phases are shown in Figure 20 and Figure 21.
Figure 18: KOP 4 CONSTRUCTION PHASE

Figure 19: KOP 4 OPERATIONS PHASE
Figure 20: KOP 4 MITIGATED CONSTRUCTION PHASE

Figure 21: KOP 4 MITIGATED OPERATIONS PHASE
5.5 KOP 5 – Mt. Healy Overlook Trail
The Mt. Healy Overlook Trail is a 4.4 mile (round trip) hike that begins near the DNPP Visitor Center parking lot. This KOP was suggested by NPS as a representative location for the recreational trail users who visit the park. The existing view from the summit of the trail is shown in Figure 22. The VRM classification for this location is Class III.

![Figure 22: KOP 5 EXISTING](image)

While there are no formal VRM objectives, the contrast rating for this KOP is considered weak. The KOP view is of the pipeline route from a substantial distance. While the proposed route creates a long, narrow, winding ribbon through the landscape, it is camouflaged by the clutter of development in Glitter Gulch. In addition the number of defined lines seen from this KOP (between the Parks Highway, Nenana River, and driveways and other roadways) flow in the same direction as the pipeline alignment. The proposed project does not attract the attention of a casual observer.

Mitigation proposed at other locations will likely reduce the visual impact at this KOP. A directional bore for the gasline between stations 539.5 and 540.2 would eliminate a majority of the visual disturbance created by clearing the route. If the pipeline is rerouted, it should create curved lines in the landscape to be indistinguishable from other lines seen from this KOP.
Figure 23: KOP 5 CONSTRUCTION PHASE

Figure 24: KOP 5 OPERATIONS PHASE
Figure 25: KOP 5 MITIGATION CONSTRUCTION PHASE

Figure 26: KOP 5 MITIGATION OPERATIONS PHASE
5.6 KOP 6 – Alaska Railroad Corridor

The ARRC Corridor in the area of DNPP was recorded as a continuous series of 360° photographs by Immersive Video Solutions, LLC. The footage affords a way of viewing and characterizing the entire ARRC corridor through the DNPP area. The railroad corridor is generally bordered by dense vegetation at the edge of the cleared ARRC ROW. A few locations within the corridor have expansive views of the area surrounding DNPP and of the proposed pipeline route. These infrequent sweeping views of the pipeline alignment are visible for short spans of time. The existing view for KOP 6 is shown in Figure 27. The VRM classification for this location is Class II.

![Figure 27: KOP 6 EXISTING](image)

There is no formal railroad stop scheduled at this KOP location. The view of the proposed route is seen for less than 10 seconds by traveling railroad passengers before it is hidden by dense vegetation. Due to the width of the view, the visual simulations are separated into left and right segments. The view from KOP 6 of the proposed pipeline route during the construction phase is simulated in Figures 28 and 29. The operations phase visual simulation is shown in Figures 30 and 31. Similar to the other KOPs in this analysis, no VRM objectives have been formally established.

Potential impacts to KOP 6 are categorized by line and texture interruptions in the existing landscape. The visual contrast is moderate to weak at this location. The pipeline alignment is located at a considerable distance from the railroad corridor. Due to this distance, the potential impacts blend into the existing vegetation to a greater degree than if the pipeline were closer. Additionally, the viewing angle and site topography minimize the appearance of the contrasting features introduced by the proposed project. For three-fourths of the visible width of the view, the pipeline route is indistinguishable from other lines at the base of the surrounding mountains. On the northernmost (photo left) one-fourth of the view, the potential impacts are most pronounced during the construction phase of the proposed project. These potential impacts are a result of the surface clearing required for pipeline construction. During the operations phase, the visual contrast is weak for the entire route as revegetation dulls the defined line of the pipeline alignment.

Possible mitigation solutions for this location include those mentioned previously for other KOPs, specifically rerouting and underground drilling. Either of these solutions would reduce the potential impacts between MP 538.5 and MP 540.2. As the right portion is outside the specified milepost limits, the resulting views showing potential impacts after mitigation during construction and during operations for the northernmost (photo left) half only are shown in Figures 32 and 33, respectively.
Figure 28: CONSTRUCTION PHASE (LEFT)

Figure 29: CONSTRUCTION PHASE (RIGHT)
Figure 30: OPERATIONS PHASE (LEFT)

Figure 31: OPERATIONS PHASE (RIGHT)
Figure 32: MITIGATION CONSTRUCTION PHASE (LEFT)

Figure 33: MITIGATION OPERATIONS PHASE (LEFT)
5.7 KOP 7 – Parks Highway MP 234 – DNPP Route Variation

The Parks Highway MP 234 is a representative view from the main vehicle transportation route surrounding DNPP. The DNPP route variation alignment places the pipeline route offset to the east of the Parks Highway from MP 223 to MP 238. The existing view from this location along the highway is shown in Figure 34. The VRM classification for this location is Class II.

![Figure 34: KOP 7 EXISTING](image)

While there are no formal VRM objectives, the contrast rating for this KOP is moderate to weak. The pipeline route generally follows the roadway and introduces a defined width of clearing for approximately 15 miles. There are a number of established lodging facilities to the north upon entering the Carlo Creek area and continuing to DNPP. Scenic views can be seen from either side of the road.

During the construction phase, the vegetation directly adjacent to the shoulder will be disturbed for that installation of the Buried pipeline. The visual corridor along the road will look somewhat unbalanced with the East side of the road cleared and fattened to accept the new Buried Pipeline. The potential impact of the alignment will decrease during the operations phase as vegetation begins to decrease the contrast between the color of the disturbed ground and the color of the grassy areas. The resulting views showing potential impacts after mitigation during construction and operations phases are shown in Figures 35 and 36, respectively.

![Figure 35: KOP 7 CONSTRUCTION PHASE](image)
5.8 KOP 8 – Mt. Healy Overlook Trail – DNPP Route Variation

The Mt. Healy Overlook Trail is detailed in Section 5.5 of this report with the existing view from the summit of the trail shown in Figure 22. The VRM classification for this location is Class III.

While there are no formal VRM objectives, the contrast rating for this KOP remains unchanged from KOP 4 and is still considered weak. The pipeline route is seen from a substantial distance and meanders in connection with the Parks Highway, Nenana River, and other roadways that flow in the same direction as the pipeline alignment. The proposed project does not attract the attention of a casual observer. The resulting views during the construction and operations phases for this KOP are shown in Figure 37 and Figure 38.
6.0 Summary

The visual impacts of the ASAP project appear to be limited to a less than 2 mile portion of the proposed pipeline route from MP 538.5 to MP 540.2. Table 2 shows the VRM classifications accepted by NPS for each KOP as well as the contrast rating for each KOP as discussed in this report.

<table>
<thead>
<tr>
<th>KOP No.</th>
<th>Site Name</th>
<th>VRM Classification</th>
<th>Contrast Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Government Hill</td>
<td>Class II</td>
<td>Moderate</td>
</tr>
<tr>
<td>2</td>
<td>Alaska Railroad Depot</td>
<td>Class III</td>
<td>Weak</td>
</tr>
<tr>
<td>3</td>
<td>Wilderness Access Center</td>
<td>Class III</td>
<td>Weak</td>
</tr>
<tr>
<td>4</td>
<td>Parks Highway South of Entrance</td>
<td>Class II</td>
<td>Moderate/Strong</td>
</tr>
<tr>
<td>5</td>
<td>Mt. Healy Overlook Trail</td>
<td>Class III</td>
<td>Weak</td>
</tr>
<tr>
<td>6</td>
<td>Alaska Railroad Corridor</td>
<td>Class II</td>
<td>Moderate/Weak</td>
</tr>
<tr>
<td>7*</td>
<td>Parks Highway MP 234</td>
<td>Class III</td>
<td>Moderate/Weak</td>
</tr>
<tr>
<td>8*</td>
<td>Mt. Healy Overlook Trail</td>
<td>Class III</td>
<td>Weak</td>
</tr>
</tbody>
</table>

*denotes KOP for DNPP route variation

The views from KOP 1 – Government Hill and KOP 4 – Parks Highway South of Entrance have the largest potential for visual impacts. These areas are both Class II in the VRM classification system and are experienced primarily by motorists. The contrast ratings are determined to be between moderate and moderate/strong in severity. KOP 2 – ARRC Depot and KOP 3 – Wilderness Access Center have only brief segments of the pipeline route visible. Both of these areas are classified as Class III and will be viewed by pedestrians. The contrast ratings are determined to be weak at both of these KOPs. KOP 5 – Mt. Healy Overlook Trail has the longest view of the disruption caused by the pipeline clearing and construction. However, the view shed itself is minimally affected due to the distance from the pipeline alignment and the number of both natural and man-made elements that compose the view. Due to the lack of contrast between the existing panorama and the resulting view with the proposed project, the contrast rating is weak.
The visual impacts from the DNPP route variation extend from MP 223 to MP 228 within DNPP. From the perspective of KOPs 7 and 8, the visual impacts from this route variation would be moderate/weak and weak.
Appendix A
Completed Form 8400-4 for Each KOP
### SECTION A. PROJECT INFORMATION

1. Project Name  
ASAP Pipeline

2. Key Observation Point  
#1 Government Hill

3. VRM Class

4. Location

5. Location Sketch

### SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep &amp; Diagonal Background, Flat to Rolling Foreground</td>
<td>Smooth in Background Medium to Rough in Foreground</td>
<td>Smooth, Linear Rail Bridge</td>
</tr>
<tr>
<td>Bold Angular Lines at Horizon, Sloping/Broken Lines in middle ground</td>
<td>-Soft, irregular in Background -Irregular, vertical in Foreground</td>
<td>Strong Vertical and Horizontal Lines @ Bridge</td>
</tr>
<tr>
<td>Gray, Tan, Brownish Red, Blue/Gray Water</td>
<td>Light to Dark Greens</td>
<td>Gray Road, Black/Brown Rail Bridge</td>
</tr>
<tr>
<td>Smooth and Mottled</td>
<td>-Smooth/Med in Background -Medium/Coarse in Foreground</td>
<td>Smooth/Fine Rail Bridge</td>
</tr>
</tbody>
</table>

### SECTION C. PROPOSED ACTIVITY DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Narrow, Curving and Straight Form created by clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Curved, Undulating</td>
<td>Strong to Moderate Lines created by edge effect of corridor clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Gray, Tan, Brownish-Red</td>
<td>Light Green</td>
<td>N/A</td>
</tr>
<tr>
<td>Fine to Smooth Clearing Corridor</td>
<td>Fine to Medium</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### SECTION D. CONTRAST RATING

1. **Form**  
   - Strong ✔  
   - Moderate ✔  
   - Weak ✔  
   - None ✔

2. **Line**  
   - Strong ✔  
   - Moderate ✔  
   - Weak ✔  
   - None ✔

3. **Color**  
   - Strong ✔  
   - Moderate ✔  
   - Weak ✔  
   - None ✔

4. **Texture**  
   - Smooth ✔  
   - Medium ✔  
   - Rough ✔  
   - None ✔

5. Does project design meet visual resource management objectives?  
   - Yes ✔  
   - No ✔

6. Additional mitigating measures recommended  
   - Yes ✔  
   - No ✔

Evaluator's Names  
John Rowe, ASLA  
Alan Skinner, PE  
Date  
08/04/2011
Comments from item 2.

While there are no official VRM objective for this area, these strong lines and contrast in vegetation/soil color created by the clearing of the utility corridor will draw viewers attention and detract from the other natural and man made (rail bridge) aesthetics.

Additional Mitigating Measures (See item 3)

1. A directional bore for the gas line from approx. station 539.2 to 540.2 would elevate a majority of the heavy scaring to landscape from this KOP.

2. A reroute of the proposed pipeline from approx. station 538.5 to 540.2. This reroute would push the gasline from the South and West side of the slope at Glitter Gulch to the backside (North and East side) of the hill.
**SECTION A. PROJECT INFORMATION**

1. **Project Name**
   ASAP Pipeline

2. **Key Observation Point**
   #2 Visitor Center/AK Railroad

3. **VRM Class**

**SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION**

<table>
<thead>
<tr>
<th>FORM</th>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep/Diagonal Background</td>
<td>Smooth in Background</td>
<td>Rectangular Hotel in Background, Complex structures/Bold, Angular/Flat in Foreground</td>
<td></td>
</tr>
<tr>
<td>Flat/Linear Foreground</td>
<td>Medium to Coarse in Foreground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bold Jagged Lines at Horizon, Angular Broken Lines in Middleground, Flat in Foreground</td>
<td>Soft, Flowing in Background</td>
<td>Regular, Geometric Hotel Building in Background, Complex/Geometric, Hard in Foreground</td>
<td></td>
</tr>
<tr>
<td>Gray, Tan and Brownish-Red Land/No Water Viewed</td>
<td>Light to Dark Green</td>
<td>Hotel with Green Roof and white exterior in Background/Browns and grays dominate structures Foreground</td>
<td></td>
</tr>
<tr>
<td>Smooth and Mottled</td>
<td>Smooth in Background</td>
<td>Hard, Smooth Textures in Both Background &amp; Foreground</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium to Coarse in Foreground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION C. PROPOSED ACTIVITY DESCRIPTION**

<table>
<thead>
<tr>
<th>FORM</th>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Narrow, Curving, and Straight form created by clearing activities</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Straight and Curved, Undulating Line</td>
<td>Moderate Lines created by Edge Effect of Clearing Activities</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Gray, Tan &amp; Brownish Red Land</td>
<td>Light Green</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Fine to Smooth Created by Clearing</td>
<td>Fine to Medium</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION D. CONTRAST RATING**

- ✔ Yes
- ✔✔ Yes
- ✔✔✔ Yes

1. **DEGREE OF CONTRAST**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>LAND/WATER</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>Texture</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

2. Does project design meet visual resource management objectives?  ✔ Yes  ✔ No  
   (Explain on reverse side)

3. Additional mitigating measures recommended  ✔ Yes  ✔ No  
   (Explain on reverse side)

**Evaluator's Names**

John Rowe, ASLA  
Alan Skinner, PE  
Date 08/04/2011
Comments from item 2.

While there is a segment of the proposed gasline corridor that will be visible from the parking/access drive area, the business of the surrounding foreground and background activities dulls the visual impact from this vantage point.

Additional Mitigating Measures (See item 3)

(Same as KOP #1)
### SECTION A. PROJECT INFORMATION

1. **Project Name**  
ASAP Pipeline

2. **Key Observation Point**  
#3 - Wilderness Access Center

3. **VRM Class**

4. **Location**

5. **Location Sketch**

### SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jagged to Rolling</td>
<td>Smooth to Medium in Background Coarse in Foreground</td>
<td>Flat parking lot in Foreground</td>
</tr>
<tr>
<td>Bold Angular and Curved Lines at Horizon. Strong Horizontal in Foreground</td>
<td>Soft, Irregular in Background Irregular, vertical in Foreground</td>
<td>Strong, Horizontal and Flat</td>
</tr>
<tr>
<td>Gray, Tan, Brownish Red</td>
<td>Light to Dark Green</td>
<td>Open gray parking lot with blue and white traffic striping</td>
</tr>
<tr>
<td>Smooth to Medium Mottled in Background Flat in Foreground</td>
<td>Smooth to Medium in Background Medium to Coarse in Foreground</td>
<td>Flat, Smooth in Foreground</td>
</tr>
</tbody>
</table>

### SECTION C. PROPOSED ACTIVITY DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Short, Narrow, straight and curving form created by clearing of corridor</td>
<td>N/A</td>
</tr>
<tr>
<td>Straight and curved, undulating line</td>
<td>Light to Moderate line created by clearing activities</td>
<td>N/A</td>
</tr>
<tr>
<td>Gray, Brownish Red Land</td>
<td>Light Green</td>
<td>N/A</td>
</tr>
<tr>
<td>Fine to Smooth, Created by Clearing</td>
<td>Fine to Medium</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### SECTION D. CONTRAST RATING

1. **Degree of Contrast**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>LAND/WATER BODY</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>Form</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Line</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Color</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Texture</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

2. **Does project design meet visual resource management objectives?**  
   - Yes  
   - No  
   (Explain on reverse side)

3. **Additional mitigating measures recommended**  
   - Yes  
   - No  
   (Explain on reverse side)

### Evaluator's Names

- John Rowe, ASLA  
- Alan Skinner, PE

### Date

08/04/2011
Comments from item 2.

A small segment of the proposed gasoline corridor would be visible amongst the treeline, looking to the Northeast. The view will often be interrupted by RV's and other vehicles using the parking lot.

Additional Mitigating Measures (See item 3)

(Same as KOP#1)
# Visual Contrast Rating Worksheet

## SECTION A. PROJECT INFORMATION

<table>
<thead>
<tr>
<th>1. Project Name</th>
<th>ASAP Pipeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Key Observation Point</td>
<td>#4 - Parks Highway</td>
</tr>
<tr>
<td>3. VRM Class</td>
<td></td>
</tr>
</tbody>
</table>

## SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

<table>
<thead>
<tr>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep with Diagonal Form in Background Flat/Light Rolling in Foreground</td>
<td>Smooth/Flowing in Background Medium to Rough in Foreground</td>
<td>Smooth, Curving Road and guard rail signs and embankment</td>
</tr>
<tr>
<td>Bold angular lines at horizon, sloped broken lines in Background Flat, flowing in Foreground</td>
<td>Soft, Irregular in Background Irregular in Foreground</td>
<td>Strong curving lines from road from Foreground to Middle ground, Complex vertical Foreground</td>
</tr>
<tr>
<td>Gray, Ran and Brownish-Red</td>
<td>Light to Dark Greens</td>
<td>Gray road and guardrail, white and yellow stripping on the roadway.</td>
</tr>
<tr>
<td>Smooth, Discontinuous and Mottled</td>
<td>Smooth/Medium in Background Medium/Coarse in Foreground</td>
<td>Smooth road surface and guard rail, Slightly coarse in Foreground due to Posts</td>
</tr>
</tbody>
</table>

## SECTION C. PROPOSED ACTIVITY DESCRIPTION

<table>
<thead>
<tr>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Narrow Curving Band due to Corridor Clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Curved and Undulating</td>
<td>Strong curved lines created by edge effect of clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Gray, Tan and Brownish Red</td>
<td>Light Green</td>
<td>N/A</td>
</tr>
<tr>
<td>Fine/Smooth</td>
<td>Fine to Medium</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## SECTION D. CONTRAST RATING

<table>
<thead>
<tr>
<th>DEGREE OF CONTRAST</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND/WATER BODY (1)</td>
<td>Moderate</td>
</tr>
<tr>
<td>VEGETATION (2)</td>
<td>Moderate</td>
</tr>
<tr>
<td>STRUCTURES (3)</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

1. Form ✔ ✔ ✔ ✔ ✔
2. Line ✔ ✔ ✔ ✔ ✔
3. Color ✔ ✔ ✔ ✔ ✔
4. Texture ✔ ✔ ✔ ✔ ✔

- Does project design meet visual resource management objectives?  
  - Yes  
  - No  
  (Explain on reverse side)

- Additional mitigating measures recommended  
  - Yes  
  - No  
  (Explain on reverse side)

Evaluator's Names:  
John Rowe, ASLA  
Alan Skinner, PE

Date: 08/18/2011
Comments from item 2.

The strong, undulating line that is created with the clearing of the pipeline corridor will command attention of the motorist as they are traveling north towards the main park entrance.

Additional Mitigating Measures (See item 3)

(Same as KOP#1)
## Visual Contrast Rating Worksheet

### Section A. Project Information
1. Project Name: ASAP Pipeline
2. Key Observation Point: #5 Mt. Healy Trail Outlook
3. VRM Class: Visual Impact

### Section B. Characteristic Landscape Description

#### 1. Land/Water
- **Form**: Steep/Rugged angles with low rolling valley
- **Line**: Bold Angular Lines at Horizon. Complex and Irregular series of curves in Middleground
- **Color/Texture**: Gray, Tan & Brownish-Red/Grayish-Blue Water
  - **Texture**: Smooth, Mottled Land with Medium to Coarse in Foreground

#### 2. Vegetation
- **Form**: Flat/Curved
- **Line**: Curved, Undulating
- **Color/Texture**: Gray, Tan, Brownish-Red
  - **Texture**: Fine/Smooth Corridor created by Clearing

#### 3. Structures
- **Form**: Multiple, Complex Buildings, Roads and Structures in Mid and Background
- **Line**: Complex, Geometric Lines create buildings, roads and other structures
- **Color/Texture**: Red, Blue, White, Grays in Buildings and Structures.
  - **Texture**: Medium to Coarse texture created by scattered development

### Section C. Proposed Activity Description

#### 1. Land/Water
- **Form**: Flat/Curved
- **Line**: Curved, Undulating
- **Color/Texture**: Gray, Tan, Brownish-Red
  - **Texture**: Fine/Smooth Corridor created by Clearing

#### 2. Vegetation
- **Form**: Narrow, Curving Form created by Clearing
- **Line**: Moderate, Lightly curved line created by corridor clearing
- **Color/Texture**: Light Green

#### 3. Structures
- **Form**: N/A
- **Line**: N/A
- **Color/Texture**: N/A

### Section D. Contrast Rating
- **Short Term**: Yes
- **Long Term**: Yes

#### Degree of Contrast

<table>
<thead>
<tr>
<th>Elements</th>
<th>Land/Water (1)</th>
<th>Vegetation (2)</th>
<th>Structures (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Line</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Color</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Texture</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

2. Does project design meet visual resource management objectives? **Yes**

3. Additional mitigating measures recommended: **No**

---

Evaluator’s Names: John Rowe, ASLA  
Date: 08/18/2011  
Alan Skinner, PE
Comments from item 2.

While the proposed corridor clearing does create a long, narrow, winding ribbon through the landscape, it does get lost in the clutter of the development in Glitter Gulch, as well as the rivers and roads that wind through the valley in the same direction as the pipeline corridor.

Additional Mitigating Measures (See item 3)

1. A directional bore for the gasline between stations 539.5 and 540.2 would eliminate a majority of the visual scaring created by clearing the corridor.
### SECTION A. PROJECT INFORMATION

<table>
<thead>
<tr>
<th>1. Project Name</th>
<th>ASAP Pipeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Key Observation Point</td>
<td>#6 AK RR South of Parks Highway</td>
</tr>
<tr>
<td>3. VRM Class</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep/Diagonal Background Flat to Rolling Foreground</td>
<td>Smooth in Background Medium to Coarse in Foreground</td>
<td>N/A</td>
</tr>
<tr>
<td>Bold Angular Lines at Horizon Broken Lines in Mid ground Curving River</td>
<td>Soft, Irregular in Background Irregular, Vertical in Foreground</td>
<td>N/A</td>
</tr>
<tr>
<td>Gray, Tan, Brownish Red, Blue/Gray Water</td>
<td>Dark to Light Green, Yellow</td>
<td>N/A</td>
</tr>
<tr>
<td>Smooth to Mottled</td>
<td>Smooth in Background Medium to Coarse in Foreground</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### SECTION C. PROPOSED ACTIVITY DESCRIPTION

<table>
<thead>
<tr>
<th>FORM</th>
<th>VEGETATION</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Narrow, Curving and Straight Form Created by Clearing Activities</td>
<td>N/A</td>
</tr>
<tr>
<td>Curved and Straight Line Segments</td>
<td>Strong to Moderate Lines Created by Edge Effect from Clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Gray, Tan, Brownish Red with Earth Disruption</td>
<td>Strong to Moderate Lines Created by Edge Effect from Clearing</td>
<td>N/A</td>
</tr>
<tr>
<td>Fine to Smooth, Clearing of Corridor</td>
<td>Fine to Medium</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### SECTION D. CONTRAST RATING

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>LAND/WATER BODY (1)</th>
<th>VEGETATION (2)</th>
<th>STRUCTURES (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Line</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Color</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Texture</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

1. Does the project design meet visual resource management objectives? □ Yes □ No (Explain on reverse side)
2. Additional mitigating measures recommended □ Yes □ No (Explain on reverse side)

Evaluator's Name: John Rowe, ASLA
Date: 09/13/2011
Comments from item 2.

While a small segment of the pipeline corridor (Between ASAP MP 589.5 and 540.2) will cause a short term visual impact, the long term maintenance activities are anticipated to have much less impact. The distance from the KOP to the pipeline and the relatively low viewing angle are major factors in the anticipated, low visual impact over the long term.

Additional Mitigating Measures (See item 3)

While no mitigating actions are recommended, the mitigation actions discussed in other KOP's (to the segment between ASAP MP 539.5 and 540.2) would greatly reduce the short term visual impacts on this KOP.
1. Project Name
ASAP Pipeline

2. Key Observation Point
#7 Parks Highway - MP 234

3. VRM Class

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

<table>
<thead>
<tr>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep Mountains in Background</td>
<td>Smooth/Mottled in Background</td>
<td>Flat Road Surface</td>
</tr>
<tr>
<td>Flat to Rolling in Foreground</td>
<td>Coarse in Foreground</td>
<td></td>
</tr>
<tr>
<td>Strong Diagonal in Background</td>
<td>Soft/ Irregular in Background</td>
<td>Straight Lines</td>
</tr>
<tr>
<td>Horizontal and Undulating in Foreground</td>
<td>Irregular, Vertical in Foreground</td>
<td></td>
</tr>
<tr>
<td>Gray, Tan, Brownish-Red in Background</td>
<td>Medium Green in Background, Light</td>
<td>Gray with White and Yellow</td>
</tr>
<tr>
<td>Green in Foreground</td>
<td>to Medium Green in Foreground</td>
<td>Stripes, Green Mile Sign</td>
</tr>
<tr>
<td>Smooth/ Mottled in Background</td>
<td>Smooth in Background</td>
<td>Smooth</td>
</tr>
<tr>
<td>Mottled in Foreground</td>
<td>Medium to Coarse in Foreground</td>
<td></td>
</tr>
</tbody>
</table>

SECTION C. PROPOSED ACTIVITY DESCRIPTION

<table>
<thead>
<tr>
<th>1. LAND/WATER</th>
<th>2. VEGETATION</th>
<th>3. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Straight, Narrow Form created by</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Vegetation Clearing</td>
<td></td>
</tr>
<tr>
<td>Curved and Straight Line Sections</td>
<td>Moderate to Strong Lines created</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>by Edge Effect from Clearing</td>
<td></td>
</tr>
<tr>
<td>Gray, Brown with Earth Disruption</td>
<td>Light to Dark Green</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine to Smooth with Clearing of</td>
<td>Fine to Medium</td>
<td>N/A</td>
</tr>
<tr>
<td>Corridor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION D. CONTRAST RATING  ✔  SHORT TERM  ✔  LONG TERM

<table>
<thead>
<tr>
<th>1. DEGREE OF CONTRAST</th>
<th>2. LAND/WATER BODY</th>
<th>3. VEGETATION</th>
<th>4. STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>Moderate</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>Weak</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>None</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>Weak</td>
<td>None</td>
</tr>
</tbody>
</table>

2. Does project design meet visual resource management objectives?  ✔ Yes  ✔ No (Explain on reverse side)

3. Additional mitigating measures recommended  ✔ Yes  ✔ No (Explain on reverse side)

Evaluator's Name:
John Rowe, ASLA

Date:
11/15/11
Comments from item 2.

While the Construction Phase of the project will create considerable visual pollution, the long term (maintenance) phase will have considerably less impact with the corridor width being reduced, compared to the construction, and the earth being revegetated.

Additional Mitigating Measures (See item 3)

None