

# FINDING OF NO SIGNIFICANT IMPACT

## Environmental Assessment

DOI-BLM-UT-G010-2014-0141

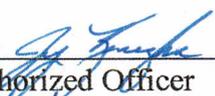
*EOG Resources requests authorization to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities and a carport type shed covering over the gas engines on the three existing well pads*

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### FINDING OF NO SIGNIFICANT IMPACT:

“Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that EOGs proposal to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities and a carport type shed covering over the gas engines on the three existing well pads, in T8S R23E Sec 30, 31, & 35, as described in the proposed action alternative of DOI-BLM-UT-G010-2014-0141 will not have a significant effect on the human environment. An environmental impact statement is therefore not required.”

**JUN 09 2014**

  
\_\_\_\_\_  
Authorized Officer

\_\_\_\_\_  
Date

**DECISION RECORD**  
**Environmental Assessment**  
**DOI-BLM-UT-G010-2014-0141**

*EOG Resources requests authorization to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities and a carport type shed covering over the gas engines on the three existing well pads.*

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**DECISION RECORD:**

It is my decision to authorize EOG resources proposal to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities and a carport type shed covering over the gas engines on the three existing well pads in T8S R23E Sec 30, 31, & 35 as described in the proposed action alternative of DOI-BLM-UT-G010-2014-0141.

**This decision is contingent on meeting all stipulations and monitoring requirements listed below, which were designed to minimize and/or avoid impacts.**

**Summary of the Selected Alternative:**

- EOG resources proposes to install three skid mounted gas engines on the existing well pads Hoss 12–31, Hoss 85–35, and Hoss 35–30.
- EOG resources will install H<sub>2</sub>S treatment facility on the existing well pads Hoss 12–31, Hoss 85–35, and Hoss 35–30.
- EOG resources will install a carport type cover over the gas tanks on the existing well pads Hoss 12–31, Hoss 85–35, and Hoss 35–30

**Mitigation and Conditions of Approval**

**Air Quality**

- All internal combustion equipment would be kept in good working order.
- Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer.
- Low bleed pneumatics would be installed on separator dump valves and other controllers.
- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NO<sub>x</sub> per horsepower-hour.

**Rationale for the Decision:**

The selected alternative is in conformance with the Vernal Field Office Resource Management Plan and Record of Decision (BLM 2008).

The subject lands were leased for oil or gas development under authority of the Mineral Leasing Act of 1920, as modified by the Federal Land Policy and Management Act of 1976, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The lessee/operator has the right to explore for oil and gas on the lease as specified in 43 CFR 3103.1-2, and if a discovery is made, to produce oil and/or natural gas for economic gain.

The selected alternative is consistent with *Uintah County General Plan* (published in 2007) that encompasses the location of the proposed pipelines. In general, the plan indicates support for development proposals such as the selected alternative through the plan's emphasis of multiple-use public land management practices, responsible use and optimum utilization.

There are no comprehensive State of Utah plans for the vicinity of the selected alternative. However, the State of Utah School and Institutional Trust Lands Administration (SITLA) have leased much of the nearby state land for oil and gas production. Because the objectives of SITLA are to produce funding for the state school system, and because production on federal leases could further interest in drilling on state leases in the area, it is assumed that the selected alternative is consistent with the objectives of the State.

The selected alternative meets the BLM's need to acknowledge and allow development of valid existing leases. The BLM objective to reduce impacts is met by the imposing of mitigation measures to protect other resource values.

### **Summary of Public Involvement Efforts and Public Response**

The Proposed Action was posted to the BLM E-planning NEPA Register on 4/28/2014. No public interest has been expressed.

### **Appeals:**

This decision is effective upon the date it is signed by the authorized officer. The decision is subject to appeal. Under BLM regulation, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, Utah State Office, P.O. Box 45155, Salt Lake City, Utah, 84145-0155, within 20 business days of the date this Decision is received or considered to have been received.

If you wish to file a petition for stay, the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted;

and,

(4) Whether the public interest favors granting the stay.

  
\_\_\_\_\_  
Authorized Officer

**JUN 09 2014**  
\_\_\_\_\_  
Date

**U.S. Department of the Interior  
Bureau of Land Management**

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**Environmental Assessment  
DOI-BLM-UT-G010-2014-0141-EA  
May 2014**

**PREPARING OFFICE**

U.S. Department of the Interior  
Bureau of Land Management



**Environmental Assessment**  
**DOI-BLM-UT-G010-2014-0141-EA**  
*May 2014*

**EOG Resources requests authorization to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities and a carport type shed covering over the gas engines on the three existing well pads.**

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# Chapter 1. Introduction

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## **1.1. Identifying Information:**

This Environmental Assessment (EA) has been prepared to analyze the potential impacts of EOG's installation of three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities on the existing well pads Hoss 12-31, Hoss 85-35, and Hoss 35-30 in the Chapita Wells area of Uintah County, Utah. All installation activity is within in T8S R23E Sec 30, 31, 35. Uintah County, Utah. Federal Leases UTU-76042, UTU-61401, and UTU-61400. No new surface disturbance will be required.

The EA is a site-specific analysis of potential impacts that could result from the implementation of the Proposed Action or alternatives to the Proposed Action. The EA assists the Bureau of Land Management (BLM) in project planning ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. ("Significance" is defined by NEPA and is found in regulation 40 CFR 1508.27.) An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) statement. A FONSI statement is a document that briefly presents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects) beyond those already addressed in Vernal Field Office Resource Management Plan (BLM 2008). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the alternative selected.

### **1.1.1. Title, EA number, and type of project:**

**DOI-BLM-UT-G010-2014-0141**

EOG Resources requests authorization to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities, and sheds on the existing well pads Hoss 12-31, Hoss 85-35, and Hoss 35-30 in the Chapita Wells area of Uintah County, Utah.

### **1.1.2. Location of Proposed Action:**

**T8S R23E Sec 30, 31, & 35  
Uintah County, Utah**

### **1.1.3. Name and Location of Preparing Office:**

Vernal Field Office  
U.S. Department of the Interior  
Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078  
Phone: (435) 781-4400  
FAX: (435) 781-4410

### **1.1.5. Applicant Name:**

EOG Resources  
1060 East Hwy. 40  
Vernal, UT 84078

### **1.2. Purpose and Need for Action:**

Private exploration and production from federal oil and gas leases is an integral part of the BLM oil and gas leasing program under authority of the Mineral Leasing Act of 1920, as amended by the Federal Land Policy and Management Act of 1976 and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The operator has a valid existing right to extract mineral resources from Federal Leases UTU-76042, UTU-61401, and UTU-61400 to be subject to the leases' terms and conditions. The BLM oil and gas leasing program encourages development of domestic oil and gas reserves and the reduction of U.S. dependence on foreign energy sources. The BLM's purpose is to allow beneficial use of the applicant's lease in an environmentally sound manner.

The underlying need for the proposed action is for EOG Inc. to develop Federal Leases UTU-76042, UTU-61401, and UTU-61400 by installation of the proposed Gas engines, H<sub>2</sub>S facilities and sheds and if successful, to produce commercial quantities of gas from its federal oil and gas lease.

### **1.3. Scoping, Public Involvement and Issues:**

The proposed project was posted to the e-planning NEPA Register on . No public inquiry has been received. BLM scoping of the project occurred as documented in the Interdisciplinary Team Checklist. Identified Issues are as follows.

- Air Quality: Emissions from operation of the engine will have the potential to impact local air quality.

## **Chapter 2. Proposed Action and Alternatives**

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## 2.1. Description of the Proposed Action:

EOG Resources requests authorization to install three skid mounted gas engines (or equivalents) with associated H<sub>2</sub>S treatment facilities, and sheds on the existing well pads Hoss 12–31, Hoss 85–35, and Hoss 35–30 in the Chapita Wells area of Uintah County, Utah. There will be no new surface disturbance.

**Surface Facilities:** The engines, H<sub>2</sub>S treatment facilities and sheds will be set on locations of the Hoss 12–31, Hoss 85–35, and Hoss 35–30 well pads. All permanent structures will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors. All facilities will be painted within 6 months of installation

## 2.2. Description of Alternatives Analyzed in Detail:

### NO ACTION ALTERNATIVE

Under the No Action Alternative, EOG would not install the compressor engines, H<sub>2</sub>S facilities, or sheds. However, other oil and gas development in the area would be expected to continue. Other current resource trends and land use practices would also continue. The BLM's authority to implement the No Action Alternative may be limited because oil and gas leases allowing drilling in the lease area subject to the stipulations of the specific lease agreement. The BLM can deny the Notice of Intent (NOI) if the proposal would violate lease stipulations and applicable laws and/or regulations. The BLM can also impose conditions of approval to prevent undue or unnecessary environmental degradation. If the BLM were to deny the NOI, the applicant could attempt to reverse the BLM's decision through administrative appeals, seek to exchange its lease for leases in other locations, or seek compensation from the federal government. The outcome of these actions is beyond the scope of this EA because they cannot be projected or meaningfully analyzed at this time.

## 2.3. Alternatives Considered but not Analyzed in Detail

There were no other alternatives identified aside from the Proposed Action and No Action Alternatives that would meet the purpose and need of this project.

## 2.4. Land Use Plan Conformance

The proposed facilities would be in conformance with the Vernal Field Office RMP/ROD (October 31, 2008) and the terms of the lease. The RMP/ROD decision allows leasing of oil and gas while protecting or mitigating other resource values (RMP/ROD p. 97-99). The Minerals and Energy Resources Management Objectives encourage the drilling of oil and gas wells by private industry (RMP/ROD, p. 97). The RMP/ROD decision also allows for processing applications, permits, operating plans, mineral exchanges, and leases on public lands in accordance with policy and guidance (RMP/ROD p. 86). It has been determined that the proposed action and alternative(s) would not conflict with other decisions throughout the plan.

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## **Chapter 3. Affected Environment:**

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### 3.1. INTRODUCTION AND GENERAL SETTING

The affected environment of the Proposed Action and No Action Alternatives were considered and analyzed by an interdisciplinary team, as documented in the Interdisciplinary Team Analysis Record Checklist (Appendix A). The checklist indicates which resources of concern are present, would be affected by the action, and would require analysis in the EA, or are either not present in the project area or would not be affected to a degree that requires detailed analysis

The proposed action would be located in the Chapita Wells area of the BLM's Vernal Field Office (VFO). Mineral extraction activities, transportation corridors, livestock grazing, and erosion have historically affected the project area. The project area is defined as T8S R23E Sec 30, 31, and 35. The project boundary has been previously disturbed by the construction of roads and well locations

### 3.2. Air Quality

#### 3.2.1. Air Quality

The Project Area is located in the Uinta Basin, a semiarid, mid-continental climate regime typified by dry, windy conditions, limited precipitation and wide seasonal temperature variations subject to abundant sunshine and rapid nighttime cooling. The Uinta Basin is designated as unclassified/attainment by the EPA under the Clean Air Act. This classification indicates that the concentration of criteria pollutants in the ambient air is below National Ambient Air Quality Standards (NAAQS), or that adequate air monitoring is not available to determine attainment.

NAAQS are standards that have been set for the purpose of protecting human health and welfare with an adequate margin of safety. Pollutants for which standards have been set include ground level ozone, ( $O_3$ ), sulfur dioxide ( $SO_2$ ), nitrogen dioxide ( $NO_2$ ), and carbon monoxide (CO), and particulate matter less than 10 microns in diameter ( $PM_{10}$ ) or 2.5 microns in diameter ( $PM_{2.5}$ ). Airborne particulate matter consists of tiny coarse-mode ( $PM_{10}$ ) or fine-mode ( $PM_{2.5}$ ) particles or aerosols combined with dust, dirt, smoke, and liquid droplets.  $PM_{2.5}$  is derived primarily from the incomplete combustion of fuel sources and secondarily formed aerosols, whereas  $PM_{10}$  is primarily from crushing, grinding, or abrasion of surfaces. **Table 3-1** lists ambient air quality background values for the Uinta Basin and NAAQS standards.

**Table 3.1.**

Pollutant	Averaging Period(s)	Uinta Basin Background Concentration ( $g/m^3$ )	NAAQS ( $g/m^3$ )
$SO_2$	Annual	0.8 <sup>2</sup>	-1
	24-hour	3.9 <sup>2</sup>	-1
	3-hour	10.1 <sup>2</sup>	1,300
	1-hour	19.0 <sup>2</sup>	197
$NO_2$	Annual	8.1 <sup>3</sup>	100
	1-hour	60.2 <sup>3</sup>	188
$PM_{10}$	Annual	7.0 <sup>4</sup>	-6
	24-hour	16.0 <sup>4</sup>	150
$PM_{2.5}$	Annual	9.4 <sup>3</sup>	15
	24-hour	17.8 <sup>3</sup>	35

Pollutant	Averaging Period(s)	Uinta Basin Background Concentration (g/m <sup>3</sup> )	NAAQS (g/m <sup>3</sup> )
CO	8-hour	3,450 <sup>4</sup>	10,000
CO	1-hour	6,325 <sup>4</sup>	40,000
O <sub>3</sub>	8-hour	100.0 <sup>3</sup>	75
<p>—The 24-hour and annual SO<sub>2</sub> NAAQS have been revoked by USEPA.  —Based on 2009 data from Wamsutter Monitoring Station Data (USEPA AQS Database).  —Based on 2010/2011 data from Redwash Monitoring Station (USEPA AQS Database)  —Based on 2006 data disclosed in the Greater Natural Buttes FEIS. (BLM, 2012)  Ozone is measured in parts per billion (ppb)  —The annual PM<sub>10</sub> NAAQS has been revoked by USEPA</p>			

Existing point and area sources of air pollution within the Uinta Basin include the following:

- Exhaust emissions (primarily CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and HAPs) from existing natural gas fired compressor engines used in transportation of natural gas in pipelines;
- Natural gas dehydrator still-vent emissions of CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and HAPs;
- Gasoline and diesel-fueled vehicle tailpipe emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>;
- Oxides of sulfur (SO<sub>x</sub>), NO<sub>x</sub>, fugitive dust emissions from coal-fired power plants, and coal mining/ processing;
- Fugitive dust (in the form of PM<sub>10</sub> and PM<sub>2.5</sub>) from vehicle traffic on unpaved roads, wind erosion in areas of soil disturbance, and road sanding during winter months; and,
- Long-range transport of pollutants from distant sources.

Two year-round air quality monitoring sites were established in summer 2009 near Red Wash (southeast of Vernal, Utah) and Ouray (southwest of Vernal). These monitors were certified as Federal Reference Monitors in fall of 2011, which means they can be used to make a NAAQS compliance determination. The complete EPA Ouray and Redwash monitoring data can be found at: <http://www.epa.gov/airexplorer/index.htm>

Both monitoring sites have recorded numerous exceedences of the 8-hour ozone standard during the winter months (January through March 2010, 2011, and 2013). It is thought that high concentrations of ozone are being formed under a “cold pool” process. This process occurs when stagnate air conditions form with very low mixing heights under clear skies, with snow-covered ground, and abundant sunlight. These conditions, combined with area precursor emissions (NO<sub>x</sub> and VOCs), can create intense episodes of ozone. The high numbers did not occur in January through March 2012 due to a lack of snow cover. This phenomenon has also been observed in similar locations in Wyoming. Winter ozone formation is a newly recognized issue, and the methods of analyzing and managing this problem are still being developed. Existing photochemical models are currently unable to reliably replicate winter ozone formation. This is due to the very low mixing heights associated with unique meteorology of the ambient conditions. Further research is needed to definitively identify ozone precursor sources that contribute to observed ozone concentrations.

The UDAQ conducted limited monitoring of PM<sub>2.5</sub> in Vernal, Utah in December 2006. During the 2006-2007 winter seasons, PM<sub>2.5</sub> levels were higher than the PM<sub>2.5</sub> health standards that became effective in December 2006. The PM<sub>2.5</sub> levels recorded in Vernal were similar to other areas in

northern Utah that experience wintertime inversions. The most likely causes of elevated PM<sub>2.5</sub> at the Vernal monitoring station are those common to other areas of the western U.S. (combustion and dust) plus nitrates and organics from oil and gas activities in the Basin. PM<sub>2.5</sub> monitoring that has been conducted in the vicinity of oil and gas operations in the Uinta Basin by the Red Wash and Ouray monitors beginning in summer 2009 have not recorded any exceedences of either the 24 hour or annual NAAQS.

HAPs are pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental impacts. The EPA has classified 187 air pollutants as HAPs. Examples of listed HAPs associated with the oil and gas industry include formaldehyde, benzene, toluene, ethylbenzene, isomers of xylene (BTEX) compounds, and normal-hexane (n-hexane). There are no applicable Federal or State of Utah ambient air quality standards for assessing potential HAP impacts to human health.

### **3.2.2. Greenhouse Gases**

Greenhouse gases keep the planet's surface warmer than it otherwise would be. However, as concentrations of these gases increase the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4° F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 1998. However, according to the British Meteorological Office's Hadley Centre (BMO 2009), the United Kingdom's foremost climate change research center, the mean global temperature has been relatively constant for the past nine years after the warming trend from 1950 through 2000. Predictions of the ultimate outcome of global warming remain to be seen.

The analysis of the Regional Climate Impacts prepared by the U.S. Global Change Research Program (USGCRP) in 2009 suggests that recent warming in the region (including the project area) was nationally among the most rapid. Past records and future projections predict an overall increase in regional temperatures, largely in the form of warmer nights and effectively higher average daily minimum temperatures. They conclude that this warming is causing a decline in spring snowpack and reduced flows in the Colorado River. The USGCRP projects a region-wide decrease in precipitation, although with substantial variability in interannual conditions. For eastern Utah, the projections range from an approximate 5 percent decrease in annual precipitation to decreases as high as 40 percent of annual precipitation.

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## **Chapter 4. Environmental Effects:**

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## 4.1. DIRECT AND INDIRECT IMPACTS

### 4.2. Proposed Action

#### 4.2.1. Air Quality

##### 4.2.1.1. Air Quality

This Proposed Action is considered to be a minor air pollution source under the Clean Air Act and is not controlled by regulatory agencies. At present, control technology is not required by regulatory agencies since the Uinta Basin is designated as unclassified/attainment. Annual estimated emissions from the Proposed Action are summarized in **Table 4-1**

**Table 4.1.**

Pollutant	Total/Tons per year
NO <sub>x</sub>	0.15
CO	0.31
VOC	0.02
SO <sub>2</sub>	3.0E-4
PM <sub>10</sub>	5.7E-4
PM <sub>2.5</sub>	5.7E-4
Benzene	9.9E-5
Toluene	1.1E-5
Ethylbenzene	1.5E-6
Xylene	1.2E-5
n-Hexane	0
Formaldehyde	1.2E-3

After installation continuous NO<sub>x</sub>, CO, VOC, and HAP emissions would originate from the gas compressor. Road dust (PM<sub>10</sub> and PM<sub>2.5</sub>) would also be produced by vehicles servicing the compressor, H<sub>2</sub>S facility, and pipeline.

Under the proposed action, emissions of NO<sub>x</sub> and VOC, ozone precursors, are 0.15 tons/yr for NO<sub>x</sub>, and .02 tons/yr of VOC (**Table 4-1**). Emissions would be dispersed and/ or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background conditions.

##### 4.2.1.2. Green House Gases

The assessment of greenhouse gas emissions and climate change remains in its earliest stages of formulation. Applicable EPA rules do not require any controls and have yet to establish any emission limits related to GHG emissions or impacts. The lack of scientific models that predict climate change on regional or local level prohibits the quantification of potential future impacts of decisions made at the local level, particularly for small scale projects such as the Proposed Action. Development activities from the Proposed Action are anticipated to release a negligible amount of greenhouse gases into the local air-shed.

### 4.2.1.3. Mitigation

#### Environmental Effects:

- All internal combustion equipment would be kept in good working order.
- Open burning of garbage or refuse would not occur at well sites or other facilities.
- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NO<sub>x</sub> per horsepower-hour.
- Enhanced VOC emission controls with 95% control efficiency would be employed on production equipment having a potential to emit greater than 5 tons per year.

## 4.3. No Action Alternative

### 4.3.1. Air Quality and Green House Gases

Under the No Action Alternative, the proposed gas well(s) would not be drilled and there would be no additional impacts to air quality. Effects on ambient air quality would continue at present levels from existing oil and gas development in the region and other emission producing sources.

## 4.4. Reasonably Foreseeable Development and Cumulative Impacts Analysis

### 4.4.1. Cumulative Impacts

Cumulative impacts are those impacts that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable actions, regardless of which agency or person undertakes such other actions. The cumulative impacts analysis area (CIAA) varies by resource and would be defined in the section for each individual resource.

### 4.4.2. Air Quality

#### 4.4.2.1. Air Quality

The cumulative impact area for air quality is the Uinta Basin. The potential impact of the Proposed Action to Uinta Basin ozone levels cannot be accurately modeled. In lieu of accurate modeling, the Greater Natural Buttes (GNB) air quality study, which is the most recent regional air model available for the Uinta Basin, and the GNB Final EIS section 5.3.1, is incorporated by reference and summarized below. The GNB Final EIS discloses that most of the cumulative emissions in the Uinta Basin are associated with oil and gas exploration and production activities.

Consequently, past, present and reasonably foreseeable wells in the Uinta Basin are a part of the cumulative actions considered in this analysis. **Table 4-2** summarizes the 2006 Uinta Basin emissions as well as the incremental impact of this project's alternatives. The Proposed Action comprises a small percentage of the Uinta Basin emissions summary

**Table 4.2.**

County	NOx (tpy)	CO (tpy)	SOx (tpy)	PM (tpy)	VOC (tpy)
Uintah	6,096	4,133	247	344	45,646
Carbon	995	814	22	40	2,747
Duchesne	3,053	2,448	96	173	19,019
Grand	337	207	16	22	2,360
Emery	273	199	9	14	453
<b>Uinta Basin Total</b>	<b>10,754</b>	<b>7,800</b>	<b>391</b>	<b>592</b>	<b>70,226</b>
Proposed Action	0.2	.0024	0.004	0.001	18
No Action	10,754	7,800	391	592	70,226

The GNB model predicted the following impacts to air quality and air quality related values for the GNB proposed action, which encompassed 3,675 new wells:

- Cumulative impacts from criteria pollutants to ambient air quality are well below the NAAQS at Class I airsheds and selected Class II areas;
- The incremental impacts to visibility would be virtually impossible to discern and would not contribute to regional haze at the Class I areas;
- The 2018 projected baseline emissions would result in impacts of 1.0 deciview for at least 201 days per year at the Class II areas;
- Discernible impacts at Flaming Gorge National Recreation Area and Dinosaur National Monument are anticipated under the GNB Final EIS proposed action;
- The GNB Final EIS proposed action would contribute less than 1 percent to the acid deposition in Class I areas, and 4.3 percent at the Flaming Gorge Class II area;
- Project-related acid deposition impacts at sensitive lakes were below the USFS screening threshold; and,
- Ozone levels are below the current ozone standard of 75 ppb for the fourth highest annual level in the Uinta Basin for the 2018 projected baseline, and the proposed action would be approximately 3.2 percent of the cumulative ozone impact within the Uinta Basin.

Based on the GNB model results, it is anticipated that the impact to ambient air quality and air quality related values associated with the Proposed Action would be indistinguishable from, and dwarfed by, the margin of uncertainty associated with the model and Uinta Basin emission inventory. The No Action alternative would not result in an accumulation of impacts.

#### 4.4.2.2. Green House Gases

Inconsistent results based on scientific models used to predict global climate change prohibit the BLM from quantifying cumulative impacts. Drilling and development activities from the Proposed Action are anticipated to release a negligible amount of greenhouse gases, into the

local airshed, resulting in a negligible cumulative impact. The No Action Alternative would not result in an accumulation of impacts.

**Chapter 5. Tribes, Individuals,  
Organizations, or Agencies Consulted:**

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## SUMMARY OF CONSULTATION

**Native American Consultation:** Tribal consultations were initiated under the Chapita Wells EIS on 5/5/2011. The BLM received responses from the Hopi, Pueblo of Laguna, and the Navajo Nation. The Hopi Tribe identified potential traditional cultural properties (TCP) within the EIS area; however the TCPs are not located within the APE of the proposed action and would not be impacted. No additional concerns were addressed by Tribes during the consultation period.

**Table 5.1. List of Preparers**

Name	Title	Responsible for the Following Section(s) of this Document
Melissa Wardle	<i>Natural Resource Specialist/Environmental Scientist</i>	Chapters 1 & 2 Chapters 3 & 4: Air Quality and Green House Gases.

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# Bibliography

BLM. 2008. Vernal Field Office Resource Management Plan, U.S. Department of the Interior, Bureau of Land Management, Vernal District Office.

BLM. 2012c. Final Environmental Impact Statement for the Greater Natural Buttes British Meteorological Office (BMO). 2009.

British Meteorological Office's Hadley Centre, 2009. Accessed January 2009 at <http://www.metoffice.gov.uk/climatechange/science/monitoring/>

Uintah County. 2007. Uintah County General Plan, 2007 (County Plan).

# Appendix A. Interdisciplinary Team Checklist

## Interdisciplinary Team Checklist

**Project Title:** EOG proposes to install three skid mounted gas engines, a carport type covering for the engine and associated H<sub>2</sub>S treatment facilities, on three existing pads; Hoss 85-35, Hoss 12-31, and Hoss 35-30. The engines will be used for gas lift. There will be no new surface disturbance.

NEPA Log Number: DOI-BLM-UT-G010-2014-0141

**Project Leader:** Melissa Wardle

**DETERMINATION OF STAFF:** (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

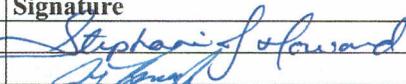
Determination	Resource/Issue	Rationale for Determination	Signature	Date
<b>RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)</b>				
PI	Air Quality & Greenhouse Gas Emissions	Emissions from equipment could adversely affect air quality. No standards have been set by EPA or other regulatory agencies for greenhouse gases. In addition, the assessment of greenhouse gas emissions and climate change is still in its earliest stages of formulation. Global scientific models are inconsistent, and regional or local scientific models are lacking so that it is not technically feasible to determine the net impacts to climate due to greenhouse gas emissions. It is anticipated that greenhouse gas emissions associated with this action and its alternative(s) would be negligible.	Melissa Wardle	4/28/2014
NP	BLM Natural Areas	None Present as per GIS and RMP review	Melissa Wardle	4/28/2014
NI	Cultural:  Archaeological Resources	No new surface disturbance for this undertaking results in no impacts to known cultural resources. No Historic properties affected determination consulted on original well pad construction undertaking.	Jimmie Mckennzie	3/18/2014
NP	Cultural:  Native American  Religious Concerns	No Native American concerns identified. Native American access will not be restricted. Tribal consultation completed under Greater Monument Butte EIS 2008	Jimmie Mckennzie	3/18/2014

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NP	Designated Areas: Areas of Critical Environmental Concern	None Present as per GIS and RMP review	Melissa Wardle	4/28/2014
NP	Designated Areas: Wild and Scenic Rivers	None Present as per GIS and RMP review	Melissa Wardle	4/28/2014
NP	Designated Areas: Wilderness Study Areas	None Present as per GIS and RMP review	Melissa Wardle	4/28/2014
NP	Environmental Justice	No minority or economically disadvantaged communities or populations would be disproportionately adversely affected by the Proposed Action or alternatives since there are none in the project area.	Melissa Wardle	4/28/2014
NP	Farmlands (prime/unique)	No prime or unique farmlands as identified by the NRCS exist in the project area.	Melissa Wardle	4/28/2014
NP	Fuels/Fire Management	No fuel management activities are planned for the project area.	Melissa Wardle	4/28/2014
NI	Geology/Minerals/Energy Production	Surface action with no new disturbance will cause no adverse impacts.	Betty Gamber	3/19/2014
NI	Invasive Plants/Noxious Weeds, Soils & Vegetation	In accordance with the Green River Reclamation Guidelines, which will prevent impacts to soils and vegetation and prevent the spread of invasive and noxious weeds to the extent that detailed analysis is not necessary	Melissa Wardle	4/28/2014
NI	Lands/Access	The proposed area is located within the Vernal Field Office Resource Management Plan area which allows for oil and gas development with associated facility right-of-ways. The proposed project is wholly within EOG's Oil & Gas Lease UTU-76042, UTU-61401, and UTU-61400. The pipelines would be authorized under beneficial use of their lease; therefore, this project does not require a ROW.	Katie White Bull	5/6/2014
NP	Lands with Wilderness Characteristics (LWC)	None Present as per 2008 Vernal RMP/ROD and GIS layer review	Melissa Wardle	4/28/2014

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Livestock Grazing & Rangeland Health Standards	<p>Livestock Grazing: The proposed project is located within the Antelope Draw sheep allotment. The allotment is seasonally permitted from October 1 to May 10 with up to 3679 AUMs. This area has many existing well sites and the proposed equipment installation will have little effect on the livestock grazing as the area is bisected by numerous roads and other oil and gas projects. No new disturbance would occur other than increasing the traffic on the already existing road. The proposal is consistent with multiple use of public lands and other oil &amp; gas activities in the area. It is not anticipated that this proposal would negatively impact grazing operations. There are no known range improvements in this allotment that would be impacted by this proposal.</p> <p>Rangeland Health Standards: This proposal is within the Antelope Draw Allotment. This proposal is not expected to affect Rangeland Health Standards in this allotment.</p>	Craig Newman	5/6/2014
NI	Paleontology	No new disturbance is planned for this project.	Betty Gamber	5/6/2014
NP	Plants: BLM Sensitive	No BLM sensitive plant are found in the project area.	Maggie Marston	5/27/2014
NI	Plants: Threatened, Endangered, Proposed, or Candidate	The proposed action lies within the 2013 USFWS-approved cactus polygons delineated for both listed Sclerocactus species. All three wellpads are located well outside of Core 2 habitat and the nearest known individuals are located approximately one-half mile from wellpads. No new disturbance will occur, and additions of fugitive dust to wellpad and road vicinities are expected to be insignificant. Therefore, no effect is expected to listed cactus from the proposed action. Green River shale outcrops are not evident from VFO GIS inventory. Additional TEPC plant species are precluded based on VFO GIS soil, elevation, riparian, and known population data	Maggie Marston	5/27/2014
NP	Plants: Wetland/Riparian	Riparian habitat is not inventoried or known within the project area and the development would not be expected to negatively impact riparian of the Green River directly.	Melissa Wardle	4/28/2014

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Recreation	The proposed location is within the Vernal Extensive recreation management area (ERMA) General ERMAs are managed for a more primitive form of recreation with less infrastructure. Historically low recreation use is seen within the proposed project area. Recreationists primarily use roads for access to hunting in the fall/winter. Some OHV and ATV traffic occurs during Antler Shed hunting season in the spring. The primary use in this area is for minerals extraction. Recreation impacts are expected to be negligible.	Melissa Wardle	4/28/2014
NI	Socio-Economics	There would be relatively minor social or economic impacts from this project. This determination is based on the scale of the project when compared to the level of the oil and gas development/production in the Uinta Basin. Consequently, this resource will not be carried forward for a detailed analysis.	Melissa Wardle	4/28/2014
NI	Visual Resources	VRM Class IV identified, project would meet class IV objectives.	Melissa Wardle	4/28/2014
NI	Wastes (hazardous/solid)	No chemicals subject to reporting under SARA Title III in amounts greater than 10,000 pounds would be used, produced, stored, transported, or disposed of Wastes annually in association with the project. Trash and other waste materials would be cleaned up and removed immediately after completion of operations.	Melissa Wardle	4/28/2014
NP	Water: Floodplains	The proposed activities are not located in a flood plain.	Melissa Wardle	4/28/2014
NI	Water: Groundwater Quality	This surface action will not affect groundwater.	Betty Gamber	3/18/2014
NI	Water: Hydrologic Conditions (stormwater)	The Natural Buttes area is arid, with few storm events that result in drainage from the disturbed areas. Hydrologic Conditions BMPs and adherence to Gold book Standards to control erosion would prevent transport of sediments from runoff.	Melissa Wardle	4/28/2014
NI	Water: Surface Water Quality	Surface water quality would be impacted to a small degree with surface disturbing development causing soil erosion and also potential chemical spills onto soils. However the project is consistent with other approved energy development and the VFORMP.	Melissa Wardle	4/28/2014
NP	Water: Waters of the U.S.	No navigable waters are found within the project area.  No actions requiring a 404 permit were identified.	Melissa Wardle	4/28/2014
NP	Wild Horses	No herd areas or herd management areas are present as per GIS review. However, dozens of feral and/or tribal horses are present throughout the area and fall within the jurisdiction of Uintah County Animal Control Services.	Dusty Carpenter	9/16/2013

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Wildlife: Migratory Birds (including raptors)	The project proposal is located within a highly disturbed area (i.e. oil and gas infrastructure containing both surface and noise disturbances including heavily trafficked roads). The proposed project is not anticipated to create new surface disturbance.	Brandon McDonald	03/31/2014
NP	Wildlife: Non-USFWS Designated	The project proposal is located within a highly disturbed area (i.e. oil and gas infrastructure containing both surface and noise disturbances including heavily trafficked roads). The proposed project is not anticipated to create new surface disturbance.	Brandon McDonald	03/31/2014
NI	Wildlife: Threatened, Endangered, Proposed or Candidate	In accordance with district files and field reviews there are no threatened, endangered, proposed, or candidate animals, including their associated habitats, within or near the project area. In addition, the BLM and UDWR does not recognize the project area being within sage-grouse priority areas.	Brandon McDonald	03/31/2014
NP	Woodlands/Forestry	None Present as per 2008 Vernal RMP/ROD and GIS review.	Melissa Wardle	4/28/2014

FINAL REVIEW:			
Reviewer Title	Signature	Date	Comments
Environmental Coordinator		5/28/15	
Authorized Officer		6-9-2014	