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Project Information			
Project Title:	Chevron Methane Leak Test	**Date:**	5/8/2013
DOE Code:		**Contractor Code:**	
Project Lead:	Grant Evenson		

Project Overview 1. Brief project description [include anything that could impact the environment]	The objective of the test at NPR-3 is to answer 3 major scientific questions for the Chevron experiment: 1) What is the performance of existing NASA passive airborne remote sensing instruments with respect to detection of ground sourced methane? 2) How well does the UAV / CH4 sensor platform package perform for 3-dimensional mapping of methane concentrations within controlled release plumes? 3) How well do high-resolution plume models predict the dispersion of methane and resulting concentration profiles as a function of meteorological conditions and gas flux? RMOTC offers a suitable location to address the above questions. The experiment will involve in-situ and airborne instrument measurement strategies to detect and characterize atmospheric methane concentrations. Methane will be released at known fluxes not exceeding 100, 000 standard cubic feet (SCF) total over the duration of the test. Releases will take place at 3 different locations that will vary in intensity each day. The releases will range from Low to high (10-1000 SCF per hour SCFH). • High release fluxes, specified in SCFH (~1000 SCFH), are necessary to investigate the middle and upper limits of detection for each of the NASA airborne sensors and will allow calibration of these instruments. • Lower flux rates are expected to test the airborne sensors' limits of detection for natural seep identification and characterization. The releases will allow investigation of sensor performance and calibration. Flyovers will be conducted over a 5 day experiment period and will occur during 5 days of controlled releases of methane at 4 locations. One day will be for background investigation using an unmanned aircraft vehicle (UAV) and ground based drivable equipment. All air operations and responsibilities will be conducted only by Chevron personnel Chevron requests use of the RMOTC NPR-3 facility and provision of equipment and personnel for the entire duration of the test. RMOTC personnel tasks include providing generators and power cords, configuring tanks with valves / backflow prevention and hosing, metering releases while providing traffic and safety support, and monitoring LEL levels. RMOTC personnel will provide oversight to tower set up and delivery of methane tanks. RMOTC will provide oversight during survey activities. On-site safety personnel will be provided by RMOTC. Daily briefs / debriefs will be conducted and safety personnel will oversee operations and safety monitoring according to the safety plan. A communication and command position will be established to assure that releases / ground operations and road controls are coordinated with other efforts. RMOTC will provide one person at each release location to operate and oversee the safe operation of the methane releases.
2. Legal location	N1: 43.33423800 N, 106.23558938 W (~200 yards East of B-1-20) N2: 43.32205887 N, 106.22734718 W (~50 yards East off detour road) N3: 43.303477N, 106.217243 W (~50 yards North off road going East of the Gas Plant)
3. Duration of the project	3 Weeks, June 11-26, 2013
4. Major equipment to be used	3 rented Honda EU2000i generators at each location to provide power and adaptors for tower equipment when necessary (RMOTC), configuring tanks (RMOTC), Forklift and bucket truck for tank set up (RMOTC), 3 Methane Release Towers (CHEVRON), Compressed Natural Gas (CNG) Tanks (Chevron)

The table below is to be completed by the Project Lead and reviewed by the Environmental Specialist and the DOE NEPA Compliance Officer. NOTE: If Change of Scope occurs, Project Lead must submit a new NEPA Compliance Survey and contact the Technical Assurance Department.

	Impacts Anticipated?			If YES, then complete below
Water Quality	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for impacts on water resources or water quality?	☐	☒	☐	

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Does the project affect surface water quantity or quality under both normal operations and accident conditions?	☐	☒	☐	
Does the proposed project affect groundwater quantity or quality under both normal operations and accident conditions?	☐	☒	☐	
Will the project area include "Waters of the State?"	☐	☒	☐	
Will the project area require a Corps of Engineers permit?	☐	☒	☐	

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	Impacts Anticipated?			If YES, then complete below.
Geology & Soils	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for impacts related to geology or soils?	☐	☒	☐	
Does the proposed project alter, excavate or otherwise disturb land area consistent with other land use and habitat area?	☐	☒	☐	
Is the proposed project likely to impact local seismicity?	☐	☒	☐	
If the project involved disturbance of surface soils, are erosion and storm water control measures addressed?	☐	☐	☒	
Air Quality	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed action present potential for impacts on ambient air quality under both normal and accident conditions?	☒	☐	☐	Methane will be released but will not exceed 100,000 SCF. WYDEQ does not regulate methane (per an email correspondence with Mark Smith of WYDEQ). WOGCC does not regulate methane (per a telephone conversation with Tom Kropatsch on 1/31/2013) WYDEQ and WOGCC will be notified prior to the test with how much methane will be released and when. The Honda generators will not need a permit (per a telephone conversation and email from Chris Hanify of WYDEQ).
Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations?	☒	☐	☐	Methane will be released but will not exceed 100,000 SCF. WYDEQ does not regulate methane (per an email correspondence with Mark Smith of WYDEQ). WOGCC does not regulate methane (per a telephone conversation with Tom Kropatsch on 1/31/2013) WYDEQ and WOGCC will be notified prior to the test with how much methane will be released and when. The Honda generators will not need a permit (per a telephone conversation and email from Chris Hanify of WYDEQ).
Does the project present risk to human health and the environment from exposure to radiation and hazardous chemicals in emissions?	☐	☒	☐	
Is the project subject to New Source Performance Standards?	☐	☒	☐	

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Is the project subject to National Emissions Standards for Hazardous Air Pollutants?	☐	☒	☐	
Is the project subject to emissions limitations in an Air Quality Control Region?	☐	☒	☐	
	Impacts Anticipated?			**If YES, then complete below.**
Wildlife and Habitat	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed action present potential for impacts on wildlife or habitat?	☐	☒	☐	
Does the project impact state or federally listed threatened and endangered species?	☐	☒	☐	
Human Health Effects	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for effects on human health? **e.g.: Hanta virus, radiological exposure, or chemical exposure (must provide MSDS)**	☒	☐	☐	Methane exposure. SDS is attached. To mitigate exposure personnel will wear LEL meters, stay up wind when releases occur, communication with be key, wind socks will be located near release locations to determine wind directions. WYDEQ and WOGCC will be notified when releases occur.
Transportation	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project involve transportation of radiological sources or hazardous materials (including explosives)?	☐	☒	☐	
Waste Management and Waste Minimization	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Are pollution prevention and waste minimization practices needed in the proposed project?	☐	☒	☐	
Does project plan establish procedures in compliance with local, state and/or federal laws and guidelines affecting the generation, transportation, treatment, storage or disposal of hazardous and other wastes?	☐	☒	☐	

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	Impacts Anticipated?			If YES, then complete below.
Cultural Impact	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Is there potential for impact on cultural (historic) resources?	☐	☒	☐	A cultural resource survey will not be conducted. The release locations will occur on previously disturbed well pad locations and / or roads. One release location will occur ~50 yards off the detour road. Another release location will occur ~ 100 yards off the road east of the Gas Plant. Previous cultural resource surveys include RMOTC-2-Teapot Dome Archaeology Survey and KL05-7 South- South Creek Vibroseis Project South Half.
Community Impact	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Will the proposed project introduce significantly adverse auditory, visual, or other impact?	☐	☒	☐	
Will the proposed project adversely affect the community's use of public land/resources?	☐	☒	☐	
Will the proposed project adversely affect the community's access to private land?	☐	☒	☐	

NOTE: Topography Map and Wetlands Map are required to be attached. Attach applicable SOPs for Risk Assessment Level 2 & 3 and specific test procedures.

Are environmental permits required? If YES, list below:	**Yes** ☐	**No** ☒
WYDEQ and WOGCC does not regulate methane but will be notified when testing begins. Please see attached letter from WYDEQ. The use of the Honda generators does not require an air permit.		

Section below to be reviewed by Environmental Specialist and DOE NCO.

Adequate Mitigation Measures Provided?				**Adequate Mitigation Measures Provided?**	
	Yes	No		Yes	No
Water Quality Impacts	☒	☐	Transportation Impacts	☒	☐
Air Quality Impacts	☒	☐	Waste Management Impacts	☒	☐
'Wildlife and Habitat Impacts	☒	☐	Cultural Impacts	☒	☐
Geology and Soils Impacts	☒	☐	Community Impact	☒	☐
Human Health Impacts	☒	☐	**Categorical Exclusion**	☒	☐

Approvals

Comments and Conditions:	B3.1 (b) *Site Characterization and environmental Monitoring* Installation and operation of field instruments. B3.2 *Aviation Activities* Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations. B3.11 *Outdoor tests and experiments on materials and equipment components* Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment under controlled conditions.
Contractor ESS&H	Sharyl Nannos — Date 5/11/2013

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Comments and Conditions:		
	The actions listed in this NEPA Compliance Survey are classes of actions (categorical exclusions) that DOE has determined do not individually or cumulatively have a significant effect on the human environment. The activity fits within a class of actions that is listed in appendix A or B to 10 CFR Part 1021. Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1A), I have determined that the proposed actions fit within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed actions are hereby categorically excluded from further NEPA review	
DOE NEPA Compliance Officer	CXs B3.1, B3.2, + B3.11. Michael J Taylor	Date 6-13-13

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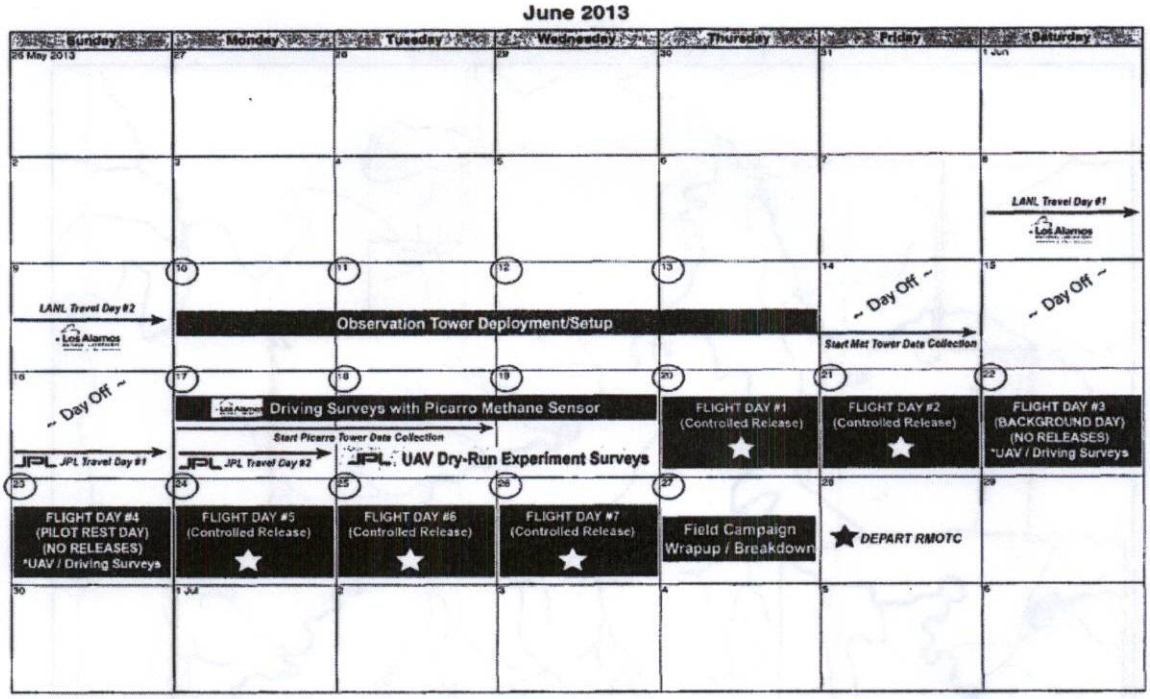

Revised 8/2/10 mjt

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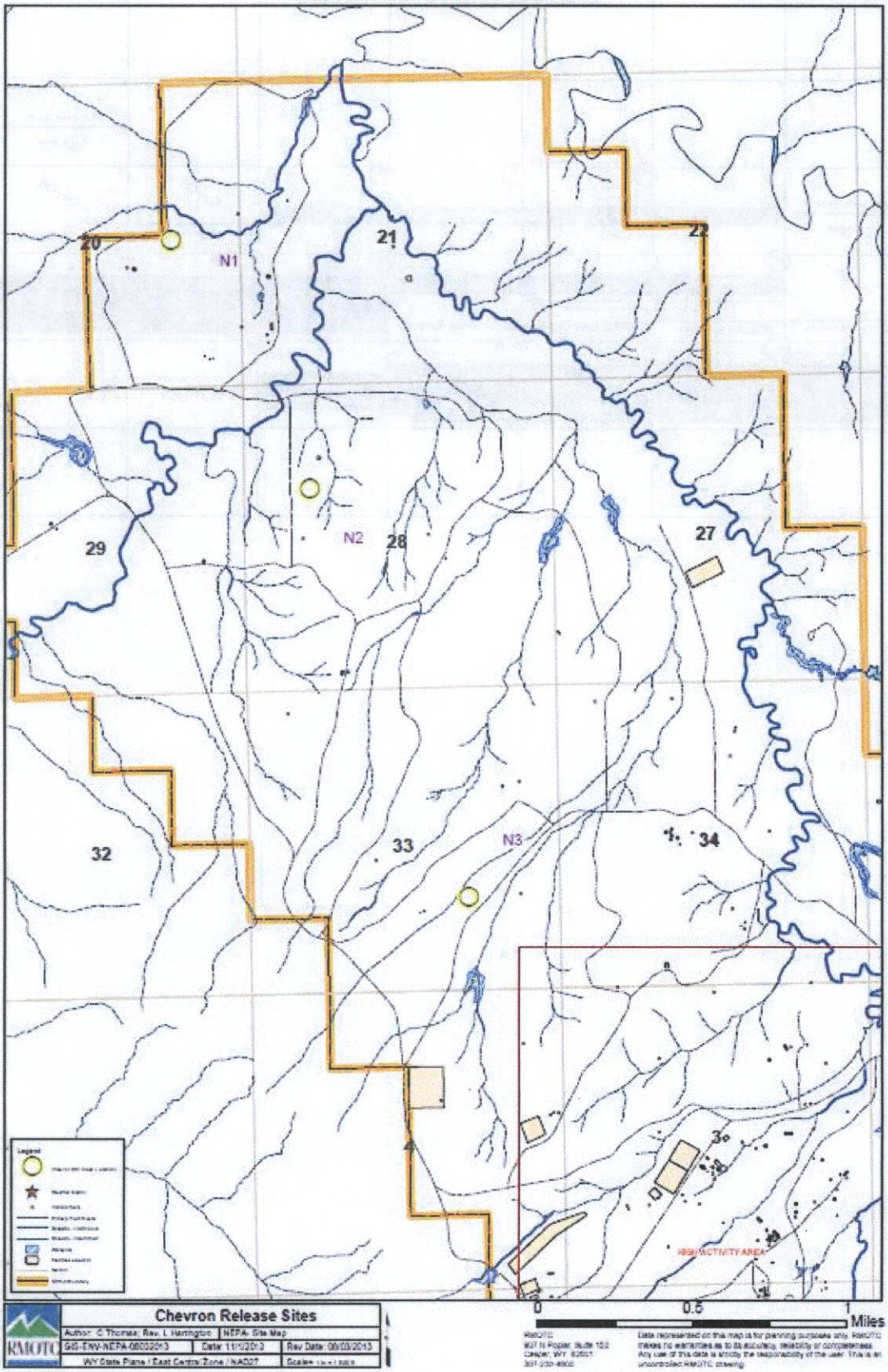
Chevron Release Sites



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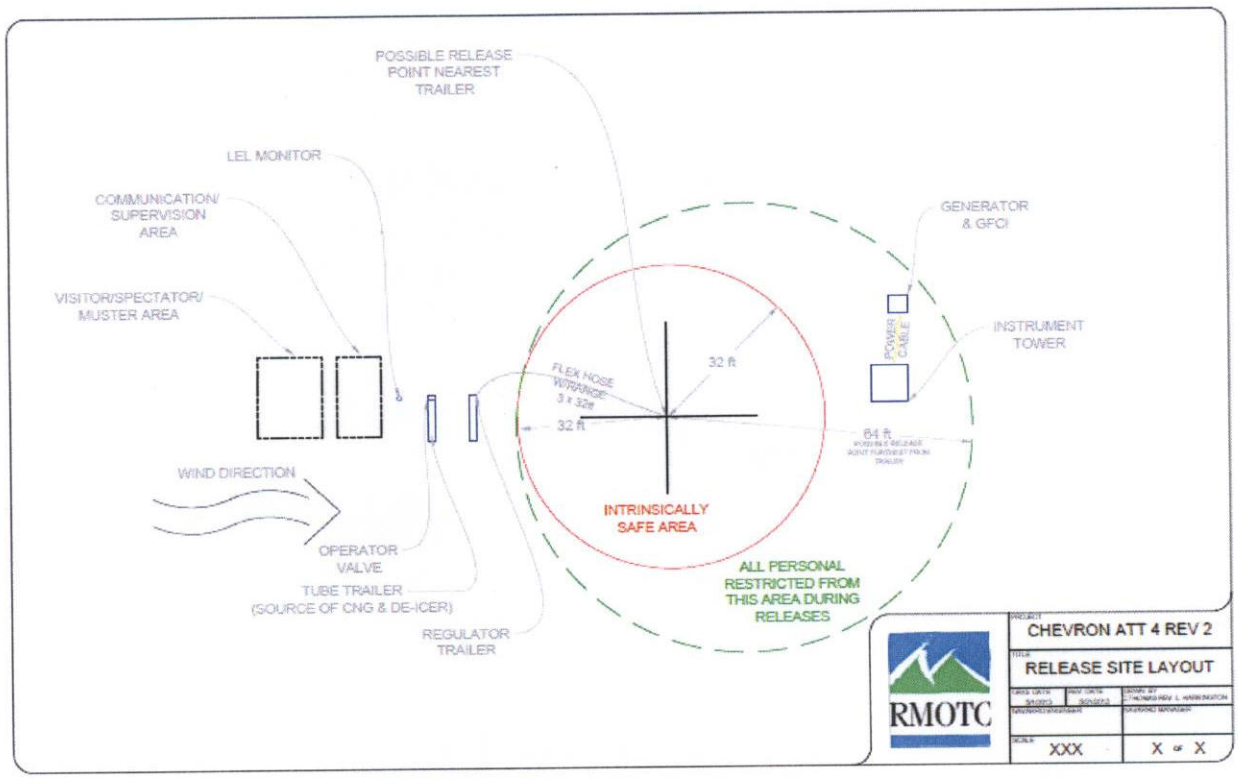

Material Safety Data Sheet

1. MATERIAL AND COMPANY IDENTIFICATION

Material Name : **Natural Gas**
Uses : Gaseous fuel for domestic and non-domestic uses.

Manufacturer/Supplier : **Shell Energy North America (US), L.P.**
Two Houston Center
909 Fannin
Plaza Level 1
Houston, TX 77010
USA
MSDS Request : 713-767-5400

Emergency Telephone Number
Spill Information : 877-504-9351
Health Information : DOMESTIC NORTH AMERICA 800-424-9300
INTERNATIONAL, CALL 703-527-3887

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS No.	Concentration
Natural gas	8006-14-2	100.00 %

Contains Methane, CAS # 74-82-8
Contains Propane, CAS # 74-98-6
Contains Ethane, CAS # 74-84-0
Contains Butane, CAS # 106-97-8
Contains hydrogen sulphide, CAS # 7783-06-4.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and Odour : Colourless. Gas. Typical gas smell due to addition of odouriser to allow the detection of product leaks..

Health Hazards : Vapours may cause drowsiness and dizziness. High gas concentrations will displace available oxygen from the air; unconsciousness and death may occur suddenly from lack of oxygen. Exposure to rapidly expanding gases may cause frost burns to eyes and/or skin.

Safety Hazards : Extremely flammable. May form flammable/explosive vapour-air mixture. Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire.

Environmental Hazards : Not classified as dangerous for the environment.

Health Hazards
Inhalation : High gas concentrations will displace available oxygen from the air; unconsciousness and death may occur suddenly from lack of oxygen.Exposure to high gas/vapour concentrations may

		lead to narcotic or anaesthetic effects that may impair judgement or lead to central nervous system depression.Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache and nausea.
Signs and Symptoms	:	Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. H2S has a broad range of effects dependent on the airborne concentration and length of exposure: 0.02 ppm odour threshold, smell of rotten eggs; 10 ppm eye and respiratory tract irritation; 100 ppm coughing, headache, dizziness, nausea, eye irritation, loss of sense of smell in minutes; 200 ppm potential for pulmonary oedema after >20-30 minutes; 500 ppm loss of consciousness after short exposures, potential for respiratory arrest; >1000ppm immediate loss of consciousness, may lead rapidly to death, prompt cardiopulmonary resuscitation may be required. Do not depend on sense of smell for warning. H2S causes rapid olfactory fatigue (deadens sense of smell). There is no evidence that H2S will accumulate in the body tissue after repeated exposure.
Environmental Hazards	:	Not classified as dangerous for the environment.

4. FIRST AID MEASURES

General Information	:	Vaporisation of H2S that has been trapped in clothing can be dangerous to rescuers. Maintain respiratory protection to avoid contamination from the victim to rescuer. Mechanical ventilation should be used to resuscitate if at all possible.
Inhalation	:	Remove to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.
Skin Contact	:	If persistent irritation occurs, obtain medical attention.
Eye Contact	:	If persistent irritation occurs, obtain medical attention.
Ingestion	:	In the unlikely event of ingestion, obtain medical attention immediately.
Advice to Physician	:	Treat symptomatically. Hydrogen sulphide (H2S) - CNS asphyxiant. May cause rhinitis, bronchitis and occasionally pulmonary oedema after severe exposure. CONSIDER: Oxygen therapy. Consult a Poison Control Center for guidance.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point	:	-187.8 °C / -306.0 °F
Upper / lower Flammability or	:	>= 5 %(V)

Explosion limits		<= 15 %(V)
Auto ignition temperature	:	583 °C / 1,081 °F
Specific Hazards	:	Forms flammable mixture with air. If released, the resulting vapours will disperse with the prevailing wind. If a source of ignition is present where the vapour exists at 5-15% concentration in air, the vapour will burn along the flame front toward the source of the fuel.
Suitable Extinguishing Media	:	Shut off supply. If not possible and no risk to surroundings, let the fire burn itself out.
Unsuitable Extinguishing Media	:	Do not use water in a jet.
Protective Equipment for Firefighters	:	Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective measures	:	Remove all possible sources of ignition in the surrounding area. Evacuate all personnel. Do not breathe fumes, vapour. Do not operate electrical equipment. Avoid contact with skin, eyes and clothing. Ventilate contaminated area thoroughly. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area and evacuate all personnel. Attempt to disperse the gas or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas meter.
Additional Advice	:	Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7. HANDLING AND STORAGE

General Precautions	:	Take precautionary measures against static discharges.
Handling	:	Avoid contact with skin, eyes and clothing. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. The inherent toxic and olfactory (sense of smell) fatiguing properties of hydrogen sulphide require that air monitoring alarms be used if concentrations are expected to reach harmful levels such as in enclosed spaces, heated transport vessels and spill or leak situations. If the air concentration exceeds 50 ppm, the area should be evacuated unless respiratory protection is in use.
Storage	:	Keep away from sources of ignition - No smoking. Keep container tightly closed and in a cool, well-ventilated place. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of strict procedures and precautions. These include issuing of work

permits, gas-freeing of tanks, using a manned harness and lifelines and wearing air-supplied breathing apparatus.
Prior to entry and whilst cleaning is underway, the atmosphere within the tank must be monitored using an oxygen meter and explosimeter.

Product Transfer : Earth all equipment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Methane	ACGIH	TWA	1,000 ppm		
Ethane	ACGIH	TWA	1,000 ppm		
Propane	OSHA Z1	PEL	1,000 ppm	1,800 mg/m3	
Propane	OSHA Z1A	TWA	1,000 ppm	1,800 mg/m3	
Propane	ACGIH	TWA	1,000 ppm		
Butane	ACGIH	TWA	1,000 ppm		
Hydrogen Sulphide	ACGIH	TWA	10 ppm		
Hydrogen Sulphide	ACGIH	STEL	15 ppm		
Hydrogen Sulphide	OSHA Z1A	TWA	10 ppm	14 mg/m3	
Hydrogen Sulphide	OSHA Z1A	STEL	15 ppm	21 mg/m3	
Natural gas	ACGIH	TWA	1,000 ppm		

Exposure Controls : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.
Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Personal Protective Equipment : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where respiratory protective equipment is required, use a full-face mask. All respiratory protection equipment and use must be in accordance with local regulations.
Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Hand Protection	:	Not normally required. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact. Always seek advice from glove suppliers. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. If contact with liquefied product is possible or anticipated, gloves should be thermally insulated to prevent cold burns.
Eye Protection	:	Chemical splash goggles (gas-tight monogoggles) and face shield with chin guard.
Protective Clothing	:	Skin protection not ordinarily required beyond standard issue work clothes.
Monitoring Methods	:	Monitoring the oxygen content of the air is often the best means of ensuring safety. There are substantial risks if the concentration of oxygen in the atmosphere varies from the normal (20.8%) under normal atmospheric pressure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Colourless. Gas.
Odour	:	Typical gas smell due to addition of odouriser to allow the detection of product leaks.
Initial Boiling Point and Boiling Range	:	-161.5 °C / -258.7 °F
Flash point	:	-187.8 °C / -306.0 °F
Upper / lower Flammability or Explosion limits	:	>= 5 %(V) <= 15 %(V)
Auto-ignition temperature	:	583 °C / 1,081 °F
Density	:	420 g/cm3 at -165.5 °C / -265.9 °F Liquid methane at boiling point.
Water solubility	:	0.08 g/l at 25 °C / 77 °F
Vapour density (air=1)	:	Typical 0.58

10. STABILITY AND REACTIVITY

Stability	:	Stable under normal use conditions.
Conditions to Avoid	:	Heat, flames, and sparks. May form explosive mixture on contact with air.
Materials to Avoid	:	Strong oxidising agents.
Hazardous Decomposition Products	:	Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	:	Information given is based on product data, a knowledge of the components and the toxicology of similar products.
Acute Oral Toxicity	:	LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	:	LD50 > 5000 mg/kg , Rat
Acute Inhalation Toxicity	:	LC50 >20 mg/l / 4 h, Rat Breathing of high vapour concentrations may cause central

nervous system (CNS) depression resulting in dizziness, light-headedness, headache and nausea.

Skin Irritation	:	Not expected to be a hazard.
Eye Irritation	:	Not expected to be a hazard.
Respiratory Irritation	:	Not expected to be a respiratory irritant.
Sensitisation	:	Not a skin sensitiser.
Mutagenicity	:	Not considered a mutagenic hazard.
Carcinogenicity	:	Components are not known to be associated with carcinogenic effects.
Reproductive and Developmental Toxicity	:	Not a developmental toxicant.
Additional Information	:	High gas concentrations will displace available oxygen from the air; unconsciousness and death may occur suddenly from lack of oxygen. H2S has a broad range of effects dependent on the airborne concentration and length of exposure: 0.02 ppm odour threshold, smell of rotten eggs; 10 ppm eye and respiratory tract irritation; 100 ppm coughing, headache, dizziness, nausea, eye irritation, loss of sense of smell in minutes; 200 ppm potential for pulmonary oedema after >20-30 minutes; 500 ppm loss of consciousness after short exposures, potential for respiratory arrest; >1000ppm immediate loss of consciousness, may lead rapidly to death, prompt cardiopulmonary resuscitation may be required. Do not depend on sense of smell for warning. H2S causes rapid olfactory fatigue (deadens sense of smell). There is no evidence that H2S will accumulate in the body tissue after repeated exposure.

12. ECOLOGICAL INFORMATION

Information given is based on product data, a knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity	:	Practically non toxic: LC/EC/IC50 > 100 mg/l (to aquatic organisms)
Mobility	:	Contains volatile components. Evaporates extremely rapidly from water or soil surfaces.
Persistence/degradability	:	Inherently biodegradable. Oxidises rapidly by photo-chemical reactions in air.
Bioaccumulation	:	Does not bioaccumulate significantly.

13. DISPOSAL CONSIDERATIONS

Material Disposal	:	Do not discharge into areas where there is a risk of forming an explosive mixture with air.
Local Legislation	:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)

Identification number	UN 1971
Proper shipping name	Natural gas, compressed
Class / Division	2.1

IMDG

Identification number	UN 1971
Proper shipping name	NATURAL GAS, COMPRESSED
Class / Division	2.1
Marine pollutant:	No

IATA (Country variations may apply)

Identification number	UN 1971
Proper shipping name	Natural gas, compressed
Class / Division	2.1

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA)

Natural Gas ()	Reportable quantity: 100 lbs
Natural gas (8006-14-2)	Reportable quantity: 100 lbs
Methane (74-82-8)	Reportable quantity: 100 lbs
Propane (74-98-6)	Reportable quantity: 100 lbs
Ethane (74-84-0)	Reportable quantity: 100 lbs
Hydrogen Sulphide (7783-06-4)	Reportable quantity: 100 lbs

Clean Water Act (CWA) Section 311

Hydrogen Sulphide (7783-06-4)	Reportable quantity: 100 lbs

SARA Hazard Categories (311/312)
Immediate (Acute) Health Hazard. Fire Hazard. Sudden Release of Pressure Hazard.

SARA Extremely Hazardous Substances (302/304)

Hydrogen Sulphide (7783-06-4)	Reportable quantity: 100 lbs
Hydrogen Sulphide (7783-06-4)	Threshold Planning Quantity: 500 lbs

State Regulatory Status

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List

Natural gas (8006-14-2)	Listed. Listed. Listed. Listed Listed. Listed. Listed. Listed.
Methane (74-82-8)	Listed. Listed. Listed.
Propane (74-98-6)	Listed.
Ethane (74-84-0)	Listed.
Hydrogen Sulphide (7783-06-4)	Listed.
Butane (106-97-8)	Listed.

Pennsylvania Right-To-Know Chemical List

Natural gas (8006-14-2)	Listed.
Methane (74-82-8)	Listed.
Propane (74-98-6)	Listed.
Ethane (74-84-0)	Listed.
Hydrogen Sulphide (7783-06-4)	Environmental hazard. Listed.
Butane (106-97-8)	Listed.

16. OTHER INFORMATION

MSDS Version Number : 2.0

MSDS Effective Date : 11/23/2009

Material Safety Data Sheet

MSDS Revisions	:	A vertical bar (|) in the left margin indicates an amendment from the previous version.
MSDS Regulation	:	The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
MSDS Distribution	:	The information in this document should be made available to all who may handle the product.
Disclaimer	:	The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.