



May 7th, 2024

City of Aurora
Attention: Jeffrey Moore
15151 E. Alameda Parkway Aurora, CO 80012
RE: PHA-HAZOP for Invicta 3-65 28 Pad
Wells: 8
Invicta 1HN, 2HN, 3HN, 4HN, 5HN, 6HN, 7HN, and 8HN

Development Case Number: Planning Phase II ~~DA-2371-01~~

To Whom it May Concern:

I attest that as the engineer of record, a Process Hazard Analysis consisting of a Hazard Operability Study (PHA-HAZOP) has been performed and the recommendations thereof incorporated in the design. Further, applicable recommendations have been incorporated in the Emergency Response Plan and Aurora Fire Rescue training.

For well site facilities to be used in the City of Aurora, Colorado, a PHA-HAZOP was facilitated by Timothy Hicks, a certified facilitator, and conducted by a multi-disciplined team for the "Invicta Well Pad".

This was performed on January 12, 2024. While the facility design being evaluated does not fall under Process Safety Management (PSM) pursuant to OSHA 29 CFR 1910.119, the PHA-HAZOP process was similar. This study consisted of a risk assessment utilizing methodology commonly used while conducting a Process Hazard Analysis (PHA).

I am a Professional Engineer and received my Bachelor of Science from Colorado State University in Chemical Engineering. I am the Engineer of Record for GMT Exploration Company LLC for the Invicta Well Pad Project located in the City of Aurora, Colorado. My credentials are below.

Timothy Hicks is the Certified Facilitator for the Applicant's projects.

Regards,

Timothy Miller, PE
Project Manager

5620 Ward Road Suite 200, Arvada, CO 80002
Office 303-953-5333|Cell 303-947-9986



GMT Exploration Company, LLC

Invicta 3-65-28 Location

City of Aurora Permit

DA-2371-00

2023-6050-00

Oil and Gas Permit Review: Phase I Revision 3

1. Security/Operations Plan Comments

	Reference #	Comment	Response
Emergency Response Plan	3A.1	Page i (Energy & Environment) - Only need site specific information. If there is anything relevant to the application, please include as an example or reference.	This ERP is a Field Wide Plan; however, only Invicta 3-65 28 site specific information has been included.
	3A.2.	Page iv (Energy & Environment) – Please make sure these are signed and dated.	Signed by GMT
	3A.3.	Page 2 (Energy & Environment) – what are the response times at each of these levels? how often are things monitored or inspected before detecting a potential hazard? Might want to either summarize or add small table with response times.	See Revised ERP Plan.
	3A.4.	Page 29 (Energy & Environment) – Please update local government designee to Jeffrey Moore, Phone number 303.739.7676.	Plan has been updated.
	3A.5.	Page 37 Appendix (Energy & Environment) – Not all of these are needed, please redact or remove, will only need information for well site located inside the City of Aurora limits. If you would like to reference these, you may make a note if it is applicable to this specific application. APPENDIX C SITE SPECIFIC EMERGENCY RESPONSE INFORMATION ← THIS PAGE CAN BE REMOVED.	Only Invicta 3-65-28 has been included in the Appendices.
	3A.6.	Page 2 of 5 Appendix (Energy & Environment) – Real good information, might want to include a visual/vicinity map of sort to help illustrate this. Might want to consider adding some of this info to other documents.	Plan has been updated.

	3A.7.	Page 4 of 5 Appendix (Energy & Environment) – Please update local government designee to Jeffrey Moore, Phone number 303.739.7676.	Plan has been updated.
	3A.8	Page 5 of 5 Appendix (Energy & Environment) – how far is the muster point located in relation to the equipment. Is there a incident table that denotes number of employees onsite? If one is not available, can it be made available somewhere EMS can locate this information, possibly at guard shack?	Plan has been updated.



**FIELD WIDE
EMERGENCY RESPONSE PLAN,
EMERGENCY ACTION PLAN
and
SITE SECURITY PLAN
WHITE ROCK FIELD**

ADAMS, ARAPAHOE, AND ELBERT COUNTIES, CO

City of Aurora Application Number: ~~DA-2371-00~~, Case Numbers: ~~2023-6050-00~~

UPDATED BY
CDH CONSULTING, LLC
JANUARY 29, 2024

GMT EXPLORATION COMPANY LLC
4949 S. Niagara Street, Suite 250, Denver, CO 80237

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- ~~APPENDIX C.10 – CASTLES 4-64-35-26 PAD, ARAPAHOE COUNTY~~
- ~~APPENDIX C.11 – GUNSIGHT PARADISE 5-64 PAD, ARAPAHOE COUNTY~~

(Submittal to City of Aurora includes only Appendix C.9)

Changes to this Plan will be documented on this page. Plan review and modifications will be initiated by the Environmental Health and Safety (EHS) Department. Reviews are conducted when additional facilities are brought online, in the event of personnel or contractor changes or on an annual basis.

REVISION FORM

Date of Change	Description of Change	Revised Section	Revising Author(s)
10/31/2019	Original	All	GMT
3/8/2020	Format, Division, Staff and Spill Response Contractor Updates	All	BJ Cox
2/15/2021	Administrative Revision	Review for update	BJ Cox
4/12/2022	Update for three additional facilities and signatory designation	Add Appendix C.2, C3, C4	BJ Cox
06/10/2022	Update one additional facility	Add Appendix C.5	BJ Cox
09/7/2022	Update to add facility	Add Appendix C.6	Max Blair
2/17/2023	Update to add facility	Add Appendix C.7	WSP
3/15/2023	Update to add facility	Add Appendix C.8	WSP
8/31/2023	Update to add facility	Add Appendix C.9	CDH
9/19/2023	Update to add facilities	Add Appendix C.10 & C.11	CDH
01/24/2024	Update to expand scope for City of Aurora Permitting	Update Appendix C 9	CDH

STATEMENT OF OPERATOR'S COMMITMENT TO SAFETY

GMT Exploration Company LLC (GMT) is committed to the protection of the health and safety of our employees, the public, and to sound environmental stewardship. We believe that prevention of accidents, injuries, and protection of the environment benefits everyone and delivers maximum value to our customers and employees. **GMT has adequate personnel, supplies, and training to implement the Emergency Response Plan and Emergency Action Plan immediately at all times.**



Dennis Snow
VP of Operations

02-01-24

Date

1.0 INTRODUCTION

Serious incidents, unless properly and effectively managed, can result in loss of life and damage to public or private property. Serious incidents can also generate complex technical, legal, and public relations problems. It cannot be overemphasized that the best way to handle emergency situations is to prevent their occurrence. However, when incidents do occur, prompt and proper response can mitigate damage and minimize business interruption and financial impact. This Emergency Response Plan (ERP) is also designed to encompass requirements of an Emergency Action Plan (EAP) and Site Security Plan and is designed to help GMT Exploration Company LLC (GMT) field personnel respond quickly and effectively to the problems presented by serious incidents.

Within this ERP you will find guidance for responding to emergency incidents and descriptions of the duties that must be accomplished when a serious incident occurs. This ERP provides field personnel with tools and procedures for handling such incidents effectively.

This ERP is for GMT facilities located in Colorado, and was prepared:

1. To serve as the basis for an organized action plan in dealing with emergencies and spills of all magnitudes.
2. To establish responsibilities and priorities in managing an emergency or spill.
3. To provide information for handling serious incidents and provide the tools to properly document incidents and incident response; and
4. To tabulate the contact information for the personnel and agencies that must be notified to respond to an emergency incident promptly and properly.

Prompt action is mandatory. For this reason, the content of this ERP must be understood and readily available to all GMT Exploration employees. All involved employees will be trained to take quick action to protect life and property and to immediately report the incident.

The ERP will be updated each time there is a personnel change, GMT procures new or different third-party resource, and a change or addition to a facility. At a minimum the ERP will be reviewed annually by HSE Manager and Safety Supervisor to ensure that it is accurate.

After the initial ERP has been coordinated with, reviewed by, and approved by the local emergency response agency, the ERP will then be reviewed and updated at intervals designated by the local emergency response agency, typically on an annual basis. Training of site personnel will be coordinated with the local Office of Emergency Management and the fire district having jurisdiction of the facility well pad when:

- a. after the well pad is constructed and before the Drilling Phase commences,
- b. prior to the start of the Production Phase, and
- c. annually thereafter.

This ERP is not intended to replace an existing Spill Prevention, Control, and Countermeasures (SPCC) plans or other required plans, but rather its purpose is to be a supplement providing general guidelines for emergency situations.

Corporate roles, contact information for corporate personnel, emergency response and regulatory contacts are Listed in Appendix A. Regulatory reporting level requirements are listed in Appendix B. Site specific requirements and contact information are provided in sections for each drilling pad provided in Appendix C.

This plan is intended to include operations at GMT production facilities, including site equipment, flow lines and crude oil transfer lines within and adjacent to each site to the point of connection with pipelines operated by others.

2.0 REPORTING AN EMERGENCY

Prompt reporting of Health Safety & Environmental (HSE) incidents is critical to ensure GMT Management are informed of an incident so they can provide guidance and resources as necessary. Prompt reporting is also necessary to ensure that all appropriate regulatory agency notifications are made in a timely fashion.

The first person to identify the emergency will report it to the Safety Supervisor. If the Safety Supervisor cannot be immediately reached, then call the HSE Manager see Appendix A.2 for contact information. All known incident details will be immediately share with the HSE Manager.

Here is the key information needed for the starting a notification.

1. Location or facility and call back phone number.
2. Type of emergency.
3. Time of discovery.
4. Magnitude of emergency (size of fire or spill, number of people involved, injuries, other properties or companies are involved).
5. What has been done prior to making notification.
6. What external outside notifications have been made.
7. Recommended next steps for the response.
8. Weather conditions.
9. What assistance is needed.
10. When you will call back with a subsequent report.

2.1 GMT INCIDENT LEVELS

GMT has created criteria to classify incidents by level of severity so appropriate and uniform notifications and response actions can be taken. The criteria presented below are to be utilized to determine if an incident is a Level 1, 2, or 3. The level of the incident will then determine what notifications are necessary and by what means incidents are to be communicated within the GMT organization.

All incidents will be responded to immediately and the level of response will be appropriate for the level of incident occurrence. Remote monitoring of operations including pressure and level monitoring facilitates knowledge of an unplanned event and automatically notifies operators to respond.

Level 1 - Lowest Level:

1. An incident without fire, recordable injuries, public involvement, or adverse media involvement, typically reported as a near miss or a first aid incident.
2. Any spill that does not reach water or a drainage feature (less than 1 bbl.). *
3. Minor unplanned and uncontrolled nontoxic gas or vapor release.
4. Vehicle accident without injury and/or damage less than \$5,000.
5. Property damage less than \$5,000.

**Note: Any spill of any level should be reported to HSE Director*

Level 2 - Intermediate Level

1. Incidents involving recordable or serious injury to employees, contractors, or the public.
2. Nontoxic gas or vapor release requiring employee or contractor evacuation.
3. Fire that can be managed with internal resources, immediately controlled, and extinguished.
4. Any spill to water, drainage feature, or over 1 bbl.
5. Vehicle accident with injury and/or damage greater than \$5,000 but less than \$10,000.
6. Property damage greater than \$5,000 but less than \$50,000.
7. Significant Notices of Violation, fines, penalties, administrative orders, etc. received from any government agency.
8. Natural disasters or severe weather events.

Level 3 - Highest Level

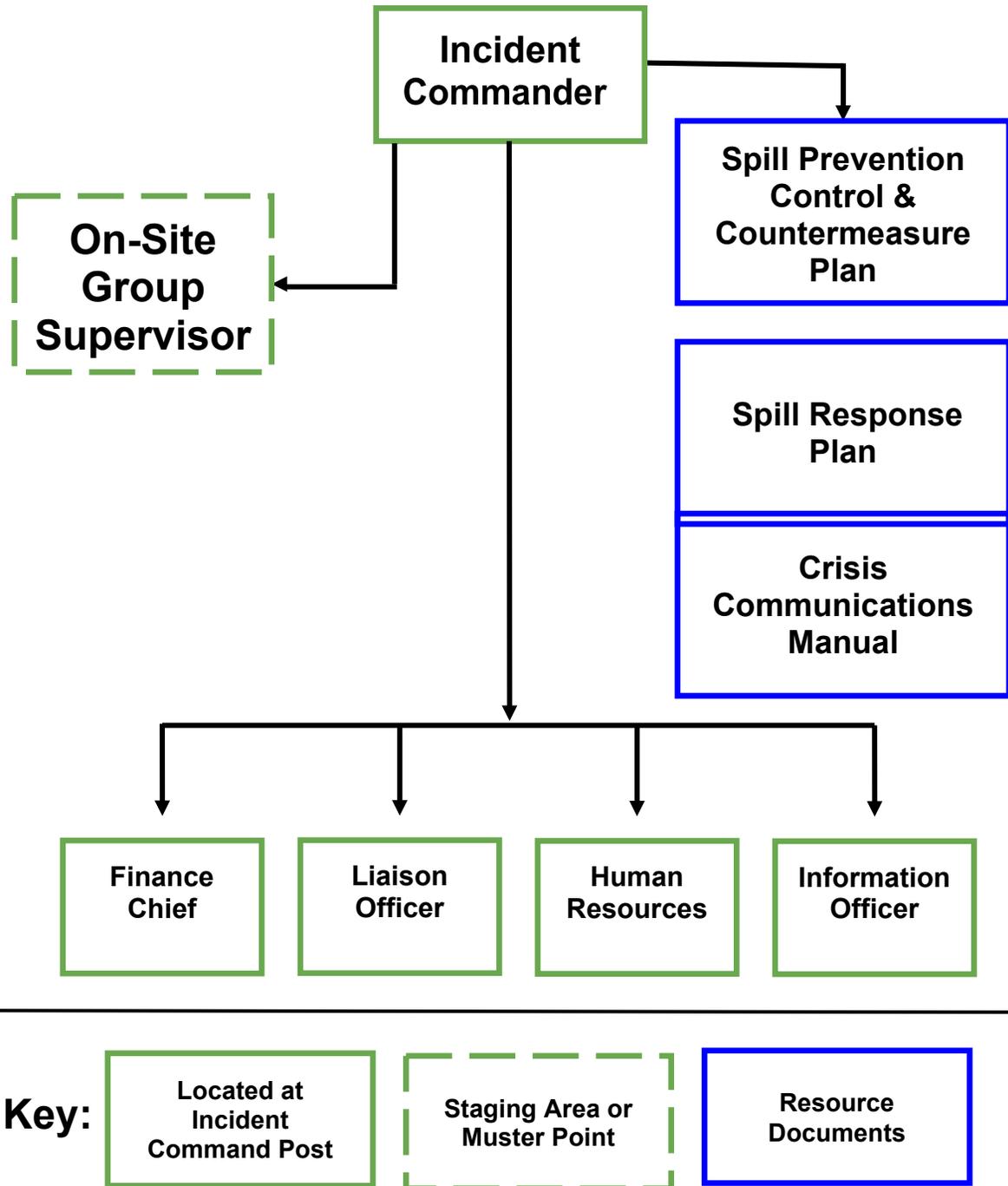
1. Incidents involving death or multiple injured employees, contractors, or the public.
2. Gas or vapor release requiring evacuation of third parties.
3. Major spills, toxic gas releases, or other significant environmental damage, or greater than 5 bbl.
4. Blowouts.
5. Fires not immediately controlled and extinguished, typically fires that involve third party emergency response.
6. Vehicle accident with damage greater than \$10,000.
7. Property damage greater than \$50,000.
8. Incidents that have potential for media coverage.

3.0 INCIDENT MANAGEMENT CHAIN OF COMMAND

When an emergency is identified, the Safety Supervisor and HSE Manager are immediate notified. The HSE Manager will initiate Incident Command and establish communication within the GMT Incident Command Structure.

3.1 INCIDENT COMMAND CHART

Incident Command Chart (Figure 1)



3.2 INCIDENT COMMAND ROLES AND RESPONSIBILITIES

These are the primary responsibilities for each role assignment. Depending on the type and level of the incident responsibilities will expand significantly. Current role assignments and contact information are in Appendix A.1 and A.2.

Incident Commander (IC) [!!!REQUIRED!!!]

- ✓ Manages all activities related to an Emergency Response
- ✓ Must be familiar with the contents of the Emergency Response Plan (ERP), the Spill Prevention Control and Countermeasure Plan (SPCC) and /or SPILL Response Plan (SRP).
- ✓ Documents all activities in an activity log. Recommender getting a scribe to help.
- ✓ Consider evacuating non-essential personnel to safety and place them on standby to fill public protection roles.
- ✓ Dispatch trained and appropriately equipped personnel (in pairs) to investigate.
- ✓ If the incident involves another company's assets, ensure that their personnel are notified. Maintain contact with the responsible operating company until they arrive on scene.
- ✓ Contact the person who reported the incident and advise them of the result of the situation assessment.
- ✓ Develop an initial response strategy that adheres to the following emergency response priorities:
 1. protect people
 2. environment
 3. assets
 4. reputation
- ✓ Establish method of communications with member of Incident Command and the On-Site Group Supervisor. Schedule regular briefing meetings.
- ✓ If appropriate advise the Information Officer to put the Communication Plan into action.
- ✓ Ensure Regulatory Authority notification according to the applicable requirements.
- ✓ Evaluate resource requirements.
- ✓ Request resources, personnel, and equipment to address emergency situations.
- ✓ Ensure that a headcount and personnel accountability record is maintained for the duration of the incident.
- ✓ Immediately report any suspected threats of violence, sabotage, or terrorism.

- ✓ Report worker exposure exceeding allowable limits.
- ✓ Secure the scene and restrict access to authorized personnel only.
- ✓ Dispatch Mobile Air Monitoring Unit to the incident scene.
- ✓ Assign roles to personnel as appropriate for the size and complexity of the incident.

IC Deactivation

- ✓ Where applicable, commence reclamation activities once the spill is isolated and secured.
- ✓ Coordinate the removal of the impacted waste material and dispose of the waste to an approved facility.
- ✓ Obtain enough samples of the remediated site to demonstrate containment.
- ✓ Downgrade the emergency.
- ✓ Ensure all affected stakeholders are notified of the stand-down of the emergency.
- ✓ Ensure any notified media are update of the stand-down of the emergency.
- ✓ Ensure all appropriate government agencies are notified of the stand-down of the emergency.
- ✓ Ensure all members of the Emergency Response Team and other key participants are invited to the debriefing.
- ✓ Conduct post-incident debriefing.
- ✓ Assess the physical and emotional health of responders and make recommendations for Critical Incident Stress Debriefing.

Finance Chief. [!!!THIS PERSON MUST HAVE SPENDING AUTHORITY!!!]

- ✓ Takes direction from IC.
- ✓ Documents all activities in an activity log.
- ✓ Obtain briefings from the IC.
- ✓ Track compensation and claims
- ✓ Attend planning meetings
- ✓ Submit reports and expense claims.

Finance Chief Deactivation

- ✓ Participate in the post-incident debriefing held by the IC.
- ✓ Participate in the Critical Stress Incident Debriefing held by the IC.

Liaison Officer

- ✓ Takes direction from IC.
- ✓ Documents all activities in an activity log.
- ✓ Ensure Regulatory Authority notifications are completed according to the applicable requirements.
- ✓ Refer to the Notification Requirements for Key Government Agencies and Resources in Appendix B.1.
- ✓ Coordinate the flow of information to and from the government agencies.

Liaison Officer Deactivation

- ✓ Coordinates with the Regulatory Authority that there is consensus to downgrade the emergency.
- ✓ Notify all previously contacted government agencies of the decision to downgrade the emergency.
- ✓ Participate in the post-incident debriefing held by the IC.
- ✓ Participate in the Critical Stress Incident Debriefing held by the IC.

Human Resources

- ✓ Takes direction from IC.
- ✓ Documents all activities in an activity log.
- ✓ Sort and compile information about insurance and benefits for affected employees.
- ✓ Mobilize counsellors to provide Critical Incident Stress Debriefing to employees and families.
- ✓ Clarify the nature and extent of injuries to any employees or contract personnel.
- ✓ Coordinate next of kin notification by the police in the event of death.
- ✓ Coordinate next of kin follow up notification on behalf of the Company.
- ✓ Ensure compliance with all regulations for employment and human resource issues.

Human Resources Deactivation

- ✓ Participate in the post-incident debriefing held by the IC.
- ✓ Participate in the Critical Stress Incident Debriefing held by the IC.

Information Officer

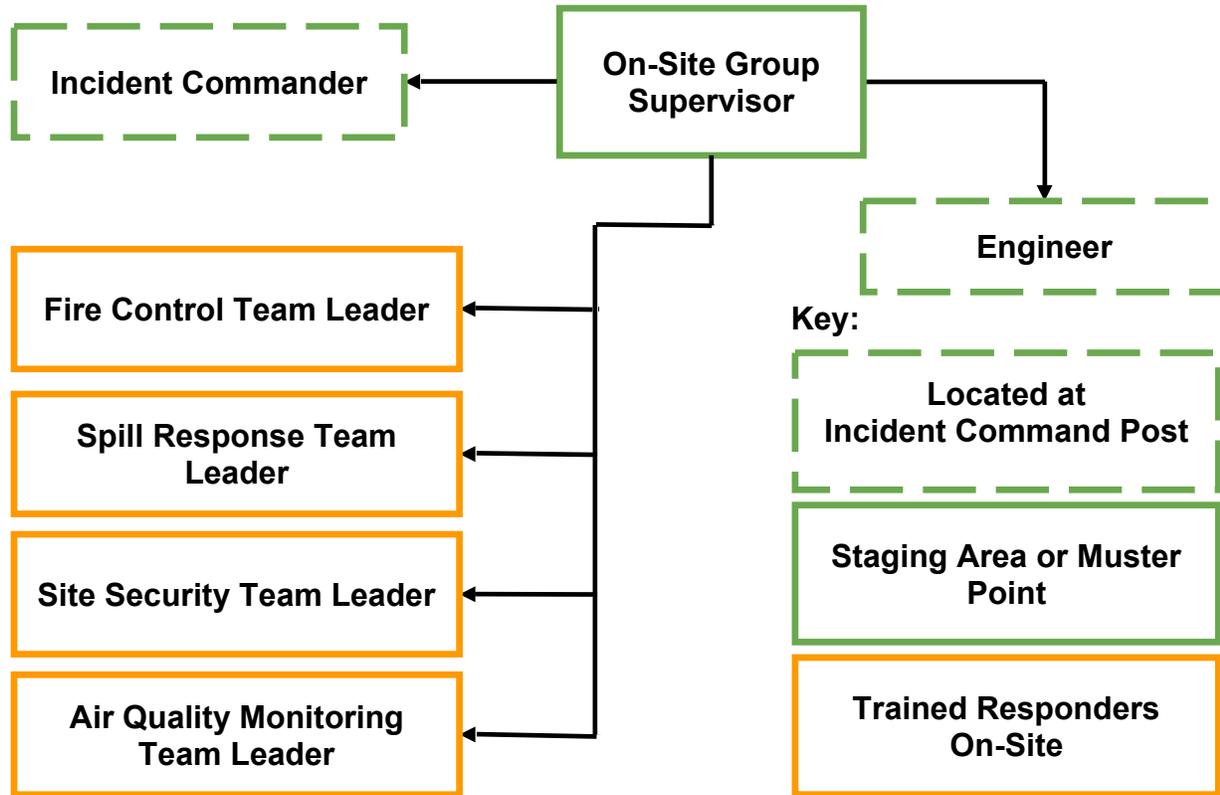
- ✓ Takes direction from IC.
- ✓ Put Communication Plan into action.
- ✓ Communicate to the Incident Command, On-site Supervisor, and all responders that all media enquiries are directed to you the Information Officer.
- ✓ Monitor communication issues and incorporate into communications plan.
- ✓ Assess media impacts and ensure concerns are clearly identified.
- ✓ Prepare all media responses. Establish media notification schedules.
- ✓ Council on legal matters
- ✓ Evaluate liability implications of the incident.
- ✓ Ensure that proper documentation is gathered and preserved.
- ✓ Documents all activities in an activity log.

Information Officer Deactivation

- ✓ Continue media and public interaction.
- ✓ Notify all previously contacted media resources regarding the downgrade of the emergency.
- ✓ Participate in the post-incident debriefing held by the IC.
- ✓ Participate in the Critical Stress Incident Debriefing held by the IC.

3.3 ON-SITE INCIDENT COMMAND CHART

On-Site Incident Command Chart (Figure 2)



3.4 ON-SITE INCIDENT ROLES AND RESPONSIBILITIES

These are the primary responsibilities for each role assignment. Depending on the type and level of the incident responsibilities will expand significantly. Current role assignments and contact information for GMT Exploration employees are in Appendix A.1 and A.2. Third party resources are in Appendix A.3.

On-Site Group Supervisor [!!!REQUIRED - THIS PERSON MUST BE ON LOCATION!!!]

- ✓ Takes direction from Incident Commander.
- ✓ Located at the Staging Area or Muster Point.
- ✓ Gives direction to the specific team leaders on site.
- ✓ Documents all activities in an activity log.
- ✓ Identify hazards.
- ✓ Attend to medical needs.
- ✓ Request emergency medical services, as required.
- ✓ Isolate the scene.

- ✓ Release non-essential personnel.
- ✓ Ensure all on-site personnel follow the appropriate safe work procedures.
- ✓ Ensure all on-site personnel have the appropriate training and personal protective equipment.
- ✓ Coordinate on-site responses to gain control, shutdown, isolate, and depressurize equipment, as required.
- ✓ Review dangerous condition near the incident site. For example: fuel leaks, toxic gas releases, oxygen deficiency, ignition sources and chemical leaks.
- ✓ Evaluate ignition criteria and communicate with Incident Commander.
- ✓ Obtain spill samples as required and monitor environment for adverse effects.
- ✓ Record and report all readings at established intervals to the Incident Commander.

On-Site Group Supervisor Deactivation

- ✓ Ensure that on-site personnel and equipment including contracted services are decontaminated before leaving in incident site.
- ✓ Ensure site is safe.
- ✓ Ensure the incident site is not disturbed until all necessary site investigations are completed by the appropriate authority.
- ✓ Ensure all work areas, safety equipment, machinery, and tools are cleaned, repaired, and returned to their proper location.
- ✓ Complete and submit all documents to the Incident Commander.
- ✓ Participate in the post-incident debriefing held by the Incident Commander.
- ✓ Participate in the Critical Stress Incident Debriefing held by the Incident Commander.

Engineer

- ✓ Provides requested well data to the On-Site Group Supervisor
- ✓ Assist with the development of control and containment procedures.
- ✓ Documents communications and data provided in an activity log.

Engineer Deactivation

- ✓ Participate in the post-incident debriefing held by the Incident Commander.
- ✓ Participate in the Critical Stress Incident Debriefing held by the Incident Commander.

3.5 COMMUNICATION TECHNIQUES

Guidance for making any notifications regarding an incident.

- Make sure that you are in a safe location before initiating communication.
- Communication must be through a two-way confirmed means. Messages on voicemail, text messages, and/or e-mail is not notification.
- Supervisors or others dealing with the incident may delegate reporting responsibilities as appropriate. However, when delegating these responsibilities, the delegation must be documented with an acknowledgement from both the designator and the designee. The designee must be instructed to report back to you following the initial response.
- Make sure the person you are communicating with understands you. Ask the recipient of the notification to repeat key parts of your discussion.
- If you are calling someone you do not frequently talk to, make sure you identify yourself and where you can be reached.
- Let the phone ring at least six times before hanging up.
- Do not hesitate to call above your supervisor if your supervisor is unreachable.

3.6 MEDIA COMMUNICATIONS

Communications with the media and local governmental officials are best handled by persons trained in dealing with the media. All media inquiries will be directed to the Information Officer.

Estimates or speculations as to the cause or size of the problem must never be made. Assume cameras and recorders are always ON. Tell the media to contact the Information Officer in the Denver office for any information.

GMT's five steps for effective crisis communications are:

Step 1: Authorized spokespeople

- Confirm authorized spokespeople and select lead spokesperson

Step 2: Communication Management

- Identify key stakeholder groups
- Develop a communications timeline

Step 3: Message Development and Distribution

- Anticipate the important questions
- Develop key messages
- Select the appropriate communication channels

- Gain management approval of messaging
- Engage stakeholders

Step 4: Monitoring and Feedback

- Collect and analyze public responses
- Correct or clarify media reports
- Provide perception monitoring reports
- Determine when the crisis is over

Step 5: Lessons Learned

- Evaluate impact and learn from the findings
- Monitor and cooperate with any external investigation

****See GMT Crisis Communications Manual for complete details.***

3.7 NOTIFICATION OF EMPLOYEE'S FAMILY

All serious illness or injury notification to family are the responsibility of the Human Resources. It is important that family notification not be made prematurely and that certain facts are gathered before notification. In the event of death, the police make the next of kin notification.

4.0 SITE SECURITY AND SAFETY CONTROLS

Controlling access, preventing accidental releases and procedures implemented to secure the area following an incident are described in this section.

4.1 CONTROLLING ACCESS

Location/Identification

Signage identifying the wells and pad name and registration with the State of Colorado identification will be indicated on the signage posted at the entrance. No Trespassing signage and warnings will be posted at the entrance from the primary access road as well as the direct entrance to the facility.

Security Features during Drilling and Development

During site construction and preliminary activity, including drilling, pre-production well development and facility construction, a cattle guard will be situated at the entrance gate to discourage wildlife and stock from entry to the facility. A barbed wire fence will surround the exterior perimeter of the leased pad area. A swing gate with a lock will control access via the entrance road to the site during periods when the location is not manned. Any unauthorized personnel who enter the facility location will be notified that they are trespassing and will be escorted from the construction area. Prior to production these activities are manned 24 hours per day while fluids and gasses are being processed and minimal opportunity for the release of fluids or gases exists prior to completion of the wells and routing of the produced oil and gas to the permanent production equipment. Enhanced security measures will be implemented as the facility transitions to production.

Security Features During Production

The completed production location will be surrounded by fencing described for the individual sit locations as described in Appendix C. . Access will be via single road entry/exit controlled using a security gate system. Authorized entrants will be monitored. Emergency access for firefighting personnel will be provided by a Knox Box or as required by the local agency for the specific pad location. Enhanced security cameras and other means may be implemented on a location specific basis.

4.2 OPERATIONAL SAFETY FEATURES

Automated Safety Systems

System operations are controlled using an automated safety system governed by safety devices and a programmable controller. Conditions are monitored using a remote system. Operational alarm conditions automatically shut in system operations by closing appropriate control valves where a hazardous condition may be occurring. Alarms conditions automatically notify facility operators via cellular text and electronic mail messages in the event of a situation requiring immediate attention as well as during precautionary conditions requiring adjustment. On site and remote-control screens will be password activated and employees will be directed to log out any time the control center is not manned by operations personnel.

Site Operational Safety

Site personnel will conduct a daily inspection of security devices for function, valve and piping conditions and pressure values, and secondary containment and tank level conditions. Issues requiring attention will be addressed on a daily basis.

Valves having the potential for releasing oil, gas or water from tanks and piping will be locked and blind ends will be plugged and will not be accessible to the general public. Following completion of

oil and water pipeline take-away for produced fluids via buried pipelines, valves and piping accessing tank storage will be locked and plugged. Loadout connections will be situated within secondary containment structures.

4.3 FOLLOW-UP AFTER AN INCIDENT

In the aftermath of a serious incident, it becomes necessary to investigate the incident to determine cause and corrective actions. Perhaps the most important aspect of this investigation is determining the facts, and as such, the preservation of the evidence is significant.

1. Secure the Area:

Rope off or otherwise control access into the incident site at a sufficient distance to maintain safety. Access by non-company personnel (including contractor personnel even if involved in the incident) is NOT allowed unless specific management approval has been obtained. Establish a gate guard and ensure that a sign-in sheet is maintained so anyone who entered the facility can be identified later. ALWAYS ask agency personnel to present identification and try to get a business card. The only exception is necessary access by emergency medical rescuers and fire fighters.

2. Preserve the Evidence:

As much as possible, do not disturb objects relating to the incident. If unavoidable, stake or mark its location and record what was there, preferably by taking a series of photographs that show the object in question and nearby permanent landmarks so the scene can be recreated if necessary. Never allow evidence to leave the scene without approval.

3. Document the Evidence:

Take notes, photographs, and or voice notes about EVERYTHING. You cannot create too much documentation. Remember, you are documenting site conditions for reference YEARS in the future. Take immediate steps to protect all documentation and immediately provide any documentation to the leader of the incident investigation team after the initial emergency response actions have concluded.

4. Identify Witnesses:

If persons who witnessed the incident cannot remain on the scene to be interviewed during the investigation, get their names and pertinent information so they can be located later.

5.0 EMERGENCY RESPONSE SCENARIOS

Typical responses to potential events are described in this section.

5.1 RESPONSE TO AN ACCIDENT, INJURY OR ILLNESS

1. Shut down all work activities.
2. Assess the situation and severity. If safe to do so, remove or mitigate any immediate hazards that could cause further injuries.
3. In the case of non-life threatening injury or illness refer to site specific sections for directions to hospital/emergency care services and transport if safe to do so.
4. Call 911 for emergency services.
 - a. Always follow the instructions of the operator.
 - b. Provide as much information as possible to the operator.
5. Send a designated person to the nearest main road to guide emergency services to the location. If a helicopter is necessary for evacuation, direct an individual to establish a landing zone.
6. Make notification to GMT (see section 2.0 for instructions).
7. All unneeded field personnel, contractors, and visitors who are not assisting the victim should be evacuated to the Muster Point.
8. Safety Supervisor will complete the appropriate incident report form and submit.
9. GMT Incident Commander/On Site Supervisor will notify the appropriate regulatory agencies.

5.2 RESPONDING TO A LEAK OR SPILL OR RELEASE OF HAZARDOUS GAS OR CHEMICAL

****COORDINATE WITH SPCC PLAN***

1. Shut down all work activities.
2. Evacuate all field personnel, contractors, and visitors to Muster Point.
 - a. Keep all persons uphill and upwind from the leak or spill.
 - b. If leak is upwind, first move crosswind.
3. Assess the situation and severity. If safe to do so, take actions to safely stop the release, contain it to the location, and prevent the spill from reaching surface water.
4. Contact 911/Emergency services (as needed).
 - a. Always follow the instructions of the operator.
 - b. Provide as much information as possible to the operator.
5. Send a designated representative to the nearest county road or street intersection to wait for emergency services.
6. Make notification to GMT (see section 2.0 for instruction).
7. The HSE Manager will initiate Incident Command and establish communication within the GMT Incident Command Structure.
8. Continued instructions will come from the Incident Commander and will be relayed by the On-Site Group Supervisor.
9. Notification to local, state and national response by Incident Command.

5.3 RESPONDING TO A FIRE OR EXPLOSION

1. Raise the alarm. Shut down all work activities.
2. Evacuate all personnel to muster area.
3. Call 911/Emergency services.
4. Send a designated representative to the nearest county road or street intersection to wait for emergency services.
5. Control access to site - only allow approved personnel and emergency services to enter site.
6. Make notification to GMT (see section 2.0 for instructions).
7. The HSE Manager will initiate Incident Command and establish communication within the GMT Incident Command Structure.
8. Assess the situation and severity. If safe to do so, take actions to safely extinguish the fire and/or eliminate the fuel source. Attempt to fight the fire if:
 - a. Confirmed help is on the way
 - b. You know what is burning
 - c. The source is shut off
 - d. Fire is small
 - e. Your fire extinguisher training is current
 - f. You have the adequate tools to fight a fire
 - g. You have a safe exit out
9. Continued instructions will come from the Incident Commander and will be relayed by the On-Site Group Supervisor.

5.4 RESPONDING TO A H₂S RELEASE

Refer to the hydrogen sulfide (H₂S) safety program for complete details on working with H₂S safely. Prior to beginning work, the following roles and responsibilities were pre-assigned to the crews working on the job site.

1. H₂S MONITORING/CLIMATIC CONDITIONS TEAM: Responsible for monitoring ambient air concentrations or hazardous gases near a leak area, calculating H₂S radius of exposure, and monitoring climatic conditions (wind direction, wind velocity, etc.). The team coordinator will keep the Communications Team advised of the monitoring results and any changes that occur.
2. ROAD BARRICADE TEAM: Responsible for establishing roadblocks in areas affected by a potentially hazardous leak. Team members may be assisted by the sheriff's/police department and/or the Department of Public Safety.
3. PUBLIC RELATIONS, COMMUNICATIONS, AND DOCUMENTATION TEAM: Responsible for coordinating teams, communications between team members, and coordinating duties of public safety officials. The team will document a record of events and the safety and control measures taken during the incident. The coordinator of this team will keep the HSE Manager (Incident Commander) informed on leak events. Safe areas will be established as appropriate.
4. EVACUATION TEAM (FIELD): Team members will be responsible for notifying and evacuating residents from a hazardous area to a place of safety.

WHEN AN H₂S LEAK OCCURS

1. Shut down all work activities.
2. Evacuate ALL personal to the Muster Point.
 - a. Keep all persons uphill and upwind from the H₂S leak.
 - b. If H₂S leak is upwind, first move crosswind.
3. Conduct a head count.
4. If there is a medical emergency, see section 6.0. Any person exposed to H₂S, needs to be seen by a medical professional regardless of if they start to feel better.
5. Close access to the site.
6. Make notification to GMT (see section 2.0 for instructions).

7. The HSE Manager will initiate Incident Command and establish communication within the GMT Incident Command Structure.

RESPONDING TO H2S LEAKS

Only trained responders with proper PPE including Self-Contained Breathing Apparatus (SCBA) may gain access to a site with H2S present.

1. Assess the situation and severity. If safe to do so, remove or mitigate any immediate hazards that could cause further injuries.
2. Find and rescue any missing personnel when properly equipped to do so.
3. Determine whether assistance is needed from public safety officials.
4. Operating personnel should attempt to stop or shut-in the H2S leak
5. If H2S cannot be safely shut-in or stopped and presents a hazard to residents, field personnel, or property, determine if the gas can be safely ignited. Contact the appropriate agency for approval to flare sour gas.
6. Receive continued instructions from the Incident Commander.

5.5 RESPONDING TO UNEXPECTED PRESSURE EVENTS

System controls are designed to shut in the well(s) should pressure monitoring indicates an abnormal condition. Both higher than normal or lower than normal conditions will automatically shut in affected wells. Response by site personnel will be required to evaluate, adjust and rectify the abnormal pressure conditions. Personnel will be instructed to conduct visual, auditory and olfactory checks for possible leaks and to use detection instrumentation or infrared cameras, as required, to identify possible leaks and repairs prior to restarting the production facility.

An automated safety system, governed by safety devices and a programmable logic computer, will be installed at the Oil and Gas Location. The automated safety system shall include the installation, monitoring, and remote control of a Surface Safety Valve (SSV), among many other engineered measures and devices that are implemented to greatly reduce or eliminate the potential for a Well event. All Wells will have an SSV installed prior to the commencement of the Production Phase, which is connected to the production tubing at the surface. The SSV will be equipped to operate remotely via the automated safety protective system, which monitors multiple flowing pressures and rates which have predetermined maximum and/or minimum threshold values programmed and will remotely shut-in wells should certain upset conditions be detected. Additionally, the automated safety system provides the ability to remotely shut-in wells on demand through remote intervention. The SSV will have documented quarterly testing to ensure functionality.

In the event of a well high pressure or blowout event evacuation and contacting well blowout professionals may be required if on site remedies are unsuccessful or unachievable.

5.6 RESPONDING TO INCLEMENT WEATHER

If the weather becomes severe to the point it threatens the safety of workers, it is a best practice to evacuate or take shelter.

1. Notify supervisor of the severe weather.
2. Shut down all work activities.
3. If possible, shut-in wells and production equipment.
4. Evacuate location or take shelter.
 - a. **TORNADO** - It may not be best to evacuate. Use best judgment if a tornado is in sight. Go to the lowest point possible (i.e., ditches, culverts, creek bottoms). Do not stay in a vehicle! Lay face down and cover your head with your hands. Keep all PPE on; this can help protect you from flying debris. Wait for the storm to pass.
 - b. **THUNDER/LIGHTNING** – When you see lightning or hear thunder, “cab up” in a vehicle for 30 minutes from the last sighting.
 - c. **HIGH WINDS** – Do not work at heights. If a crane is being utilized, shut it down when winds become higher than 25 miles per hour (mph). “Cab up” and wait for the wind to die down. Keep all PPE on while in high winds. PPE can help protect from flying debris.
 - d. **SEVERE RAIN** – If driving and severe rain occurs, pull to the side of the road, and wait for the rain to pass. Pull as far to the right as possible. Turn on hazard lights. If on a work sight, “cab up” until the rain passes.
 - e. **FLOODING** – If you are in an area that is prone to flooding, never attempt to stay on location when flooding occurs. Find the best route to high ground and remain until safe. Never drive through standing water.
 - f. **HAIL** – If hail occurs while on site, always keep PPE on. PPE can help protect you from falling ice. Seek shelter in a building or vehicle until the storm passes.
 - g. **WINTER WEATHER (Blizzards and severe snowstorms)** – Avoid unnecessary driving and seek shelter immediately.
5. If you or someone on location is injured, follow the steps in section 5.1.

5.7 RESPONDING TO A BOMB THREAT OR TERRORIST ACTIVITY

Finding a suspicious bomb like item

1. Don't use cellular phones or communication radios (turn them off) - this could detonate certain types of devices.
2. Evacuate the area.
3. Call the Sheriff's or local Police Department - 911 to report location and description of suspicious item.
4. Close access to the site.
5. Make notification to GMT (see section 2.0 for instructions). Do not discuss a bomb sighting with anyone other than the police and your supervisor.

Bomb Threat

1. Take all bomb threats seriously. If it is a telephone threat, remain calm and get as much information as possible. Write down the exact words of the caller.
 - a. What time did call come in?
 - b. When will the bomb go off?
 - c. What will set the bomb off?
 - d. Where is the bomb located?
 - e. How did the bomb get to its current location?
 - f. What kind of bomb is it?
 - g. What size is the bomb?
 - h. Why are you doing this?
 - i. What is your name?
 - j. Where are you? Address?
 - k. What time was call terminated?
2. Quickly note the following:
 - a. Male or Female
 - b. Age
 - c. Foreign or identifiable accents
 - d. Voice (high or deep)
 - e. Speech (speed or other)
 - f. intoxicated or other impairment
 - g. Distinguishable background noise.
3. Notify the sheriff's department or Police Department (911).

- 4.
5. Notify Building Management or supervisor on location.
6. Make notification to GMT (see section 2.0 for instructions).
7. Stay calm. Do not discuss the bomb threat with anyone other than the police and your supervisors. Wait for future instruction. Notify Building Management or supervisor on location.
8. Make notification to GMT (see section 2.0 for instructions).
9. Stay calm. Do not discuss the bomb threat with anyone other than the police and your supervisors. Wait for future instruction.
10. Notify Building Management or supervisor on location.
11. Make notification to GMT (see section 2.0 for instructions).
12. Stay calm. Do not discuss the bomb threat with anyone other than the police and your supervisors. Wait for future instruction.

5.8 RESPONDING TO MEDIA, UNAUTHORIZED VISITORS, AND PROTESTERS

You may be confronted with media, unauthorized visitors and/or protestors on site at any time. Approach each of these situations calmly, cautiously, and deliberately. Be alert; it could develop into a highly dangerous situation; therefore, avoid the hysterical or excited approach.

Media near GMT wellsite/facility or office

1. If you notice media near but not on a location, immediately notify your supervisor of the situation.
2. If you must engage the member of the media, remain polite, and professional. Tell them, **“The best way I can help you is to put you in touch with our communications team.”**
3. See section 3.4 Media Communication and Appendix A.2 for information regarding the communications team.

Unauthorized visitors or protests near GMT wellsite/facility or office

1. Peaceful, Non-Obstructive Protest
2. Notify your supervisor of the situation.
3. Peaceful protests should not be interrupted.
4. Do not engage with peaceful protestors.
5. Efforts should be made to conduct GMT business as normal.
6. Disruptive Protests –

If any of the following conditions exist, the protest is disruptive.

- a. Disruption of the normal operations of the GMT facility.
- b. Obstructing access to offices, or GMT facilities/well sites.
- c. Threat of physical harm to persons or damage to GMT facilities.

If protest is disruptive, then take these actions:

- a. Notify the sheriff's or police department (911).
- b. Limit your engagement. Do not play the role of law enforcement.
- c. Make notification to GMT (see section 2.0 for instructions).
- d. Immediately safeguard personnel – including any other affected parties (other offices, or residents)
- e. Assemble all personnel at Muster Point. Conducted a head count. Evacuate to a safer location if necessary.

6.0 FACILITY CHEMICAL STORAGE INFORMATION

6.1 CHEMICALS USED/STORED

In general, oil and hazardous materials will be stored in appropriately designed vessels within secondary containment. However, hazardous materials potentially used in development and construction, including fuel, oil, lubricants, paints, solvents, concrete-curing compounds, and other liquid chemicals such as fertilizers, herbicides, and pesticides will be limited to the amount that is reasonable to support the specific construction or maintenance activity. Bulk storage areas for materials not consumed daily will be enclosed and protected from the elements and contained in a manner to prevent release to the environment.

GMT will have current Safety Data Sheets (SDS) for all chemicals available upon request. The SDS shall be provided immediately upon request to City officials, a public safety officer, or a health professional as required by COGCC regulations. Operator's contractors are responsible for the management of their own SDS and are to be made available upon request.

There is not a known history of spills that have occurred at the Site.

7.0 TRAINING

7.1 PERSONNEL TRAINING

All site operations personnel will be fully trained in appropriate actions to implement during a site emergency and the contents of this plan. Subcontractors with specific roles will be trained in appropriate response measures to conditions that may be encountered.

7.2 PERIODIC WALK THROUGH TRAINING

All "walkthroughs" or training associated with the Emergency Action Plan shall be coordinated with the City, County and local fire agency upon their request. Operator shall reimburse the appropriate emergency agencies for their reasonable expenses (as determined by the emergency agency) directly resulting from the Operator's operations.

APPENDIX A.1 - CORPORATE ROLE ASSIGNMENTS

Name	Title
Incident Commander	
Dennis Snow	VP Operations HSE Manager
Finance Chief	
Bill Lancaster	President
Kevin Andrus	CFO
Liaison Officer	
Whitney Eberhardt	Regulatory/Engineer Technician
Human Resources	
Marissa Walters	Executive Assistant
Information Officer	
Phil Wood	VP Land
On-Site Group Supervisor	
BJ Cox	Production Superintendent Safety Supervisor
Engineer	
Dennis Snow	Engineer

APPENDIX A.2 - CORPORATE CONTACT LIST

GMT Exploration Company LLC				
24 Hour Emergency Number 1-866-868-3028				
Company Main Number 1-720-946-3028 Operator's 24 hour Community Response Number 1-844-571-3119				
Required Emergency Contacts (Internal)				
Name	Position	Office	Cell	Email
Dennis Snow	VP Operations	303-586-9281	██████████	dsnow@gmtexploration.com
BJ Cox	Production Superintendent Safety Supervisor	303-586-9274	██████████	bjcox@gmtexploration.com
All Media Requests				
Phil Wood	VP Land Information Officer	303-586-9284	██████████	pwood@gmtexploration.com
Additional Contacts (Internal)				
Name	Position	Office	Cell	Email
Bill Lancaster	President	303-586-9278	██████████	wdl@gmtexploration.com
Kevin Andrus	CFO	303-586-9276	██████████	kandrus@gmtexploration.com
Maxwell Blair	Regulatory Manager	303-586-9291	██████████	mblair@gmtexploration.com
Whitney Eberhardt	Regulatory Engineer Technician	303-586-9289	██████████	w.eberhardt@gmtexploration.com
Marissa Walters	Executive Assistant & HR	303-586-9275	██████████	mwalters@gmtexploration.com

APPENDIX A.3 - EMERGENCY SERVICES CONTACT

Emergency Services Contact		
Service	Third Party Resource	Telephone Number
NATIONAL (US)		
Safety Data Sheets (SDS) (chemicals on location)	Chem Tel	800- 255-3924
Spill Response (HAZWOPER/HAZMAT)	ECOS	888- 506-3165
Well Control Blowout	Well Control (Halliburton)	281-931-8884 800- BLOWOUT
Media Communication	Phil Wood	720-273-8919
COLORADO		
Air & Groundwater Monitoring	CDH Consulting Chris Shephard	303-229-7233
Facility Repair	Cross Energy Rudy Gardea	970-388-4032
Facility Reclamation	M&M Excavation Eric Hargrave	970-539-0783
Production Operations Contractor	4W Oil Field Services, LLC Chris Jones Steve Wilden	chris.jones@4Woilfielddservices.com 720-525-9202 steven.wilden@4Woilfielddservices.com 520-560-9521

APPENDIX A.4 – NATIONAL AGENCY CONTACT INFORMATION

Emergency Response Agencies	
Agency	Telephone Number
NATIONAL	
Police/Fire/EMS	911
National Response Center	(800) 424-8802
OSHA	(800) 321-6742
National Weather Service	(303) 494-4221
Poison Control Hotline	(800) 222-1222
Call Before You Dig	811
NRC (Nuclear Regulatory Commission)	(800) 424-8802

APPENDIX A.5 – COLORADO AGENCY CONTACT INFORMATION

Emergency Response Agencies	
Agency	Telephone Number
Emergency 911	
STATE OF COLORADO	
Colorado Energy and Carbon Management Commission (ECMC)	(303) 894-2100
Colorado Department of Public Health and Environment (CDPHE)	(877) 518-5608
Bureau of Land Management Colorado State Office	(303) 239-3600
Occupational Safety and Health Administrations-Colorado Office (Denver Area)	(303) 844-5282
Colorado Emergency Management Agency	(720) 852-6600
Call Before You Dig (Colorado)	(800) 922-1987 or 811
ADAMS COUNTY, COLORADO	
Adams County Fire Department	(303) 539-6800
Adams County Sheriff (Rick Reigenborn)	(303) 654-1850
Adams County Office of Emergency Management (Richard Atkins)	(720) 523-6600
Adams County Regional Communication Center	(303) 288-1535
Adams County Local Government Designee (Christine Dougherty)	(720)-523-6819
CITY OF AURORA	
City of Aurora	(303) 739-7000
Aurora Fire Rescue	(303) 326-8999
City of Aurora Health Department	(877) 518-5608
City of Aurora Local Government Designee (Jeffrey Moore)	(303) 739-7676

ELBERT COUNTY	
Rattlesnake Fire Protection District	303-841-8111
Elbert County Sheriff (Tim Norton)	(303) 621-2027
Elbert County Office of Emergency Management	(303) 805-6131
Elbert County Local Government Designee (Marc Dettenrieder)	(720) 595-3617
ARAPAHOE COUNTY	
Bennett Fire Department	(720) 258-8911 (303)-644-3572
Arapahoe County Sheriff	(303) 795-4711
Arapahoe County Office of Emergency Management	(303) 795-4400
Arapahoe County Local Government Designee (Diane Kocis)	(720) 425-0422

APPENDIX B.1 – REGULATORY REPORTING REQUIREMENTS

EMERGENCY RESPONSE CONTACT TIERED ORGANIZATION			
	Level 1 Incident	Level 2 Incident	Level 3 Incident
Field Staff and Leadership	✓	✓	✓
National/State/Local Emergency Response		✓	✓
BLM, State, Local Office		✓	✓
Crisis Management Team (internal)			✓

Follow the actions described based on incident level in the following tables:

Regulatory Requirements

Level 1 - Lowest Level:	
1.	<p>An incident without fire, recordable injuries, public involvement, or adverse media involvement, typically reported as a near miss or a first aid incident.</p> <p>Contact: Field Staff and Leadership</p> <p>Report: None</p>
2.	<p>Any spill that does not reach water or a drainage feature (less than 1 bbl.).</p> <p>*Spill must be reported verbally or in writing within 24 hours of discovery.</p> <p>*Surface Owner must be contacted within 24 hours of a spill/release</p> <p>Contact: State Offices (WOGCC or ECMC) if ≥ 1 bbl. spill outside of berms or secondary containment, ≥ 5 bbl. spill completely contained within berms or secondary containment</p> <p>Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF</p>
3.	<p>Minor unplanned and uncontrolled nontoxic gas or vapor release.</p> <p>Contact: State and BLM offices.</p> <p>*Surface Owner must be contacted within 24 hours of a spill/release</p> <p>Contact local municipality if release may travel beyond drilling/production site boundary</p> <p>Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF</p>
4.	<p>Vehicle accident without injury and/or damage less than \$5,000.</p> <p>Contact: Field Staff and Leadership</p> <p>Report: None</p>
5.	<p>Property damage less than \$5,000.</p> <p>Contact: Field Staff and Leadership</p> <p>Report: None</p>

*In any incident that causes operations to shut down the entire pad liaison officer must contact

the County.

Level 2 - Intermediate Level

1. Incidents involving recordable or serious injury to employees, contractors, or the public.

Contact: 911 and depending on the accident call appropriate personnel. Note: In the event of a death coordinate next of kin notification by the police. Must contact State Office/BLM within 24 hours and OSHA, if fatality report within 8 hours, all others 24 hours. Let field staff and leadership aware and let State and BLM offices aware of situation.

Colorado Report: - Fill out eForm 22 on ECMC website

2. Nontoxic gas or vapor release requiring employee or contractor evacuation.

Contact: HAZWOP/HAZMAT (888)-506-3165 if release is moderate to larger scale. CDPHE if >25 gal, BLM if > 500 MCF of gas (call within 24 hours and written report within 15 days), call State ≥ 1 bbl. spill outside of berms or secondary containment ≥ 5 bbl. spill completely contained within berms or secondary containment.

*Surface Owner must be contacted within 24 hours of a spill/release

Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF

* Contact local municipality if hazard travels beyond production/drilling site boundaries.

3. Fire that can be managed with internal resources, immediately controlled, and extinguished.

Contact: Field Staff and Leadership, State and BLM offices

Colorado Report: - Fill out eForm 22 on ECMC website

4. Any spill to water, drainage feature, or over 1 bbl.

*Spill must be reported verbally or in writing within 24 hours of discovery.

Contact: State Offices (WOGCC or ECMC) if ≥ 1 bbl. spill outside of berms or secondary containment, ≥ 5 bbl. spill completely contained within berms or secondary containment.

>100 bbl. if contained entirely by a facility berm or a spill of 10-100 bbl. (no call required, written report within 15 days)

>100 bbl. if NOT contained call. Must also contact CDPHE

>25 gal. release.

Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF
Contact local municipality if spill has the potential to travel or travels beyond drilling or production site boundary.

5. Vehicle accident with injury and/or damage greater than \$5,000 but less than \$10,000.

Contact: Contact: 911 and depending on the accident call appropriate personnel. Note: In the event of a death coordinate next of kin notification by the police. Must contact State Office/BLM within 24 hours and OSHA, if fatality report within 8 hours, all others 24 hours. Let field staff and leadership aware and let State and BLM offices aware of situation.

Colorado Report: - Fill out eForm 22 on ECMC website

6. Property damage greater than \$5,000 but less than \$50,000.

Contact: Depending on damage contact 911, field staff and leadership and State and BLM office. It might also be necessary to contact the surface owner.

Colorado Report: - Fill out eForm 22 on ECMC website

7. Significant Notices of Violation, fines, penalties, administrative orders, etc. received from any government agency.

Contact: Depends on violation and/or penalties

Report: Depending on violation

8. Natural disasters or severe weather events.

Contact: Depends on violation and/or penalties. On-Site Group Supervisor to contact on location personnel to ensure their safety.

Report: Depending on the effects of weather events.

Level 3 - Highest Level

1. Incidents involving death or multiple injured employees, contractors, or the public.

Contact: 911 and depending on the accident call appropriate personnel.

Note: In the event of a death coordinate next of kin notification by the police. Must contact State Office/BLM within 24 hours and OSHA, if fatality report within 8 hours, all others 24 hours

Colorado Report: Must report within 24 Hours

- Fill out eForm 22 on ECMC website

2. Gas or vapor release requiring evacuation of third parties.

Contact: HAZWOP/HAZMAT (888)-506-3165. Call NRC immediately if hazardous vapors.

Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF

Contact local municipality.

Major spills, toxic gas releases, or other significant environmental damage, or greater than 5 bbl.

3. Contact: HAZWOP/HAZMAT (888)-506-3165 or Chem Tel (only identifies reported chemicals stored on location) 800-255-3924. State Offices (WOGCC or ECMC) if ≥ 1 bbl. spill outside of berms or secondary containment, ≥ 5 bbl. spill completely contained within berms or secondary containment. > 100 bbl. if contained entirely by a facility berm or a spill of 10-100 bbl. (no call required, written report within 15 days) >100 bbl. if NOT contained call. Must also contact CDPHE >25 gal. release. Call NRC immediately if hazardous vapors.

Colorado Report: https://ecmc.state.co.us/forms/PDF_Forms/form19.PDF

Contact local municipality.

4. Blowouts.

Contact: Well Control (Halliburton) 281-931-8884 or 800-BLOWOUT.
Call State and local authority immediately.

5. Fires not immediately controlled and extinguished, typically fires that involve third party emergency response.

Contact: 911 and fire department. Call State and BLM offices and EPA. If injury occurs due to fire call OSHA.

Colorado Report:

- Fill out eForm 22 on ECMC website

6. Vehicle accident with damage greater than \$10,000.

Contact: 911 and depending on the accident call appropriate personnel. Note: In the event of a death coordinate next of kin notification by the police. Must contact State Office/BLM within 24 hours and OSHA, if fatality report within 8 hours, all others 24 hours. Let field staff and leadership aware and let State and BLM offices aware of situation.

Colorado Report:

- - Fill out eForm 22 on ECMC website

7. Property damage greater than \$50,000.

Contact: Depending on damage contact 911, field staff and leadership and State and BLM office. It might also be necessary to contact the surface owner.

Colorado Report:

- Fill out eForm 22 on ECMC website

8. Incidents that have potential for media coverage.

Contact: Dependent on type of incident. Call internal crisis team.

APPENDIX C SITE SPECIFIC EMERGENCY RESPONSE INFORMATION

APPENDIX C.1 –VULCAN 6-64 10-8 PAD, ELBERT COUNTY

APPENDIX C.2- MARBLE-REDSTONE PAD, ELBERT COUNTY

APPENDIX C.3 –CRYSTAL-RUBY PAD, ELBERT COUNTY

APPENDIX C.4 – IRWIN-TAYLOR PAD, ELBERT COUNTY

APPENDIX C.5 – CINNAMON 6-54 19-7 PAD, ELBERT COUNTY

APPENDIX C.6 – RAGGED 6-64 4 PAD, ELBERT COUNTY

APPENDIX C.7 – SECRET STASH 5-65 35 PAD, ARAPAHOE COUNTY

APPENDIX C.8 – STATE 35-13 PAD, ARAPAHOE COUNTY

APPENDIX C.9 – INVICTA 3-36 28 PAD, CITY OF AURORA, ADAMS COUNTY

APPENDIX C.10 – CASTLES 4-64 35-26 PAD, ARAPAHOE COUNTY

APPENDIX C.11 – GUNSIGHT-PARADISE 5-64 PAD, ARAPAHOE COUNTY

(Submittal to City of Aurora includes only Appendix C.9)



**APPENDIX C.9
TO FIELD WIDE
EMERGENCY RESPONSE PLAN
EMERGENCY ACTION PLAN AND
SITE SECURITY PLAN
FOR
INVICTA 3-65 28 PAD**

Facility Specific Emergency Response Plan

**N1/2 Sec. 28, T3S, R65W, 6TH P.M
City of Aurora, Adams County Colorado**

39.764867, -104.668089

Application Number: DA-2371-00, Case Numbers: 2023-6050-00

**Plan Update by CDH Consulting, LLC
January 29, 2024**

All emergency calls should first be made to 911, and then followed up to the appropriate contacts listed later in this facility specific response plan.



EMERGENCY ACTION PLAN AND EMERGENCY RESPONSE PLAN DESCRIPTION

This document is provided as Appendix C.9 to the GMT Exploration Company, LLC (GMT) Field wide Emergency Response Plan (ERP) for the White Rock Field, Colorado, and provides site specific information for the GMT Invicta 3-65 28 Pad location to complement the field wide ERP. The information in this document also is provided to address the requirements for a site-specific Emergency Action Plan (EAP) and includes activity during the construction, drilling, and completion of the eight proposed wells on this Location and includes post-completion production operations.

Per Aurora Oil and Gas Operation requirements, each Operator will have a functioning Emergency Action Plan (EAP) that provides for the effective management of emergency situations that may arise from Oil and Gas Operations. Additional requirements for an ERP including piping controls, locations and general field-wide plans and site-specific requirements are included in this document and accompanying Field wide ERP. This document for this location has also been updated to include the required elements of an Emergency Action Plan and a Site Security Plan.

All existing and proposed Oil and Gas Locations will have an Emergency Response Plan in place that has been coordinated with, and approved by, the local emergency response agency. The plan may be Oil and Gas Locations within a Field or geographical area so long as the emergency response agency agrees. After the initial emergency response plan has been coordinated with, reviewed by, and approved by the local emergency response agency, the emergency response plan will then be reviewed and updated on an annual basis or as conditions, or responsible individuals change.

The City of Aurora's Office of Emergency Management will be provided a copy of GMT 's field wide emergency and security planning documents, which detail how GMT personnel will respond in the event of an emergency. Approval of Emergency Action Plan will be requested from the Office of Emergency Management (OEM) and the fire district having jurisdiction at the facility. Review and approvals will be requested at these times:

- a. after the well pad is constructed and before the Drilling Phase commences,
- b. prior to the start of the Production Phase, and
- c. annually thereafter.

SITE SECURITY PLAN

Location/Identification

The site is located within the city limits of Aurora, Colorado in a rural area. Signage identifying the wells and pad name and registration with the State of Colorado identification will be indicated on the signage posted at the entrance. No Trespassing signage and warnings will be posted at the entrance from the primary access road as well as the direct entrance to the facility.

Security Features during Drilling and Development

During site construction and preliminary activity, including drilling, pre-production well development and facility construction, a cattle guard will be situated at the entrance gate to discourage wildlife and stock from entry to the facility. A barbed wire fence will surround the exterior perimeter of the leased pad area. A swing gate with a lock will control access via the entrance road to the site during periods when the location is not manned.

During drilling, hydraulic fracturing and flow back periods of well installation and early production a gate guard will be employed to monitor incoming and outgoing traffic and personnel. A list of personnel /sign in /sign out sheet will be maintained and all persons entering an exiting the facility will be required to sign in and sign out. Any unauthorized personnel who enter the facility location will be notified that they are trespassing and will be

escorted from the-site location Prior to production these activities are manned 24 hours per day while fluids and gasses are being processed. Minimal chance exists for unauthorized entrants to cause a release of fluids or gases prior to completion of the wells and routing of the produced oil and gas to the permanent production equipment. Enhanced remote security measures will be implemented as the facility transitions to production.

Security Features During Production

The completed production location will be surrounded by 8-foot-high chain-link privacy fencing. Access will be via single road entry/exit controlled using a cantilever security gate system. Authorized entrants will be required to enter a code or a gate combination to gain site access through the security gate during any period where operations personnel are not at the location and monitoring traffic arrivals. Emergency access for firefighting personnel will be provided by a Knox Box mounted on the exterior gate system adjacent to the entrance road. The entrance and exit access road on the southwest side will include monitoring using motion-activated high resolution security cameras. Security cameras will also be situated to monitor the overall site conditions and the tank loadout areas. Emergency pedestrian egress gates will be centrally located along the northeastern and southeastern perimeter boundaries.

Automated Safety Systems

System operations are controlled using an automated safety system governed by safety devices and a programmable controller. Conditions are monitored using a remote system. Operational alarm conditions automatically shut in system operations by closing appropriate control valves where a hazardous condition may be occurring. Alarms conditions automatically notify facility operators via cellular text and electronic mail messages in the event of a situation requiring immediate attention as well as during precautionary conditions requiring adjustment. On site and remote-control screens will be password activated and employees will be directed to log out any time the control center is not manned by operations personnel. Operations personnel are on call 24 hours per day and personnel are situated in the area of the facility either on this site or nearby locations on a continuous basis and will be able to respond to emergency conditions at this facility.

An automated safety system, governed by safety devices and a programmable logic computer, will be installed at the Oil and Gas Location. The automated safety system shall include the installation, monitoring, and remote control of a Surface Safety Valve (SSV), among many other engineered measures and devices that are implemented to greatly reduce or eliminate the potential for a Well event. All Wells will have an SSV installed prior to the commencement of the Production Phase, which is connected to the production tubing at the surface. The SSV will be equipped to operate remotely via the automated safety protective system, which monitors multiple flowing pressures and rates which have predetermined maximum and/or minimum threshold values programmed and will remotely shut-in wells should certain upset conditions be detected. Additionally, the automated safety system provides the ability to remotely shut-in wells on demand through remote intervention. The SSV will have documented quarterly testing to ensure functionality.

Site Operational Safety

Site personnel will conduct a daily inspection of security devices for function, valve and piping conditions and pressure values, and secondary containment and tank level conditions. Issues requiring attention will be addressed on a daily basis.

Valves having the potential for releasing oil, gas or water from tanks and piping will be locked and blind ends will be plugged and will not be accessible to the general public. Following completion of oil and water pipeline take-away for produced fluids via buried pipelines, valves and piping accessing tank storage will be locked and plugged. Loadout connections will be situated within secondary containment structures.

EMERGENCY ACTION PLAN

The following Emergency Action Plan details responses applicable to the oil and gas location and operational equipment, flowlines, crude oil transfer lines associated with the Invicta 3-65 28 Pad. Additional detail is provided in the Field Wide Emergency Response Plan/Emergency Action Plan.

Contact Information

Operator Personnel

For any emergency related incident, First Responders or Aurora Office of Emergency Response should contact one of the following personnel with GMT Exploration Company, or the 24-hour emergency response numbers if after normal working hours:

Contacts- GMT Exploration Company	Telephone	email
BJ Cox, Production Superintendent	307-354-8895	BJCox@gmtexploration.com
Dennis Snow, VP Operations, Health, Safety and Environmental (EHS) Manager	303-503-2190	Dsnow@gmtexploration.com
Maxwell Blair, Regulatory Manager	303-586-9291	Mblair@gmtexploration.com
Operator’s 24-Hour Emergency Response Number (24/7)	866-868-3028	
Operator’s Community Response Number (24/7)	844-571-3119	

The GMT Exploration Company physical address is: 4949 South Niagara Street, Suite 250, Denver, CO 80237

Additional support and site operations management is provided by

4W Oil Field Services	Telephone	email
Chris Jones	720-525-9202	chris.jones@4Woilfieldservices.com
Steven Wilden	520-560-9521	steven.wilden@4Woilfieldservices.com

Additional Emergency Services Contacts include the following:

Emergency Services Contacts		
Service	Third Party Resource	Telephone Number
NATIONAL (US)		
Safety Data Sheets (SDS) (chemicals on location)	Chem Tel	800- 255-3924
Spill Response (HAZWOPER/HAZMAT)	ECOS	888- 506-3165
Well Control Blowout	Well Control (Halliburton)	281-931-8884 800- BLOWOUT
Media Communication	Phil Wood	720-273-8919
LOCAL		
Air & Groundwater Monitoring	CDH Consulting Chris Shephard	303-229-7233
Facility Repair	Cross Energy Rudy Garda	970-388-4032
Facility Reclamation	M&M Excavation Eric Hargrave	970-539-0783

Invicta 3-65 28 Pad Location Specifics

Location Overview

The Invicta 3-65 28 Pad access is located approximately 2,000 feet South of E 38th Avenue and approximately 2,800 feet west of Adams County Road 21 (Monaghan Rd) (Figure 1).

A Facility map detailing location of aboveground facilities, Flowlines, and associated equipment for emergency response for the preliminary drilling and development activity is attached as Figure 2 and the preliminary production pad layout is provided as Figure 3. A more detailed site plan is provided as Attachment A. An as-built facilities map identifying locations of above ground equipment and flow lines will be provided following site construction in a format suitable for input into a GIS system.

Description of Equipment - Please make sure to include that all tanks will have NFPA labels identifiable from 100'.

Transportation Routes

The main access road will begin 3,230 feet west from the intersection of E 38th Ave and Monaghan Rd. and extend approximately 2,160 feet south to the drilling pad location.

Description of Equipment

The Invicta 3-65 28 Pad location is designed to contain 8 wells, 6 oil / condensate tanks, 2 water tanks, modular large volume tanks for temporary storage of water during completion, acid and flowback fluid during drilling/completion, 3 separators, 4 gas compressors, electric motors, 1 LACT unit, 2 vapor recovery units, 1 electric generator, and one transformer. Initial development may include a lower number of wells and treatment equipment.

Schools and Other High Occupancy Buildings

There are no schools and Child Care Facility's or other high occupancy buildings within one mile from this location.

Nearby Residents

There are no occupied residences within 2000 feet of the facility location. A former residence is slated for Demolition.

See the attached Figure 1 for the closest land use indicated within one-mile of the planned pad location.

Government Agencies

For the Invicta 3-65 28 Pad: the following state government agencies and local contacts will be contacted in the event of an emergency:

Contact	Phone
Colorado Energy & Carbon Management Commission (ECMC)	303-894-2100
Colorado Department of Public Health and Environment (CDPHE)	877-518-5608
City of Aurora Local Government Designee (Jeffrey Moore)	303-739-7676

Initial Emergency Response

In the event of an emergency that has the potential to have an impact extending any area beyond the confines of the oil and gas location, GMT operations personnel will follow the following protocol:

- Assess the need for immediate evacuation and do so, contacting 911 when safe to do so
- If can safe to do so complete the following:
 - Shut down production by shutting in the wells
 - Stabilize fluid and piping pressures, close upstream valves as possible to reduce volume of release.
- Notify appropriate parties/agencies depending on if release is contained, volume of release and location
- Notify GMT management,
- Mobilize support for cleanup
- In case of an emergency, related to the Invicta oil and gas location, flowline, and crude oil transfer line GMT will rely on Aurora Fire Department for foam response to a hydrocarbon fire. GMT will reimburse Aurora Fire for any foam used in an emergency response.

Key information needed for notifications include:

- Location or facility and call back phone number
- Type of emergency
- Time of discovery
- Magnitude of emergency (size of fire or spill, number of people involved, injuries, other properties or companies are involved)
- What you have done prior to making notification
- What external outside notifications have been made
- Recommended next steps for the response
- Weather conditions
- What assistance is needed

First Responders

The following First Responders and Emergency Management Offices will be contacted in the case of an emergency at the Invicta 3-65 28 Pad:

Contact	Phone
Police/Fire/EMS	911
National Response Center	800-424-8802
Aurora Police Department	303-627-3100
Aurora Fire Rescue	303-326-8999
Aurora Office of Emergency Management	303-739-7000

Aurora Fire Rescue is the primary response agency and employs full time fire fighting and rescue personnel.

A copy of this information will be kept onsite so personnel will quickly know who to contact in the event of an emergency.

Contractors available to support cleanup include:

Cross Energy, Rudy Gardea
970-388-4032

Nearest Hospitals with Trauma Centers

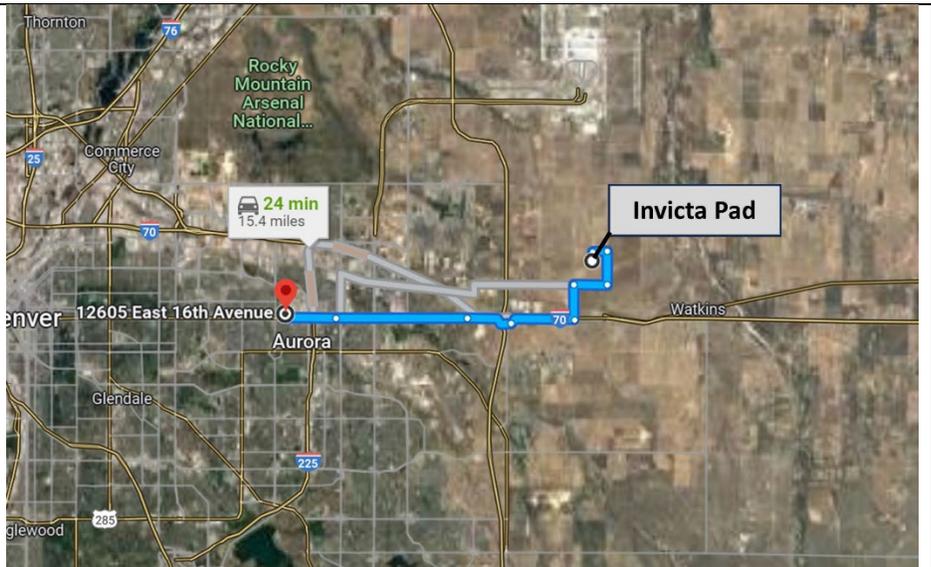
The Invicta 3-65 28 Pad has the following nearby hospitals with emergency rooms that will be utilized in the event of an emergency:

Contact/Location	Map from Location

UC Health University of Colorado Hospital (UCH)

12605 E 16th Ave
Aurora, Colorado 80045
(720) 848 9111

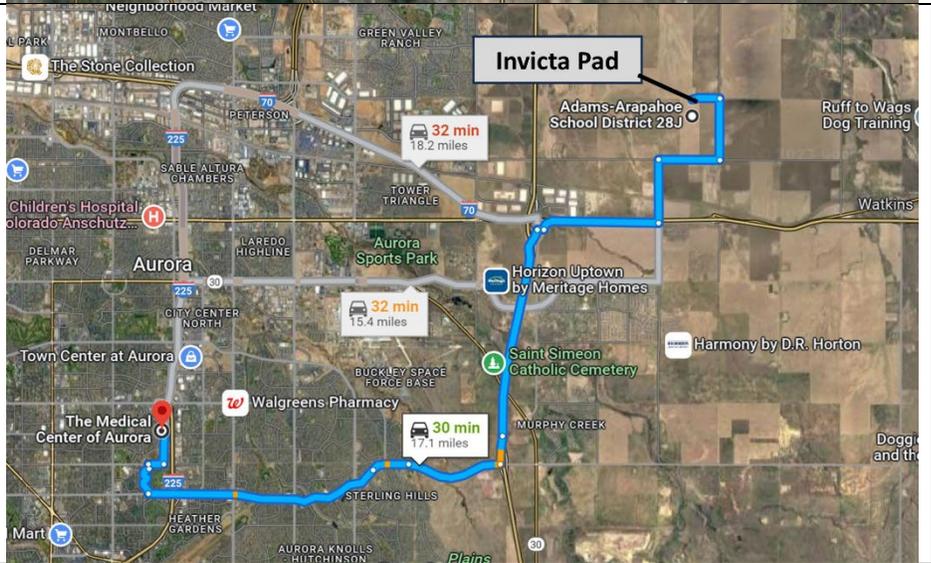
- Distance from location: 15.4 miles
- Ground travel time: ~24 minutes
- Level 1 Trauma Center
- Burn Unit



The Medical Center of Aurora

1501 S Potomac St,
Aurora, CO 80012
(303) 695 2600

- Distance from location: 17.1 miles
- Ground travel time: ~30 minutes
- Level II Trauma Center



Site Safety Requirements

Personal Protective Equipment

All personnel on location must be equipped with appropriate personal protective equipment (PPE) that complies with OSHA requirements for typical oil and gas operations. The minimum PPE to enter the location includes hard hat, safety glasses, safety toe boots, and fire-resistant clothing (FRC). All contractors and visitors are responsible for providing their employees with the appropriate PPE while on location. In addition, all contract personnel entering the location to perform work must understand and abide by Operator's contractor expectations relating to environmental, health and safety requirements.

Additionally, emergency items such as portable explosive, four gas detectors, and a first aid command center will be onsite during the drilling and completion operations.

Daily Safety Meetings

All personnel on location during drilling and completion operations are required to attend daily safety meetings.

Controlled Access

During drilling and completion operations all employees and approved visitors will be required to sign in and sign out and will be provided a safety briefing.

Emergency Muster/Assembly Points

A muster area will be setup on location or outside the entrance depending on prevailing wind. Large red signs will identify the location and it will be pointed out during the daily safety meetings. The muster location will be at least 200 feet from operating equipment and the oil well during drilling.

Location of Emergency Equipment and Supplies

As per Operator's field wide ERP, if an emergency were to occur related to public or worker safety, Operator personnel will immediately contact the Field Supervisor, who will obtain and supply emergency response equipment. Should additional resources be needed, Field Supervisor will contact ECOS at 888- 506-3165 to aid in response.

Limited spill resources will be available on transport trucks and in an emergency spill kit stored in a drum, to be located in the vicinity of the facility entrance. Items will include fire extinguishers, oil sorbent pads, socks and/or booms.

Emergency response services include identification of involved petroleum, analysis of environmental fate, determination of safe levels in air, water, soil, or other media, education of local health providers regarding the involved substances, and general incident management.

Spills

All spills will be reported to the ECMC and City of Aurora as required per ECMC rules, and cleaned up, per Operator's field wide ERP. Any spill outside of the containment area that has the potential to leave the Oil and Gas Location or to threaten water, or as required by the City-approved Emergency Action Plan, shall be reported to the City's Local Government Designee (LGD).

Plan and Process for Emergency Response

Follow the non-site-specific plan for response and reporting requirements. Include City of Aurora Local Government Designee in local municipality reporting requirements outlined in the plan.

Good Housekeeping

Piping used for loadout of oil or water will be situated within a secondary containment structure.

Safety Data Sheets - Chemicals

The Operator shall have current Safety Data Sheets (SDS) for all chemicals available upon request. The SDS will be provided immediately upon request to City officials, a public safety officer, or a health professional as required by ECMC regulations. GMT will install a water-tight mailbox at the site entrance that contains electronic copies of the SDS documentation for all chemicals on site.

Chemical Disclosure

All hydraulic fracturing chemicals must be disclosed to Aurora Fire Rescue as part of the Emergency Response Plan and are included as Attachment 2.

Chemical Storage

Chemicals will be stored safely out of traffic patterns and when containers are 55 gallons or more, secondary containment will be provided for all chemical storage vessels.

Chemicals Not Permitted for Use.

The listing provided by City of Aurora for chemicals not permitted for use at the location is provided as Attachment 3 These chemicals will not be used during hydraulic fracturing or production operations.

Plan Attachments:

Figure 1 Site Location and Surrounding Facilities

Figure 2 Site Plan Initial Well Development

Figure 3 Site Plan Full Site Development

Attachment 1 – Detailed Facility Layout

Attachment 2 – Chemical Storage List

Attachment 3 – Chemicals Not Permitted for Use List

FIGURES

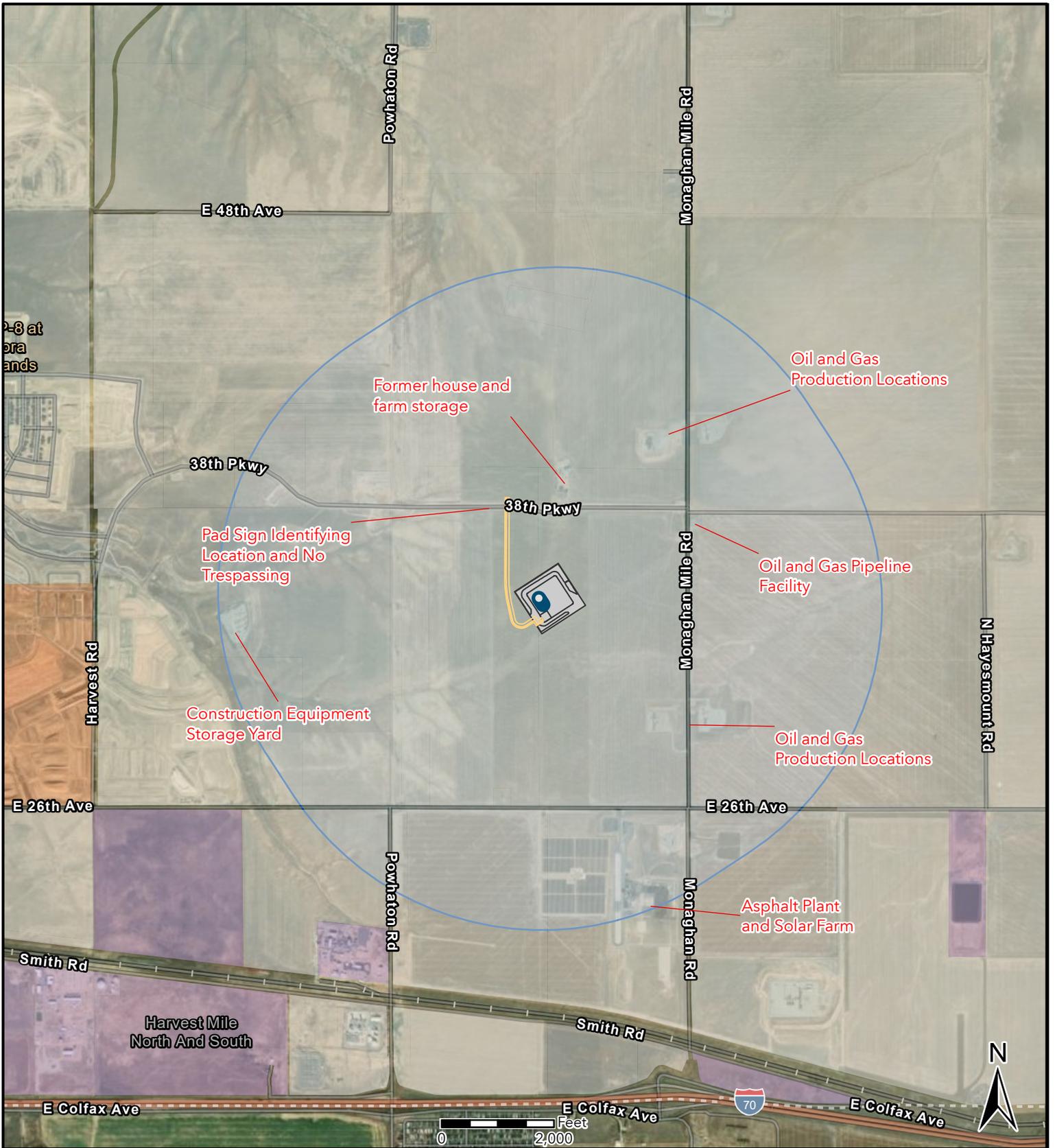


Figure 1
Invicta 3-65 28 Pad

- | | |
|-------------------------------------|------------------------|
| Well Spot | Land Use |
| 1-Mile Offset from Pad | Mixed Use Neighborhood |
| Planned Invicta Pad and Access Road | Mixed Use Employment |
| | Municipal Area |



GMT Exploration Company, LLC



Date Created: 1/3/2024

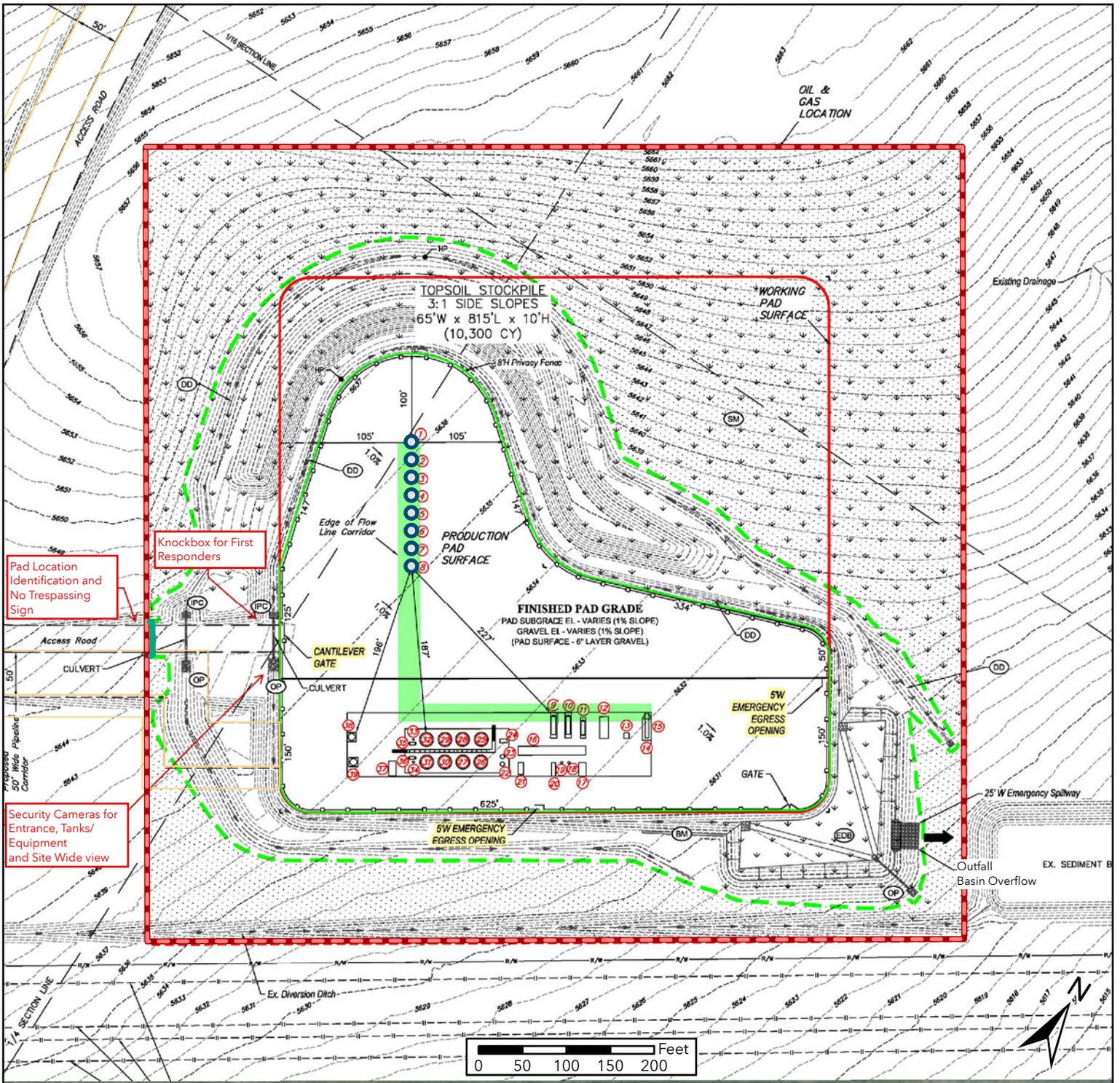


Figure 3
Invicta 3-65 28 Pad



- Legend**
- Well head
 - Fence
 - Cattleguard & Gate

- Labeled Equipment**
- Process Equipment(9, 10, 11, 15, 17, 22, 23)
 - Water Tank (25 & 26)
 - Oil Tank (27-32)

GMT Exploration Company, LLC



Date Created: 1/4/2024

ATTACHMENT 1

DETAILED FACILITY LAYOUT

LEGEND			
	HIGH POINT ELEVATION		PRIVACY FENCE
	DIVERSION DITCH		EXISTING PIPELINE R-O-W
	RIP RAP APRON		EXISTING PIPELINE
	SEDIMENT CONTROL LOG		EXISTING MAJOR CONTOUR
	SEEDING AND MULCHING		EXISTING MINOR CONTOUR
	EXTENDED DETENTION BASIN		WORKING PAD SURFACE
	RRB FOR CULVERT PROTECTION		OIL & GAS LOCATION
	BERM		PRODUCTION PAD SURFACE
			UN-RECLAIMED AREA



APPROXIMATE WELL SITE DISTURBANCE AREAS		
WORKING PAD SURFACE DISTURBANCE		ACRES ±8.585
CONSTRUCTION DISTURBANCE		±10.490
TOTAL OIL & GAS LOCATION		±19.075

APPROXIMATE SURFACE DISTURBANCE AREAS		
TOTAL OIL & GAS LOCATION	DISTANCE	ACRES
60' WIDE ACCESS ROAD R-O-W DISTURBANCE	±2325'	±3.202
50' WIDE PIPELINE CORRIDOR DISTURBANCE	±2827.68'	±3.246
TOTAL SURFACE USE AREA		±25.523

WORKING PAD SURFACE DISTURBANCE = 8.585 ACRES
 PRODUCTION PAD SURFACE = 4.845 ACRES
 APPROXIMATE UN-RECLAIMED DISTURBANCE = 10.301 ACRES
 APPROXIMATE RECLAIMED DISTURBANCE = 8.774 ACRES
 TOTAL OIL & GAS LOCATION = 19.075 ACRES

- NOTES:**
- Rounded corners shown at 35' radius.
 - Contours shown at 1' intervals.
 - Cut/Fill slopes 3:1 (Typ. except where noted).
 - Overall Drilling Working Pad Surface = 625' x 600'

EQUIPMENT LIST	
1	3-65 30-26 1H WELLHEAD
2	3-65 30-26 2H WELLHEAD
3	3-65 30-26 3H WELLHEAD
4	3-65 30-26 4H WELLHEAD
5	3-65 30-26 5H WELLHEAD
6	3-65 30-26 6H WELLHEAD
7	3-65 30-26 7H WELLHEAD
8	3-65 30-26 8H WELLHEAD
9	BULK OIL TREATER
10	BULK OIL SEPARATOR
11	TEST SEPARATOR
12	INSTRUMENT AIR SKID

EQUIPMENT LIST	
13	TRANSFORMER
14	ELECTRICAL RACK
15	GENERATOR
16	INLET MANIFOLD SKID
17	GAS LIFT COMPRESSOR
18	SALES GAS SCRUBBER
19	FUEL GAS SCRUBBER
20	SALES GAS METER
21	VRU GAS COMPRESSOR
22	VAPOR RECOVERY TOWER
23	VAPOR RECOVERY TOWER
24	RECYCLE PUMP

EQUIPMENT LIST	
25	WATER TANK (750 BBL)
26	WATER TANK (750 BBL)
27	OIL TANK (750 BBL)
28	OIL TANK (750 BBL)
29	OIL TANK (750 BBL)
30	OIL TANK (750 BBL)
31	OIL TANK (750 BBL)
32	OIL TANK (750 BBL)
33	HP ECD KNOCKOUT PUMP
34	LP ECD KNOCKOUT PUMP
35	HP ECD KNOCKOUT DRUM
36	LP ECD KNOCKOUT DRUM

EQUIPMENT LIST	
37	OIL LACT SKID
38	ECD
39	ECD

ATTACHMENT 2

LIST OF CHEMICALS TO BE USED AT THE DRILLING /PRODUCTION PAD LOCATION

**CHEMICALS USED FOR
DRILLING
INVICTA PAD
GMT EXPLORATION
COMPANY**

WEIGHT MATERIAL AND CLAYS

1329F	GEL HY - 50 LB BAG	High Yield Bentonite
2575F	DMI WATE - 100 LB BAG	Barite
2574F	DMI WATE - 2000 LB BULK	Barite

POLYMERIC VISCOIFIERS, SHALE STABILTY, FLOCCULAANTS AND SPECIALTY PRODUCTS

2803F	AQUCAR GA 25 - 5 GAL PAIL	Biocide
1568F	ISO-DRILL™ - 5 GAL PAIL	Liquid PHPA (30% Active)
1291F	INTERLLI-FLOC™ 1 - 55 LB BAG	Dewatering Flocculant - Anionic Polyacrylamide
1352F	XAN D - 25 LB BAG	Xanthum Gum Bio-Polymer

FLUID LOSS CONTROL AGENTS

1251F	AQUA-FILM™ CM - 50 LB BAG	Carboxymethyl Starch
1062F	PAC LV - 50 LB BAG	Polyanionic Cellulose Low Viscosity
1063F	PAC R - 50 LB BAG	Polyanionic Cellulose

THINNERS

1040F	CF DESCO II - 25 LB BAG	Organic Mud Thinner (Chrome Free)
1060F	LIG - 50 LB BAG	Lignite
1046F	SAPP - 50 LB BAG	Sodium Acid Pyrophosphate
1047F	SAPP STICKS - EACH	Sodium Acid Pyrophosphate

CHEMICAL AND SPECIAL USE PRODUCTS

1069F	ALUMINUM STEARATE - 25 LB BAG	Defoamer
1000F	CAUSTIC SODA - 50 LB BAG	Sodium Hydroxide
3421F	CAUSTIC SODA FLAKE - 55 LB BAG	Sodium Hydroxide
1485F	CITRIC ACID - 50 LB BAG	Citric Acid
2538F	COR-CHEK™ III - 55 GAL DRUM	Amine Corrosion Inhibitor, Oxygen Scavenger, Biocide
1280F	FLOOR DRY - 50 LB BAG	Oil Absorbent
3439F	EXTRA DEFAOM PLUS - 5 GAL PAIL	Specialty Defoamer
1001F	GYPSUM - 50 LB BAG	Hydrated Calcium Sulfate
1003F	LIME - 50 LB BAG	Calcium Hydroxide
1301F	SOAP STICKS - EACH	Concentrated Drilling Detergent Sticks
1006F	SODA ASH - 50 LB BAG	Sodium Carbonate
1007F	SODIUM BICARBONATE - 50 LB BAG	Sodium Bicarbonate
1269F	SOLTEX® - 50 LB BAG	Sulfanted Asphalt Blend
1168F	TENSION-EZE™ - 5 GAL PAIL	Drilling Detergent
1297F	WASH-UP™ - 55 GAL DRUM	Rig Soap

LUBRICANTS

2911F	FCX-008™ - 275 GAL TOTE	High Performance Lubricant
3043F	FRICTION-EZE™ HA - 55 GAL DRUM	Non-Toxic Oleochemical-Based Lubricant
2852F	FRICTION-EZE™ HA - 275 GAL TOTE	Non-Toxic Oleochemical-Based Lubricant
3390F	PG-1000 - 275 GAL TOTE	Glycerol-Based Lubricant

LOST CIRCULATION MATERIAL

1107F	MICA (C) - 50 LB BAG	Ground Mica
1108F	MICA (F) - 50 LB BAG	Ground Mica
1109F	MICA(M) - 50 LB BAG	Ground Mica
3407F	MULTI SEAL - 40 LB BAG	Cedar Fiber, Paper, Cellophane, Walnut Shells
1112F	CARB (C) - 50 LB BAG	Ground Calcium Carbonate
1113F	CARB (F) - 50 LB BAG	Ground Calcium Carbonate
1114F	CARB (M) - 50 LB BAG	Ground Calcium Carbonate
1116F	FIBER C - 25 LB BAG	Micronized Natural Cellulose Fiber
1117F	FIBER F - 25 LB BAG	Micronized Natural Cellulose Fiber
3309F	SAWDUST - 40 LB BAG	Sawdust
1140F	WALNUT SHELLS M - 50 LB BAG	Ground Walnut Shells

OIL MUD PRODUCTS

1222F	CALCIUM CHLORIDE - 50 LB BAG	Calcium Chloride
1059F	ECOPHALT™ 350 - 50 LB BAG	Gilsonite
3427F	ORGANOCLAY 22A	Low End Rheology Modifier
3444F	UF-MUL I - 55 GAL DRUM	Primary Emulsifier
3445F	UF-MUL II - 55 GAL DRUM	Secondary Emulsifier
1197F	PETRO-WET™ - 55 GAL DRUM	Wetting Agent
2337F	PREMA-VIS PLUS - 50 LB BAG	Organophilic Clay

LIQUIDS

2600F	OIL-BASE MUD RENTAL - (2,000 BBLs per RIG)	Rental of Oil-Base Mud
2600F	LOST OIL-BASE MUD - (SEE SLIDING SCALE)	Lost OBM Prices (Based on sliding scale - Diesel Prices)

Attachment to to Invicta ERP/EAP Chemicals used during Drilling

**CHEMICALS AND MATERIAL USED DURING HYDRAULIC FRACTURING
INVICTA PAD, AURORA, COLORADO
GMT EXPLORATION COMPANY**

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)
Water	Operator	Carrier	Water	7732-18-5
SLICKFIX-W	Raptor Innovations	Surfactant	Water	7732-18-5
			Methanol	67-56-1
			Proprietary Ingredient	Proprietary
FRP-1S	Liberty Oilfield Services	Friction reduction	Petroleum distillates, hydrotreated light	64742-47-8
			Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched	69011-36-5
BioSuite GQ510x	Biosuite	Biocide	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1
			Glutaral	111-30-8
			Ethanol; ethyl alcohol	64-17-5
SpearPoint-WL	Liberty Oilfield Services	Solvent	Synthetic Organic Salts	Proprietary
Liberty Clean Out Fluid G	Liberty Oilfield Services	Cleanup Solution	Oxygenate and paraffinic stream	876065-86-0
Crystalline Silica, Quartz / Unimin Corp	Liberty Oilfield Services	Sand	Crystalline Silica in the form of Quartz	14808-60-7

SLICKFIX-W

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: SLICKFIX-W
 SDS Number:
 Revision Dale: 01/10/23
 Version: 1
 Product Use: FOR EXTERNAL USE ONLY
 Supplier Details: Raptor Innovations
 12180 44th St SE
 Calgary AB, T2Z4A2
 Phone: 403-437-0600
 Em,Lil: doug@raptorinnovations.com
 Emergency: Chemtrec 1-800-262-8200

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):
 Health, Serious Eye Damage/Eye Irritation, 2 A Physical,
 Flammable Liquids, 3
 Health, Acute toxicity, 3 Oral
 Health, Acute toxicity, 3 Dermal
 Health, Specific target organ toxicity - Single exposure, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H319 - Causes serious eye irritation
- H225 - Highly flammable liquid and vapour
- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H370 - Causes damage to organs

GHS Precautionary Statements:

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 - Ground and bond container and receiving equipment.
- P241 - Use explosion-proof [electrical/ventilating/lighting/...] equipment.
- P242 - Use non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- CGA-MP01 - IF ACCIDENTLY INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Route of Entry: Eyes; Ingestion; Ingestion; Inhalation; Skin;
 Inhalation: Can cause irritation and inflammation of the respiratory tract.
 Skin Contact: May cause irritation, tearing and redness.
 Eye Contact: May cause serious eye irritation.
 Ingestion: Gastrointestinal distress may occur.

3 COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Ingredients:		
CAS#	%	Chemical Name:
7732-18-5	20-50%	water
67-56-1	20-34%	Methanol
-40-7	20-50%	Proprietary

4 FIRST AID MEASURES

Inhalation: If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
Skin: Promptly flush skin with water until all chemical is removed. Wash with soap and water. Remove contaminated clothing
Contact: immediately. Remove contaminated clothing immediately.
Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Remove contact lenses, if present and easy to do. Get immediate medical attention.
Ingestion: Do NOT induce vomiting or attempt chemical neutralization. Call Poison Control. Get prompt, qualified medical attention.

5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media: dry powder, foam, carbon dioxide

6 ACCIDENTAL RELEASE MEASURES

Avoid contact with eyes, skin, and clothing. Completely contain spilled material with dikes, sandbags, etc. Keep away from drains and ground water. Do not discharge into drains. Pick up excess with inert absorbent material and place into separate waste container. Use personal protective equipment recommended in Section 8.

7 HANDLING AND STORAGE

Handling Precautions: Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Do not expose containers to open flame, excessive heat, or direct sunlight.
Do not puncture or drop containers. Handle with care and avoid spillage on the floor (slippage). Keep away from sources of ignition. Use approved containers only.
Wash clothing before reuse and decontaminate or discard contaminated shoes.
Storage Requirement: Keep away from heat, sparks, and flames. Keep container tightly closed and properly labeled. Store in cool/dry area. Store in original container.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: HMIS PP, B | Safety Glasses, Gloves Safety glasses/goggles; splash glasses/goggles. Chemical resistant gloves.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless liquid.		
Physical State:	Liquid	Odor:	Alcohol odor
Spec Grav./Density:	0.9 – 1.0	Solubility:	Complete

10 STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.
Chemical Stability: Product is stable under normal conditions. Avoid sources of ignition such as sparks, hot spots, welding flames and lighted cigarettes which may yield toxic and/or corrosive decomposition products.

Conditions to Avoid: Extreme temperatures.
Hazardous Decomposition: Not known.

11 TOXICOLOGICAL INFORMATION

Toxicity data: Proprietary
Eyes: Moderate to serious eye irritation
Skin: Moderate to serious skin irritation, burning
Ingestion: Not Known
Acute Inhalation effects: Not Known
Chronic effects: Not Known
Carcinogenicity: Not Known
Mutagenicity: Not Known
Teratogenicity: Not Known

12 ECOLOGICAL INFORMATION

Elimination (persistence and degradability): The degradability of the product is not known.

13 DISPOSAL INFORMATION

Dispose of in accordance with local, state, and federal regulations.

14 TRANSPORT INFORMATION

UN 1993, Flammable Liquids, n.o.s. PG III
DOT
UN/ID No UN1993
Proper Shipping Name: Flammable Liquids, n.o.s. (Methanol)
Hazard Class 3
Packing Group IDII

15 REGULATORY INFORMATION

R 20 Harmful by inhalation. R 22 Harmful if swallowed. R 36 Irritating to eyes.



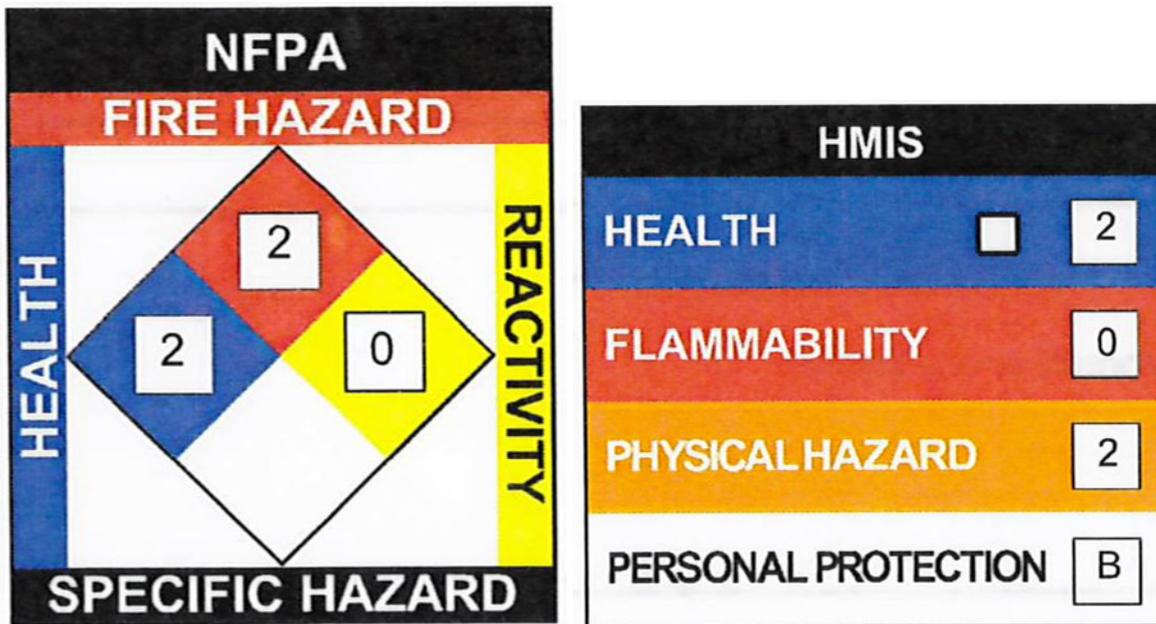
US TSCA Inventory: On or in compliance with the inventory



WARNING

This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

NFPA: Health = 2, Fire = 2, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 2, Fire = 0, Physical Hazard = 2
HMIS PPE: B – Safety Glasses, Gloves



The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Revision Date: 01/10/23

CHEMICALS AND PETROLEUM PRODUCTS ON SITE DURING PRODUCTION (ESTIMATED)

INVICTA PAD, AURORA, COLORADO

GMT EXPLORATION COMPANY

- Oil /condensate Up to 4500 Barrels
- Produced Water Up to 1500 Barrels
- Lube oil 535 gallons
- Antifreeze/coolant 535 gallons
- Methanol 535 gallons
- Emulsion Breaker 350 gallons

ATTACHMENT 3

LIST OF CHEMICALS NOT TO BE USED DURING HYDRAULIC FRACTURING

Table 135-3-1 Chemicals Not to be Used in Hydraulic Fracturing.	
Ingredient Name	CAS #
Benzene	71-43-2
Lead	7439-92-1
Mercury	7439-97-6
Arsenic	740-38-2
Cadmium	7440-43-9
Chromium	7440-47-3
Ethylbenzene	100-41-4
Xylene-f	1330-20-7
1,3,5-trimethylbenzene	108-67-8
1,4-dioxane	123-91-1
1-butanol	71-36-3
2-butoxyethanol	111-76-2
N,N-dimethylformamide	68-12-2
2-ethylhexanol	104-76-7
2-mercaptoethanol	60-24-2
benzene, 1, 1'-oxybis-, tetrapropylene derivatives, sulfonated, sodium salts (BOTS)	119345-04-9
Butyl glycidyl ether	2426-8-6
Polysorbate 80	9005-65-6
quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (QAC)	61789-77-3
bis hexamethylene triamine penta methylene phosphonic acid (BMPA)	35657-77-3
FD&C blue no. 1	3844-45-9
Tetrakis(triethanolaminate) zirconium (IV)(TTZ)	101033-44-7