

**Gas Storage Fact Sheet**  
**Kenai Gas Storage Facility, Swanson River Field, Alaska**  
**March 2005**

Overview: Since 2001, Unocal has been injecting gas into a depleted gas reservoir during the summer months (when there is an excess in supply) and producing that gas back during the winter months (when demand exceeds supply). To date, all of the gas placed into storage has physically come from Sterling, Beluga and Tyonek gas wells within the Swanson River Field. Gas is produced from the Swanson River Field wells into existing gas gathering facilities, compressed with existing compressors, and, instead of being sold off-lease, it is piped to the gas storage wells.

Starting in 2005, Unocal believes that additional storage capacity (additional wells/reservoirs) will be required to handle forecasted seasonal deliverability demand. In order to address this seasonal demand it will be necessary to create additional storage capacity. To facilitate seasonal deliverability, it will be necessary to supplement gas that is physically produced from Swanson River Field and injected into storage with gas that is physically produced outside of the Swanson River Field. This "outside gas" will be transported to the Swanson River Field via the existing gas pipeline, compressed with existing compressors, and piped to existing and newly designated storage wells. Gas storage leases will run concurrently with the underlying terms of the unitized oil and gas leases, i.e., the gas storage leases will cease when the oil and gas leases would have terminated in the absence of the gas storage leases.

The following are facts pertinent to natural gas storage at the Kenai Gas Storage Facility located within the Swanson River Field.

Roads and Pads:

- No new roads will be needed for the gas storage operation.
- No new well pads will be needed for gas storage operations.
- Operation of gas storage facilities will not increase traffic levels.

Pipelines:

- Existing gathering and distribution pipelines will be used whenever possible.
- When new pipelines are required,, existing pipeline corridors and road rights of way will be utilized.

Wells:

- Currently there are two active storage wells.
- The need for additional wells will be determined by the demand for gas deliverability and individual well performance.
- New wells would be developed on any of the approximately 60 existing pads.
- Whenever possible, existing well bores will be converted to storage wells.
- New wells may be required to replace existing gas wells that are mechanically unsuitable for storage use.
- Multiple wells may be required in a given gas storage reservoir to effect reliable deliverability.
- Peak deliverability from field wide storage operations is anticipated to be approximately 100 MMscfd.

Compression:

- Currently there are seven gas compressors in use.
- Maximum expected injection pressure is 4600 psi which is the same as current capacity.

New Facilities:

- An individual line heater will be required and installed at each storage well on existing pads. Line heaters are gas-fired vessels that warm the produced gas in order to prevent moisture in the gas from freezing. The footprint of a typical line heater is approximately 8' x 12'.
- Gas metering buildings will be required and installed on existing pads near the storage wells. The footprint of a typical gas metering building is approximately 12' x 24'.