

STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES

Gas Storage Lease **ADL No. 391556**  
(<5 bcf Reservoir)

**THIS LEASE** is entered into effective **July 1, 2011**, between the **State of Alaska**, "the state," acting by and through the Department of Natural Resources, Division of Oil and Gas, pursuant to AS 38.05.180(u) and 11 AAC 83.500 et.seq., and **Union Oil Company of California, a California Corporation**, "the lessee"

In consideration of the payment made by the lessee to the state, and subject to the provisions of this Lease, including any exhibits and addendums attached to this Lease, and by reference incorporated in this Lease, the state and the lessee agree as follows:

1. GRANT. (a) The state grants to the lessee:

(1) the right for Storage of Gas in the Gas Storage Formation under the following tract of land, as depicted on Exhibit A:

T. 14 N., R. 9 W., Seward Meridian, Alaska  
Section 36: SE $\frac{1}{4}$  including that portion of US Survey 3955, SE $\frac{1}{4}$ NE $\frac{1}{4}$ , 200.00 acres;

T. 14 N., R. 8 W., Seward Meridian, Alaska  
Section 31: S $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ , 151.00 acres;

T. 13 N., R. 9 W., Seward Meridian, Alaska  
Section 1: NE $\frac{1}{4}$  including that portion of US Survey 3955, SE $\frac{1}{4}$ , 320.00 acres;

T. 13 N. R. 8 W., Seward Meridian, Alaska  
Section 6: NW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$ , 192.5 acres;

containing approximately 863.5 acres, more or less.

**Gas Storage Formation Description**

Beluga 71-3 Gas Sand between the measured depth of 6,836 feet and 6,852 feet below the surface of the ground in the Ivan River 44-36 well, the surface wellhead of which is located in Section 1, Township 13 North, Range 9 West, Seward Meridian, Alaska.

(and referred to in this Lease as the "leased area"; and

(2) the right, subject to reasonable concurrent uses as determined by the state, to use the surface within the leased area as necessary for the purpose of Gas Storage, subject to the lessee obtaining the required federal, state, borough and municipal agency approvals, as required by law.

(b) The state makes no representations or warranties, express or implied, as to title, accessibility, suitability for use for any purpose, or to quiet enjoyment of, the leased area and is not liable to the lessee, or any third party, for any deficiency in title to the leased area. Neither the lessee, including any successor in interest to the lessee, or any third party, is entitled to any refund based on a deficiency in title to the leased area for any payments a lessee or a third party has made under this Lease.

2. **RESERVED RIGHTS.** The state reserves all rights not expressly granted to the lessee by this Lease that are not inconsistent with lessee's right to enjoyment of the rights granted to it under this Lease. These reserved rights include:

- (a) The right to conduct geological and geophysical surveys within the leased area;
- (b) The right to explore for, develop, and remove natural resources, other than Storage Gas on or from the leased area;
- (c) The right to establish or grant easements and rights-of-way upon, through, or within the Lease area for any lawful purpose;
- (d) The right to dispose of land within the leased area for well sites and well bores of wells drilled from or through the leased area to explore for or produce oil and gas resources in and from lands not within the leased area; and
- (e) The right to manage and dispose of the surface of the leased area or interests in that land by grant, lease, permit, or otherwise to third parties.

3. **TERM.** This Lease is issued for an initial term of ten (10) years from the effective date. This Lease will expire at 11:59PM on June 30, 2021.

4. **RENEWAL AND EXTENSION.** (a) This Lease may be renewed for one additional term of ten years if, at the end of the initial term, the lessee is diligently conducting operations, unless the commissioner finds that the extension will adversely affect the interests of the state. The lessee shall apply to renew or extend this Lease at least 180 days prior to lease expiration.

(b) If the state determines that the lessee has been prevented by Force Majeure, after efforts made in good faith, from performing any act that would extend the Lease, the Lease will not expire during the period of Force Majeure, and the state will grant a reasonable extension of time that may be different than the period of Force Majeure.

(c) Nothing in subparagraph (b) suspends the obligation to pay fees, rentals, royalties or other production or profit-based payments to the state from operations on the leased area that are not affected by any suspension or Force Majeure.

5. **GAS STORAGE FEE.** (a) The lessee shall pay a minimum annual fee to the state of \$10,000, plus \$5,000 for each well in addition to the IRU 44-36 Well used for Storage Operations. The minimum annual fee, paid in advance, is a credit towards the annual volume fee for that lease year calculated under paragraph 5(b).

(b) The lessee shall pay an annual volume fee of \$0.0417 per thousand standard cubic feet (Mscf) computed monthly and paid annually for all volumes of Non-Native Gas which are produced from the Gas Storage Formation.

(c) The lessee shall pay the annual fee to the state, on or before July 1 of each year for the period from June 1 through May 31. The state is not required to give notice that fees are due. If the state's (or depository's) office is not open for business on the annual due date, the time for payment is extended to include the next day on which that office is open for business.

(d) The annual fee shall be paid in advance, and adjusted in arrears based on the fee calculated under paragraph 5(b). If an extension is requested, the following year's payment shall be tendered with the request for an extension as set forth in paragraph 4.

(e) The annual fee under paragraph 5(b) will be subject to adjustment by the Consumer Price Index published by the Bureau of Labor Statistics of the United States Department of Labor on July 1, 2016, and every fifth year thereafter (the "adjustment date."). The fee will be increased to an amount equal to the fee previously in effect multiplied by a fraction, the numerator of which is the Anchorage Consumer Price Index, All Items, 1982-1984 for All Urban Consumers (CPI-U) for the 1<sup>st</sup> Half of the year for that adjustment date, and the denominator of which is the CPI-U published for the 1<sup>st</sup> Half of the year for the previous adjustment date; provided, however, in no event will the fee decrease. The base CPI-U index for the first adjustment in 2016 is the 1<sup>st</sup> Half 2011.

(f) Unless a gas storage fee schedule has been adopted by regulation, if an extension is requested under paragraph 4, in lieu of an adjustment under paragraph 5(e), the commissioner may require an adjustment based on the market value of the leased area determined through an appraisal methodology agreed to by the state and lessee, and in compliance with the Uniform Standards of Professional Appraisal Practice (USPAP) in effect at the time. An appraisal under this paragraph will be performed by an appraiser acceptable to the state and lessee. The appraisal will determine the market rental rate for a private gas storage facility in the Cook Inlet Basin based on a per Mscf of Produced Gas fee. Structural and site improvements performed by the lessee will not be considered in the appraisal. The fee adjustment takes effect on the applicable adjustment date, regardless of whether the adjustment determination occurs before or after that date. All reasonable costs of adjustment, including appraisal, if required by the state, shall be borne by the lessee.

6. NATIVE GAS ROYALTY. (a) The state and lessee agree for the purposes of this Lease that as of July 1, 2011, there are 0 BCF of recoverable Native Gas in the Gas Storage Formation under the leased area.

(b) Lessee shall make royalty payments to the state for Native Gas withdrawn from the Gas Storage Formation. For any month, Native Gas is the volume of Gas withdrawn that exceeds the difference of cumulative Gas Injections and cumulative Gas Withdrawals to date. The lessee will calculate the cumulative Gas Injection and Gas Withdrawal volumes daily. If the cumulative Gas Withdrawal volume is greater than the cumulative Gas Injection volume, the lessee shall make royalty payments to the state on the difference.

(c) After the lessee pays royalty on a volume of Native Gas calculated under paragraph 6(b), the cumulative Gas Injection volumes and cumulative Gas Withdrawal volumes will be reset to zero for the purpose of calculating royalty on Native Gas under paragraph 6(b).

(d) Royalty on the Native Gas withdrawn from the Gas Storage Formation under the leased area will be paid under the terms of the applicable Oil and Gas leases, as indicated in Exhibit B – Native Gas Royalty Payment Schedule. If Native Gas is withdrawn from state land with no applicable Oil and Gas lease, the lessee shall pay the state monthly royalty of the full market value of the Gas at the time it is withdrawn.

7. THIRD PARTY STORAGE. The lessee may provide third party storage in the leased area .

8. RECORDS. The lessee shall maintain records showing the development, production, and operations of the leased area (including records of development, operating expenses, and volumes), and disposition (including records of sales prices, volumes, and purchasers) of all Gas from the Gas Storage Formation. The lessee shall permit the state or its agent to examine these records at all reasonable times, and to make copies of those records. Upon request by the state, the lessee's records shall be made available to the state at the state office designated by the state. The lessee's records of development, production, and disposition must employ methods and techniques that will ensure the most accurate figures reasonably available. The lessee shall use generally accepted accounting principles (GAAP) consistently applied for its financial accounting records. The state is entitled to review all other relevant documents including those not subject to GAAP.

9. PAYMENTS. All payments to the state under this Lease must be made payable in the manner directed by the state, and unless otherwise specified, must be delivered to the state at:

DEPARTMENT OF NATURAL RESOURCES  
550 WEST 7th AVENUE, SUITE 1410  
ANCHORAGE, ALASKA 99501-3561  
ATTENTION: FINANCIAL SERVICES SECTION

or in person at either of the Department's Public Information Centers located at:

550 W. 7th Ave., Suite 1260  
Anchorage, Alaska

3700 Airport Way  
Fairbanks, Alaska

or to any depository designated by the state with at least 60 days notice to the lessee.

10. **PLAN OF OPERATIONS.** (a) A plan of operations must be approved by the state before any operations may be undertaken on or in the leased area.

(b) If this Lease is comprised of acreage committed in whole or in part to a unit agreement approved by the state, the Lease shall be subject to the unit plan of operations regulations, 11 AAC 83.346. The lessee shall amend the unit plan of operations to include the storage operations under this Lease.

11. **PLAN OF DEVELOPMENT.** (a) The lessee shall file two copies of an application for approval by the state of a development plan that must describe the lessee's plans under this Lease. The plan must include the estimated size in surface acreage or shape, total capacity, and working capacity of the Gas Storage Formation, design and schedule for drilling of storage injection and withdrawal wells and any other engineering, geological, or operational data that may be requested by the Division. The development plan must include maps and statements describing: long-range activities for the leased area; plans for expansion or contraction of this Lease; details of proposed operations for at least one year following submission of the plan; and the sequence and schedule of the operations (Injection and Withdrawal volumes) to be conducted on or in the leased area, including the date operations are proposed to begin and their proposed duration. Lessee shall have an approved development plan prior to commencing Storage operations. No development of the leased area may occur until a plan of development has been approved by the state.

(b) The development plan must be revised, updated, and submitted to the state for approval 90 days prior to the expiration of the previously approved plan. The Lessee shall notify the Division of any anticipated changes in a project resulting in alteration of conditions that were originally approved, including: increase in size of the project; increase in the approved zone pressure; changes in the Injection and Withdrawal intervals; changes in the observation and collection intervals; or monitoring procedures. No changes may occur until approved by the state.

(c) On or before July 1 of each year, the lessee shall submit a Storage Lease Production and Injection Report for the preceding year (June 1 through May 31) in digital format (MS Excel), summarizing monthly production/injection, including cumulative production/injection, as reported to AOGCC.

(d) In addition to the Storage Lease Production and Injection report required under paragraph 11(c), the lessee shall annually submit in digital format (MS Excel), the number of wells, wells days, daily production/injection, and net injection/withdrawal, from inception to date, as well as the current  $C$  and  $n$  constants for all wells used in gas storage operations. This information may be submitted with the plan of development and operation.

(e) The lessee shall meet with the state annually to discuss lessee's ongoing operations, and any future plans for development and operation.

(f) If this Lease is comprised of acreage committed in whole or in part to a unit agreement approved by the state, the gas storage plan of development shall be subject to the unit plan of development regulations, 11 AAC 83.343. The lessee shall amend the unit plan of development to include the storage plan under this Lease.

12. **INFORMATION ACQUIRED FROM OPERATIONS.** (a) The lessee shall submit to the state all geological, geophysical, and engineering data and analyses obtained from the Lease within 30 days following the completion of a well. The lessee shall submit to the state data and analyses acquired subsequent to well completion within 30 days following acquisition of that data. The state may waive receipt of operational data from some development, service or injection wells. The state will inform the operator of the waiver prior to well completion. The lessee shall submit the data and analyses to the

Division of Oil and Gas, Department of Natural Resources, at the location specified in paragraph 24 of this Lease. The data and analyses shall include the following:

(1) a copy of the completion report (AOGCC form 10-407) with an attached well summary, including daily drilling reports, formation tops encountered, a full synopsis of drill stem and formation testing data, an identification of zones of abnormal pressure, oil and gas shows and cored intervals;

(2) latitudinal and longitudinal coordinates for the completed surface and bottom hole locations;

(3) a copy of the permit to drill (AOGCC form 10-401 only, additional documentation not required) and the survey plat of the well location;

(4) a paper copy (no sepia copies) of all final 2-inch open hole and cased hole logs, including measured depth and true-vertical depth versions, specialty logs (such as Schlumberger's MDT, CMR, formation microscanners and dipmeter logs), composite mud or lithology log and report, measured-while-drilling (MWD) and logged-while-drilling (LWD) logs, velocity and directional surveys;

(5) a digital version of well logs in LAS or LIS format, a digital version of velocity surveys in SEG Y format, a digital version of directional surveys in ASCII format or MS Excel spreadsheet (other formats may be acceptable upon agreement with the Division of Oil and Gas); and

(6) a digital or paper copy (whichever is appropriate) of all available well analyses, including geochemical analyses, core analyses (porosity, permeability, capillary pressure, photos, and descriptions), paleontologic and palynologic analyses, thermal maturation analyses, build up analyses, periodic material balance (P/Z), reservoir pressure measurements, and fluid PVT analyses (an ASCII format digital version of the above information shall also be submitted, if available). The state may require the lessee to submit additional information in accordance with the applicable statutes and regulations in effect at the time of the completion date of the well.

(b) Any information submitted to the state by the lessee in connection with this Lease will be available at all times for use by the state and its agents. The state will keep information confidential as provided in AS 38.05.035(a)(8) and its applicable regulations. In accordance with AS 38.05.035(a)(8)(C), in order for geological, geophysical and engineering information submitted under paragraph 12(a) of this Lease to be held confidential, the lessee must request confidentiality at the time the information is submitted. The information must be marked **CONFIDENTIAL**.

13. **DILIGENCE AND PREVENTION OF WASTE.** (a) All operations on or into the leased area shall be carried on in a safe and workmanlike manner; in compliance with all state, federal, borough, or municipal permits and authorizations; in accordance with generally accepted, good engineering practices; with due regard for the protection of life and property, preservation of the environment and conservation of natural resources for future productive uses. The lessee shall carry out, at the lessee's expense, all orders and requirements of the state relative to the prevention of waste and to the preservation of the leased area. If the lessee fails to carry out these orders, the state will have the right but not the obligation, together with any other available legal recourse, to enter the leased area to repair damage or prevent waste at the lessee's expense.

(b) The lessee shall exercise reasonable diligence as determined by the state in conducting operations on the leased area unless consent to suspend operations temporarily is granted by the state.

(c) Metering equipment shall be maintained and operated so that it will meet acceptable standards of accuracy in order to measure production from the leased area. Use of such equipment shall be discontinued at any time the state determines that acceptable standards of accuracy are not being maintained. Storage operations shall be suspended until measurement accuracy has been obtained.

14. **INSPECTION.** The lessee shall keep open at all reasonable times, for inspection by any duly authorized representative of the state:

(a) the leased area or development area including all wells, improvements, machinery and fixtures; and

(b) all reports and records relative to operations, surveys, or investigations, on or with regard to the leased area or operation. Upon request, the lessee shall furnish the state with copies of or extracts from the reports and records. The lessee must maintain on site copies of any permit required by a state, federal, or local government.

15. **SUSPENSION.** The state may from time to time direct or approve in writing a suspension of operations under this Lease.

16. **ASSIGNMENT.** This Lease, or an interest in this Lease, may, with the approval of the state, be assigned, subleased, or otherwise transferred to any person or persons qualified to hold an oil and gas lease. No assignment, sublease, or other transfer of an interest in this Lease will be binding upon the state unless approved by the state. The lessee shall remain liable for all obligations under this Lease accruing prior to the approval by the state of any assignment, sublease, or other transfer of an interest in this Lease.

17. **SURRENDER.** The lessee, at any time, may file with the state a written surrender of all rights under this Lease or any portion of the leased area comprising one or more legal subdivisions, subject to approval by the state. That surrender will be effective as of the date of approval, subject to the continued obligations of the lessee to make payment of all accrued royalties and fees and to place all wells and surface facilities on the surrendered land in a condition satisfactory to the state for suspension or abandonment. Once all obligations are fulfilled, the lessee will be released from all obligations under this Lease with respect to the surrendered lands.

18. **REQUIRED OPERATIONS.** Lessee shall use the Gas Storage Formation for Storage operations to maintain the Lease. Any consecutive 12 month period without Storage operations will constitute a default of the Lease under paragraph 19, unless cessation of Storage operations is undertaken pursuant to an approved suspension of operations under paragraph 15, or an approved process of cessation of Storage operations under a state approved plan of development to withdraw the remaining Non-Native and Native Gas under the terms of the underlying Oil and Gas Lease. For the purposes of this paragraph, storage operations mean the Injection or Withdrawal of Non-Native Gas.

19. **TERMINATION FOR DEFAULT.** Failure of the lessee to perform timely its obligations under this Lease, or the failure of the lessee otherwise to abide by all express and implied provisions of this Lease is a default of the lessee's obligations under this Lease. The state may terminate this Lease in an administrative proceeding whenever the lessee fails, within 60 days after written notice of that default, to begin and diligently prosecute operations to remedy that default.

20. **RIGHTS UPON TERMINATION.** (a) Upon the expiration or earlier termination of this Lease or any portion of the leased area, the lessee will be directed in writing by the state to remove from the leased area or portion of the leased area all machinery, equipment, tools, materials, and Non-Native Gas within the Gas Storage Formation within a period of one year.

(b) Any machinery, equipment, tools, materials, or Non-Native Gas that the lessee has not removed from the leased area or portion of the leased area become the property of the state, or may be removed by the state at the lessee's expense.

(c) At the option of the state, all improvements such as roads, pads, and wells must either be abandoned and the sites rehabilitated by the lessee to the satisfaction of the state, or be left intact and the lessee absolved of all further responsibility as to their maintenance, repair, and eventual abandonment and rehabilitation.

(d) Subject to the above conditions, the lessee shall deliver up the leased area or those portions of the leased area to the satisfaction of the state.

21. DAMAGES AND INDEMNIFICATION. (a) No rights under this Lease may be exercised by the lessee until the lessee has provided to pay the owner of the land subject to this Lease, his lessees and permittees, full payment for all damages that may be sustained by the owner by reason of the exercise of the rights granted by this Lease. If the owner for any reason does not settle the damages, the lessee may enter the land after posting a surety bond determined by the state, after notice and an opportunity to be heard, to be sufficient as to form, amount, and security to secure to the owner, his lessees and permittees, payment for damages, and may institute legal proceedings in a court of competent jurisdiction where the land is located to determine the damages which the owner of the land may suffer. The lessee agrees to pay for any damages that may become payable under AS 38.05.130 and to indemnify the state and hold it harmless from and against any claims, demands, liabilities, and expenses arising from or in connection with such damages.

(b) The lessee shall indemnify the state for, and hold it harmless from, any claim, including claims for loss or damage to property or injury to any person caused by or resulting from any act or omission committed under this Lease by or on behalf of the lessee or any third party; this indemnification does not limit the state's remedies against any third party, including a gas storage service user.

(c) The lessee expressly waives any defense to an action for breach of a provision of this Lease or damages resulting from any harm to the environment that is based on an act or omission committed by an independent contractor in the lessee's employ. The lessee expressly agrees to assume responsibility for all actions of its independent contractors.

(d) The lessee is not responsible to the state under this subparagraph for any loss, damage, or injury caused by or resulting from the sole negligence of the state.

22. BONDS. (a) The lessee shall furnish a bond prior to the commencement of lease operations in an amount established by the state and must maintain that bond as long as required by the state.

(b) The state may, after notice to the lessee and a reasonable opportunity to be heard, require a bond in a reasonable amount greater than the amount specified by law where a greater amount is justified by the nature of the surface and its uses, the degree of risk, and the nature of the activity involved in the types of operations being or to be carried out under this Lease. A statewide bond will not satisfy any requirement of a bond imposed under this subparagraph, but may be considered by the state in determining the need for and the amount of any additional bond under this subparagraph.

23. AUTHORIZED REPRESENTATIVES. The Director of the Division of Oil and Gas, Department of Natural Resources, State of Alaska, and the person executing this Lease on behalf of the lessee will be authorized representatives for their respective principals for the purposes of administering this Lease. The state or the lessee may change the designation of its authorized representative, or the address to which notices to that representative are to be sent, by a notice given in accordance with paragraph 24 below. Where activities under a development plan are underway, the lessee shall also designate, by a notice under paragraph 24 below, by name, job title, and address, an agent who will be present in the state during all lease activities.

24. NOTICES; PROTEST. (a) Any notices required or permitted under this Lease must be by electronic media producing a permanent record or in writing and must be given personally or by registered or certified mail, return receipt requested, addressed as follows:

TO THE STATE:

DIRECTOR, DIVISION OF OIL AND GAS  
DEPARTMENT OF NATURAL RESOURCES  
550 WEST 7th AVENUE, SUITE 1100  
ANCHORAGE, ALASKA 99501-3560

TO THE LESSEE:

UNION OIL COMPANY OF CALIFORNIA  
3800 CENTERPOINT DRIVE, SUITE 100  
ANCHORAGE, AK 99503  
ATTENTION: LAND MANAGER

(b) Any notice given under this paragraph will be effective when delivered to the above authorized representative.

(c) A lessee who wishes to protest the amount of money due the state under this Lease or any action of the state regarding a provision of this Lease must file a written protest with the Division within 30 days after the mailing date of the state's notice or bill. A lessee who fails to file a protest within the required time waives any further right to protest. The state will establish the administrative appeal procedure to be followed and will inform the lessee of the procedure no later than 30 days after the filing of the written protest.

25. **STATUTES AND REGULATIONS.** This Lease is subject to all applicable state, federal, and municipal statutes, regulations, and ordinances in effect on the effective date of this Lease, and to all statutes, regulations and ordinances placed in effect after the effective date of this Lease. A reference to a statute or regulation in this Lease includes any change in that statute or regulation whether by amendment, repeal and replacement, or other means. This Lease does not limit the power of the State of Alaska or the United States of America to enact and enforce legislation or to promulgate and enforce regulations affecting, directly or indirectly, the activities of the lessee or its agents in connection with this Lease or the value of the interest held under this Lease. In case of conflicting provisions, statutes and regulations take precedence over this Lease.

26. **INTERPRETATION.** (a) This Lease is to be interpreted in accordance with the law of the State of Alaska. The paragraph headings are not part of this Lease and are inserted only for convenience. The state and the lessee expressly agree that any judicial proceeding affecting this Lease shall be conducted in the state Superior Court, Third Judicial District, at Anchorage.

(b) The term "including" when used in this Lease shall be construed as though followed by the phrase "but not limited to."

27. **INTEREST IN REAL PROPERTY.** It is the intention of the state and the lessee that the rights granted to the lessee by this Lease constitute an interest in real property in the leased area.

28. **WAIVER OF CONDITIONS.** The state reserves the right to waive any breach of a provision of this Lease, but any waiver extends only to the particular breach waived and does not limit the rights of the state with respect to any future breach; nor will the waiver of a particular breach prevent cancellation of this Lease for any other cause or for the same cause occurring at another time. Notwithstanding the foregoing, the state will not be deemed to have waived a provision of this Lease unless it does so in writing.

29. **SEVERABILITY.** If it is finally determined in any judicial proceeding that any provision of this Lease is invalid, the state and the lessee may jointly agree by a written amendment to this Lease, that, in consideration of the provisions in that written amendment, the invalid portion will be treated as severed from this Lease and that the remainder of this Lease, as amended, will remain in effect.

30. **NONDISCRIMINATION.** The lessee and the lessee's contractors and subcontractors may not unlawfully discriminate against any employee or applicant for employment.

31. **BINDING EFFECT.** The state and the lessee agree that this Lease, including all attachments and documents that are incorporated in this Lease by reference, contains the entire agreement between the parties, and each of the covenants and conditions in this Lease, including any attachments, will be binding upon the parties and upon their respective heirs, administrators, successors, and assigns.

32. **DEFINITIONS.** The following words have the following meanings unless the context unavoidably requires otherwise:

(1) "Associated Substances" means all substances except helium produced as an incident of production of Oil or Gas by ordinary production methods and not defined in this Lease as Oil or Gas;

(2) "Commissioner" means the Commissioner of Natural Resources;

(3) "Division" means the Division of Oil and Gas, Department of Natural Resources;

(4) "Drilling" means the act of boring a hole to reach a proposed bottom hole location through which Gas may be injected or withdrawn, and includes redrilling, sidetracking, deepening, or other means necessary to reach the proposed bottom hole location, testing, logging, plugging, and other operations necessary and incidental to the actual boring of the hole;

(5) "Force Majeure" means war, riots, act of God, unusually severe weather, or other acts of nature;

(6) "Gas" means all natural Gas (except helium gas) and all other hydrocarbons that are not defined in this Lease as Oil;

(7) "Gas Storage Formation" means the reservoirs described in paragraph 1;

(8) "Injection" means the deposit of Non-Native Gas into the Gas Storage Formation;

(9) "Native Gas" means Gas within the Gas Storage Formation that has not been produced and for which production royalties have not been paid;

(10) "Non-Native Gas" means Gas injected into the leased area that has been previously produced and for which production royalties have been paid;

(11) "Oil" means crude petroleum Oil and other hydrocarbons, regardless of gravity, that are produced in liquid form by ordinary production methods, including liquid hydrocarbons known as distillate or condensate recovered by separation from Gas other than at a Gas processing plant;

(12) "Produced Gas" means Gas for which royalty has been paid to the mineral owner;

(13) "Storage" means the compression, injection, containment, Withdrawal, treatment, processing, transportation, marketing and selling of Non-Native Gas;

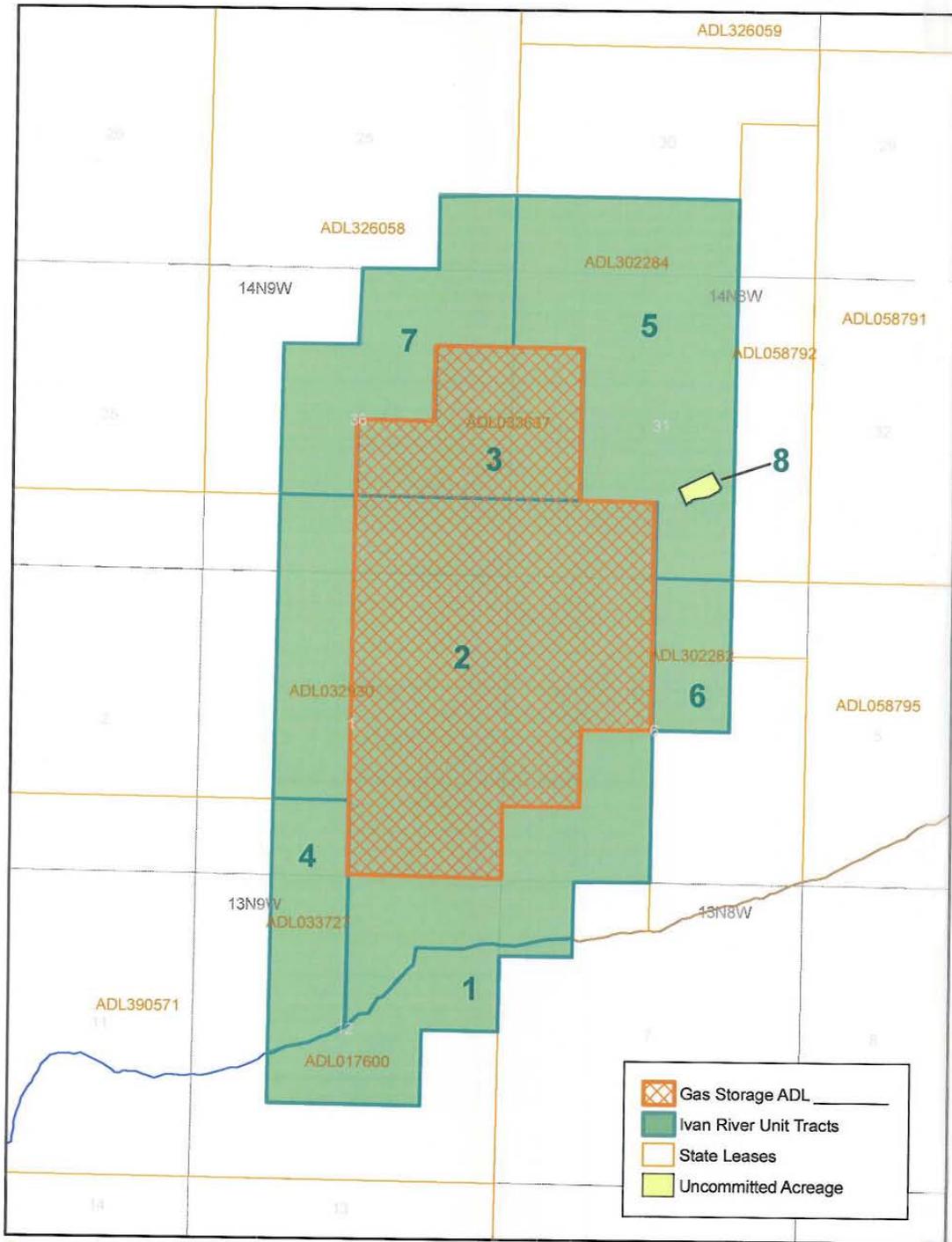
(14) "Withdrawal" means the removal of Gas from the Gas Storage Formation.

33. **EFFECTIVE DATE.**

This Lease takes effect on July 1, 2011.



Exhibit A



December 29, 2009  
Scale: 1:30,000

**Exhibit B**

(Native Gas Royalty Payment Schedule - paragraph 6(c))

**Ivan River Gas Storage Lease - Native Gas Royalty Payment Schedule**

O&G Lease (ADL)	DNR O&G Lease Segment	Legal Description	Total Acreage	Royalty Owner	Royalty %	Working Interest Owners	Working Interest (%)	Native Gas Withdrawal Royalty Allocation
ADL 32930	1	T. 13 N. R. 8 W., S.M., Alaska Section 6: NW¼SW¼, 37.5 acres T. 13 N., R. 9 W., S.M., Alaska Section 1: N½SE¼, 80.00 acres;	117.50	State of Alaska	12.5	Union Oil Company of California	100%	13.607412%
ADL 32930	2	T. 14 N., R. 9 W., S.M., Alaska Section 36: S½SE¼ including that portion of US Survey 3955, 80.0 acres; T. 13 N., R. 9 W., S.M., Alaska Section 1: NE¼ including US Survey 3955, 160.0 acres; T. 13 N. R. 8 W., S.M., Alaska Section 6: NW¼, 155.0 acres. T. 14 N., R. 8 W., S.M., Alaska Section 31: S½SW¼, 77.0 acres.	472.00	State of Alaska	12.5	Union Oil Company of California	100%	54.661262%
ADL 32930	3	T. 13 N., R. 9 W., S.M., Alaska Section 1: S½SE¼, 80.0 acres;	80.00	State of Alaska	12.5	Union Oil Company of California	100%	9.264621%
ADL 33637	1	T. 14 N., R. 9 W., S.M., Alaska Section 36: N½SE¼, SE¼NE¼, 120.00 acres; T. 14 N., R. 8 W., S.M., Alaska Section 31: NW¼SW¼, SW¼NW¼, 74.0 acres.	194.00	State of Alaska	12.5	Union Oil Company of California	100%	22.466705%
Total Lease Acreage			863.50	Total Lease Allocation			100.000000%	