HEYCO ENERGY GROUP, INC.

Harvey E. Yates Company ▪ Rosetta Energy Partners, L.P. ▪ HEYCO International, Inc.

August 8, 2013

Bureau of Land Management
Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005

Attention: Bill Childress,
District Manager

Re: **Bennett Ranch Unit**
Unit Agreement #NMNM94469X
T-26S, R-12 & 13E, N.M.P.M.
Otero County, New Mexico
Revised Plan of Development 2013

Ladies and Gentlemen:

By cover letter dated May 31, 2013, Harvey E. Yates Company (HEYCO) submitted its second revised 2013 Plan of Development and Operation, as prescribed by Bill Childress, District Manager, in his Decision letter, dated October 2, 2012, and in accordance with Section 10 of the Bennett Ranch Unit (BRU) Agreement. On July 12, 2013, HEYCO received a reply in the form of a letter entitled "Plan of Development Returned As Deficient And Sundry Notice Request For Liquid Natural Gas Facility Returned Unapproved." Subsequently, on July 29, 2013, HEYCO staff met with Bill Childress and staff from the Las Cruces District Office and HEYCO, therefore submits this letter, as well as the paperwork submitted under separate cover dated August 7, 2013, as HEYCO's third Revised 2013 Plan of Development.

In this regard, we are enclosing a) a map of current lease information, b) a current Unit map showing the existing wells, roads and flowlines, c) maps (2) showing each of the current Participating Area boundaries, d) CONFIDENTIAL maps (3) showing possible proposed development and exploratory location(s) and geologic data pertinent to the producing formations, e) a complete well listing showing the status of all wells through 2013, f) all Planned Wells, and g) Notice of Staking for Bennett Ranch Unit #3.

Existing Unit Wells - The BRU currently has two shut-in gas wells capable of production and one plugged out Junked &Abandoned (J&A) well within its boundaries. The two active but shut-in wells are perforated in different formations and have overlapping Participating Areas that have been approved, based upon testing and geologic submittals to the BLM. The BRU #1-Y (currently shut-in) is capable of commercial production from the Upper Mississippian Helms

Formation. The BRU #25-1 (also currently shut-in) is capable of commercial production from the Upper Pennsylvanian Canyon Formation.

The Initial Unit Well (Bennett Ranch Unit #1Y) was drilled and completed in 1997 and the second well was drilled and completed on December 18, 2001.

Date	Well No.	Operation/Result	Unit Letter/Sec.
11/97	#1-Y	Drilled & Completed in Mississippian I.P. 2200 MCFGPD	B-14
12/01	#25-1	Drilled & Completed in Canyon Formation I.P. 3000 MCFGPD	G-25

Unit Operations Completed for Calendar Year 2012 – No unit operations were conducted by HEYCO in 2012, as the Unit was in an approved suspense status. The locations were inspected by company personnel and wellhead shut in pressures on both gas wells continued to be monitored on a regular basis.

Unit Operations Planned for the Calendar Year 2013 – HEYCO plans to stake and file an Application to Drill (APD) the Bennett Ranch Unit #3 well.

Technology Ideas - HEYCO is currently evaluating recent technological advances in drilling operations, reservoir stimulation, and stranded gas production through the utilization of mini LNG gas processing facilities and is establishing a new internal economic guideline for successful well completions utilizing such technology. The productively capable reservoirs within the BRU have not seen nearby industry activity since 2005, when the last Trail Mountain exploratory test was drilled in neighboring Hudspeth County, Texas.

Plans for a Liquid Natural Gas (LNG) Facility - Both Unit wells are presently shut-in due to lack of a pipeline and uncertainty of unit development attributable to delays in approving the drilling of the next unit well (BRU #6). HEYCO has been working diligently to gather information and interest by industry to place a mini Liquid Natural Gas (LNG) processing facility on the existing pad of the Bennett Ranch Unit #1-Y well. A Sundry has been submitted for your approval of this facility. Upon approval of the Sundry, HEYCO anticipates it will be able to place the LNG facility into operation on the BRU #1-Y location. With the success of the BRU #1-Y, a similar setup will be placed on the BRU #25-1 wells and both wells will be placed in producing status.

BRU #6 APD - On September 14, 2006, HEYCO submitted an Application To Drill its Bennett Ranch Unit #6 well, also shown on the enclosed Unit map, as the next exploratory well for the unit. To date, the APD for this well has not been approved. To add to a long list of constraints in the BRU #6 APD approval process, by letter dated October 24, 2012, the August 2012 Environmental Assessment for the BRU #6 received formal objection and a request by The Wilderness Society, et al for a State Director Review (SDR), which was held on January 23, 2013. HEYCO intervened in this action and is uncertain of the final outcome of the SDR.

As part of earlier consultation between John Bessee, Surface Specialist of the LCDO, and Vernon Dyer, Land Manager of HEYCO, in August, 2007, and by letter dated October 9, 2008 from Angel Mayes, Assistant Field Manager of the Roswell District Office (who was the Authorized Officer at that time), drilling of the BRU #6 within ninety (90) days of the approval date of the APD would prevent automatic contraction of the Unit, thus indicating BLM acceptance of the BRU #6 as an exploratory well. In the July 29th meeting, HEYCO was told this is not the case. HEYCO has been proceeding based upon the acceptance that the BRU #6 would be the next exploratory unit well. The POD document includes a proposed BRU #3 as the next exploratory well.

Un-Issued Federal Oil & Gas Lease - HEYCO successfully bid on a federal lease (approximately 1,600.0 acres) located within the existing Unit boundaries at the July 2005 BLM Oil & Gas Lease sale, with the intent to continue its exploration program within the Unit, as originally planned. This lease has not been issued by the United States Department of the Interior. Without the issuance of this lease, HEYCO is unable to understand how it can proceed with best practices for proper development of the Unit. HEYCO awaits issuance of this lease in order to proceed with best practices for the Unit as a whole.

Unit Status and Summary - Pursuant to the October 2, 2012 Decision letter, Unit contraction remains in suspense and Unit operations are lifted, with the requirement HEYCO provide a plan to place its BRU #1-Y and BRU #25-1 wells into production. Once the Sundry is approved for HEYCO's mini LNG Facility, HEYCO will proceed with its plan to place the facility on the BRU #1-Y location, perform MIT testing and place that well into production. Once deemed a successful installation of the LNG facility on the BRU #1-Y location, HEYCO will then initiate operations to perform MIT testing in the BRU 25 #1 to place that well on production. Further, once the APD for the BRU #6 is approved, HEYCO intends to develop a surface plan of operations for the drilling of additional Unit wells (see enclosed Map and Table describing such wells) so that future wells can be approved for drilling. Given the history of delays in obtaining APD approval, HEYCO believes it would be beneficial to meet with the BLM staff to discuss the surface plan of operations so that future unit plans of operations are acceptable to the LCDO. At this point, however, no other drilling or surface disturbance operations are planned for the Unit in the next twelve (12) months. If changes in HEYCO's plans for the coming year change, this Unit Plan of Development will be supplemented to outline such changes.

Based on the information submitted herewith, HEYCO respectfully requests the BLM approve this Revised 2013 Plan of Development and Operation.

Respectfully submitted,

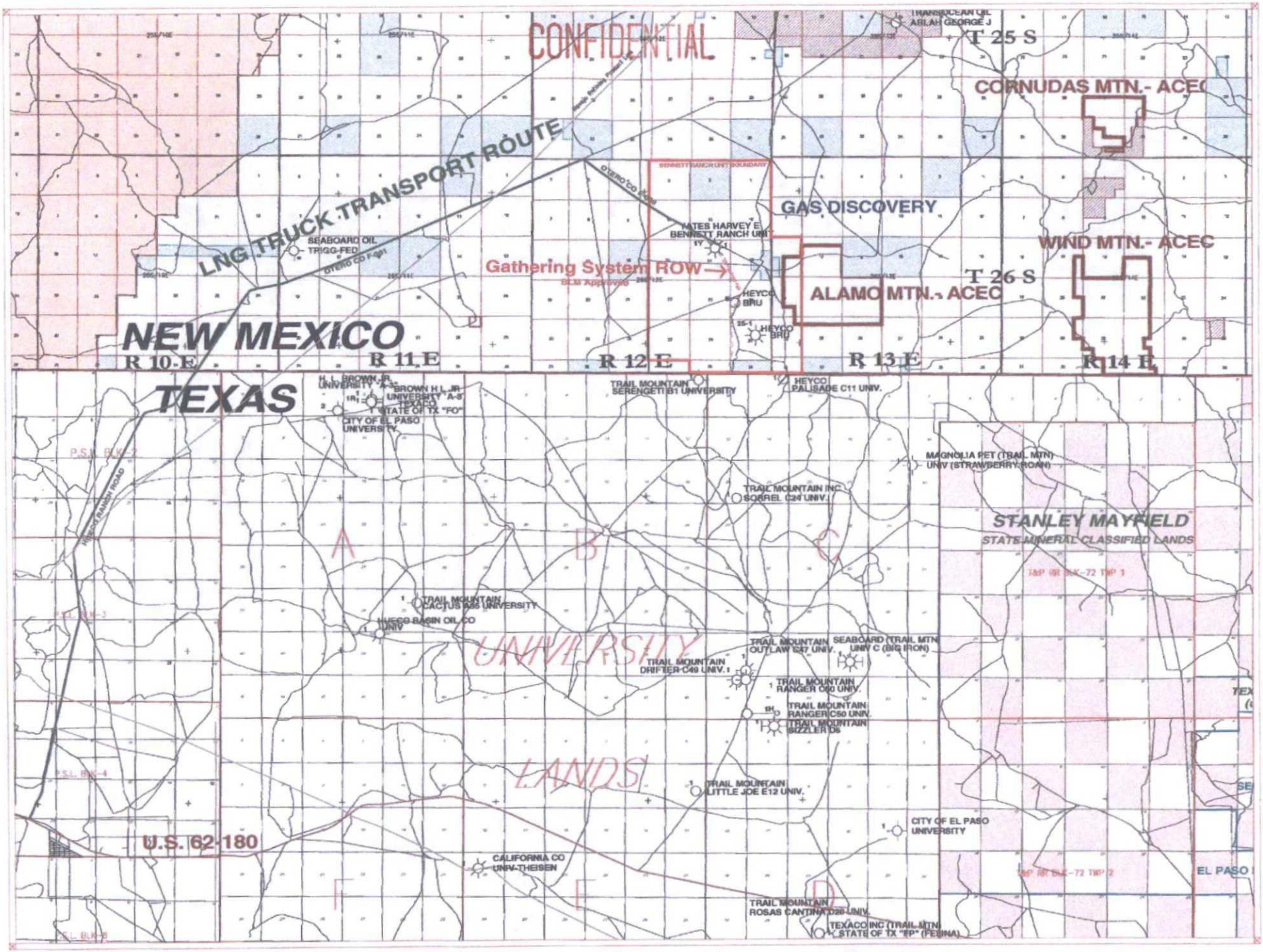
Arlene T. Rowland
Vice President

MVR/vw
Enclosures
BennettPOD2013Revised.doc/Land:BennettRanch#3

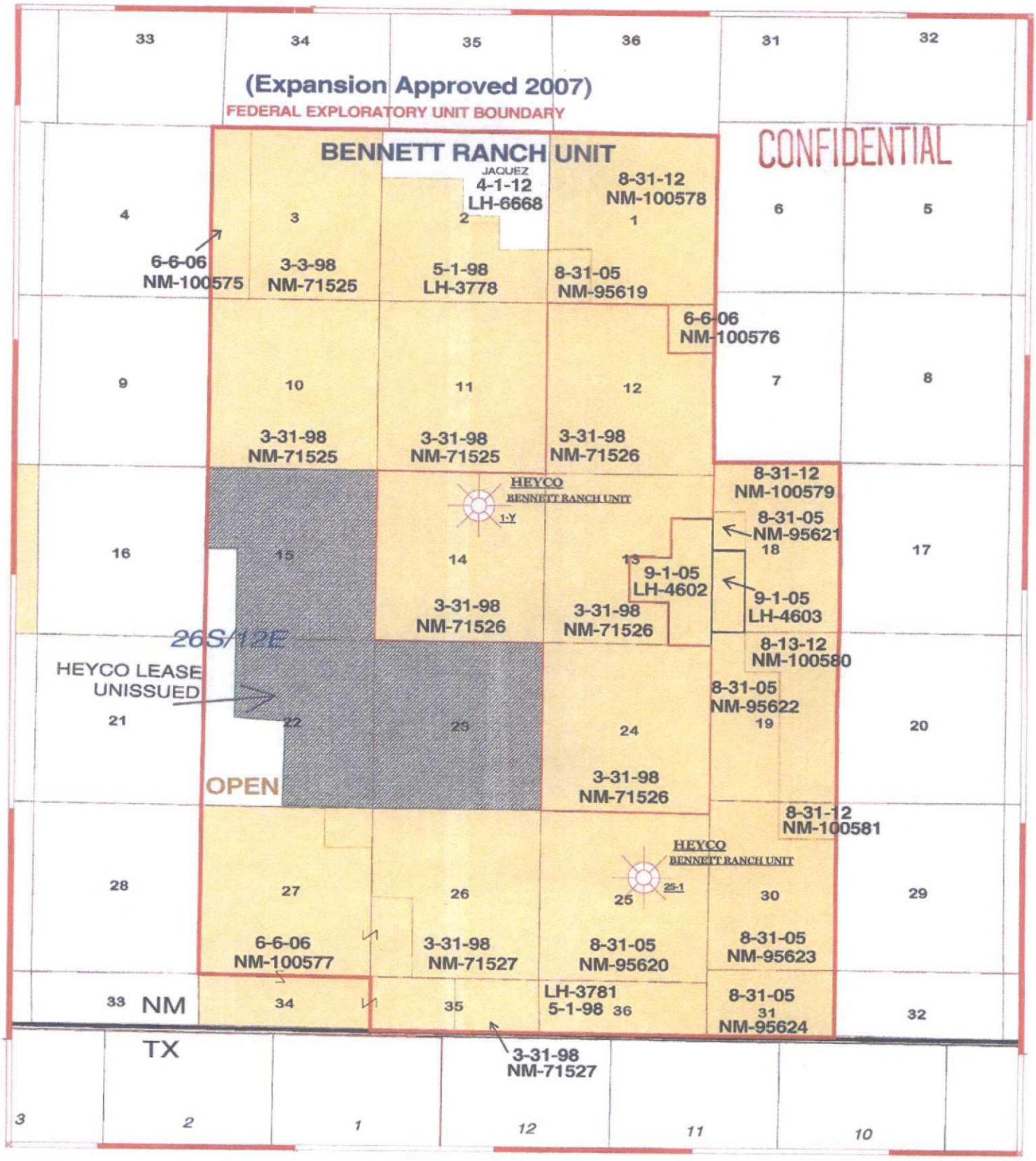
3rd Revised Cur Ltr

xc: Oil Conservation Division (w/encl.)
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87505
Attn: Senior Petroleum Geologist

Commissinoner of Public Lands (w/encl.)
Attn: Pete Martinez
P.O. Box 1148
Santa Fe, New Mexico 87504-1148



HEYCO ENERGY GROUP - BENNETT RANCH UNIT WELLS - FLOWLINES - ROADS 1" = 16,000 FT.



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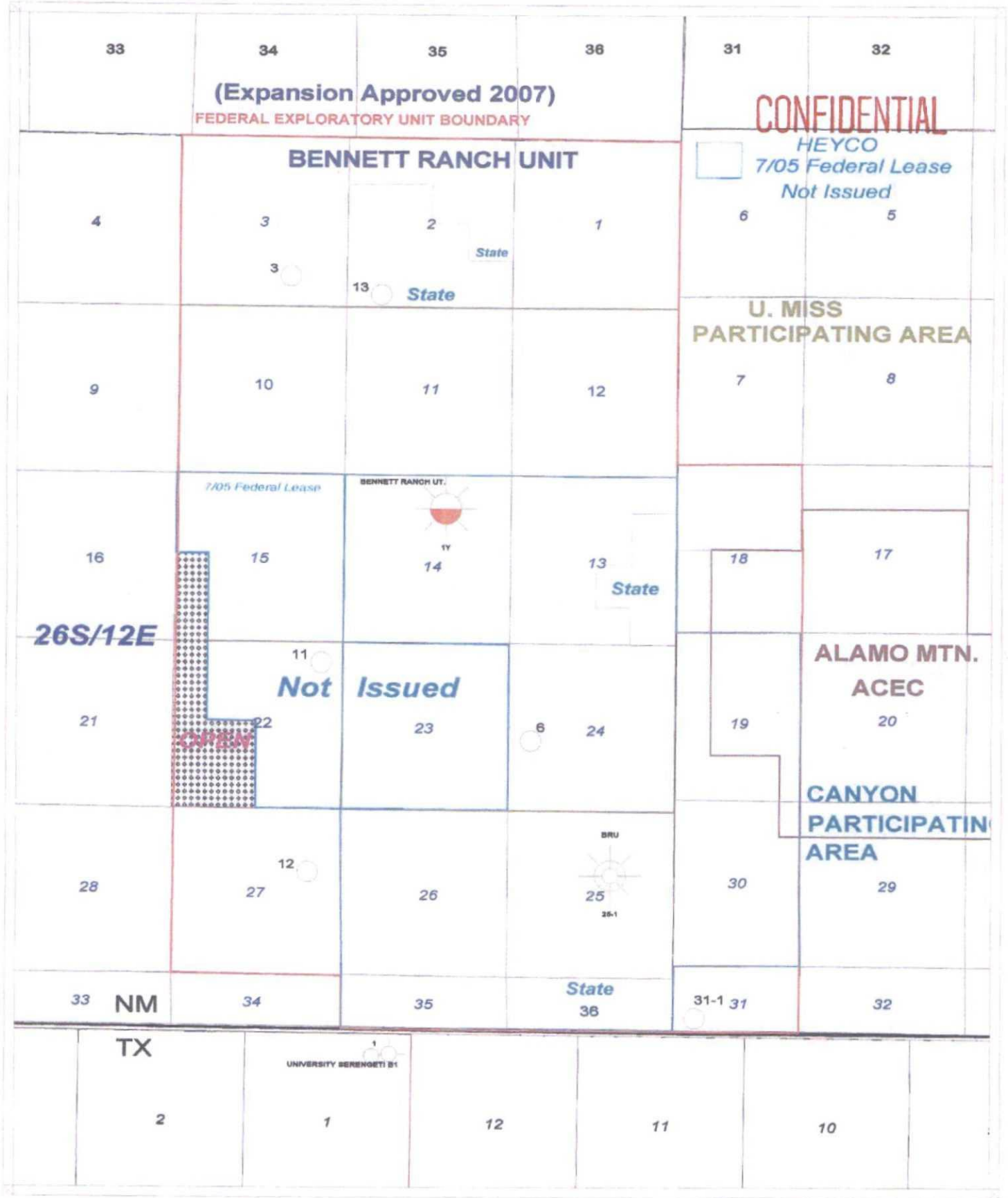
Scale 1:48000.

HEYCO Energy Group

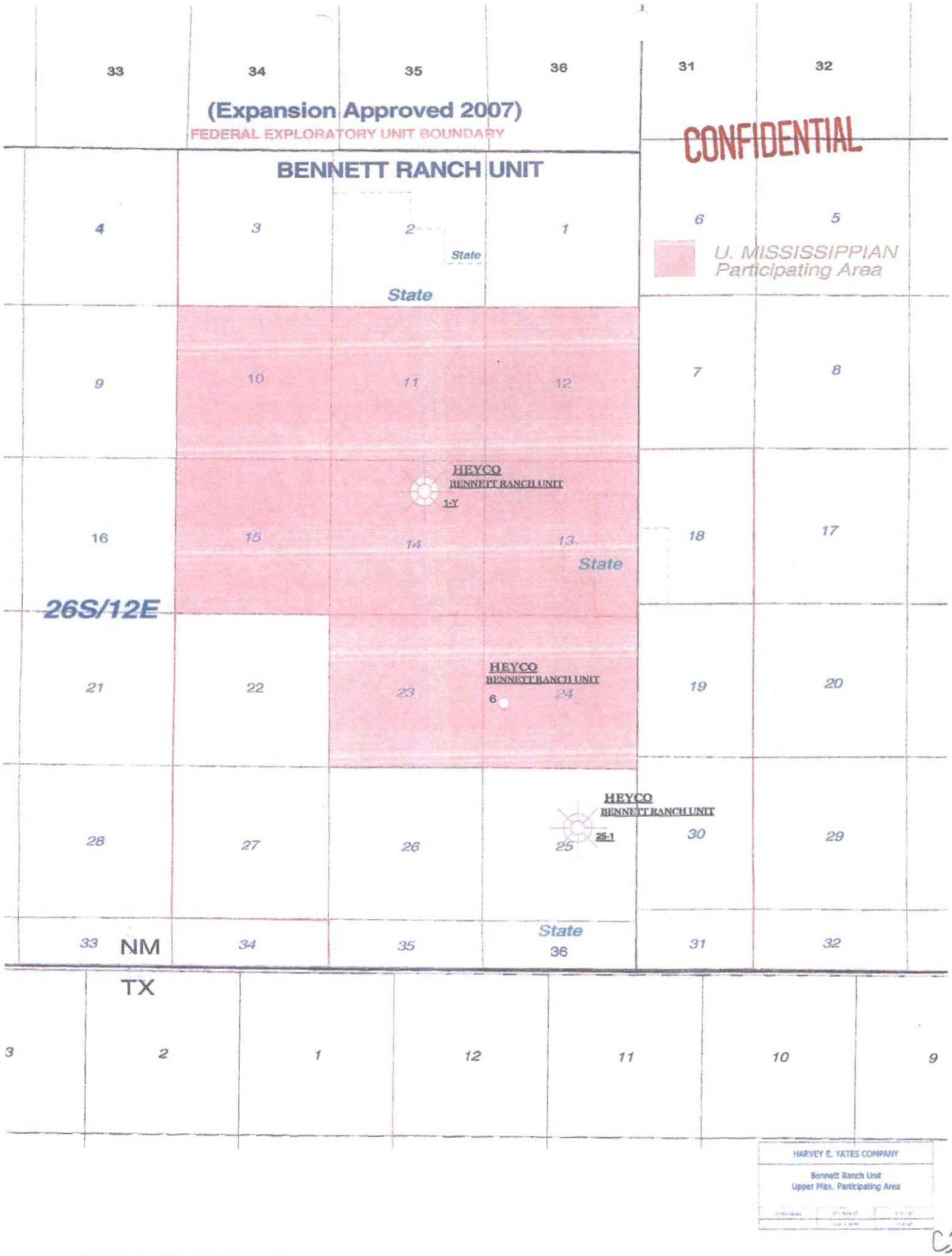
BENNETT RANCH UNIT
LEASE INFORMATION



HARVEY E. YATES COMPANY - HEG

Bennett Ranch Unit - POD
Unit - PA BOUNDARIES 2013
POSSIBLE EXPLORATORY LOCATIONS

d3


33
34
35
36
31
32
(Expansion Approved 2007)
FEDERAL EXPLORATORY UNIT BOUNDARY
CONFIDENTIAL
BENNETT RANCH UNIT
4
3
2
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State
6
5
U. MISSISSIPPIAN
Participating Area
State
9
10
11
12
7
8
HEYCO
BENNETT RANCH UNIT
1-Y
16
15
14
13
State
18
17
26S/12E
21
22
23
HEYCO
BENNETT RANCH UNIT
6
24
19
20
HEYCO
BENNETT RANCH UNIT
28
27
26
25
25-1
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29
33
NM
34
35
State
36
31
32
TX
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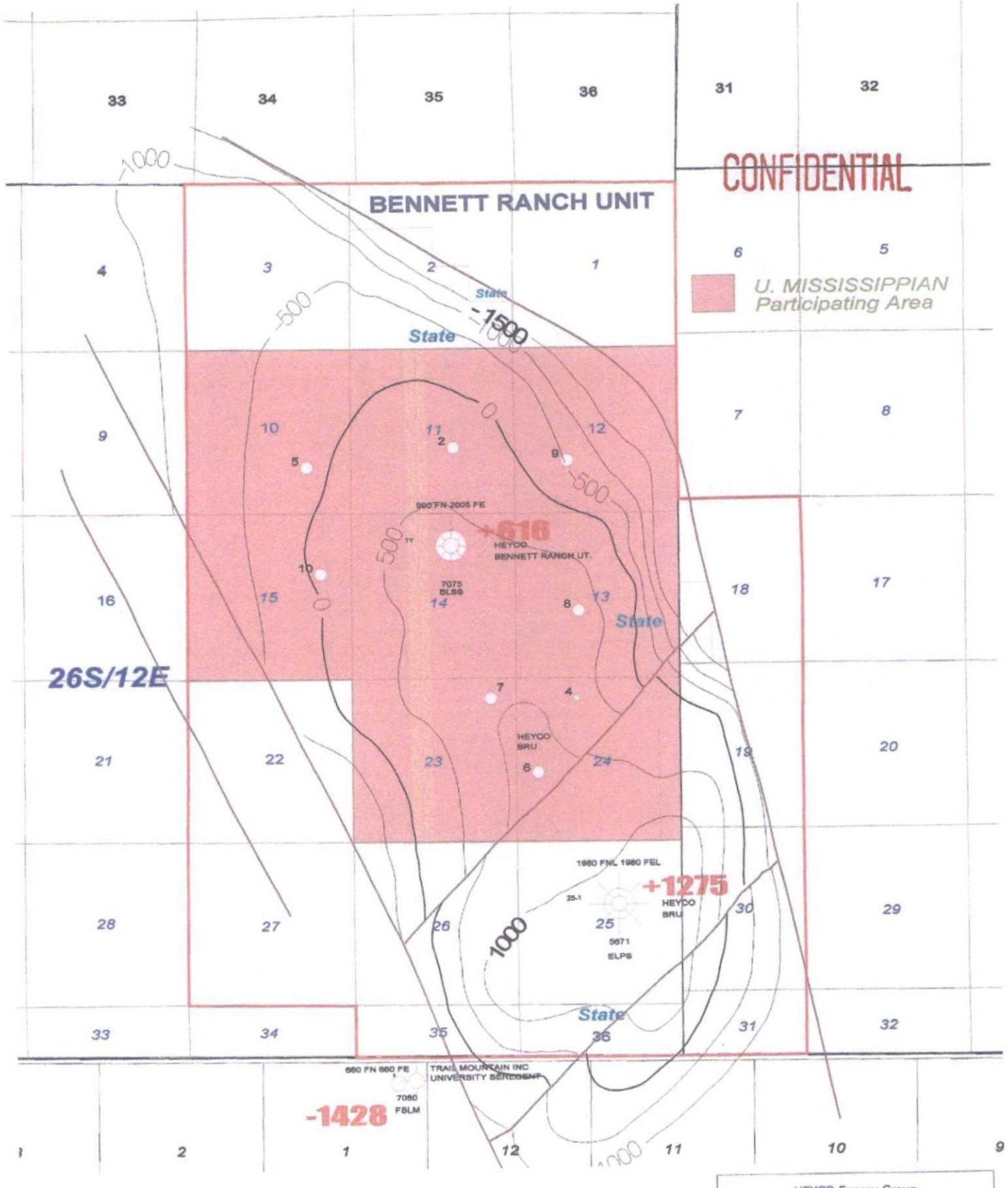
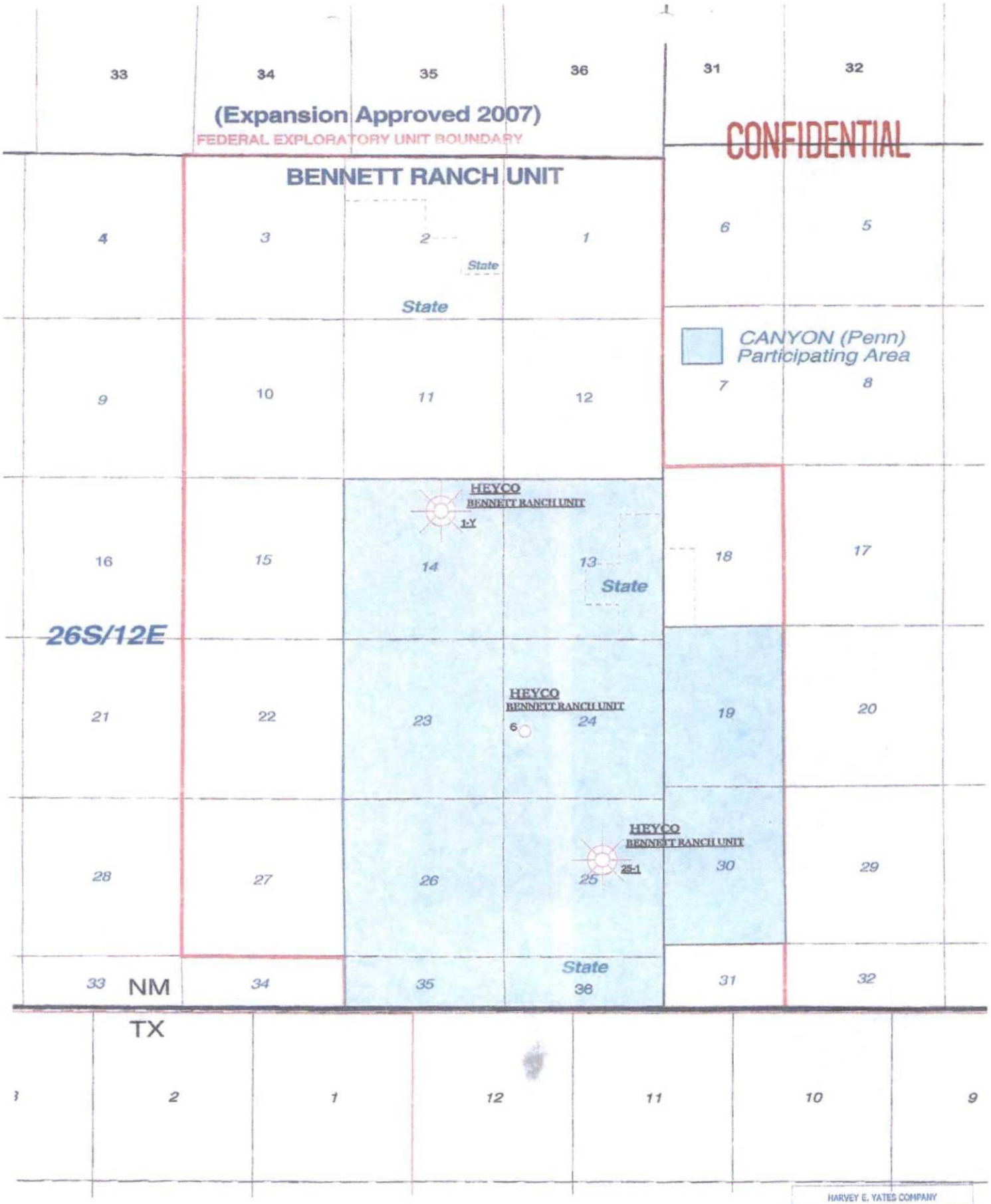
9
HARVEY E. YATES COMPANY
Bennett Ranch Unit
Upper Miss. Participating Area

C1



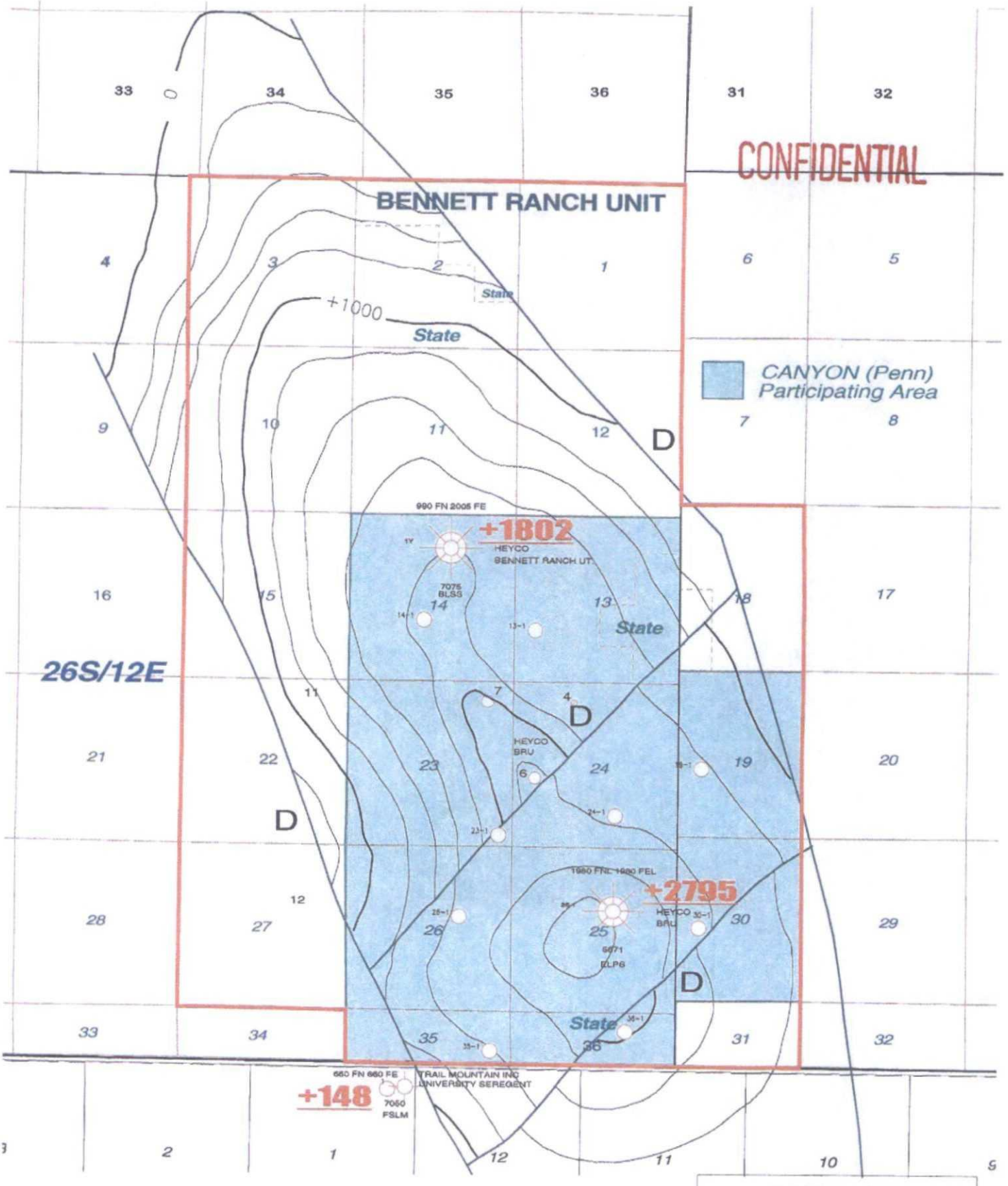
HEYCO Energy Group		
BENNETT RANCH UNIT CANYON PARTICIPATING AREA STRUCTURE T/CANYON SAND		
Gordon Yahney	C.I = 200 FT.	5/31/2012
	Scale 1:48000.	CN_SD_2.GPF



HARVEY E. YATES COMPANY

Bennett Ranch Unit
Canyon Participating Area

C2



HEYCO Energy Group		
BENNETT RANCH UNIT CANYON PARTICIPATING AREA STRUCTURE T/CANYON SAND		
Gordon Yahney	C.I = 200 FT.	5/31/2013
	Scale 1:48000.	CN_SD_2.GPT

d2

NOTICE OF STAKING

(NOT TO BE USED IN PLACE OF Application of Permit to Drill Form 5160-3)

6. Lease Number: NM-71525

1. Oil Well ☐ Gas Well ☑ Other (Specify)

7. If Indian, Alottee or Tribe Name:

2. Name of Operator: Harvey E. Yates Company

8. Unit Agreement Name: NMNM94469X Bennett Ranch Unit

3. Name of Specific Contact Person: Keith Cannon, Drlg Supt.

9. Farm or Lease Name:

4. Address & Phone No. of Operator or Agent
PO BOX 1933
ROSWELL NM 88202-1936
(575)623-6601

10. Well No.: **#3**

5. Surface Location of Well: **330 FSL & 1650 FEL**

11. Field or Wildcat Name:

12. Sec., T., R., M., Blk and Survey or Area: Sec. 3, T26S-R12E

15. Formation Objective (s)	17. Estimated Well Depth	13. County, Parish	14. State
Fusselman	**6500'**	**Otero**	**New Mexico**

17. Additional Information (as appropriate; shall include surface owner's name, address and, if known, telephone number

Arlene Rowland

18. Signed _____ Title Vice President Date 8-Aug-13

Note: Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the onsite predrill inspection and notify you accordingly. The location must be staked and access road must be flagged prior to the onsite.

Operators must consider the following prior to the onsite:

1) H_2S Potential

2) Cultural Resources (Archeology)

3) Federal Right of Way or Special Use Permit

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

***SUBMIT IN TRIPLICATE** – Other instructions on page 2.*

5. Lease Serial No.
NM-71526

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
Bennett Ranch Unit 19008

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Bennett Ranch Unit #1-Y

2. Name of Operator
Harvey E Yates Company (HEYCO)

9. API Well No.
30-035-20028

3a. Address
POB 1936
Roswell NM 88202

3b. Phone No. *(include area code)*
575-623-6601

10. Field and Pool or Exploratory Area
Mississippian, Orogrande Basin -96068

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
BRU #1-Y located in S14, T26S, R12E of Otero County, NM Unit B 990 FNL & 2005 FEL

11. Country or Parish, State
Otero County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☑ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. *Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days* following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

BLM Bond No. NMB000520/Surety Bond B004230

Upon approval of the attached Plan of Development, HEYCO will conduct a Casing Integrity Test (CIT) with a BLM witness. Upon a successful CIT, HEYCO will order mini-LNG processing and storage facilities to place on the well pad enabling liquified natural gas to be produced from the #1-Y natural gas well. Processing facilities may take 12 to18 months for delivery. HEYCO believes mini-LNG technology is a sensible approach due to this well being essentially stranded natural gas.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Catherine Green

Title Regulatory Analyst

Signature

Date 08/07/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

5. Lease Serial No.
NM-95620

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
Bennett Ranch Unit 28984

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Bennett Ranch Unit #25-1

2. Name of Operator
Harvey E Yates Company (HEYCO)

9. API Well No.
30-035-20031

3a. Address
PO BOX 1936
Roswell, NM 88202

3b. Phone No. *(include area code)*
575-623-6601

10. Field and Pool or Exploratory Area
Wildcat-96064

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
BRU #25-1 located in S25, T26S, R12E of Otero County, NM Unit G- 1,980FNL & 1,980 FEL

11. Country or Parish, State
Otero County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☑ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

BLM Bond No. NMB000520/Surety Bond No. B004230

Upon approval of the attached Plan of Development, HEYCO will conduct a Casing Integrity Test with a BLM witness. Upon a successful CIT, HEYCO will order mini-LNG processing facility technology and storage to place on the well pad to produce liquified natural gas from the well. Processing facility technology may take 12 to 18 months for delivery. The #25-1 well is the proposed second well to be placed on production after successful installation of equipment and production of the BRU #1-Y well.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Catherine Green

Title Regulatory Analyst

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Harvey E. Yates Company

Bennett Ranch Unit Plan of Development

using

Mini-LNG Processing Facilities

BLM – Plan of Development Revised

Submitted August 7, 2013

Las Cruces District Office

Bureau of Land Management

1800 Marquess Street

Las Cruces, NM 88005-3370

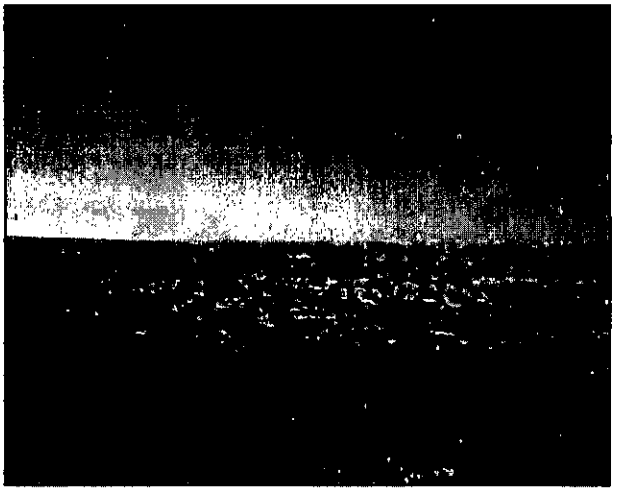


Table of Contents

List of Figures, Maps, Pictures

Harvey E. Yates Company (HEYCO)

Plan of Development (POD) Revised

August, 2013

1. Introduction

HEYCO is submitting this Plan of Development (POD) for its Bennett Ranch Unit wells located in Otero County, New Mexico. This POD describes how HEYCO intends to place the two existing wells into production, along with future development of the Bennett Ranch Unit. The two wells are the Bennett Ranch Unit (BRU) #1-Y and Bennett Ranch Unit (BRU) #25-1, respectively.

HEYCO will install a refrigerated methane facility (mini-LNG facility) after performing Casing Integrity Tests (CIT), at each well and produce liquefied natural gas (LNG). The LNG will be stored on location and transported to market via tanker trucks. Currently three service providers are being considered to provide the mini-LNG facilities for this project. Each facility is self-contained and housed entirely inside a standard shipping container. The outside dimensions of the mini-LNG facilities are 53 feet long x 8.5 feet wide x 9 feet high. The facilities will be painted to meet BLM color requirements.

The mini-LNG facilities are completely enclosed and contain power generation and refrigeration equipment. In addition to the mini-LNG facility, an 11,000 gallon horizontal storage tank will be placed on site. Dimensions for the storage tank are 35 feet 3 inches by 10 feet. The storage tank will be painted to meet BLM color requirements.

Two important advancements have occurred since the drilling of the two Bennett Ranch Unit wells. First, a market has emerged for LNG as a transportation fuel. A long-haul semi-truck refueling market in the El Paso, Texas area is being evaluated and LNG from the Bennett Ranch

Unit wells can provide a portion of the supply for this refueling station. Second, the technology to produce LNG on a small scale from individual wells has recently entered the marketplace.

At the outset, in phase 1, a single mini-LNG facility and storage tank will be placed on the BRU#1-Y location. Each mini-LNG facility can process approximately 1,200 thousand cubic feet (Mscf) of natural gas per day. A small amount of natural gas is required to power the unit and the output of liquid fuel shall be up to 10,000 gallons per day. It will be necessary to empty the storage tank daily via tanker truck which can transport up to 12,700 gallons of liquid refrigerated methane.

It is important to recognize that refrigerated methane is not liquid petroleum gas (LPG) nor compressed natural gas (CNG). Both LPG and CNG are stored under pressure. Refrigerated methane (LNG) is stored at normal atmospheric pressure but extremely cold temperatures. Refrigerated methane is stored at negative 260 degree Fahrenheit (-260°F). In the event of a discharge, refrigerated methane simply vaporizes.

Following the successful economic installation of the first mini-LNG facility, a second facility will be placed on the BRU #25-1 location.

HEYCO defines successful economic installation in the following manner:

- that the mini-LNG unit can function continuously with minor intervention and be monitored remotely, i.e., without 24 hour human supervision;
- establishment of a long-term marketing contract enabling an economic installation, including both transportation and end market deliverability; and
- long-term well productivity performance to support a lease on a mini-LNG unit .

The same set-up will be employed at the BRU #25-1 location with daily gas production of up to 1,200 Mscf input and up to 10,000 gallons of refrigerated methane processed per day based upon a successful economic installation at the BRU#1-Y well. At a minimum, a 6 month determination production period is required prior to ordering a second mini-LNG processing facility for the BRU #25-1 well.

The mini-LNG facilities are modular and multiple facilities can be installed to handle well production greater than 1,200 Mscf per day, if needed. Depending upon each well's production performance, additional mini-LNG facilities may be added.

Upon approval of this Plan of Development by the Bureau of Land Management and the concurrent resolution of Interior Board of Land Appeals (IBLA) case, #2011-0143 HEYCO will conduct Casing Integrity Tests(CIT) (also known as Mechanical Integrity Tests (MIT)). HEYCO appealed the Notice of Written Order to the Interior Board of Land Appeals because: (1) the order required HEYCO to perform Mechanical Integrity Testing (MIT) and production testing on wells that had been regularly monitored to ensure they had been holding their previously measured downhole pressures; (2) were in approved shut-in status while the unit was in a suspense status; and (3) it appeared that no other option was available at the time to satisfy both the BLM and the state of New Mexico. The State of New Mexico would not allow the company to flare gas for 30 days as requested by the BLM at the time. Thus, the BLM was requiring actions that the state would not allow. As of the writing of this POD, the case has not been decided by the IBLA court.

Potential vendors for mini-LNG processing facility technology estimate delivery taking between 12 and 18 months. The second well, the BRU #25-1, will be production tested using the same technology following an economically successful installation on the BRU #1-Y well.

HEYCO is prepared to undertake long-term stewardship of the project site to meet near-term clean energy requirements while recognizing the environmental sensitivity of the land. HEYCO requests that the BLM approve this Plan of Development so that the two existing Bennett Ranch Unit wells can be produced in an environmentally and economically prudent manner

1.1 Purpose and Need

In 1997 and 2001, Harvey E. Yates Company (HEYCO) drilled two wells, the Bennett Ranch Unit (BRU) #1-Y and the BRU #25-1, respectively. Both wells have been shut-in since they were drilled. The wells were briefly flow tested but long-term deliverability is unknown. The nearest pipeline to the wells is approximately 18 miles to the south. Due to many unknowns, it was

uneconomic to lay a pipeline to the nearest interstate pipeline. Today, the technology exists and it is economically and environmentally feasible to produce natural gas from the two wells by processing it on site using mini Liquefied Natural Gas (LNG) processing facilities.

1.2 What will be constructed

The mini-LNG processing facility with an 11,000 gallon LNG storage tank will be placed close to the wellhead of the BRU #1-Y location. Should this installation be economically successful, HEYCO will place a second mini-LNG processing facility and storage tank on the location of the BRU #25-1 well.

1.3 Schedule for project

HEYCO expects this POD to be approved within 30 days of submission. Upon approval, HEYCO will select a vendor to manufacture the mini-LNG processing facility, storage tank, and insulated surface pipes. All three vendors have advised that manufacturing and delivering a mini-LNG processing unit takes between 12 and 18 months from the date of purchase. Tanks and truck delivery can take up to a year for delivery and installation. As of this writing mini-LNG processing facility manufacturing time frames vary from 12 to 18 months. Estimated timelines are outlined below.

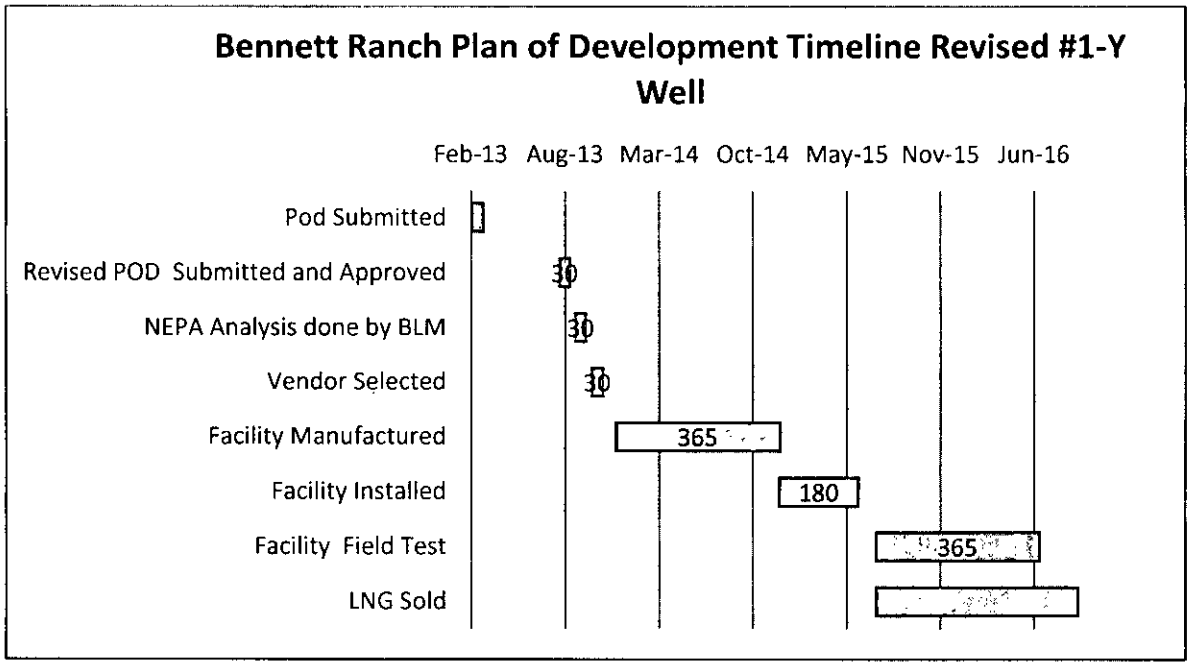


Figure 1.Plan of Development , BRU #1-Y, estimated.

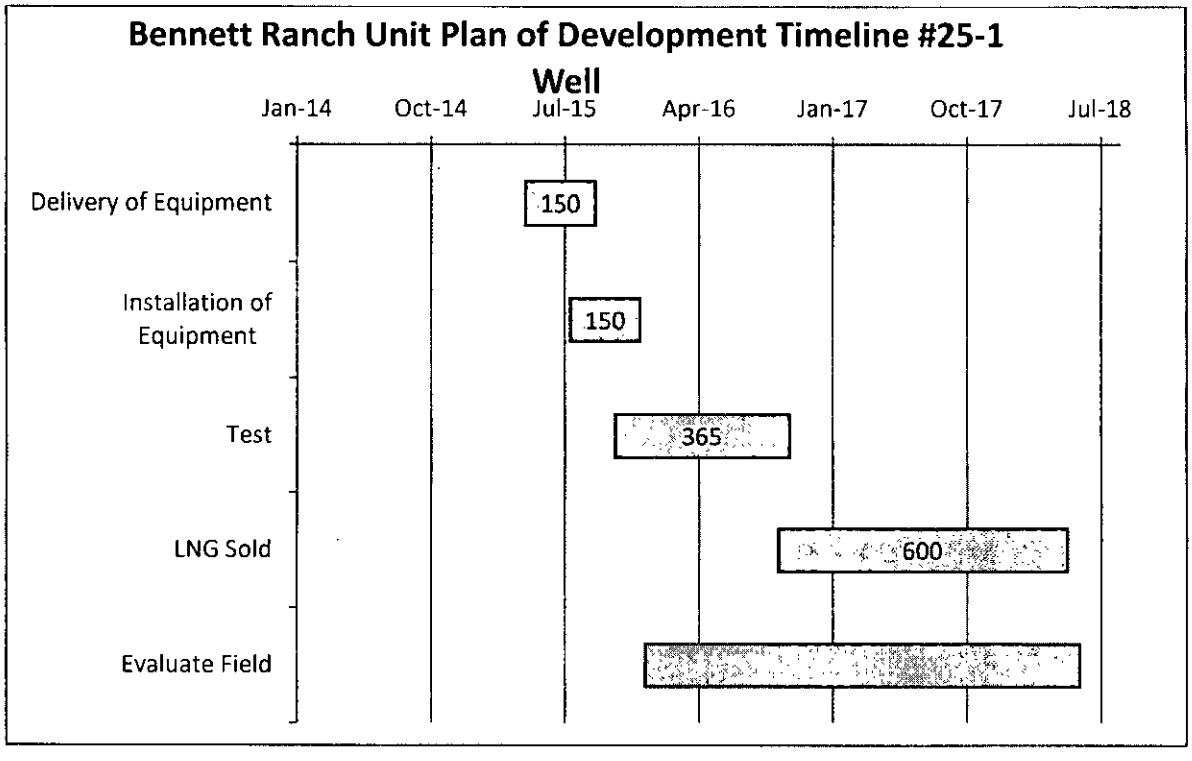


Figure 2. Plan of Development, BRU #25-1 well, estimated. Including installation of 2nd mini-LNG facility and future drilling.

2. What is LNG?

Liquefied Natural Gas (LNG) is natural gas in a liquid form for ease of storage and transport. To accomplish this, it is necessary to chill the natural gas to -260°F (-161°C) at atmospheric pressure. LNG is odorless, colorless, non-corrosive and non-toxic liquid. Natural gas in the Bennett Ranch Unit is primarily methane. Methane is a chemical compound with the chemical formula CH_4. It is the simplest alkane, the main component of natural gas, and probably the most abundant organic compound on earth.

LNG is often confused with liquefied petroleum gas (LPG), which in turn is often incorrectly identified as propane. In fact liquefied petroleum gas (LPG) is a mixture of propane and butane gases that exist in a liquid state at ambient temperatures when under moderate pressure (less than 200 psi). LNG is also often confused with compressed natural gas. Compressed natural gas (CNG) is natural gas stored at ambient temperature under pressure. The pressure is typically 3,100 pounds per square inch. Both LNG and CNG are considered alternative fuels under the Energy Policy Act of 1992.

Liquefied petroleum gases (LPG) differing composition and physical properties (from LNG) make its behavior different as well. The propane and butane in LPG have different chemical compositions from methane, the primary hydrocarbon in natural gas and LNG. Propane and butane can be stored and transported as a mixture or separately. Both are gases at normal room temperature and atmospheric pressure, like methane, readily vaporizing. Propane liquefies much more easily than LNG (at -46°F vs. -259°F for LNG) so it is much easier to compress and carry in a portable tank. In fact, LPG is stored as a liquid under pressure, whereas LNG is stored as a liquid only at very low temperatures and ambient pressure.

Why not produce propane and butane for this project? When HEYCO conducted gas analyses in 1997 and 2001 respectively, lab analyses reported that the wells were producing extremely dry gas with no propane or butane components. Propane has the chemical formula, C_3H_8. Butane has the chemical formula, C_4H_{10}.

HEYCO conducted gas analyses in 1997 and 2001 on the two existing gas wells with results averaging gas compositions of approximately 96% methane. The other approximately 4% is nitrogen with a small amount of CO_2. During the liquefaction process, natural gas is cooled and the other components are absorbed or used as fuel. The liquid natural gas weighs less than water so it will float. LNG is 1/600 the volume of natural gas at standard pressure. Thus, a large volume of natural gas that has been liquefied can be transported long distances easily. LNG is safer than natural gas. When cold LNG is warmed, it becomes a visible vapor cloud. As the cloud warms, it dissipates into the atmosphere. LNG spills do not contaminate soil or groundwater.

Air at standard atmospheric conditions is given a density of 1.0. Natural gas has a density of 0.65. If a box measuring one foot by one foot by one foot, a cube, were filled with fresh water it would weigh 65 pounds. If the same box were filled with LNG it would weigh 26.5 pounds. This is why LNG will float on water, and dissipate into the atmosphere.

Boiling point helps describe when a liquid becomes a gas. The most common example is boiling water. Water is a liquid at atmospheric conditions, when it is heated to boiling; it turns into steam, a gas. The boiling point of water is 212°F at atmospheric pressure. Water can also be converted into a solid by freezing it. Natural gas can be converted into a liquid by "freezing" it. The methane must be cooled to -260°F at atmospheric pressure, to 'freeze' it.

Insulation, as good as it is, will not keep LNG at -260°F for extended periods of time. LNG is stored as a boiling cryogen, a very cold liquid at its boiling point given the pressure at which it is being stored. Stored LNG is analogous to boiling water, only much colder. Once water boils, even if more heat is added, the water continues to boil, as it is cooled by evaporation (steam generation). Similarly, LNG will stay at near constant temperature if kept at constant pressure. This is called *autorefrigeration*. As long as the steam (LNG boil off vapor) is allowed to leave the tea kettle (tank), the temperature will remain constant. The LNG boil off vapor is used to fuel the liquefaction process.

Currently most of the world's LNG production comes from countries with large natural gas supplies. These countries include Libya, Algeria, Australia, and Qatar. In recent years, the United States has discovered that large sections of the country contain vast amounts of natural gas.

However, due to regulatory oversight and infrastructure investments, the United States has been slow to convert to LNG. Moving forward into a greenhouse gas (GHG) constrained economy, LNG will play a key role, offering significant GHG emissions reductions as LNG is a pathway with the lowest carbon intensity as well as being a positive public image.

In February 2012, EnCana opened its first LNG fueling station in Frierson, Louisiana. It is the first public LNG fueling station in Louisiana and it will serve the fueling needs of both heavy duty company truck fleets in addition to individual members of the public. Per EnCana, "Nearly identical to a gasoline or diesel pump, natural gas as a vehicle fuel costs 20-40 percent less than gasoline or diesel. Natural Gas Vehicles (NGV's) generally have a longer operating life because of cleaner combustion and they produce fewer smog-forming emissions than their diesel or gasoline counterparts. LNG has higher energy density than CNG and thus offers significant potential in NGV market segments where long vehicle ranges are required, such as the Class VIII heavy duty semi- truck sector."

In October 2012, Caterpillar announced it will begin manufacturing high horsepower natural gas powered engines. The Caterpillar website said, "Caterpillar will provide natural gas fuel as an option for engines across its many high horsepower lines for marine, rail, mining, earthmoving and drilling operations. The company recently announced its first expected liquefied natural gas (LNG)-powered products will likely include Cat® 793, 795 and 797 mining trucks, and locomotives produced by Electro-Motive Diesel (EMD) of Progress Rail." Stricter emissions standards for locomotives are set to take effect in 2015.

In August 2012, Kenworth Truck Company announced that it now manufactures and sells a Kenworth T800 truck with dual LNG fuel tanks that will give an operator the ability to drive 700 miles on a single fueling. The engine has similar horsepower and torque ratings to its diesel counterparts. Kenworth, in its press release stated the new engines are designed to lower America's dependence on foreign oil sources.

There is a significant economic incentive to move to natural gas considering current gas users powering high horsepower equipment are realizing a cost savings of 30 to 50 percent. The

recently released Corporate Average Fuel Economy (CAFE) standards recognize natural gas as a clean and efficient transportation alternative to gasoline.

Clean Energy Fuels, a company, is building a network of natural gas fueling stations that spans the United States. Greg Roche of Clean Energy Fuels states that truckers can save 25 to 35 percent on fuel and reduce their emissions when they switch to natural gas.

AmericaCNG is working with fleet users to convert vehicles to natural gas. Per AmericaCNG, for a public service station to generate revenue, it must sell 5,000 diesel gallon equivalents a day. When looking at a map, it is obvious that El Paso, Texas is almost midway between Houston, Texas and Los Angeles, California. For a long distance truck company using LNG, El Paso is a prime re-fueling location. Currently, LNG fuel stations exist in the Houston and Los Angeles areas. For truck drivers, using LNG it is possible to go almost the entire distance on LNG with a fuel stop in El Paso. The Bennett Ranch Unit is about 60 miles from El Paso and can provide LNG to the El Paso market.

LNG fueling stations for vehicles are in many respects similar to gasoline and diesel fueling stations. LNG can be re-gasified and pressured to offer compressed natural gas (CNG) if preferred. Many engine manufacturers are building engines that will run on CNG or LNG.

3. Proposed Facility Location

3.1 Legal Description

The Bennett Ranch Unit mini Liquefied Natural Gas (LNG) production facility is proposed to be located on the existing Bennett Ranch Unit #1-Y well site. No additional disturbance will occur as the mini-LNG processing facility and storage tank will be located on the existing well pad. The well and mini-LNG facility will be located in Section 14, Township 26S, Range12E, Otero County, New Mexico, corresponding to latitude 32.046679°N and longitude 105.682790°W. The photo on the following page shows the BRU #1-Y wellhead.

Should the mini LNG production facility be successful on the BRU #1-Y well site, HEYCO will install a second mini LNG production facility on the BRU #25-1 well site. No additional

disturbance will occur as the mini-LNG processing facility and storage tank will be located on the existing well pad. The well and mini-LNG facility will be located in Section 25, Township 26S, Range 12E, Otero County, New Mexico, corresponding to latitude 32.0466796684°N and longitude 105.682790124°W.

Picture 1 – Wellhead of Bennett Ranch Unit #1 – Y.

3.2 Site Specific Engineering Surveys

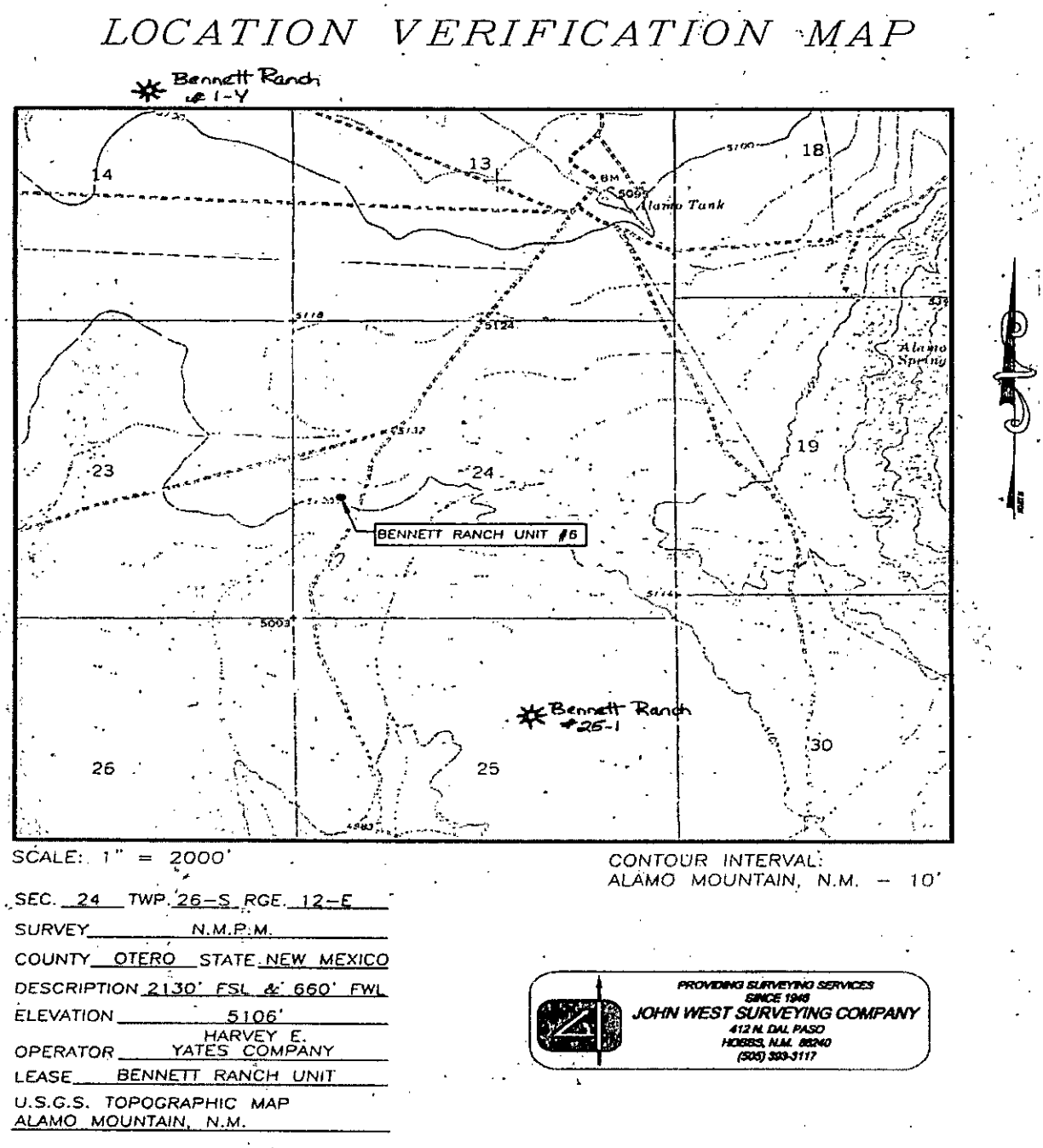
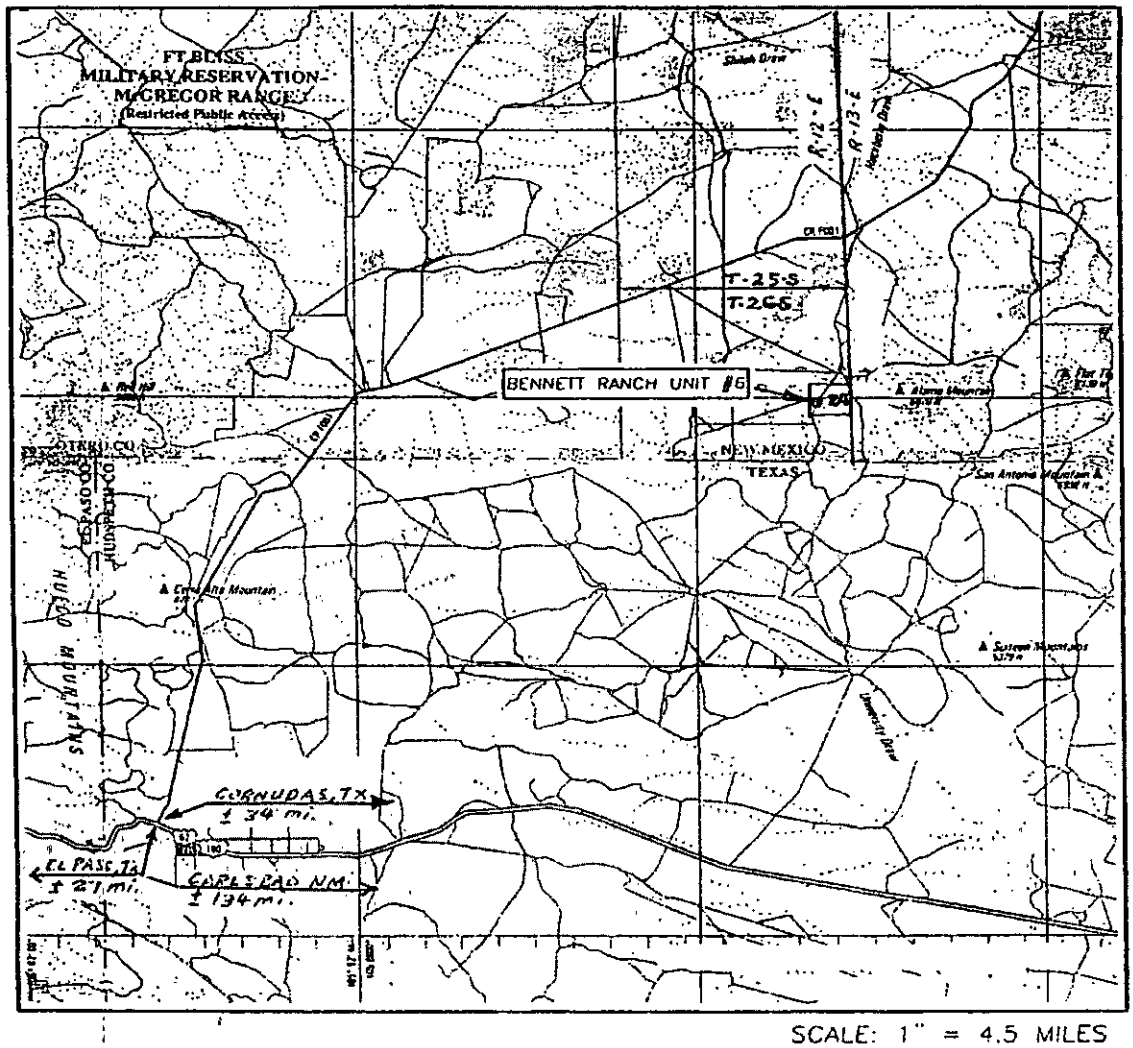


Figure 3. Survey of Area.

VICINITY MAP



SCALE: 1" = 4.5 MILES

SEC. 24 TWP. 26-S RGE. 12-E
SURVEY N.M.P.M.
COUNTY OTERO STATE NEW MEXICO
DESCRIPTION 2130' FSL & 660' FWL
ELEVATION 5106'
OPERATOR HARVEY E. YATES COMPANY
LEASE BENNETT RANCH UNIT

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Figure 4. Area Survey

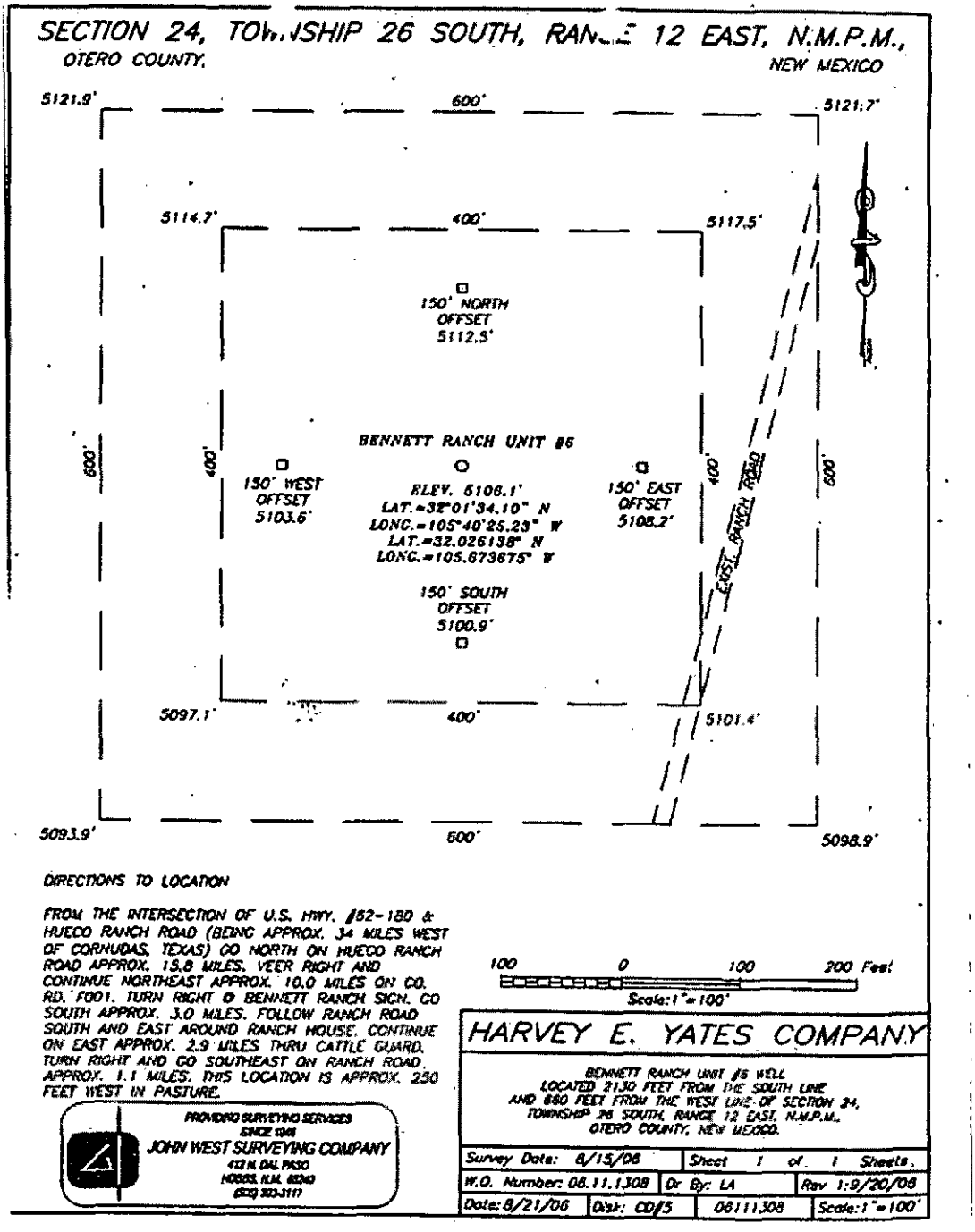


Figure 5. Survey Map of proposed Bennett Ranch Unit #6.

3.3 Maps & Drawings

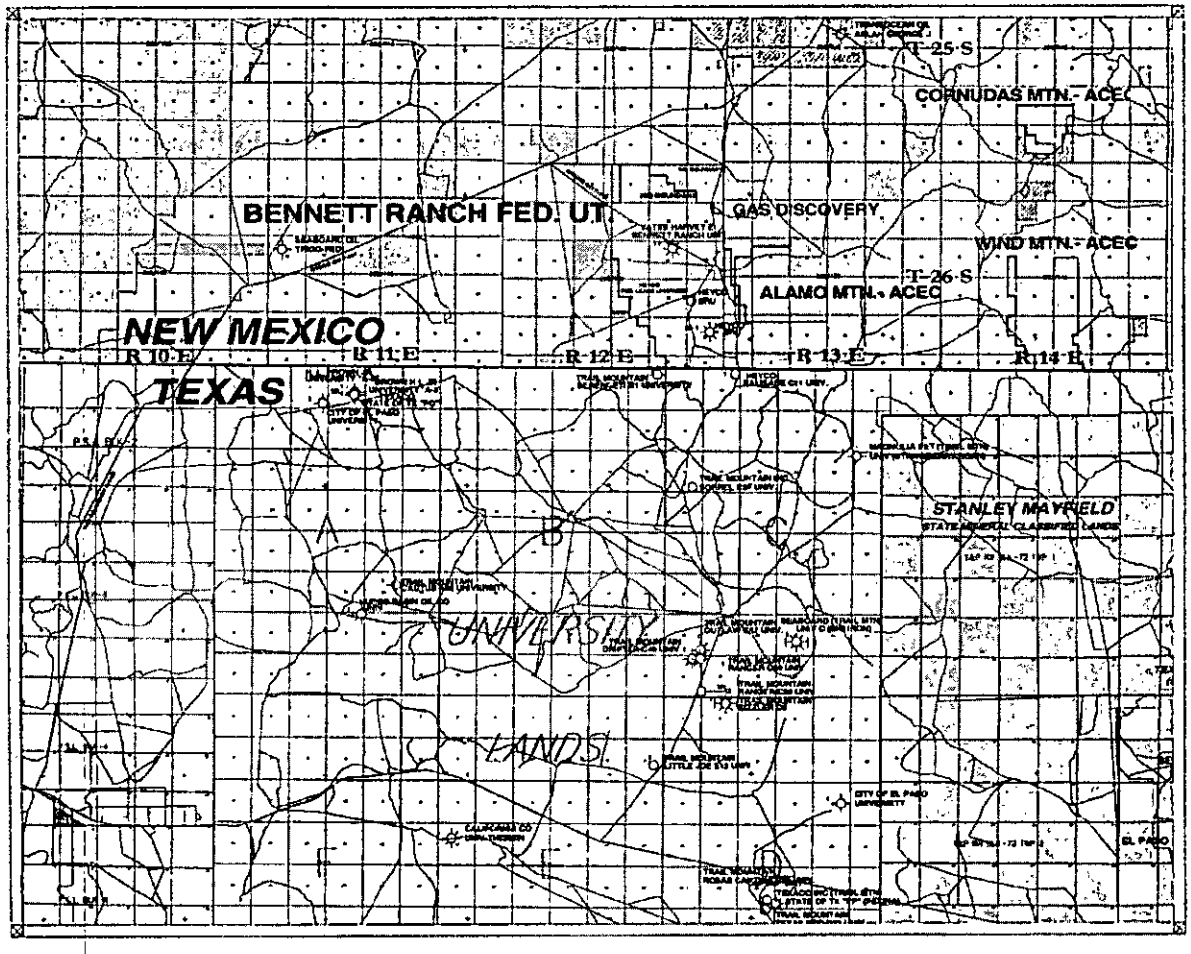


Figure 6 . Area Map showing area to the south of proposed facility.

3.4 Acre Calculation of the ROW by Land Status

It is expected that while the mini Liquefied Natural Gas (LNG) Processing Facility and storage tank are being installed that the original 400 feet by 400 feet tract of well pad will be used. The facility will be placed on the already disturbed area of the well pad. No additional impact will be necessary. One acre is equal to 208 feet x 208 feet. Upon placement of the mini-LNG processing facility no more than 1 acre of land will be used. Should the well not produce a significant amount of gas, it will be plugged and abandoned, the surface re-contoured and vegetation re-

established. The proposed development will be no more than 1 acre of land upon placement of the mini-LNG processing facility, storage tank and insulated surface pipelines.

3.4.1 Surface or sub-surface

The mini-LNG processing facility, storage tank, and associated piping will all be on the surface of the land. The storage tank will have an 18 inch dike built around it as a secondary containment system.

3.4.2 Length and width of ROW required

Right of way via County Road was approved prior to drilling the BRU #1-Y and the BRU #25-1.

3.5 Proposed Facilities

HEYCO is proposing to install a mini-LNG processing facility and storage tank on the BRU #1-Y well pad. Should the BRU#1-Y well produce as planned, and yield a successful economic installation, then a second mini-LNG processing facility and storage tank designed for LNG, will be placed on the BRU #25-1 well pad and placed into production. The mini-LNG processing facility and storage tank will be connected to each other and the well head via industrial strength insulated pipes.

3.6 Liquefied Natural Gas (LNG) Processing Facility

Mini-LNG processing is based on adsorption and absorption technologies. Adsorption is the adhesion in an extremely thin layer of molecules (as a gas or liquid) to the surfaces of solid bodies or liquids with which they are in contact. Filtered or bottled water for human consumption is processed using adsorption technology. Absorption is a condition in which something takes in another substance. Should CO_2, oxygen, nitrogen or water be present in the gas, they are absorbed in the mini-LNG processor in the clean-up stage. (See process flow diagram, next page.).

LNG is natural gas that has been chilled to -260°F. In order to accomplish this, HEYCO is proposing a mini-LNG processing facility be installed on the Bennett Ranch Unit #1-Y well

location. The mini-LNG processing facility uses absorption chillers, compressors, and heat exchangers to chill the natural gas into liquefied natural gas. The facility uses natural gas for power to operate the two absorption chillers. In order to achieve LNG, significantly more chilling is needed than can be provided by a single chiller unit. Two sources of chilling are at work through a primary heat exchanger. The first step utilizes a throttle valve. Pre-cooled gas from the throttle valve is then sent through the primary heat exchanger where it is chilled to -170°F at approximately 40 psia. This pressure and temperature allows for "plate fin" heat exchangers rather than coil wound units to be utilized. A portion of the gas is then sent through another throttle valve, yielding approximately -254°F vapor and liquid at low pressure. This cold vapor and liquid stream is then used to sub-cool the portion of the stream that is still at -170°F and 40 psia, cooling it to -260°F. Following this step, the refrigerated liquid natural gas is sent to the storage tank without formation of any flash or boil off gas.

The low pressure stream that chilled the main product stream in the sub-cooler is sent back to the beginning of the process as part of a recycle stream. Prior to its return trip through the primary heat exchanger, the recycle stream is mixed with the recycle stream from a compressor-loaded cryogenic methane turbo-expander. This is the second source of chilling inside the mini-LNG processing facility. The mini-LNG processing facility utilizes compressed natural gas as a 'working fluid' (chiller) to liquefy a significant portion of the stream, returning a 'recycle' portion for re-compression, but only after several 'cold recovery' steps.

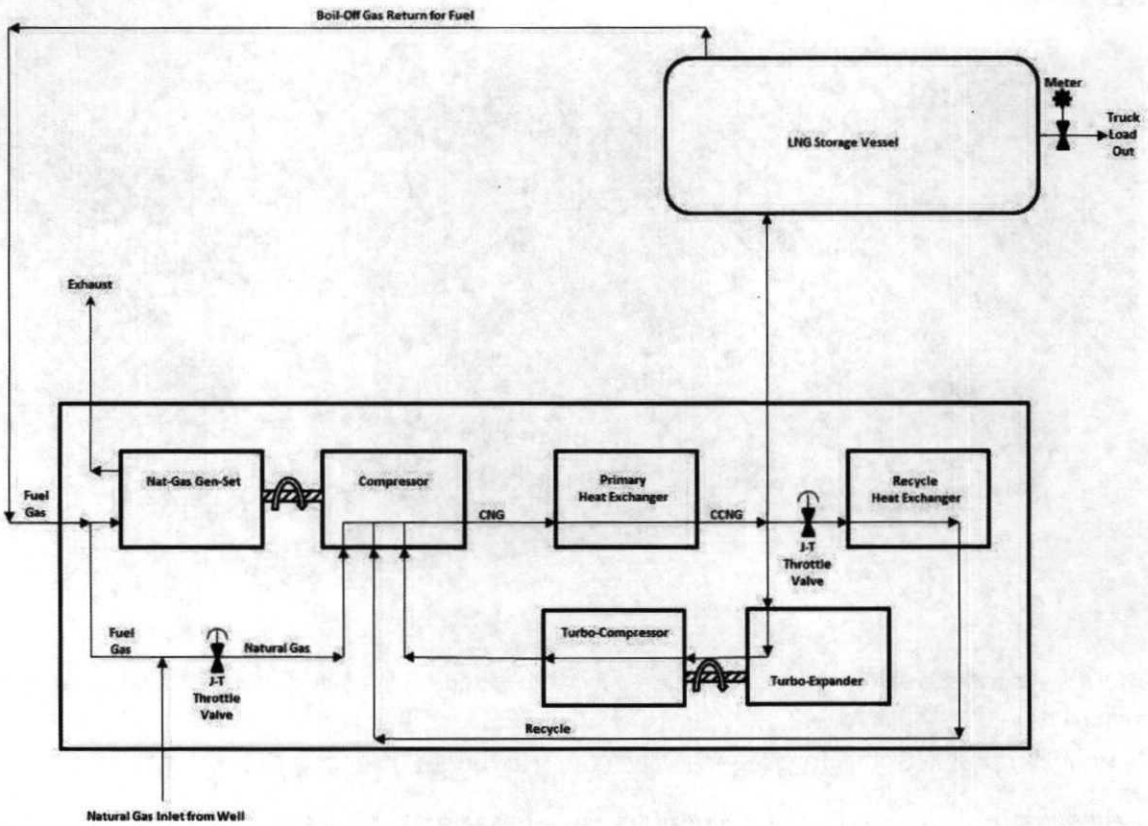


Figure 7 . The flow loop for the proposed HEYCO mini-LNG processing facility.

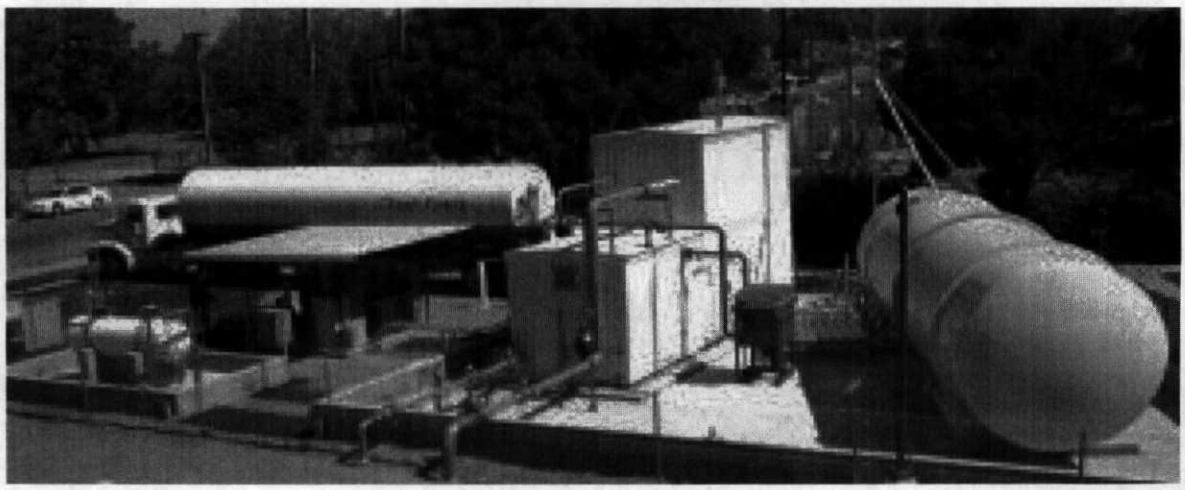


Figure 8 .Idaho National Labs Small Scale Natural Gas Liquefaction Plant and Storage Tank. This unit is shown to indicate the compact nature of the technology.

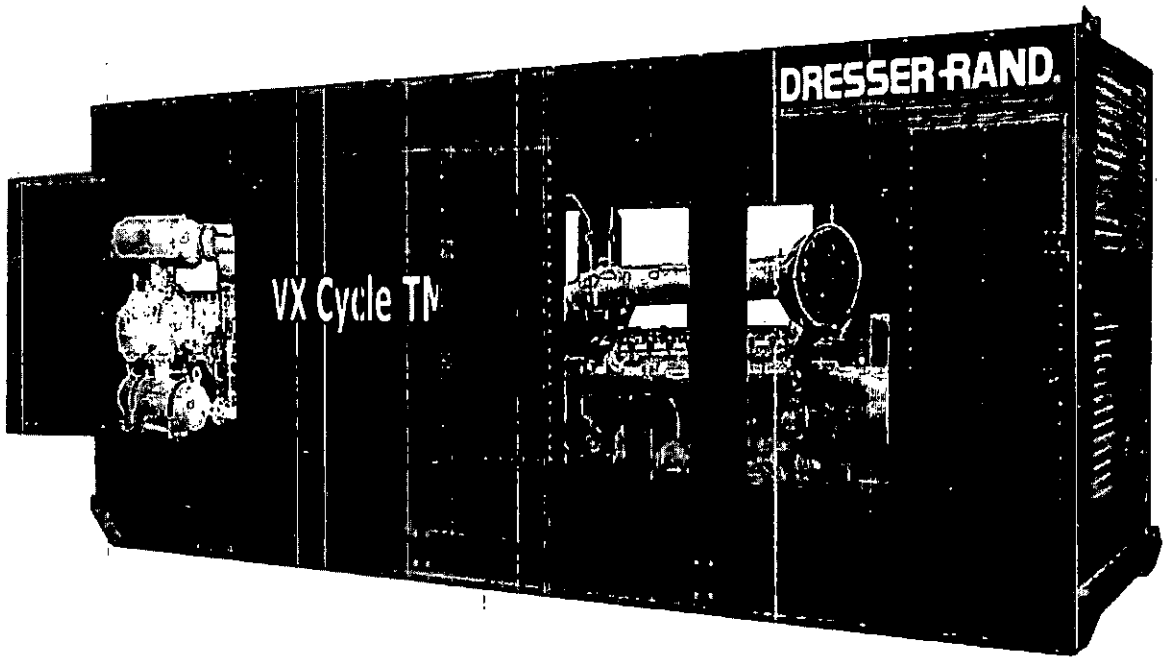


Figure 9 . A small-scale LNG facility manufactured by VX-Expansion and is fully contained within standard shipping container.

A typical mini-LNG facility is generally constructed to process natural gas in the following stages: natural gas pre-treating, liquefaction, storage and shipment to market. HEYCO proposes to install a mini-LNG processing facility similar to the one shown above on the BRU #1-Y location. Small-scale mini-LNG processing facilities capable of producing a desired output of up to 10,000 gallons of LNG per day are now available on the open market. Small-scale liquefiers cost between two and eight million dollars to manufacture and have a very low overhead. The plants are designed to use little or no LNG in the actual process and are equipped with an integrated "stand alone" mode for the production of natural gas at "Stranded" Gas Fields which are not close to existing pipeline infrastructure.

The liquefaction of these stranded reserves allows the natural gas (in dense liquid form) to be cost-effectively transported by LNG tanker truck to existing natural gas pipelines, and re-gasified prior to insertion to the interstate/intrastate pipeline system or sold as LNG. Stranded gas applications can utilize a skid-mounted unit that can be moved to other gas production areas once its work is completed at the original gas production field. Through this application,

the small-scale LNG unit can increase the value of natural gas in stranded fields by potentially tens of millions of dollars per field by making such reserves cost-effectively deliverable to the market. The small-scale can also be used as a "stepping stone" for high-potential gas fields that could support an extension of the natural gas pipeline system, but not until a sufficient number of gas wells in these new fields are drilled and producing. Current small-scale mini-LNG processing units yield approximately 85% LNG from every unit of natural gas processed with only about 15% of the feedstock used to fuel the generator used to generate power on-site.

3.7 LNG Storage and Load out Facility

HEYCO will install an 11,000 gallon storage tank on the well pad to store LNG on a temporary basis, and have space on the well site for a truck to collect the LNG.

3.7.1 Size, number and number of storage vessels

HEYCO will place an 11,000 gallon LNG storage tank on the well pad. LNG is refrigerated methane. Should the methane warm up, it will expand. The tank is a vacuum tank, like a thermos, and is designed to keep the liquid cold. One storage tank is required and will be emptied daily. The LNG will be trucked to a market in El Paso, Texas.

3.7.2 Anticipated transport truck traffic

It is anticipated that the BRU #1-Y will require a single LNG transport truck to empty the LNG storage tank per day. The mini-LNG processing facility can produce up to 10,000 gallons of LNG per day. This allows for some flexibility in the truck schedule without the storage tank being stressed or shutting down the entire system. Additionally, this is a built in safety feature of the entire system.

The LNG transport trailer is specifically designed for transporting LNG over US roads. The trailer is ASME Code stamped pressure vessel made out of stainless steel. It can carry up to 12,700 gallons of LNG depending on weight limits. HEYCO is proposing up to 10,000 gallons per day transportation of LNG.

The truck and trailer will be washed prior to every trip to pick up LNG to avoid the transportation of fugitive seeds.

3.8 Facility Construction

3.8.1 Liquefied Natural Gas (LNG) Processing Facility

The manufacturer of the mini-LNG processing facility will deliver the facility via a semi-truck, and place it in the desired location, the Bennett Ranch Unit #1-Y. The mini-LNG processing facility will be off loaded using a crane and set on the ground. The mini-LNG processing facility will be connected to the well and storage tank. Once the natural gas has completed its cycles through the processing facility and has chilled to the proper temperature, it is piped into the storage tank.

3.8.2 LNG Storage and Load out Facility

The LNG storage tank looks similar to a propane tank. It is 10 feet in diameter and is 35 feet 3 inches long. The tank has the capacity to hold 11,000 gallons of LNG. With the skid mounted mini-LNG processing facility producing up to 10,000 gallons of LNG per day, the tank has storage capacity for about 1 day of production. This allows for flexibility with the truck driver's scheduled pickup time each day. The tank will have an 18 inch berm around it as a secondary containment.

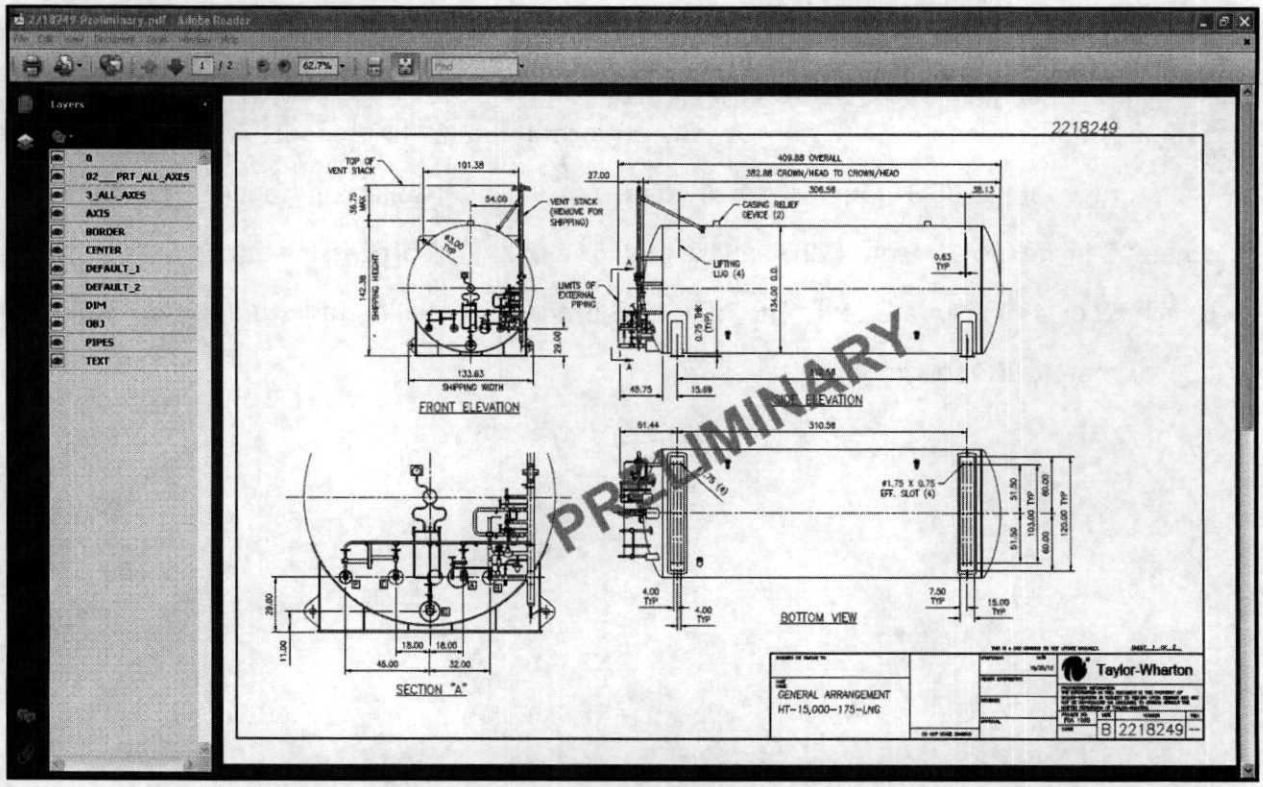


Figure 10 . Tank schematic showing similarly designed LNG storage tank.

3.9 Pipelines from Wells to LNG Facility

3.9.1 Pipeline pressure standards (wall thickness & MAOP rating)

Wellhead pressure in December, 2012 was 1,250 psig at the BRU #1-Y well, and 550 psig at the BRU #25-1well. The natural gas flows up the wellbore to the wellhead and into the pipe then into the mini-LNG processing facility. The pipe is constructed to ASME B 31.3 standards.

3.9.2 Toxicity of the pipeline product

Methane, CH_4, the known primary component of the gas coming from the wellhead is relatively non-toxic. It does not have an OSHA PEL standard. Methane is an asphyxiant and may displace oxygen in an enclosed space.

3.10 Areal footprint

HEYCO will place a skid mounted container containing a mini-LNG processing facility and an 11,000 gallon horizontal LNG storage tank on location near the Bennett Ranch Unit #1-Y well. The storage tank is 35'3" long with a 10' diameter. When installed on 'saddles', the tank will be 35 feet 3 inches by 10 feet or 353 square feet. The mini-LNG processing unit is 53 feet by 8 feet 6 inches, or 450.5 square feet. The mini-LNG processing facility and storage tank will occupy approximately 803 square feet.

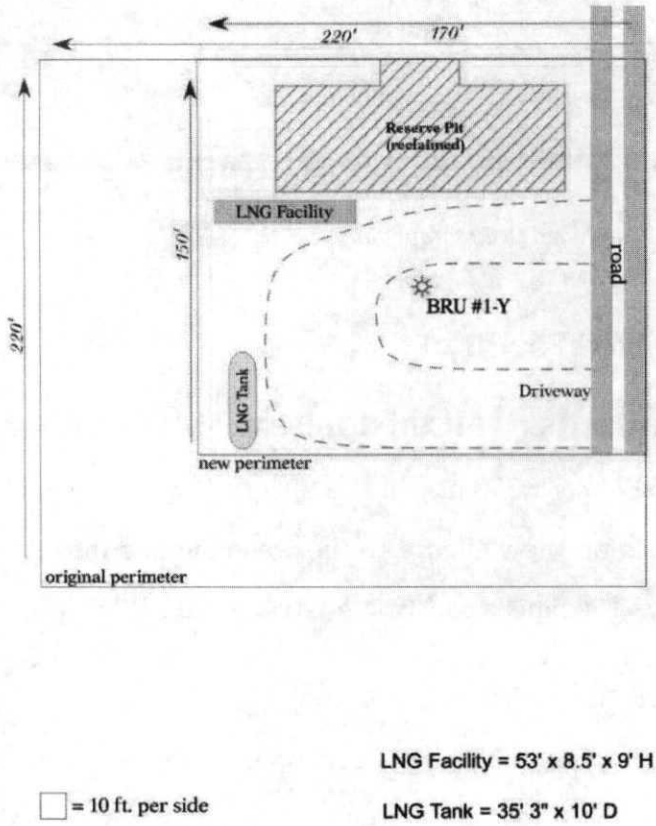


Figure 11 . Proposed layout of mini-LNG Facility and storage tank.

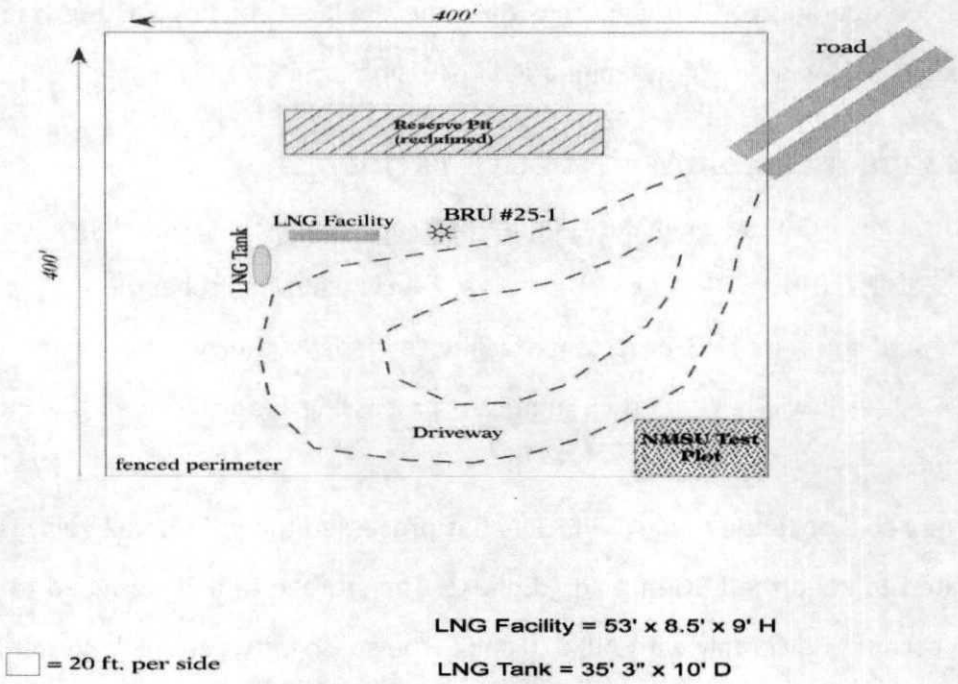


Figure 12 . Proposed layout of mini-LNG Facility and storage tank

3.11 Operations and Maintenance

HECYO will operate the well, mini-LNG processing facility and storage tank remotely with a telemetry system that provides real-time live two-way communication. The well site will be checked visually every day by the truck driver unloading the storage tank. Maintenance will occur at least annually requiring the well and processing facility to be shut-in for up to 2 days.

3.11.1 Liquefied Natural Gas (LNG) Processing Facility

The mini-LNG processing facility requires little oversight and almost no manual operation. A wireless telemetry system will be installed that will allow HEYCO to control both the well and mini-LNG processing facility remotely.

The mini-LNG processing facility requires very little maintenance. Hamworthy, a Norwegian company built and installed a small scale test LNG processing facility in Norway and placed it into operation in 2005. The facility has operated successfully without incident since it commenced operations. HEYCO intends on using similar technology as the Hamworthy facility and predicts a 20 year life of the mini-LNG processing facility.

3.11.2 Pipelines from Wells to LNG Facility

The natural gas from the wellhead is under pressure. The BRU #1-Y well has a shut-in wellhead pressure of 1,250 psig. HEYCO will install a 2-inch diameter schedule 40 pipe between the wellhead and the mini-LNG processing facility to transfer the natural gas into the processing facility. Each well will have its own mini-LNG processing facility, should the BRU #1-Y well be successful.

LNG is very cold once the mini-LNG facility has processed the gas into a liquid. The storage tank is insulated to keep the LNG in a liquid phase. The storage tank is designed to operate at less than 15 psi and will comply with API 620 code. The space between the inner tank and the outer tank will contain insulation that is compatible with LNG and natural gas and that is noncombustible. The piping between the LNG processing facility and the storage tank is made of materials that can withstand both its normal operating temperature and extreme temperatures to which it might be subjected to during an emergency. Piping will comply with ASME B 31.3, Process Piping, Section 307 and NFPA 59A. Valves will comply with ASME B 31.5, Refrigeration Piping. The piping will be vacuum-jacked, known as braided hose.

3.12 LNG Storage and Load-out Facility

The LNG processing facility is skid mounted and is the size of a truck trailer (53' X 8.5'). The mini-LNG processing facility will be painted the appropriate BLM colors for the area. The facility will require an 11,000 gallon horizontal storage tank to be emptied every day. The mini-LNG processing facility will produce up to 10,000 gallons per day.

3.13 LNG Facility Design Factors

3.13.1 Liquefied Natural Gas (LNG) Processing Facility

HEYCO will place the first mini-LNG facility on the location shown in the following photo. This is the BRU #1-Y location looking north.

Picture 2 – Picture of proposed mini-LNG processing facility location.

This selected location for the mini-LNG processing facility and storage tank is easily accessed and will not require any removal of plants and soil, thus no additional surface impact. The proposed mini-LNG processing facility is contained in a standard shipping container. The mini-LNG processing facility is skid mounted and will be off loaded on location with a small crane.

3.14 Power Generation

The mini-LNG processing facility uses some of the natural gas flow stream from the well to fuel a natural-gas fired generator with all the appropriate catalytic devices and emission controls.

The generator engine is expected to use less than 15% of the natural gas from the well to generate the energy needed to power the mini-LNG processing facility.

3.15 Royalties

The well and mini-LNG processing facility will be located on BLM Federal acreage possessing Federal minerals, thus subject to royalty payments to the Office of Natural Resources Revenue, formerly the Minerals, Management Service. Per Onshore Order 5, Section III C, an orifice meter will be placed near the wellhead to measure the volume of natural gas produced prior to being processed in the mini-LNG processing facility.

4. Regulations and Background

As with any industry, HEYCO will conform to all relevant national and local regulations, standards and codes. It is understood that using this mini-LNG process is a relatively new application of a proven technology. LNG technology has been in existence since the early 1900s. The first LNG facility was built in West Virginia in 1912 and began operating in 1917. As a transportation fuel, LNG has been in use since the 1960s. In the United States there has been one reported accident involving LNG. The incident occurred in 1944 in Cleveland, Ohio. It was most likely due to the quality of the steel in the tank not being suitable for a cryogenic product. Due to this accident, LNG development in the United States was delayed for about 20 years. Today, the LNG industry is regulated by the following entities for large scale projects:

- Department of Transportation – Not applicable to this project.

The Department of Transportation Office of Pipeline Safety regulates the siting and safety of LNG pipeline facilities under the Pipeline Safety Act of 1994 (P.L. 102-508) as amended. Implementing regulations for the Act, including provisions on facility siting, are found in 49 CFR 191-199. Standards for operation, maintenance, fire protection, and security at such facilities are chiefly found in 49 CFR 193 and incorporate National Fire Protection Association (NFPA) standards.

- Environmental Protection Agency – Not applicable to this project.

For onshore projects, the Clean Air Act has requirements for emission limitation and reduction and generally implements these requirements through permits. To determine the specific requirements and permits that apply for new large scale LNG projects, the following must be evaluated:

  - The project design (e.g. the equipment, fuels, or pollutant-containing materials to be used at the project);
  - The applicable regulations of the nearest adjacent coastal state given the location of the project, as well as the location of any associated construction activities; and
  - What emissions are part of the stationary source (e.g., whether the project is a major source for certain pollutants)

Sources of air emissions from new LNG projects may include, depending on the project design and applicable law;

  - Construction activities;
  - Operation of stationary equipment once the project is built; and
  - Vessels associated with operation of the project.

Permitting requirements vary on a project-by-project basis. For this reason, not all LNG projects apply for the same permits or are subject to the same requirements. In some instances, LNG projects may need to apply for the following permits and consider the following types of requirements;

  - New Source Review Permitting
  - Title V Operating Permits;
  - New Source Performance Standards;
  - Hazardous Air Pollutant Standards; and
  - Other state air regulations

- Fish and Wildlife Service (FWS) – BLM may consult

As a cooperating agency, the FWS has the responsibility for the conservation, protection and enhancement of fish, wildlife, plants and their habitats, including the principal trust responsibility to protect and conserve migratory birds, threatened and endangered species, certain marine mammals, and inter-jurisdictional fish. Applicants for LNG facilities and related pipeline construction projects are required to consult with the FWS on projects potentially affecting any of these resources. The FWS also consults with LNG project proponents on projects potentially affecting fresh water or marine resources and water quality.

- Army Corps of Engineers – Not applicable to this project.

The Army Corps of Engineers entered into a Memorandum of Understanding (MOU) in 2005 with FERC. FERC is responsible for authorizing the construction and operation of interstate natural gas pipelines. FERC conducts environmental, safety, and security reviews of LNG plants and related pipeline facilities, and as the Lead Federal agency prepares the overall NEPA documentation.

- Department of Labor Occupational Safety and Health Administration (OSHA) – Not applicable to the BRU on-site portion of this project.

Process Safety Management-In constructing new plants and equipment, the employer must ensure that equipment as it is fabricated is suitable for the process application for which it will be used. Appropriate checks and inspections must be performed to ensure that equipment is installed properly and is consistent with design specifications and the manufacturer's instructions. The employer also must ensure that maintenance materials, spare parts, and equipment are suitable for the process application for which they will be used.

- Federal Energy Regulatory Commission (FERC) – Not applicable to this project.

FERC asserts approval authority over the place of entry and exit, siting, construction, and operation of new terminals as well as modifications or extensions of existing LNG terminals. (see 18 CFR 153). FERC requirements include detailed site engineering and design information, evidence that an LNG facility will safely receive or deliver LNG, and delineation of a facility's proposed location and geologic risk, if any. Every two years, FERC staff members inspect LNG facilities to monitor the condition of the physical plant and review changes from the originally

approved facility design or operations. FERC has jurisdiction over all existing LNG import terminals and 15 peak-shaving plants involved in interstate gas trade.

- Coast Guard (USCG) – Not applicable to this project.

The United States Coast Guard is responsible for assuring the safety of marine operations in US coastal waters under provisions of the Ports and Waterways Safety Act of 1972 (P.L. 92-340) and also the Maritime Transportation Security Act (MTSA). The USCG also regulates the design, construction, and operation of LNG ships and the duties of LNG ship officers and crews.

- Department of Energy (DOE) – Not applicable to this project.

Office of Fossil Energy coordinates across federal agencies that have regulatory and policy authority for LNG. The Natural Gas Act of 1938 requires that anyone seeking to import or export natural gas across US borders must be authorized by DOE. DOE monitors LNG shipments to ensure the integrity of American energy supplies via a certification process.

LNG has specific safety considerations. LNG Operators must set up four layers of protection.

- Primary Containment: The most important safety requirement in the event of an LNG release is primary containment. This is accomplished by employing suitable materials for storage tanks and other equipment, and by appropriate engineering design throughout the industry.
- Secondary Containment: Secondary containment ensures that, in case of a leak or spill, the LNG can be contained and isolated. For onshore facilities, dikes and berms surround storage tanks to capture the product. Double and full containment systems for onshore tanks can eliminate the need for dikes and berms.
- Safeguard Systems: Safeguard systems are designed to minimize and mitigate the release of LNG. Sophisticated systems are designed to rapidly detect a breach in containment. They automatically shut off the systems in case of failures.
- Separation Distance: Federal regulations have always required a separation distance between LNG facilities from adjacent industrial communities and other public areas.

4.1 Land Use

In 1976, Congress passed the Federal Land Policy and Management Act (FLPMA) which directed BLM to inventory and develop a comprehensive land use management plan which provides the management framework for the BLM's multiple use mandates and as defined by FLPMA, the BLM is responsible for managing public lands and their resources to achieve the following objectives:

- Utilize resources in the combination that will best meet the needs of present and future generations.
- Make the most judicious use of resources while providing for periodic adjustments in use to conform to changing needs and conditions.
- A combination of balanced and diverse resource uses that take into consideration the long term needs of future generations for renewable and non-renewable resources.
- Harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources.

4.2 Government Agencies Involved

4.2.1 BLM

Section 402 of the Clean Water Act required the US Environmental Protection Agency (EPA) to develop a phased approach to regulate storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. Industrial activities disturbing the land may require permit coverage through a NPDES storm water discharge permit. A Section 404 Permit from the US Army Corps of Engineers for the discharge of dredge and fill materials may also be required.

Otero County, New Mexico on average receives its heaviest precipitation annually in August of each year. Annually, this area of the county receives 2.60 inches of precipitation during the month of August. This may occur during a heavy summer thunderstorm. The proposed mini-

LNG processing facility is enclosed in a standard shipping container. It receives natural gas from the wellhead and stores LNG in the storage tank. HEYCO is proposing a zero water discharge system.

HEYCO will install a mini-LNG processing facility on previously disturbed land, on-site of an existing well. The facility is the size of and located in a standard shipping container. Next to the mini-LNG processing facility, HEYCO will place an 11,000 gallon LNG storage tank. The tank will be emptied daily or less frequently, depending on production. The mini-LNG processing facility is capable of producing up to 10,000 gallons of LNG per day.

4.2.2 New Mexico Oil Conservation Division

The New Mexico Oil Conservation Division does not have any rules published concerning mini-LNG processing facilities as of January, 2013.

4.2.3 US Fish and Wildlife Service

BLM may consult with USFWS for this Plan of Development.

4.2.4 Section 7 Conference

Section 7 Conferences are described by the US Fish and Wildlife Service (USFWS) as:

Under provisions of section 7(a) (2) of the Endangered Species Act, a Federal agency that carries out, permits, licenses, funds, or otherwise authorizes activities that may affect a listed species must consult with the Fish and Wildlife Service to ensure that its actions are not likely to jeopardize the continued existence of any listed species.

The Federal agency, or the applicant as the designated non-Federal entity, contacts the appropriate local Service office to determine if listed species are present within the action area. The Service responds to the request by providing a list of species that are known to occur or may occur in the vicinity; if the Service provides a negative response, no further consultation is required unless the scope or nature of the project is altered or new information indicates that listed species may be affected.

If listed species are present, the Federal agency must determine if the action may affect them. A may affect determination includes those actions that are not likely to adversely affect as well as likely to adversely affect listed species. If the Federal agency determines that the action is not likely to adversely affect listed species (e.g., the effects are beneficial, insignificant, or discountable), and the Service agrees with that determination, the Service provides concurrence in writing and no further consultation is required.

If the Federal agency determines that the action is likely to adversely affect listed species, then it must request initiation of formal consultation. This request is made in writing to the Services, and includes a complete initiation package. Up to that point, interactions have been conducted as informal consultation; however, once a request for formal consultation is received, the process becomes formal, and specific timeframes come into play. Formal consultation is initiated on the date the package is received, unless the initiation package is incomplete. If the package is incomplete, the Service notifies the Federal agency of the deficiencies. If a complete package is submitted, the Service should provide written acknowledgment of the request within 30 working days. This written acknowledgment is not mandatory, but is encouraged so that there is documentation in the administrative record that formal consultation has been initiated.

From the date that formal consultation is initiated, the Service is allowed 90 days to consult with the agency and applicant (if any) and 45 days to prepare and submit a biological opinion; thus, a biological opinion is submitted to the Federal agency within 135 days of initiating formal consultation. The 90-day consultation period can be extended by mutual agreement of the Federal agency and the Service; however, if an applicant is involved the consultation period cannot be extended more than 60 days without the consent of the applicant. The extension should not be indefinite, and a schedule for completion should be specified.

4.3 Risks

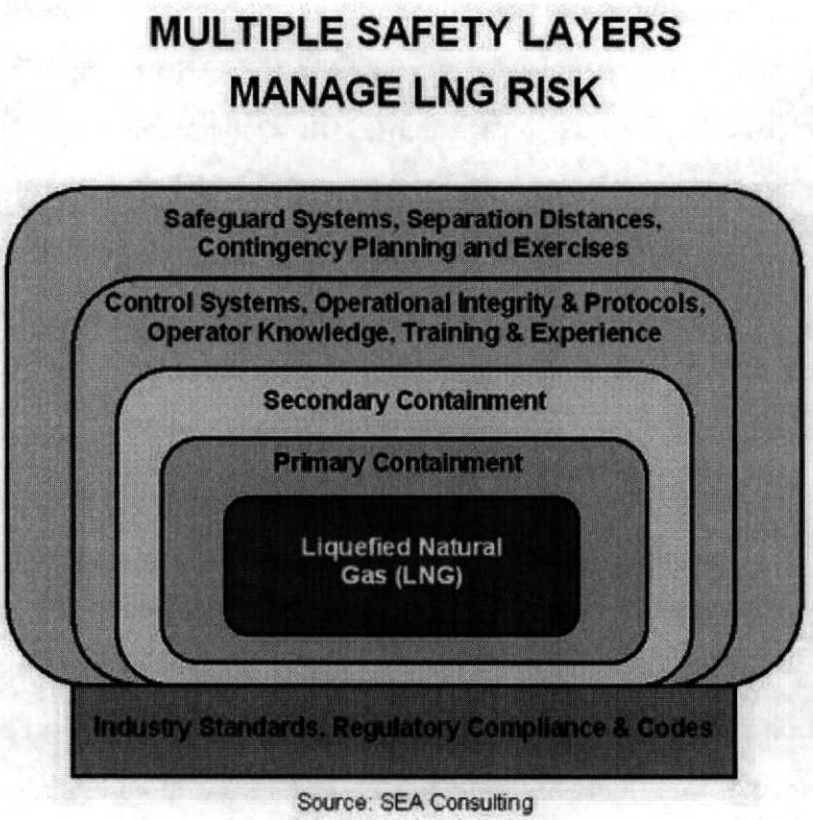


Figure 13 . Safety Layers.

LNG is stored at very cold temperatures under normal atmospheric conditions. The safety record of LNG at onshore facilities demonstrates that the primary containment of tanks is safe. LNG is stored in double walled tanks at atmospheric pressure. The storage tank is actually a tank within a tank with insulation between the walls. The material selected for tanks, piping and other equipment that comes in contact with LNG is critical. High alloy steels composed of nine percent nickel and stainless steel are typically used for the construction of the inner tank for the LNG storage and other LNG applications.

One of the most common misconceptions about LNG is the belief that LNG is pressurized and explosive. The purpose of the secondary containment systems is to contain the entire volume of liquid stored at a storage facility in case of an incident. However, unlike conventional liquid fuels, if a tank is punctured, LNG will evaporate away instead of pooling on the ground.

The Department of the Interior reported from an expert at Sandia National Laboratory that it is nearly impossible to detonate a high concentration of methane. LNG is primarily methane. Explosion is an activity that is unlikely to occur with LNG. LNG in liquid form will not explode within storage tanks because its storage temperature is approximately -260°F at atmospheric pressure. Without pressure or confinement or heavily obstructed clouds of vapors, there can be no explosion. An explosion from LNG vapors is possible only if all the following conditions occur at the same time: vapors are in flammability range, vapors are in a confined space, a source of ignition is present. LNG vapors have no odor or color, its low temperature causes water vapor to condense in the air and form a highly visible white cloud. Natural gas is flammable, but LNG is not. LNG is not flammable because of its lack of oxygen. For a fire to occur three things are necessary, a fuel source, oxygen, and an ignition source.

Several factors are required to start a fire from LNG vapors. Specifically, the fuel and oxygen have to be in a specific range to form a flammable mixture. This 'flammable range' is the range of concentration of a gas or vapor that will burn if an ignition source is introduced. The flammability limits for methane are between 5% and 15% volume in air. Outside of this range, the methane/air mixture is not flammable. This is a very small range when compared to other gasses. Hydrogen, for example, has a 'flammable range' of 4% to 75% volume in air.

In a closed storage tank, the percentage of methane is almost 100%. Any small leak, if at all, of LNG vapor from a well-ventilated area is likely to rapidly mix with air and quickly dissipate to lower than 5% methane in air.

The ignition temperature, also known as auto-ignition temperature, is the lowest temperature at which a gas or vapor in air will ignite spontaneously without a spark or flame being present. This temperature depends on factors such as air-fuel mixture and pressure. In an air-fuel mixture of about 10% methane in air, the auto ignition temperature is approximately 1000°F. This is why it is nearly impossible to detonate a high concentration of methane.

Should a LNG fire start, it has a very hot flame temperature. The methane in LNG has a flame temperature of 2,426°F. Compare this to gasoline which has a flame temperature of 1,880°F. The combustion of LNG produces mainly carbon dioxide and water vapor.

Another potential LNG hazard is Rapid Phase Transitions (RPT's) which occurs if LNG is spilled on water. The LNG re-gasifies almost instantaneously from the water's heat, creating a 'flameless' explosion. Rapid Phase Transition is most likely to occur in larger leakages from LNG tankers where LNG spills on salt water.

Vapors in storage tanks must be released periodically back into the mini-LNG processing unit to keep the temperature and pressure from rising. The temperature in the tank will remain constant if the pressure is kept constant by allowing the boil off, the evaporated gas, to be released from the tank. The boil off vapors are used to fuel the generator inside the mini-LNG processing unit.

If LNG does spill, there is no damage to surrounding soil or water due to its extremely quick evaporation rates. It does not leave a residue.

5. Alternatives Considered

5.1 Pipeline

There are pipelines in the proximity of the Bennett Ranch Unit. One pipeline crosses Township 26S, Range 12E, Section 6. The second pipeline is a spur line that ends in Township 26S, Range17E. The third pipeline, carrying petroleum products, crosses Hudspeth County, Texas to the south of the wells.

Kinder Morgan operates a pipeline through El Paso, Texas with a spur in Otero County, NM. This alternative was considered in 2001. That is building a pipeline from the BRU #1-Y well pad to the existing interstate pipeline. HEYCO obtained approval in 2001 to install a pipeline south from the BRU#1-Y well to the New Mexico and Texas border, a distance of 3.26 miles. The pipeline would then need to be extended another 15 miles to join the Kinder Morgan pipeline. The eight inch line would affect 20 acres (50' X 17,213') and be extended approximately another mile to the northwest to access the BRU #25-1 affecting an additional 6 acres. Under full-scale development scenarios of the Bennett Ranch Unit, it is estimated an additional 5 miles of gathering lines within the unit may be required to access the wells. Contained within a 25

foot right of way equates to an estimated additional 15 acres of disturbance. Total long-term disturbance is estimated at 41 acres. HEYCO believes that mini-LNG technology is less intrusive and more environmentally 'friendly'.

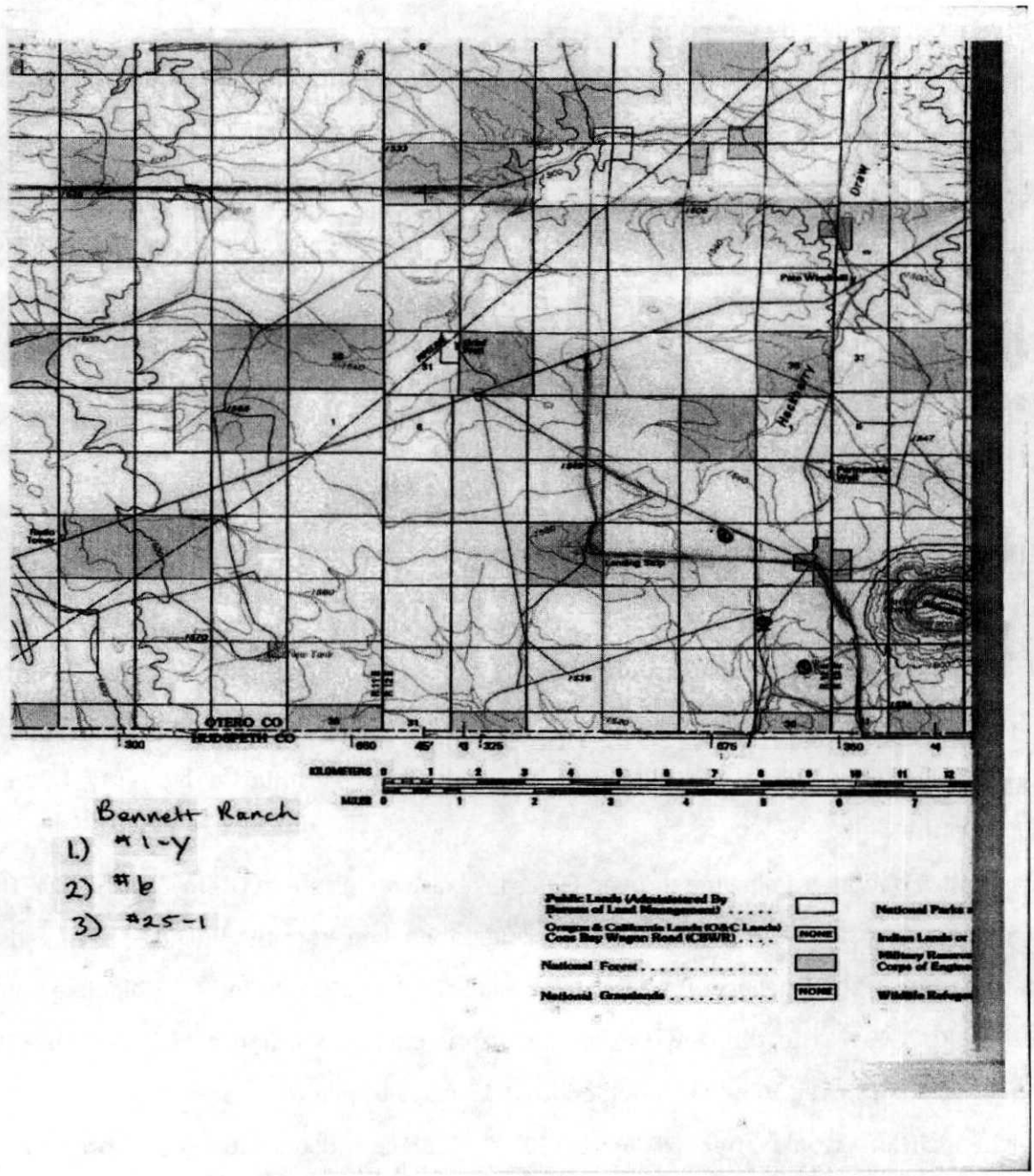


Figure 14 . BLM map shown with approximate well locations.

Magellan Midstream Partners, L.P. is proposing a pipeline from Fort Bliss to the Strauss Rail Terminal. This pipeline does not exist in Otero County, but may exist in nearby Dona Ana County, NM. The pipeline has not yet been approved.

A pipeline owned by NuStar Energy L.P. based in San Antonio, TX, crosses Township 26 S, Range 12E, Section 6 and transports liquid refined products from the McKee Refinery and Phillips Texas Pipeline to the Borger Denver line. Natural gas is not transported with liquid refined products.

5.2 Power Generation

HEYCO will install a mini-LNG processing facility in Otero County, New Mexico on its Bennett Ranch Unit #1-Y well site. This location is not located in a city, town, or village of any size. The location can only be reached by driving for many miles on dirt roads. LNG can be stored at atmospheric pressure in super-insulated tanks.

Installing a power plant on the Bennett Ranch Unit to generate electricity is an alternative to a mini-LNG processing facility. The mini-LNG processing facility is contained inside a standard shipping container, a very small footprint.

Natural gas can be efficiently burned to produce power. A power plant needs a constant supply source in order to generate electricity. From April 1, 1988 through September 1, 1995 the BLM authorized a number of oil and gas leases on Otero Mesa. HEYCO drilled two wells in the area where natural gas was discovered. The wells are currently shut in pending technological advances to make them economically and environmentally viable. Should they prove to be viable, HEYCO will want to drill other wells in the area to determine the extent of the reservoirs, and if there are sufficient reserves to justify further construction. Based on the two well tests conducted on the two existing wells in 1997 and 2001 respectively, the wells at the beginning of their life cycle produced 4,250,000 standard cubic feet of gas in one day. It is unknown what they will produce over their lifetimes.

Installation of a power plant on the Bennett Ranch Unit is an alternative. HEYCO would need to overcome many unknowns to make this a viable option. First and foremost, HEYCO would need

to become a utility as well as an oil and gas company. Second, the company would need to find a customer base for its produced electricity. Third, HEYCO would need to secure financing of roughly $750 million to build a power plant. Fourth, the company would need to ensure a 'lifetime' or more of natural gas to power the plant. Fifth, HEYCO would need to secure and procure all necessary licenses and permits. It is estimated that a power plant takes two years to build.

Power plants emit greenhouse gases.

6. Management of Hazardous Components

6.1 Mercury, Hydrogen Sulfide, Condensates, Boil-Off Gas

In 1997 and 2001, the Bennett Ranch Unit #1-Y and #25 -1 well were drilled, respectively. Each well had a gas sample collected. The samples were sent to independent laboratories for evaluation. The Bennett Ranch Unit #1-Y gas sample showed that the gas contains approximately 96% methane, 3% nitrogen, and less than 1% carbon dioxide. The Bennett Ranch Unit #25-1 gas sample showed that the gas contains approximately 96% methane, and 4% nitrogen.

Hydrogen Sulfide was not detected to be present at either well site when they were drilled. Should HEYCO encounter hydrogen sulfide when installing and utilizing the mini-LNG processing facility, the LNG processor processes small amounts of water, carbon dioxide, hydrogen sulfides, nitrogen and oxygen in the gas.

Mercury is a naturally occurring chemical element with the symbol H_g and is found in cinnabar, a reddish colored rock. It is a liquid that is heavy, silver –white in color. It is the only known metal that is liquid at standard temperature and pressure. Should mercury or water be present

in the natural gas from the well it is removed prior to liquefaction using pre-treatment technology.

Condensates 'fall' out of natural gas as it is cooled, if they are present in the natural gas stream. Natural-gas condensate is a low-density mixture of hydrocarbon liquids that are present as gaseous components in the raw natural gas produced from many natural gas fields. It condenses out of the raw gas if the temperature is reduced to below the hydrocarbon dew point temperature of the raw gas. Condensates are found in "wet" natural gas. The natural gas wells that HEYCO drilled in the Bennett Ranch Unit are "dry" natural gas wells. These wells typically produce only raw natural gas that do not contain any hydrocarbon liquids.

Boil off Gas is the vapor phase in LNG storage tanks. LNG is natural gas that has been chilled to -260°F. It is stored at atmospheric pressure in a storage tank that is actually a tank within a tank that has insulation between the walls. HEYCO will install an 11,000 gallon LNG storage tank on the well site, but will only produce up to 10,000 gallons of LNG per day. The additional space in the tank is a safety precaution. LNG is 1/600 the volume of natural gas in a vapor phase. If the liquid heats, it expands. If there is not space in the tank, the gas becomes "boil off" gas. The boil off gas is normally used to fuel the mini-LNG processing facility internal generator.

7. Resource Values and Environmental Concerns

7.1 Impacts to Resources

The Salt Basin Hydrologic Area (SBHA) also known as Crow Flats is a sparsely developed area in Otero County, New Mexico. It contains an ownership mix of public, private and state lands. There are approximately 26 miles of road within the Bennett Ranch Unit. Impacts from travel on these roads will increase in the short term while the mini-LNG processing facility and storage

tank are placed on the well site. The storage tank will then be emptied daily by one truck. No new roads would be added to the area by HEYCO.

When the gas sample from the BRU #1-Y well was analyzed, the lab reported that the natural gas was primarily methane with small amounts of nitrogen and carbon dioxide included. HEYCO does not anticipate water will enter the gas stream based on the lab results, thus water tanks and hauling is not anticipated.

Ground water, water used for human consumption, is protected by many governing entities including the State of New Mexico. Measures to protect the aquifer from contamination due to gas development will continue. Contamination of the aquifer due to gas development resulting from surface spills or well bore leakage is a remote possibility. HEYCO expects the BLM to be a good partner in managing the resources.

7.2 Land Use

Otero County, New Mexico is comprised of 4,241,280 acres. The BLM is responsible for managing 1,537,837 of those acres in Otero County. Approximately 160,000 acres of public land are leased for grazing in the SBHA. The mini-LNG processing facility and storage tank will take up less than two acres, per well location. In April 2013, a new draft Resource Management Plan (RMP) was released by the BLM. In it are several proposals for the area known as Otero Mesa. One proposal would be to turn the area into an Area of Critical Environmental Concern (ACEC). This would essentially, over time, turn the entire 198,511 acres into a wilderness area. The draft RMP states that this area would have grazing allotments adjusted over time. Oil and gas leases and issues are deferred in the draft RMP because of the 10th Circuit Case from 2009, New Mexico v. BLM. Should the preferred option of draft RMP become the Record of Decision, the BLM will close the area to oil and gas activity. This appears to be the path of least resistance for the BLM and would significantly impact the potential development of the BRU.

7.3 Greenhouse Gases/Air Quality

The mini-LNG processing facility is located in a remote area of Otero County, New Mexico. Air quality in the region is generally good, and the area is designated by the EPA as a "non-attainment area" for any listed pollutants regulated by the Clean Air Act. The region is designated as a Class II air quality area which allows for moderate amounts of air quality degradation. The area is also in attainment for all state air quality standards (NMAQS). The primary source of air degradation is PM_{10} (dust) generated off site during high wind events which are fairly common in southern New Mexico, especially during the spring months.

The mini-LNG processing facility utilizes a small volume of natural gas from the wellhead to chill the gas into a liquid. The natural-gas powered engine on the generator that powers the processing facility has a catalytic converter with a very low emission profile. Idaho National Labs reports that nitrogen and carbon dioxide may be emitted from the mini-LNG processing unit if they are present in the natural gas stream. Nitrogen is the main component of the air we breathe. CO_2 is processed with the methane and is used as a portion of the engine's fuel demand. The gas sample from the BRU #1-Y well contained 3% nitrogen and less than 1% carbon dioxide.

Greenhouse gases can be emitted at the customer site if the LNG is not stored properly or used efficiently. LNG is very cold, as it warms it wants to change phases and turn back into a vapor or gas. As this happens, it expands. Once expansion occurs, boil off gas or leakage occurs. To combat these issues, it is important to continue to chill the gas and keep it in a liquid state. Secondly, the valve on the storage tank may be opened allowing the vapor to escape. The ideal situation is to use the vapors as fuel for the generator. This is what the processing facility designed for HEYCO will do.

Should there be an increase in greenhouse gas emissions that might result from this plan of development, they will be very small. It is currently not feasible to predict with certainty the net impacts from this plan of development on global or regional climate.

7.4 Roads

There are approximately 26 miles of road within the Bennett Ranch Unit of Otero County, New Mexico. The mini-LNG processing facility and the storage tank will be delivered and placed on the well pad via the existing roads in the area. It is anticipated that the mini-LNG processing facility and storage tank will be delivered and installed in one to two days. Then a transport truck will arrive on location via the existing road to the BRU #1-Y (and the BRU #25-1 as the project develops) well each day to empty the storage tank. This is the only impact that HEYCO will have on the roads within the Bennett Ranch Unit.

7.5 Wildlife

There was an isolated sighting of a Northern aplomado falcon during the spring of 2006 and 2007. The Northern aplomado falcon has not been sighted in the Bennett Ranch Unit since that time. However, the Northern aplomado falcon is listed under Section 10J of the Endangered Species Act as an experimental, nonessential population in New Mexico. Under this listing, the falcon is treated as a Federally Proposed species. For BLM, species with this designation are considered a 'proposed' species of compliance with Section 7 of the Act. BLM NM/OK/KS/TX policy states that for BLM actions that May Affect, Not Likely to Adversely Affect a proposed species, BLM is only required to send an informational courtesy letter to the Fish and Wildlife Service that describes the action and documents the thought process to support the effect determination. BLM would confer with the FWS on any action that is likely to adversely affect a proposed species.

Since the promulgation of the reintroduction rule, the Falcon population in the plan area falls under §10(j) of the ESA, applicable to populations which are artificially introduced into an area outside the naturally existing range of a species. (pg. 31) Fish and Wildlife service (FWS) made the decision to alter the Falcon's status by reintroducing it to the plan area. It was FWS that decided to reintroduce and thus reclassify the Falcon. Based on that decision, FWS granted $295,793 to nonprofit organization the Peregrine Fund to begin releasing birds on BLM lands in New Mexico in 2007. (pg. 34) The presence of these birds makes it a practical impossibility for

FWS to reverse reintroduction because an actual experimental population of Falcons now exists in the area at issue. (pg. 35)

7.6 Paleontology

The BLM Environmental Assessment for the Bennett Ranch Unit #6 states that there have been no reported discoveries of significant fossil specimens within 2 miles of the proposed project area. The archeological review of the BRU #1-Y and BRU #25-1 wells concurred with the BLM assessment. Should HEYCO or the contractor discover fossils while placing the mini-LNG processing unit and storage tank on the well pads, BLM will be promptly notified.

8. Stabilization, Rehabilitation and Other Mitigations

8.1 Vegetation and Wildlife

Following installation of a mini-LNG processing facility and storage tank, all compacted areas will be contoured to as close as possible to appear as before work commenced. Should native plant species seeds be available, they will be planted as needed. Native vegetation, which currently consists primarily of blue and black grama grass with a creosote bush over story, would encroach on the well pad over time with only high traffic areas remaining un-vegetated.

If noxious weeds are detected, abatement measures would be implemented. These include weed inventory surveys, monitoring and control programs. At the present time there are no known invasive non-native species on the proposed development site. There are known non-native species along the shoulder of the main access routes into the proposed development site. The African Rue, a known non-native species occurs on the adjacent grazing allotment within 10 miles of the proposed development site, and on the shoulder of the main access

route. The African Rue is a perennial species identified by its bushy growth habit, fleshy stems and leaves, and a five-petal white flower. It is spread by seed, roots, and root fragments.

Currently, on average, approximately 65 acres of forage are required to support one cow in this region. Using this figure and the extent of actual disturbance anticipated, adverse impacts to grazing are expected to be minimal. HEYCO does not anticipate disturbances to current animal grazing in the area. Currently, the project area is permitted for 573 cattle and 5 horses.

The project area is designated in the White Sands RMP as Visual Resource Management (VRM) Class IV which provides for management activities which allow major modification of the existing character of the landscape. Activities may attract attention and may dominate the view.

The project area is remote, receiving little direct recreational use. The area attracts a few visitors annually.

The proposed mini LNG processing facility and storage tank is in an area of Otero County, New Mexico that is within the southwest quarter of the Salt Basin Hydrologic Area (SBHA) which includes approximately 432 square miles or 276,480 acres that is very remote. The land is predominantly used for grazing livestock. The remote nature of the region and relative lack of available private land precludes industrial or residential development.

Within the proposed development area there is potential for one sensitive plant species to occur. Grama grass cactus occurs in two ecotypes at elevations from 5,000 to 7,300 feet. This cactus could be impacted through crushing of individual plants by equipment and vehicles during development. These impacts would be small and would not have an impact on the overall occurrence of the species. HEYCO will attempt to avoid all cactus species in the area. There are no known occurrences of special status plants within the lease boundary.

The Northern aplomado falcon is currently listed under Section 10J of the Endangered Species Act as an experimental, nonessential population in New Mexico and Arizona. Under this listing, the falcon is treated as a Federally Proposed species. Surveys for aplomado falcons have been conducted during the breeding season by two separate contract biologists for the past several years. The most recent sightings have occurred in the spring 2006 and 2007. Follow-up surveys

have not resulted in additional sightings, nesting activity, or evidence of established territories within the project area. The aplomado falcon nesting season occurs between February 1 and July 31 annually. Should installation begin on of the well pad during this time, then HEYCO will complete a survey. Should the aplomado falcon be sighted during the survey, then HEYCO will cease operations that would result in the destruction of the aplomado falcon nests.

If installation of the facility occurs during the nesting season for mountain plover and burrowing owls (March 1 – August 31) then surveys will be completed within one week of construction.

At the time the Environmental Assessment for the BRU #6 was written, it was noted that mineral materials are abundant throughout the area but there did not appear to be a market for them at the time. Rare earth minerals are currently noted to be in the area in mineable amounts. The March 12, 2012 electronic edition of the El Paso, Inc. reported that TRER was coring on a 10,000 acre prospecting claim to determine if it is rich enough and big enough to start mining. As of October, 2012 the company was still exploring rare earth mineral mining in the area, and notes that "a group is hunting rare earth minerals just across the New Mexico line from Dell City in the Otero Mesa's Cornudas Mountains."

If the well is shut in or plugged and abandoned, the well pad will be returned to its native state in as quick a manner as possible.

8.2 Spill Prevention Control and Countermeasure

Spill Prevention Control and Countermeasure (SPCC) Plans are required by the Environmental Protection Agency (EPA) under the Clean Water Act Section 311 for onshore and near shore facilities landward of the coast line. For those facilities within EPA jurisdiction 40 Code of Federal Regulations (C.F.R). 112 applies if the facility meets the applicability criteria of the rule – i.e., the aggregate aboveground oil storage capacity is greater than 1,320 gallons or the aggregate completely buried storage capacity is greater than 42,000 gallons and, due to facility location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in 40 C.F.R. part 110, into or upon navigable waters of the United States or adjoining shorelines.

Mini-LNG processing technology was developed in the early 2000's in the United States. The EPA's SPCC guidelines for HEYCO's Plan of Development are not clear. SPCC plans are required for oil storage. LNG is not oil. However, HEYCO does plan to store greater than 1,320 gallons of LNG on the facility site.

8.2.1 Preventative Measures

This plan is comprehensive and addresses actions used to prevent spills in addition to specifying actions that will be taken should any spills occur, including emergency notification procedures. The Project's on-site Environmental Inspector is responsible for ensuring that Contractors implement and maintain spill control measures.

8.2.2 Training

The contractor will instruct personnel on the operation and maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, and lubricants. Personnel will also be made aware of pollution control laws, rules and regulations applicable to their work.

Spill prevention briefings with the construction crew will be scheduled and conducted by the Contractor to ensure adequate understanding of spill prevention measures. These briefings will highlight:

- Precautionary measures to prevent spills;
- Sources of spills, such as equipment failure or malfunction;
- Standard operating procedures in case of a spill;
- Equipment, materials, and supplies available for clean-up of a spill; and
- a list of known spill events.

A spill is an un-permitted release of product, raw materials, or chemicals outside any secondary containment and into the environment. Spills can occur as a result of leaks, accidents, or third party incidents.

8.2.3 Equipment Inspection/Maintenance

The Contractor will inspect and maintain equipment that must be fueled and/or lubricated according to schedule. The Contractor will submit to HEYCO for approval written documentation of the methods used and work performed.

All containers, valves, pipelines, and hoses will be examined regularly to assess their general condition. The examination will identify any signs of deterioration that could cause a spill and signs of leaks, such as accumulated fluids. All leaks will be promptly corrected and/or repaired.

8.2.4 Storage

Storage containment areas will not have drains, unless such drains lead to a containment area or vessel where the entire spill can be recovered.

8.2.5 Personnel Support

Prior to installation, the inspector shall identify and prepare a written inventory of water wells within 150 feet of the site. The Contractor will notify authorities of all potable water supply intakes located within three miles downstream prior to installation.

8.2.6 Impact Minimization Measures

Containment is the first priority in the case of a spill. A spill will be contained as quickly as possible. Clean up procedures will begin immediately after a spill is contained. In no case will containment equipment be used to store contaminated material.

Upon discovery, personnel will report any spill or release of the following materials regardless of location to the Environmental Inspector for notification to the appropriate Company representative as indicated below:

- Oil or petroleum products;
- Hazardous substances or hazardous wastes;
- Chemicals;

- Unplanned natural gas venting; and,
- Asbestos-containing materials.

The following contacts are currently assigned to the Plan of Development and are subject to change:

HEYCO (Roswell, NM)

Project Manager: Catherine Green (575) 623-6601

Area Superintendent: Clay Stevens (575) 626-1965

Environmental Inspector – To be completed prior to facility installation

Contractor

Project Manager – To be completed prior to facility installation

If a spill enters a body of water, the Contractor will take samples upstream and downstream from point of entry. If advised, additional analysis will be completed and/or additional samples will be gathered.

If the Environmental Inspector and Contractor determine that a spill occurred then they will prepare a Construction Site Spill Report form to be given to HEYCO that includes:

a. The date, time and location of the occurrence or discovery of the occurrence.
b. A description or identity of the material spilled.
c. An estimate of the quantity spilled.
d. The circumstances that caused the spill (e.g. equipment failure).
e. A list of water bodies affected or potentially affected by the spill.
f. A statement verifying whether a sheen is present.
g. The size of the affected area.
h. An estimate of the depth that the material has reached in water or soil.

i. A determination of whether the spill will migrate off of the workspace.

j. A determination of whether the spill is under control.

k. A statement verifying that clean-up has begun and a description of the methods being used to clean up the spill.

l. The names of the people observing the spill (with their affiliations) and the extent of injuries, if any.

m. The Field "Report of Spill" form.

HEYCO shall ensure that the Contractor's spill report is complete and shall forward it to the Environmental Inspector. The Contractor shall follow all procedures required including regulatory notifications. The Contractor is responsible for knowing what state and local environmental authorizations are necessary for installation of the mini-LNG processing facility and storage tank. Any permits, clearances or authorizations obtained by the Contractor shall be furnished to HEYCO.

The following releases require immediate (within 1 hour of discovery) notification to the National Response Center (NRC);

1) Any petroleum product released into streams, rivers, lakes, or dry washes;
2) A release that exceeds the reportable quantity of any Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances in any 24-hour period which is not fully contained;
3) A release of a hazardous substance or hazardous waste which occurs during transportation; and
4) A release of hazardous waste which contains a reportable quantity of a hazardous substance.

The National Response center (1-800-424-8802) will be notified immediately if spills occur above threshold levels (Clean Water Act, 40 CFR 110.10) into surface waters and/or wetlands.

8.2.7 Suggested Equipment

General equipment that the Contractor will use for spill containment and cleanup includes:

- Sorbents (pillows, socks, wipe sheets) for containment and pick up of spilled liquids;
- Commercially available spill kits that are prepackaged, self-contained spill kits containing a variety of sorbents for small to large spills;
- Structures such as gutters, culverts, and dikes for immediate spill containment;
- Shovels, backhoes, etc. for excavating contaminated materials;
- Drums, barrels and temporary storage bags to clean up and transport contaminated materials.

8.3 Termination and Restoration

Should the wells not be viable, HEYCO will plug and abandon them. HEYCO will then be responsible for successful completion of reclamation.

HEYCO is prepared to undertake long- term stewardship of the project site to meet near- term clean energy requirements while recognizing the environmental sensitivity of the land. HEYCO requests that the BLM approve this Plan of Development and Operations so that the Bennett Ranch Unit can be produced in an environmentally and economically prudent manner.

9. Future Development

HEYCO plans to install the mini-LNG processing facility and storage tank on the BRU #1-Y well pad. Should this facility be economically successful as planned, then HEYCO will install a second facility and storage tank on the BRU #25-1 well pad. As the market and demand grows, HEYCO will propose to drill and complete more wells within the BRU.

The BRU #6 location has been defined to be within the Participating Area of the Bennett Ranch Unit and therefore not considered an exploratory well. Therefore, HEYCO plans to submit an

Application for Permit to Drill (APD) in Section 3, Township 26S, Range 12E as an exploratory well. Additional exploratory wells will be proposed in sections 22, 31, 18 and 1 of the Bennett Ranch Unit as geologically determined to delineate the extent of the producing formations underlying the BRU. See timelines below.

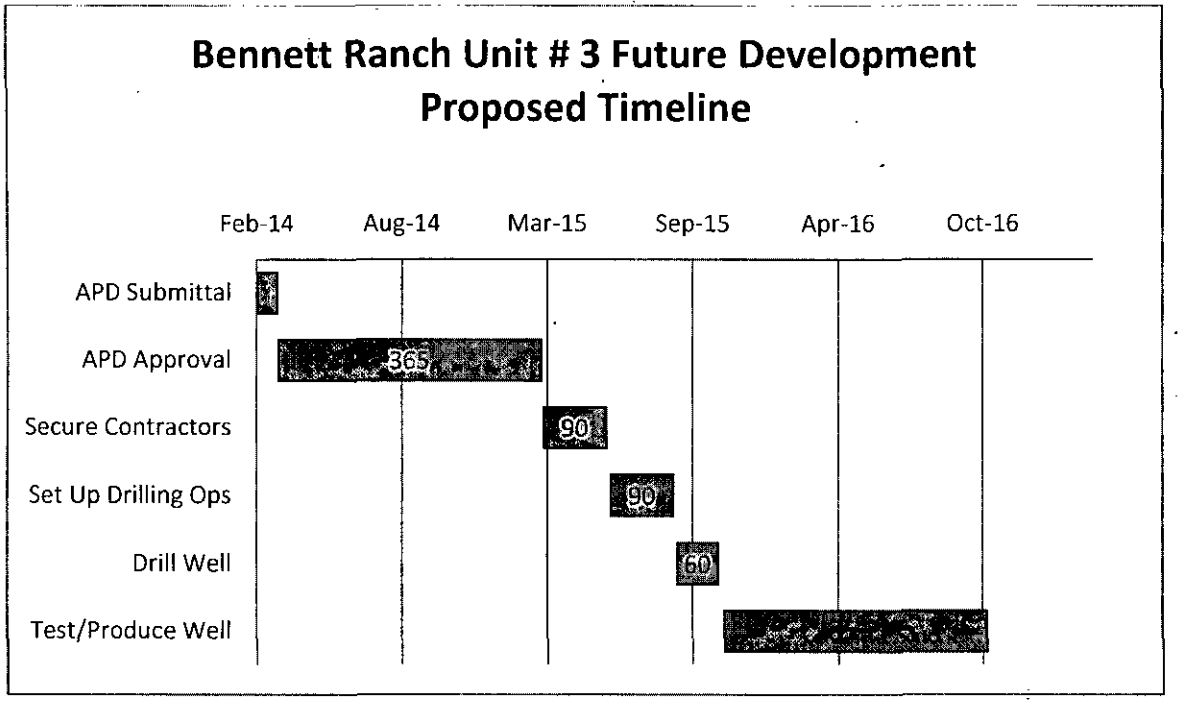


Figure 15. BRU # 3 Proposed Timeline

The Bennett Ranch Unit is in a remote part of south central New Mexico. Typical oilfield services that are normally used to drill and complete wells are not easily or readily available in the Bennett Ranch Unit. The planning and logistics required to successfully drill a well will require more time than drilling a well in an area with more established oil and gas infrastructure.

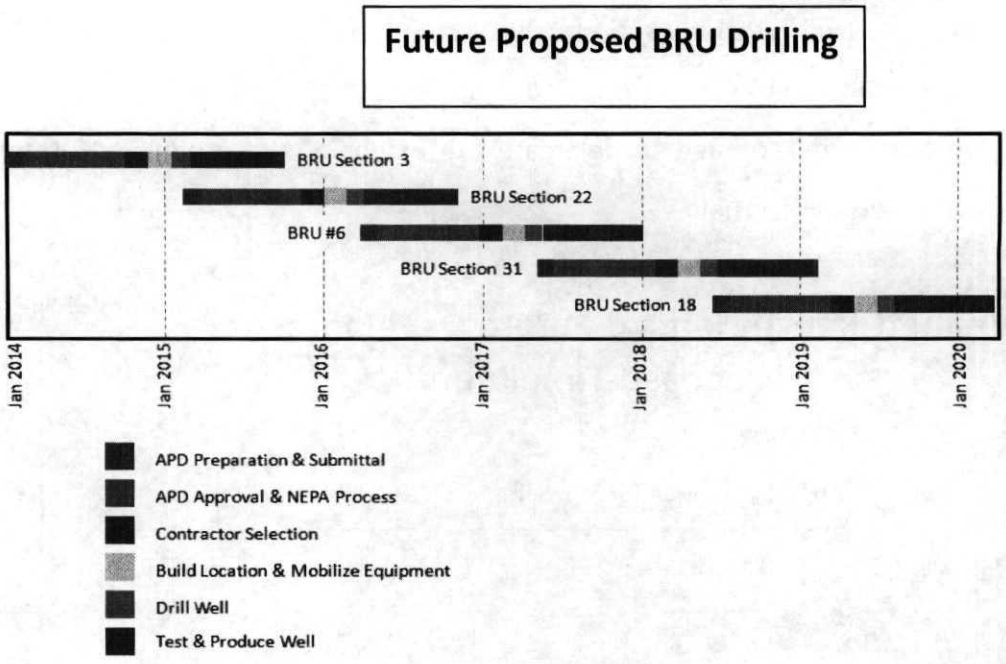


Figure 16. Future Proposed Drilling

HEYCO has demonstrated that it is technically infeasible for it to directionally drill wells until the structure and stratigraphy are established with reasonable certainty through conventional drilling. Directional drilling is used primarily for field development rather than exploration activities. It should be noted that exploratory drilling is already a difficult and expensive undertaking because it is an attempt to determine where a geologic structure may occur without the added knowledge of data from previously drilled wells in the area. The technical limitations of directional drilling do not make it a reliable tool for most exploration wells. Well control when drilling wildcat wells in an undeveloped reservoir becomes difficult and the odds of encountering serious well control problems are radically increased.

Formations that require sharp, high angle deviations are also not good candidates for directional drilling. Deviated wells may be problematic even in the production stage due to the high angle turn in the pipe. The exponential increase in cost coupled with increased mechanical

challenges could prevent many directional projects from ever being drilled and thus related production and associated revenues not realized by the State or the Nation.

The APD's will be filed after further understanding and study of the reservoir and geology in the unit is undertaken. HEYCO understands that upon approval of this POD, subsequent plans will be filed on a calendar basis not later than March 1 of each year. The original Unit Agreement, section 10, states,

"Any plan submitted pursuant to this section shall provide for the timely exploration of the unitized area and for the diligent drilling necessary for determination of the area or areas capable of producing unitized substances in paying quantities in each and every productive formation. This plan shall be as complete and adequate as the Authorizing Officer may determine to be necessary for timely development and proper conservation of the oil and gas resources in the unitized area..."

In October, 2012 the BLM rendered the decision to partially lift the Bennett Ranch Unit suspension of obligations except for section 2(e). HEYCO is prepared to adhere to a reasonable drilling schedule as proposed by the Authorizing Officer. However, based on 640 acre per well spacing as revised by the BLM in 2007, it is not practical for HEYCO to drill and complete 30 wells as reported by the United States Court of Appeals 10th Circuit in its April 28, 2009 decision. (pg. 71). In 2008 regulatory approval was obtained for the enlargement of the BRU to accommodate the change in spacing so that total acreage in the BRU is 11,637.09 acres including State and Federal acreage.

HEYCO has been waiting for the APD of the BRU #6 well to be approved which was submitted in September, 2006. As of July, 2013 HEYCO has not received approval to commence operations. HEYCO would like to further define and explore the Bennett Ranch Unit. This includes drilling exploratory wells and defining the below soil geology. The timing cannot be defined explicitly due to regulatory uncertainty.

On June 3, 2013 HEYCO filed a Notice of Staking (NOS) for the proposed BRU #3 well. The BRU #3 is outside of the current Participating Area, but inside the BRU as currently defined. Upon approval of this POD, HEYCO will submit an Application of Permit to Drill (APD) for the BRU #3. The remote location of the BRU and availability of rigs capable of air drilling adds to the complexity of defining the timing for drilling future wells. Upon completion of the well, HEYCO will place the well on production using mini-LNG processing facility technology. LNG is an alternative fuel under the Clean Energy Policy Act of 1992 with a small footprint offering significant greenhouse gas emissions reductions with the lowest carbon intensity as well as being a positive public image.

HEYCO looks to the BLM to be a good partner in the development of the unit, while HEYCO plans to develop the unit in an environmentally safe and prudent manner.

10. Project Contacts

a. HEYCO

   500 N. Main Suite 1, Roswell, NM 88201 (575) 623-6601

b. BLM

   Las Cruces District Office, 1800 Marquess Street, Las Cruces, NM 88005

c. LNG Vendor

   To be completed prior to facility installation

d. Others

   To be completed prior to facility installation

11. References

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