District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Enervest Operating LLC 1001 Fannin Street, Suite 800, Houston, TX 77002	143199
NOV 14 2008 OCD-ARTESIA	[3] API Number 30 - 015. 36773

[5] Property Code	[5] Property Name	[6] Well No
37486	WLH G4S UNIT	31

[9] Proposed Pool 1	[10] Proposed Pool 2
Loco Hills, Queen-Grayburg-SanAndres	

[7] Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	11	18S	29E		1330	SOUTH	2240	EAST	EDDY

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	P/O	R	S	3513'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	2800'	7 Rivers Queen Grayburg G4Sand	NA	NA

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24#	400'	275	Surface
7-7/8"	5-1/2"	15.5#	2,800'	760	Surface

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

1. **Prepare surface location. Move in and rig up drilling rig, spud well and drill and set conductor. Install and test BPO's.**
2. **Drill 12-1/4" surface hole to a minimum depth of 400'. Set 8-5/8" casing and cement.**
3. **Drill 7-7/8" production hole 2,800' TD and evaluate DLL/LD/GR logs to TD.**
4. **Set 5-1/2" to TD and cement to surface. Perforate porosity and stimulate as necessary (specific procedure to be determined).**
5. **Place well on test.**
6. **H2S can be present in this area and an H2S contingency plan attached.**

ENTERED

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief

Signature: Ronnie L Young

Printed name: Ronnie Young

Title: Regulatory Supervisor

E-mail Address: ryoung@enervest.net

Date: 11.04.08 Phone: (713) 495-6530

OIL CONSERVATION DIVISION

Approved by: Jim W. Gum

Title: District II Supervisor

Approval Date: 11/18/08 Expiration Date: 11/18/10

Conditions of Approval Attached ☐

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-36773	39520	Loco Hills-Qu-GB-SA

Property Code	Property Name	Well Number
37486	WLH G4S UNIT	31

OGRID No.	Operator Name	Elevation
143199	ENERVEST OPERATING, LLC	3513'

Surface Location

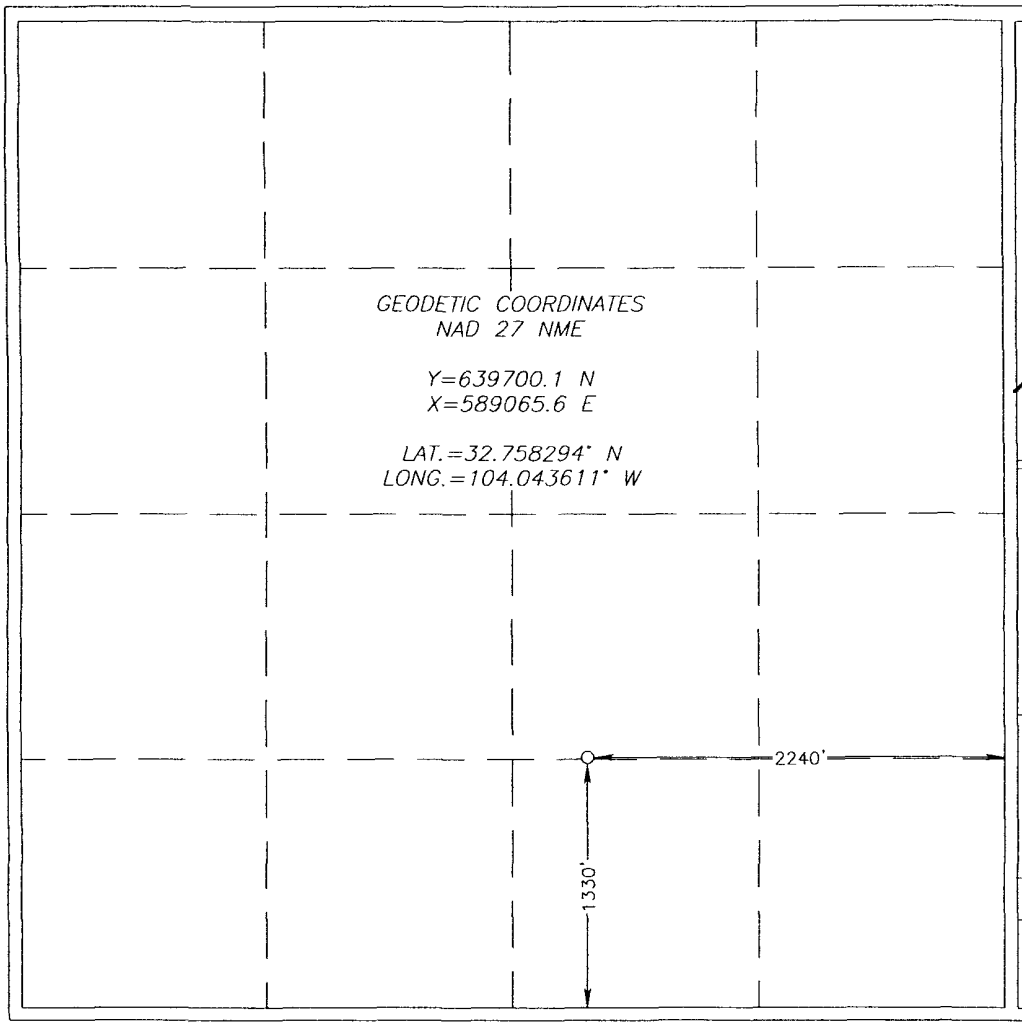
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	11	18-S	29-E		1330	SOUTH	2240	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
~~40.0~~ 307.73	YES	U	R-2178

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Agent 11-12-08
Signature Date

Gary Miller
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

OCTOBER 14, 2008
Date Surveyed

Signature & Seal of Professional Surveyor

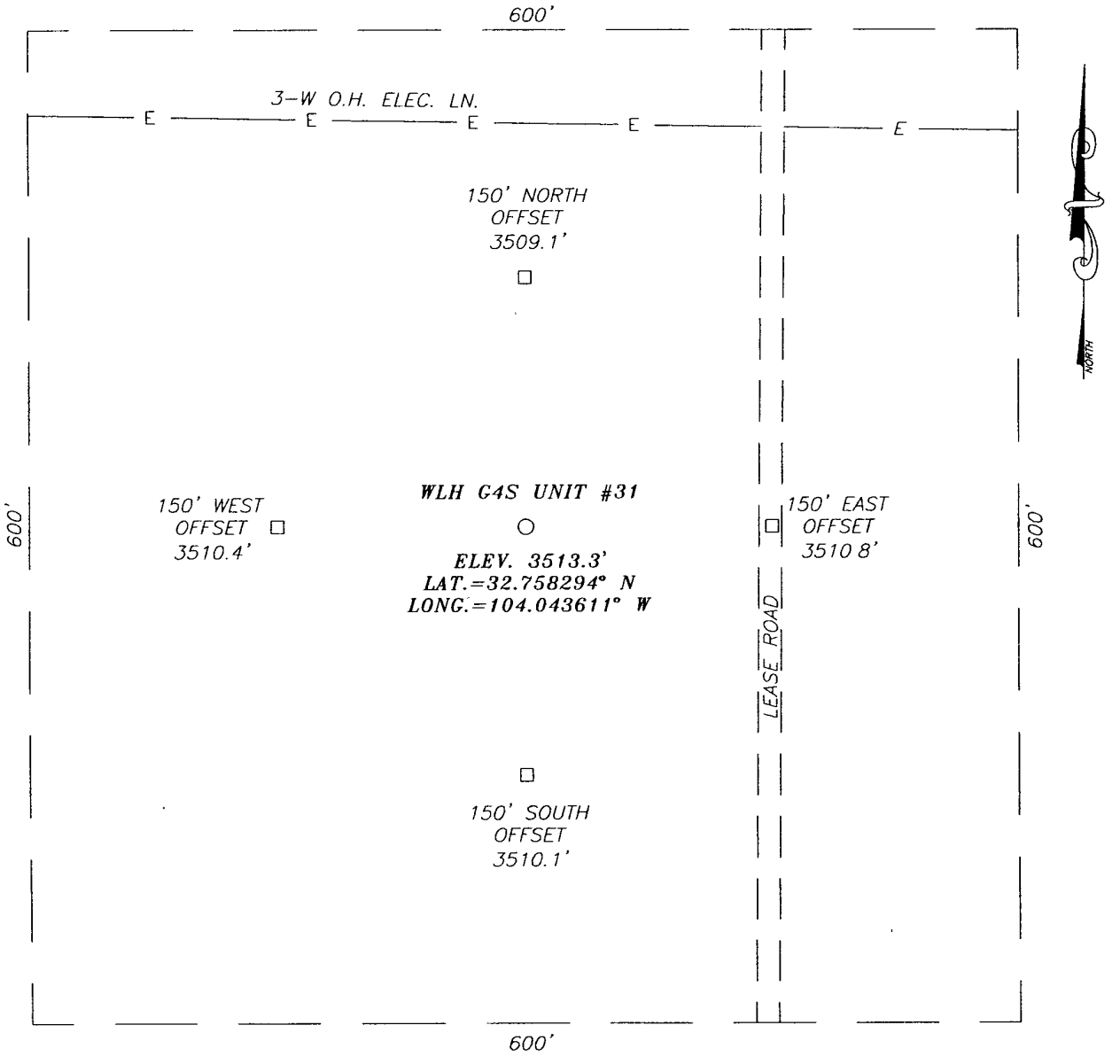
RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR
STATE OF NEW MEXICO 12641

Ronald J. Eidson 10/29/08

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

SECTION 11, TOWNSHIP 18 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #217 (HAGERMAN CUTOFF) AND CO. RD. #212 (VALLEY GAS), GO EAST ON CO. RD. #217 APPROX. 0.45 MILES TO A LEASE ROAD. TURN RIGHT AND GO SOUTH APPROX. 0.3 MILES. TURN LEFT AND GO EAST APPROX. 0 15 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.7 MILES. THIS LOCATION IS APPROX. 150 FEET WEST OF LEASE ROAD.

100 0 100 200 Feet

Scale:1"=100'

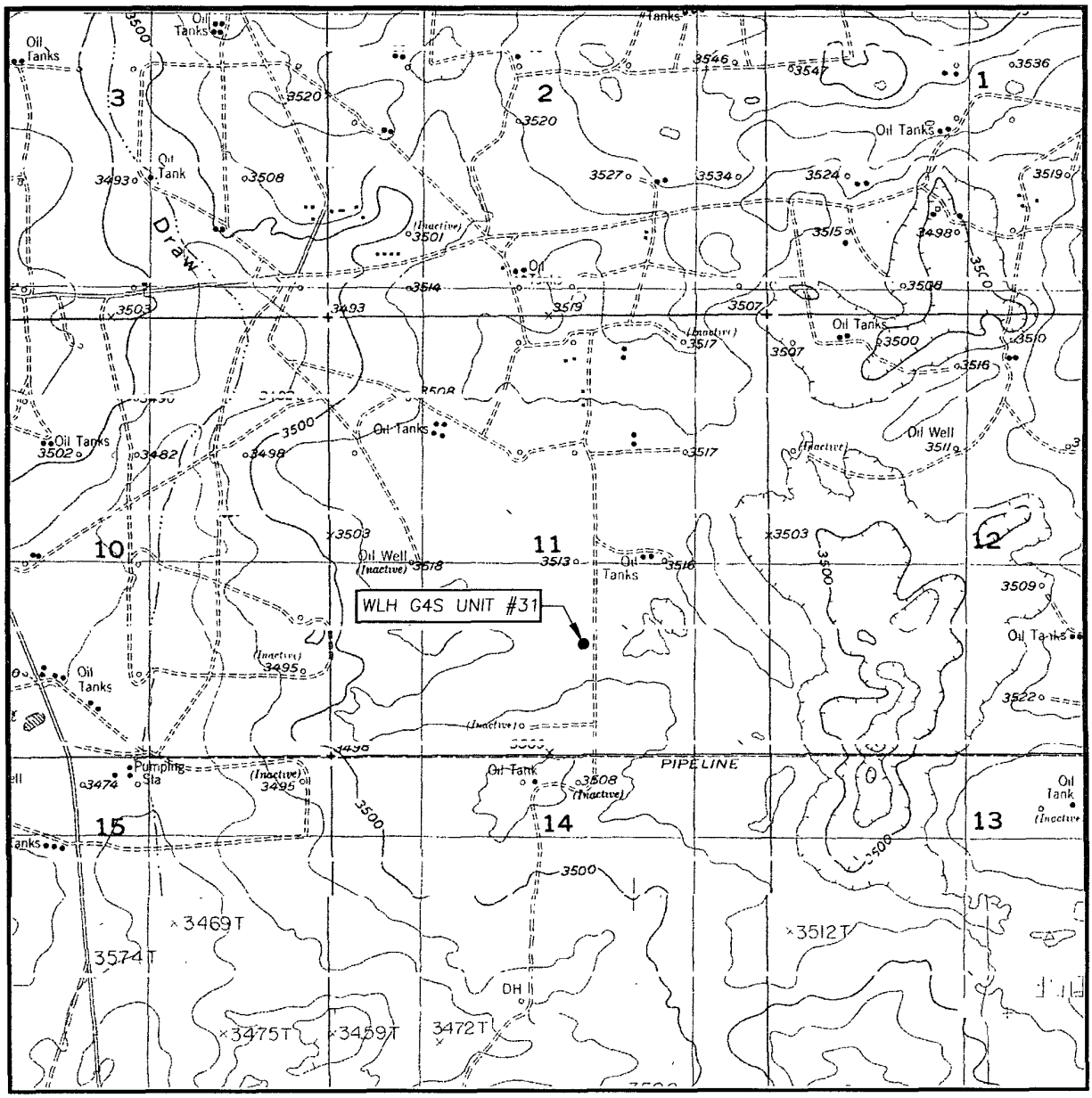
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

ENERVEST OPERATING, LLC

WLH G4S UNIT #31 WELL
LOCATED 1330 FEET FROM THE SOUTH LINE
AND 2240 FEET FROM THE EAST LINE OF SECTION 11,
TOWNSHIP 18 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 10/14/08	Sheet 1 of 1 Sheets		
W.O. Number: 08.11.1696	Dr By: AR	Rev 1:N/A	
Date: 10/27/08	Disk:	08111696	Scale:1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
RED LAKE SE, N.M. – 10'

SEC. 11 TWP. 18-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1330' FSL & 2240' FEL

ELEVATION 3513'

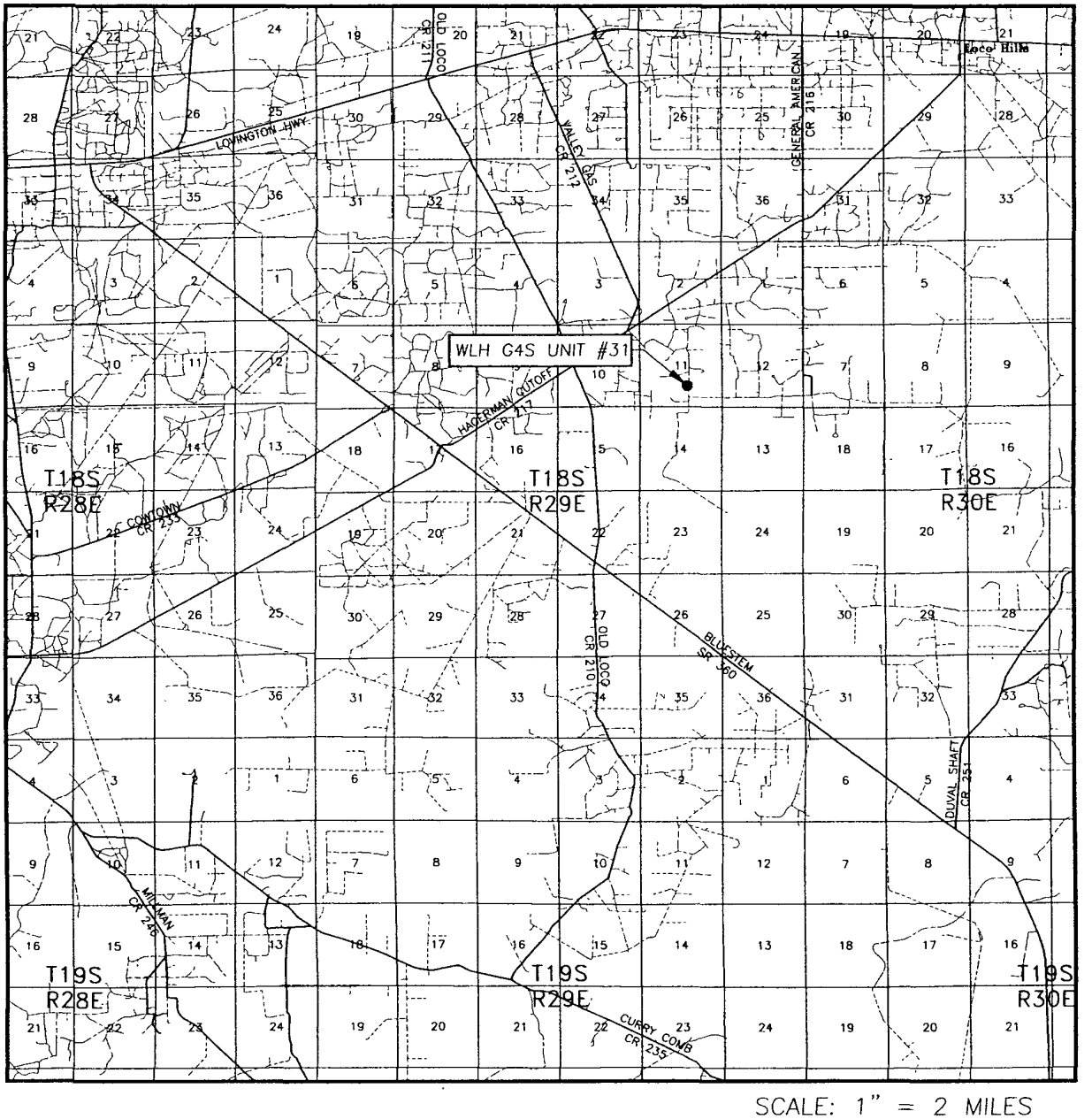
OPERATOR ENERVEST OPERATING, LLC

LEASE WLH G4S UNIT

U.S.G.S. TOPOGRAPHIC MAP
RED LAKE SE, N.M.

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 11 TWP. 18-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1330' FSL & 2240' FEL

ELEVATION 3513'

OPERATOR ENERVEST OPERATING, LLC

LEASE WLH G4S UNIT

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

EnerVest Operating, Ltd.
Master Drilling Plan
West Loco Hills Field
Location - NA
Eddy County, NM

Rig - TBD
Rig Telephone # - TBD

West Loco Hills - MASTER DRILLING PROGRAM

1 Geologic Name of Surface Formation & Directions to Well

Quaternary

Directions to well: NA

2 Estimated Tops of Important Geologic Markers

MD	SS	Formation	Objective	Rock Type
400	3,100	Salt		Salt
920	2,580	Base Salt		Salt
1,045	2,455	Yates		Anhydrite & Limestone
1,925	1,575	7 Rivers		Anhydrite & Dolomite
2,135	1,365	Queen		Anhydrite & Dolomite
2,510	990	Grayburg		Limestone & Sandstone
2,635	865	G4 Sand	Primary	Sandstone

3 Estimated Depths of Anticipated Fresh Water, Oil and Gas

MD	SS	Formation	Objective	Fluid Type
150	3,350	Quaternary		(Fresh Water)
2,635	865	G4 Sand	Primary	(Oil)

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 8-5/8" casing to 400' and circulating cement back to the surface will protect the surface fresh water sand.
Cement volumes will be pumped to provide cement back to surface.

4 Casing Program (With alternate casing plans for 5-1/2" or 4-1/2" casing)

Hole Size	Interval	OD Casing	Weight	Grade	Conn./New?	Bur/Col/Tens
12-1/4"	0-400'	8-5/8"	24#	J-55	STC/New	14.02 / 4.44 / 39.73
7-7/8"	0-2,800'	5-1/2"	15.50#	J-55	LTC/New	3.27 / 1.87 / 5.72
7-7/8"	0-2,800'	4-1/2"	9.50#	J-55	LTC/New	2.98 / 1.54 / 5.72

5 Cement Program

8-5/8" Surface Casing 100% XS	**BLEND** 275 Sks Class "C" 2% $CaCl_2$ (1.32 YLD, 14.8 PPG)
5-1/2" Production Csg 20% XS	**LEAD** 415 SKS 50:50 POZ:C & 2% CaCl2 (11.8 PPG 2.56 CF/SK) **TAIL** 345 SKS CLASS "C" (14.8 PPG 1.33 CF/SK)
4-1/2" Production Csg 20% XS	**LEAD** 410 SKS 50:50 POZ:C & 2% CaCl2 (11 8 PPG 2.56 CF/SK) **TAIL** 340 SKS CLASS "C" (14.8 PPG 1.33 CF/SK)

6 Minimum Specifications for Pressure Control & Wellhead Equipment

The blowout preventer equipment (BOPE) shown in the BOPE Diagram will consist of an annular preventer (5000 psi WP). This unit will be hydraulically operated and will be nippled up on the 8 5/8" surface casing and tested to 2000 psi by a third party. The BOPE will be checked daily and these checks will be noted in the tour sheets. Other accessories to the BOPE will include a kelly cock and floor safety valve, choke lines and a choke manifold and will have a 2000 psi WP rating.

A 2,000 psi WP Larkin Type Wellhead will be used.

7 Types and Characteristics of the Proposed Mud System

The surface hole will be drilled with native.
The production hole will be drilled with saturated brine water.

DEPTH	TYPE	WEIGHT	VISCOSITY	WATER LOSS
0 - 400'	Native	8.4-8.6	28-30	N.C.
400' - TD	Brine	9.8-10.1	28-30	12 cc

Sufficient mud materials will be kept at the well site to maintain mud properties and meet minimum lost circulation and weight increase requirements at all times.

8 Auxillary Well Control and Monitoring Equipment

A. Kelly cock will be kept in the drill string at all times.

B. A full opening drill pipe-stabbing valve with proper drill pipe

connections will be on the rig floor at all times.

9 Logging, Testing and Coring Program

A. The electric logging program will consist of a GR-Dual Laterolog Litho Density log run from TD to the surface casing shoe.

B. A GR-Neutron will be run to surface.

C. No mud logger will be used.

D. No conventional coring is anticipated.

10 Abnormal conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 95°F and the estimated maximum bottom hole pressure is 1,000 psi. This well is to be drilled in a pre-existing water flood.

11 Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the BLM. Anticipated Start Date is January 10, 2009.
Once commenced, drilling operations should be finished in approximately 5 days. An additional 30 days will be required for completion, testing and installation of permanent production facilities.

12 Safety

Conduct Tour Safety Meetings with all crews and record topics of these meetings on the IADC and morning reports. Document all personnel in attendence and topics of these Safety Meetings. Keep these documents on file in company representative's office for inspection.

13 Notes

Stamp, Code and Sign all Invoices

H_2S Area? If yes, attach contingency plan.

Inclinations: Survey every 500' or bit trip
Drop Totco every trip out to check the angle. Max inclination = 3°

Call Houston if survey is >= 3°

Mud Disposal: Closed Loop system will be used. Haul off all cuttings and fluids.

BHA #1 **Surface** Slick

BHA #2 **Production** Slick

BIT PROGRAM

			RPM	WOB
Surface	**12-1/4"**	SEC EBXSC1C	80-100	35k
Production	**7-7/8"**	SEC EBXS20SR	80-90	40k

EnerVest Operating, LLC

H2S Contingency Plan

Field / Location: West Loco Hills Gas Unit

Well / Facility ID: #31

County: Eddy

State: New Mexico

Surface Location

Section: 11
Township: 18 S
Range: 29 E
Feet From South Line: 1330
Feet From East Line: 2240

TABLE OF CONTENTS

H2S CONTINGENCY PLAN SECTION

Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, or following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H_2S).

Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H_2S into the atmosphere.

Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

Install H2S equipment prior to drilling out under surface pipe.

Discussion of Plan:

Suspected Problem Zones:

Implementation: This plan, with all details, is to be fully implemented 1000' before drilling into the first sour zone.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to 1000' before drilling into the first sour zone.

Emergency call lists: Included are the telephone numbers of all persons that would need to be contacted, should an H2S emergency occur.

Briefing: This section deals with the briefing of all persons involved with the drilling of this well.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

Check Lists: Status check lists and procedural check lists have been included to ensure adherence to the plan.

General Information: A general information section has been included to supply support information.

EMERGECY PROCEDURES SECTION

I. In the event of any evidence of H_2S level above 10 ppm, take the following steps immediately:

A. Secure breathing apparatus.

B. Order non-essential personnel out of the danger zone.

C. Take steps to determine if the H_2S level can be corrected or suppressed, and if so, proceed with normal operations.

II. If uncontrollable conditions occur, proceed with the following:

A. Take steps to protect and/or remove any public downwind of the rig, including partial evacuation or isolation. Notify necessary public safety personnel and the New Mexico Oil & Gas Division and/or the DOI - Bureau of Land Management of the situation based on one or both agency with jurisdiction.

B. Remove all personnel to the Safe Briefing Area.

C. Notify public safety personnel)New Mexico State Police / County Sheriff) for help with maintaining road blocks and implementing evacuation.

D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety measures.

III. Responsibility:

A. The Company Supervisor shall be responsible for the total implementation of the plan.

B. The Company Supervisor shall be in complete command during any emergency.

C. The Company Supervisor shall designate a back up Supervisor in the event that he/she is not available.

EMERGENCY PROCEDURE IMPLEMENTATION

I. Drilling or Tripping

A. All Personnel

1. When alarm sounds, put on assigned PPE escape equipment and report to upwind Safe Briefing Area.
2. Check status of other personnel (buddy system).
3. Secure breathing apparatus.
4. Wait for orders from supervisor.

B. Drilling Foreman

1. Report to the upwind Safe Briefing Area.
2. Put on assigned PPE breathing apparatus and return to the point of release with the Tool Pusher or Driller (buddy system).
3. Using a gas detector determine the concentration of H_2S.
4. Assess the situation and take appropriate control measures.

C. Tool Pusher

1. Report to the upwind Safe Briefing Area.
2. Put on assigned PPE breathing apparatus and return to the point of release with the Drilling Foreman or the Driller (buddy system).
3. Verify the determination of the concentration of H2S indicated by the meter.
4. Assess the situation and take appropriate control measures.

D. Driller

1. Check the status of rig and service personnel (in a rescue attempt, always use the buddy system).
2. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
3. Assume the responsibility of the Drilling Foreman and the Tool Pusher until they arrive, in the event of their absence.

E. Derrick Man and Floor Hands

1. Remain in the upwind Safe Briefing Area until otherwise instructed by a supervisor.

F. Mud Engineer

1. Report to the upwind Safe Briefing Area.

2. When instructed, wear H2S PPE and check mud for pH level and H_2S level.

G. Safety Personnel

1. Don Breathing Apparatus.

2. Check status of all personnel.

3. Wait for instructions from Drilling Foreman or Tool Pusher.

II. Taking a Kick

A. All personnel report to the upwind Safe Briefing Area.

B. Follow standard BOP procedures.

III. Open Hole Logging

A. All unnecessary personnel should leave the rig floor.

B. Drilling Foreman and Safety Personnel should monitor the conditions and make necessary safety equipment recommendations.

IV. Running Casing or Plugging

A. Follow "Drilling or Tripping" procedures.

B. Assure that all personnel have access to protective equipment.

SIMULATED BLOWOUT CONTROL DRILLS

All drills will be initiated by activating alarm devices (air horn). One long blast, on the air horn, for ACTUAL and SIMULATED Blowout Control Drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

Drill # 1	Bottom Drilling
Drill # 2	Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.:			
Reaction Time to Shut-In:	minutes,		seconds.
Total Time to Complete Assignment:	minutes,		seconds.

I. **Drill Overviews**

A. Drill No. 1- Bottom Drilling

1. Sound the alarm immediately.
2. Stop the rotary and hoist kelly joint above the rotary table.
3. Stop the circulatory pump.
4. Close the drill pipe rams.
5. Record casing and drill pipe shut-in pressures and pit volume increases.

B. Drill No. 2 – Tripping Drill Pipe

1. Sound the alarm immediately.
2. Position the upper tool joint just above the rotary table and set the slips.
3. Install a full opening valve or inside blowout preventor tool in order to close the drill pipe.
4. Close the drill pipe rams.
5. Record the shut-in annular pressure.

II. Crew Assignments

A. Drill No. 1 – Bottom Drilling

1. Driller

   a) Stop the rotary and hoist kelly joint above the rotary table.

   b) Stop the circulatory pump.

   c) Check flow.

   d) If flowing, sound the alarm immediately.

   e) Record the shut-in drill pipe pressure.

   f) Determine the mud weight increase needed or other courses of action.

2. Derrickman

   a) Open choke line valve at BOP.

   b) Signal Floor Man # 1 at accumulator that choke line is open.

   c) Close choke and upstream valve after pipe tams have been closed.

   d) Read the shut-in annular pressure and report readings to Driller.

3. Floor Man # 1

   a) Close the pipe rams after receiving the signal from the Derrickman.

   b) Report to Driller for further instructions.

4. Floor Man # 2

   a) Notify the Tool Pusher and Operator Representative of the H_2S alarms.

   b) Check for open fires and, if safe to do so, extinguish them.

   c) Stop all welding operations.

   d) Turn-off all non-explosion proof lights and instruments.

   e) Report to Driller for further instructions.

5. Tool Pusher

    a) Report to the rig floor.

    b) Have a meeting with all crews.

    c) Compile and summarize all information.

    d) Calculate the proper kill weight.

    e) Ensure that proper well procedures are put into action.

6. Operator Representative

    a) Notify the Drilling Superintendent.

    b) Determine if an emergency exists and if so, activate the contingency plan.

B. Drill No. 2 – Tripping Pipe

1. Driller

    a) Sound the alarm immediately when mud volume increase has been detected.

    b) Position the upper tool joint just above the rotary table and set slips.

    c) Install a full opening valve or inside blowout preventor tool to close the drill pipe.

    d) Check flow.

    e) Record all data reported by the crew.

    f) Determine the course of action.

2. Derrickman

    a) Come down out of derrick.

    b) Notify Tool Pusher and Operator Representative.

    c) Check for open fires and, if safe to do so, extinguish them.

    d) Stop all welding operations.

    e) Report to Driller for further instructions.

3. Floor Man # 1

    a) Pick up full opening valve or inside blowout preventor tool and stab into tool joint above rotary table (with Floor Man # 2).

    b) Tighten valve with back-up tongs.

    c) Close pipe rams after signal from Floor Man # 2.

    d) Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.

    e) Report to Driller for further instructions.

4. Floor Man # 2

    a) Pick-up full opening valve or inside blowout preventor tool and stab into tool joint above rotary table (with Floor Man # 1).

    b) Position back-up tongs on drill pipe.

    c) Open choke line valve at BOP.

    d) Signal Floor Man # 1 at accumulator that choke line is open.

    e) Close choke and upstream valve after pipe rams have been closed.

    f) Check for leaks on BOP stack and choke manifold.

    g) Read annular pressure.

    h) Report readings to the Driller.

5. Tool Pusher

    a) Report to the rig floor.

    b) Have a meeting with all of the crews.

    c) Compile and summarize all information.

    d) See that proper well kill procedures are put into action.

6. Operator Representative

    a) Notify Drilling Superintendent

    b) Determine if an emergency exists, and if so, activate the contingency plan

IGNITION PROCEDURES

Responsibility:

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.

2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well:

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and must use a full body harness and attach a retrievable safety line to the D-Ring in the back. One man must monitor the atmosphere for explosive gases with the LEL monitor, while the Drilling Foreman is responsible for igniting the well.

2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.

3. Ignite from upwind and do not approach any closer than is warranted.

4. Select the ignition site best suited for protection and which offers an easy escape route.

5. Before igniting, check for the presence of combustible gases.

6. After igniting, continue emergency actions and procedures as before.

7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

TRAINING PROGRAM

When working in an area where Hydrogen Sulfide (H_2S) might be encountered, definite training requirements must be carried out. The Company Supervisor will ensure that all personnel at the well site have had adequate training in the following:

1. Hazards and Characteristics of Hydrogen Sulfide.
2. Physicals effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H_2S detection, emergency alarm and sensor location.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of Hydrogen Sulfide on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H_2S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

EMERGENCY EQUIPMENT REQUIREMENTS

Lease Entrance Sign:

Should be located at the lease entrance with the following information:

CAUTION-POTENTIAL POISON GAS
HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION

Respiratory Equipment:

- Fresh air breathing equipment should be placed at the safe briefing areas and should include the following:
- Two SCBA's at each briefing area.
- Enough air line units to operate safely, anytime the H_2S concentration reaches the IDLH level (100 PPM).
- Cascade system with enough breathing air hose and manifolds to reach the rig floor, the derrickman and the other operation areas.

Windsocks or Wind Streamers:

- A minimum of two 10" windsocks located at two different heights in strategic locations so that they may be seen from any point on location.
- Wind streamers (if preferred) should be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).

Hydrogen Sulfide Detector and Alarms:

- 1-Four channel H_2S monitor with alarms.
- Four (4) sensors located as follows: # 1 – Rig Floor, # 2 – Bell Nipple, # 3 – Shale Shaker, # 4 – Mud Pits.
- Gastec or Draeger pump with tubes.
- Sensor test gas.

Well Condition Sign and Flags:

The Well Condition Sign w/flags should be placed a minimum of 150' before you enter the location. It should have three (3) color coded flags (green, yellow and red) that will be used to denote the following location conditions:

GREEN – Normal Operating Conditions
YELLOW – Potential Danger
RED – Danger, H2S Gas Present

Auxiliary Rescue Equipment:

- Stretcher
- 2 – 100' Rescue lines
- First Aid Kit properly stocked.

Mud Inspection Equipment:

Garret Gas Train or Hach Tester for inspection of Hydrogen Sulfide in the drilling mud system.

Fire Extinguishers:

Adequate fire extinguishers shall be located at strategic locations.

Blowout Preventor:

- The well shall have hydraulic BOP equipment for the anticipated BHP.
- The BOP should be tested upon installation.
- BOP, Choke Line and Kill Line will be tested as specified by Operator.

Confined Space Monitor:

There should be a portable multi-gas monitor with at least 3 sensors (O_2, LEL & H2S). This instrument should be used to test the atmosphere of any confined space before entering. It should also be used for atmospheric testing for LEL gas before beginning any type of Hot Work. Proper calibration documentation will need to be maintained for calibration time limits.

Communication Equipment:

- Proper communication equipment such as cell phones or 2 – way radios should be available at the rig.
- Radio communication shall be available for communication between the company man's trailer, rig floor and the tool pusher's trailer.
- Communication equipment shall be available on the vehicles.

Special Control Equipment:

- Hydraulic BOP equipment with remote control on the ground.
- Rotating head at the surface casing point.

Evacuation Plan:

- Evacuation routes shall be established prior to spudding the well.
- Routes shall be discussed with all rig personnel.

Designated Areas:

Parking and Visitor area:

- All vehicles are to be parked at a pre-determined safe distance from the wellhead.
- Designate a smoking area in a safe location.

Safe Briefing Areas:

- Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
- Personal protective equipment should be stored at both briefing areas or if a moveable cascade trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both briefing areas should be accessible.
- Automatic Flare Igniters are recommended for installation on the rig.

CHECK LISTS
Status Check List

Note: Date each item as they are implemented.

1. Sign at location entrance.
2. Two (2) wind socks (in required locations).
3. Wind Streamers (if required).
4. SCBA's on location for all rig personnel and mud loggers.
5. Air packs, inspected and ready for use.
6. Spare bottles for each air pack (if required).
7. Cascade system for refilling air bottles.
8. Cascade system and hose line hook up.
9. Choke manifold hooked-up and tested. (Before drilling out surface casing.)
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing).
11. BOP tested (before drilling out surface casing).
12. Mud engineer on location with equipment to test mud for H_2S.
13. Safe Briefing Areas set-up.
14. Well Condition sign and flags on location and ready.
15. Hydrogen Sulfide detection system hooked-up & tested.
16. Hydrogen Sulfide alarm system hooked-up & tested.
17. Stretcher on location at Safe Briefing Area.
18. 2-100' Life Lines on location.
19. 1-20# Fire Extinguisher in safety trailer.
20. Confined Space Monitor on location and tested.

21. All rig crews and supervisor trained (as required).
22. Access restricted for unauthorized personnel.
23. Drills on H_2S and well control procedures.
24. All outside service contractors advised of potential H_2S on the well.
25. NO SMOKING sign posted.
26. H_2S Detector Pump w/tubes on location.
27. 25mm Flare Gun on location w/flares.
28. Automatic Flare Ignitor installed on rig.

Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.

2. Check Breathing equipment to insure that they have not been tampered with.

3. Check pressure on the supply air bottles to make sure they are capable of recharging.

4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that they are fully charged and operational. This requires that the air cylinder be opened and the mask assembly be put on and tested to make sure that the regulators and masks are properly working. Negative and Positive pressure should be conducted on all masks.

2. BOP skills.

3. Check supply pressure on BOP accumulator stand-by source.

4. Check all breathing air mask assemblies to see that straps are loosened and turned back, ready to use.

5. Check pressure on cascade air cylinders to make sure they are fully charged and ready to use for refill purposes if necessary.

6. Check all cascade system regulators to make sure they work properly.

7. Perform breathing drills with on-site personnel.

8. Check the following supplies for availability:

   - Stretcher
   - Safety Belts and ropes.
   - Spare air bottles.
   - Spare oxygen bottles (if resuscitator required).
   - Gas Detector Pump and tubes.
   - Emergency telephone lists.

9. Test the Confined Space Monitor to verify the batteries are good.

BRIEFING PROCEDURES

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well.
Attendance: Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Tool Pushers
Rig Drillers
Mud Engineer
All Safety Personnel
Key Service Company Personnel

Purpose: Review and discuss the well program, step-by-step, to insure complete understanding of assignments and responsibilities.

EVACUATION PLAN

General Plan

1. When the company approved supervisor (Drilling Foremen, Tool Pusher or Driller) determine that Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area Map.

2. Company assigned safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation need to be implemented.

3. Company safety personnel that have been trained in the use of the proper emergency equipment will be utilized.

4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, Company assigned safety

Emergency Assistance Telephone List

PUBLIC SAFETY:	**911 or**
County Sheriff Contact (Eddy)	(575) 885 4040
Local Fire Department	(575) 677 2349
County Fire Department (Eddy) Artesia / Carlsbad	(575) 746 5060 / (575) 628 1982
Local Police Department (Artesia)	(575) 746 5000
Local Emergency Planning Committee	(575) 887 9511
Local Hospital	(575) 622 1411 / (575) 734 5817
Regional Hospital	(575) 748 8333
Life Flight Services	(800) 242 6129
State Police	(575) 748 9718 / (575) 885 3137
State DOT	(575) 827 0376
Bureau of Land Management	(575) 234 5909
State Poison Center	(800) 222 1222
State Oil & Gas Agency	NMOCD (575) 393 6161
State Oil & Gas Agency 24 Hour Number	NMOCD (575) 370 7106

EnerVest Emergency Notification List	
EnerVest (Main No.)	(713) 659 3500
Drilling Manager	(713) 495 6522
Drilling Engineer	(713) 495 1523
Regulatory	(713) 495 6530
Health, Safety & Environmental	(713) 495 6534
Operations Manager	(713) 495 6558
Area Production Foreman (Cellular Phone)	(575) 365 8555
Area Production Superintendent (Cellualr Phone)	(903) 746 2806
Field Office	Pending

Drilling / Work Over Contractor(s)		
United Drilling	Safety Contact-Jorge Aho	(575) 910 2001
United Drilling	Office Number	(575) 623 7730

Local Safety Equipment Vendors	
Artesia Fire Equipment	(575) 748 1128

Affected Notification List

(within a _____' radius of exposure @100 ppm, or if unknown, a minimum of 3,000 feet at 100 ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H_2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:
Residents:

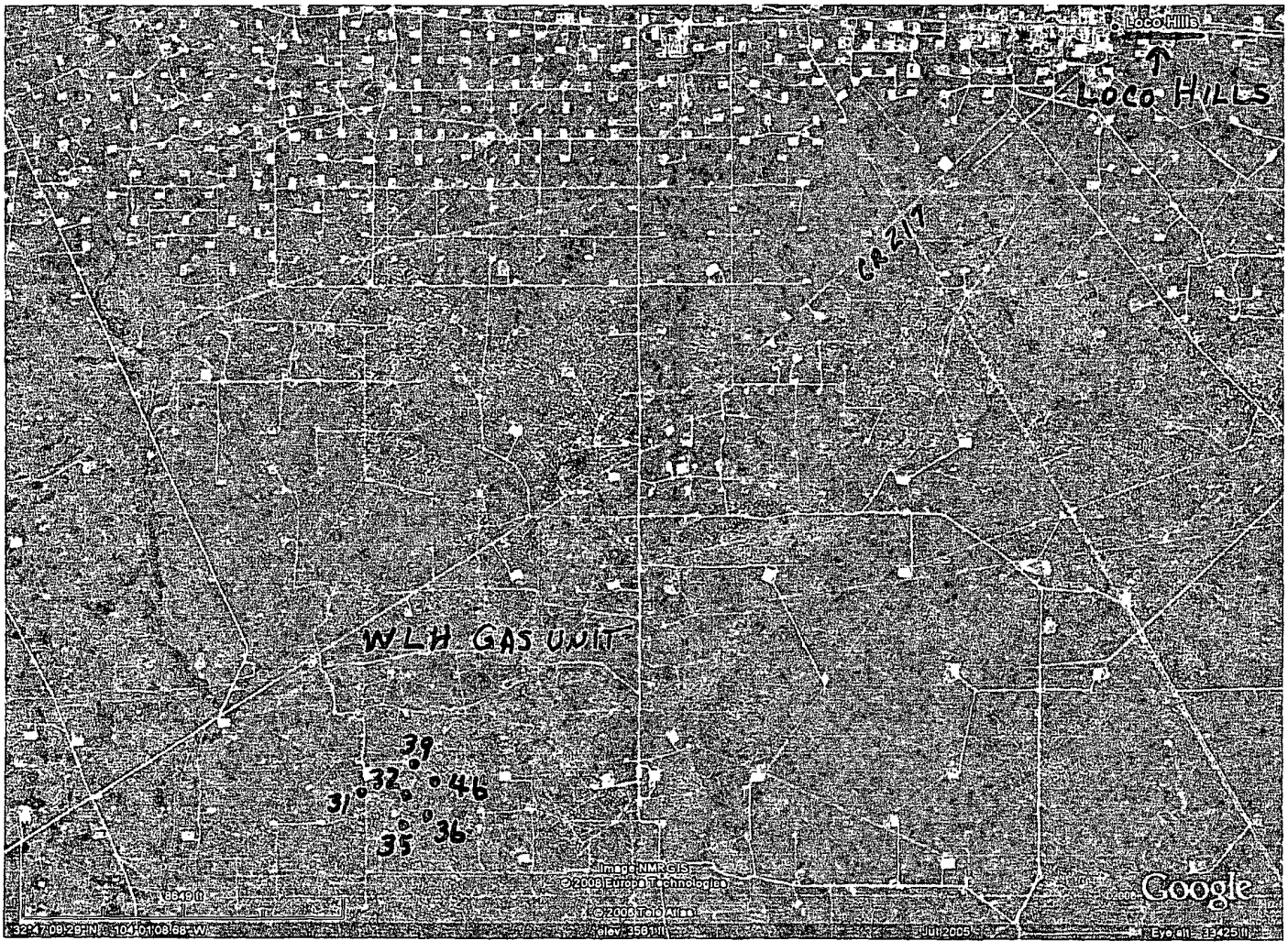
Notification Process:

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

Evacuation Plan:
All evacuees will migrate lateral to the wind direction.

The Company will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local law enforcement and emergency medical services as necessary.

MAPS AND PLATS



GENERAL INFORMATION

Toxic Effects of H_2S Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity-1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic than Carbon Monoxide. Occupational exposure limits for Hydrogen sulfide and other gasses are compared below in Table 1. Toxicity table for H_2S and physical effects are shown in Table II.

Table 1

Permissible Exposure Limits of Various Gasses

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H_2S	1.192	10 ppm	15 ppm	100 ppm
Sulfide Dioxide	SO_2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	0.97	25 ppm	200 ppm	
Carbon Dioxide	CO_2	1.52	5000 ppm	30,000 ppm	
Methane	CH_4	0.55	4.7% LEL	14% UEL	

Definitions

A. TLV – Threshold Limit Value is the concentration employees may be exposed to based on a TWA (time weighted average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Governmental Hygienists and regulated by OSHA.

B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H_2S is 19 PPM.

C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H_2S is 100 PPM.

D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed to based on an TWA.

TABLE II
Toxicity Table of H_2S

Percent %	PPM	Physical Effects
,0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure
.0015	15	STEL for 15 minutes of exposure
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins in a few minutes.
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H_2S

The properties of all gasses are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT

Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence. a fact that makes the gas extremely dangerous to be around.

ODOR – ROTTEN EGGS

Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs". For this reason it earned its common name "sour gas". However, H_2S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192

Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H_2S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%

Mixed with the right proportion of air or oxygen, H_2S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY

Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO_2), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER

Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H_2S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H_2S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)

Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

RESPIRATOR USE

The Occupational Safety and Health Administration (OSHA) regulates the use of respiratory protection to protect the health of employees. OSHA's requirements are written in the Code of Federal Regulations, Title 29, Part 1910, Section 134, Respiratory Protection. This regulation requires that all employees who might be required to wear respirators **shall complete an OSHA mandated medical evaluation questionnaire.** The employee then should be fit tested prior to wearing any respirator while being exposed to hazardous gasses. **The respirator use documentation as required by OSHA for respirator use shall be available to the Company Supervisor by the rig company and verified within OSHA stipulated testing time limits shall be verified or the Company will insure testing and documentation is performed prior to employees working in a potential H2S atmosphere.**

Written procedures shall be prepared covering safe use of respirators in dangerous atmospheric situations, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.

Respirators shall be inspected prior to and after each use to make sure that the respirator has been properly cleaned, disinfected and that the respirator works properly. The unit should be fully charged prior to being used.

Anyone who may use respirators shall be properly trained in how to properly seal the face piece. They shall wear respirators in normal air and then in a test atmosphere. (Note: Such items as facial hair (beard or sideburns) and eyeglass temple pieces will not allow a proper seal.) Anyone that may be expected to wear respirators should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses. Wearing of contact lenses shall not be allowed due to the potential for H2S eye intrusion.

Respirators shall be worn during the following conditions:

A. Any employee who works near the top or on the top of any tank unless tests reveal less than 20 ppm of H2S.

B. When breaking out any line where H2S can reasonably be expected.

C. When sampling air in areas where H2S may be present.

D. When working in areas where the concentration of H2S exceeds the Threshold Limit
Value for H2S (10 ppm).

E. At any time where there is a doubt as to the H2S level in the area to be entered.

EMERGENCY RESCUE PROCEDURES

DO NOT PANIC!!!

Remain Calm - THINK

1. Before attempting any rescue you must first get out of the hazardous area yourself. Go to a safe briefing area.

2. Sound an alarm and activate the 911 system.

3. Put on breathing apparatus. At least two persons should do this, when available use the buddy system.

4. Rescue the victim and return them to a safe briefing area.

5. Perform an initial assessment and begin proper First Aid/CPR procedures.

6. Keep the victim lying down with a blanket, coat or any material that will elevate the shoulders higher than the head to keep airway open. Conserve body heat and do not leave unattended.

7. If the eyes are affected by H2S, wash them thoroughly with potable water. For slight irritation, cold compresses are helpful.

8. In case a person has only minor exposure and does not lose consciousness totally, it's best if he doesn't return to work until the following day.

9. Any personnel overcome by H2S should always be examined by medical personnel. They should always be transported to a hospital or doctor.

ENERVEST

Certified Mail/Return Receipt

October 13, 2008

Bogle Ltd.
Attn: Louis Derrick
P. O. Box 460
Dexter, New Mexico 88231-0460

Surface Use and Compensation Agreement
West Loco Hills Grayburg #4 Sand Unit
Eddy County, New Mexico

Bogle Ltd. is the lessee of the surface estate on the following State of New Mexico land:

S/2SW/4 of Section 36, Township17 South, Range 29 East
Section 2; SW/4 of Section 1; E/2SW/4 of Section10 and the E/2 of Section 11, all in Township 18 South, Range 29 East

EnerVest Operating, LLC as Operator of the West Loco Hills Grayburg #4 Sand Unit will be conducting operations on the unit which includes all of the above described state land. It is contemplated by the parties that the operations by Operator will be done in several phases and both parties wish to establish a compensation schedule whereby Operator can reimburse Bogle Ltd. for surface damages.

By this Surface Use and Compensation Agreement (SUCA), Bogle Ltd. hereby grants to EnerVest Operating, LLC, (Operator), its successors and assigns, the rights and privileges to utilize the above described lands as maybe reasonably necessary and convenient to perform operations upon the above described lands and for roads and pipelines across said lands. As the lands are part of an established unit that includes other lands not described above, it is agreed that roads and pipelines will be used for access to other parts of the unit as well as access to the above described lands. Operations will include drilling, maintenance, building and servicing the facilities of the unit, electric lines, pipelines, other rights of way and abandonment of wells and facilities. Both parties understand that this is an established waterflood unit and this agreement is intended to cover the new and increased activity on the above described lands. Further both parties understand and agree that as both state and federal lands are included within the unit, Operator will have to conduct operations in compliance with the regulations established by both governmental entities.

Operator, its agents, contractors and assigns will conduct operations in compliance with its current "Planned Operations" and provides the tentative plan map as an exhibit hereto. Operator will provide Bogle Ltd. future versions of approved plans by the various governmental agencies when received. These plans will be used to calculate the amounts that will be due under the below listed rate schedule. This agreement is for all new roads, right of ways and pad sites and does not include any existing roads, rights of ways and pad sites as of the date of this agreement. Operator will have the right, but not the obligation to exclude Bogle Ltd. from pad sites, but Bogle Ltd. will have the right to use any new roads as long as it does not interfere with Operator's operations. In constructing pipelines Operator agrees to place them on the surface whenever safety and governmental requirements allow. Upon reasonable request by Bogle Ltd. or government requirement, pipelines will be buried.

All surface restoration or remediation on areas disturbed by Operator will be Operator's sole responsibility. Operator will indemnify and hold Bogle Ltd. harmless from all claims resulting from Operator's disturbance of the surface or resulting from any operations on the lands described above or neighboring lands within the unit.

FEE SCHEDULE

Locations and/or pads	$3,000.00	Each	one time fee
Roads	$ 10.00	Per Rod	one time fee
Rights of Way Surface	$ 10.00	Per Rod	one time fee
Rights of Way Buried	$ 50.00	Per Rod	one time fee

At Bogle Ltd.'s option, fees may be renegotiated at every fifth year anniversary of the effective date of this agreement.

This SUCA is a clarifying and confirming document and shall not be construed as a waiver of any rights Operator has under any other agreement or instrument pertaining to the above described lands. Should circumstances require Operator to change planned operations for which fees have been paid, the excess payment will be applied to future fees as they accrue. The terms of this SUCA will be effective as of the date it is fully executed and shall continue for as long as Operator conducts operations on the West Loco Hills Grayburg #4 Sand Unit, provided, however, that any obligation or liability of either party that arises or accrues during the term of this SUCA shall survive such termination. Should either party assign their interest in this SUCA, the assignees shall be bound by and subject to the terms and provisions contained herein.

ENERVEST OPERATING, LLC

ATTACHMENTS

Copy of New Mexico Surface Protection Act

Map of Unit with Phase I wells marked

AGREED TO AND ACCEPTED

THIS 22nd DAY OF oct, 2008

BOGLE LTD.

By: _____

Print Name: Stuart Bogle

Its: C.O.O.

Tax ID No. 85-0425010