

NOV 06 2015

H₂S Drilling Operations Plan

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- a. All personnel will be trained in H₂S working conditions as required by Onshore Order 6 at least 500' before drilling into the Delaware Formation.
- b. Two briefing areas will be established. Each will be $\geq 150'$ from the wellhead, perpendicular from one another, and easily entered and exited. See H₂S Page 5 for more details.
- c. H₂S Safety Equipment/Systems:
 - i. Well Control Equipment
 - Flare line will be $\geq 150'$ from the wellhead and ignited by a flare gun.
 - Beware of SO₂ created by flaring.
 - Choke manifold will include a remotely operated choke.
 - Mud gas separator
 - ii. Protective Equipment for Personnel
 - Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hats. Monitors will be worn on the front of the waist or chest.
 - One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
 - Four work/escape packs will be on the rig floor. Each pack will have a long enough hose to allow unimpaired work activity.
 - Four emergency escape packs will be in the doghouse for emergency evacuation.
 - Hand signals will be used when wearing protective breathing apparatus.
 - Stokes litter or stretcher
 - Two full OSHA compliant body harnesses
 - A 100 foot long x 5/8 inch OSHA compliant rope
 - One 20 pound ABC fire extinguisher
 - iii. H₂S Detection & Monitoring Equipment
 - Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hats. Monitors will be worn on the front of the waist or chest.
 - A stationary detector with 3 sensors will be in the doghouse.

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- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- Color-coded H₂S condition sign will be set at the entrance to the pad.
- Color-coded condition flag will be installed to indicate current H₂S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of ≥ 10 will be maintained to control corrosion, H₂S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H₂S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H₂S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H₂S will be suitable for H₂S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packing and seals).

vii. Communication

- Cell phones and/or 2-way radios will be used to communicate from the well site.

d. A remote controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H₂S.

Company (281 847-6000) Personnel to be Notified

Mark Beach, Drilling Manager	Office: (281) 674-2019 Mobile: (281) 546-7665
Buddy Novak, Operations Engineer	Office: (281) 674-2449 Mobile: (713) 254-5418
Mark Prediger, Safety Manager	Office: (281) 674-2870 Mobile: (281) 798-5810

Local & County Agencies

Monument Fire Department	911 or (575) 395-2221
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Department of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063 (214) 665-6444

Veterinarians

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513

Residents within 2 miles

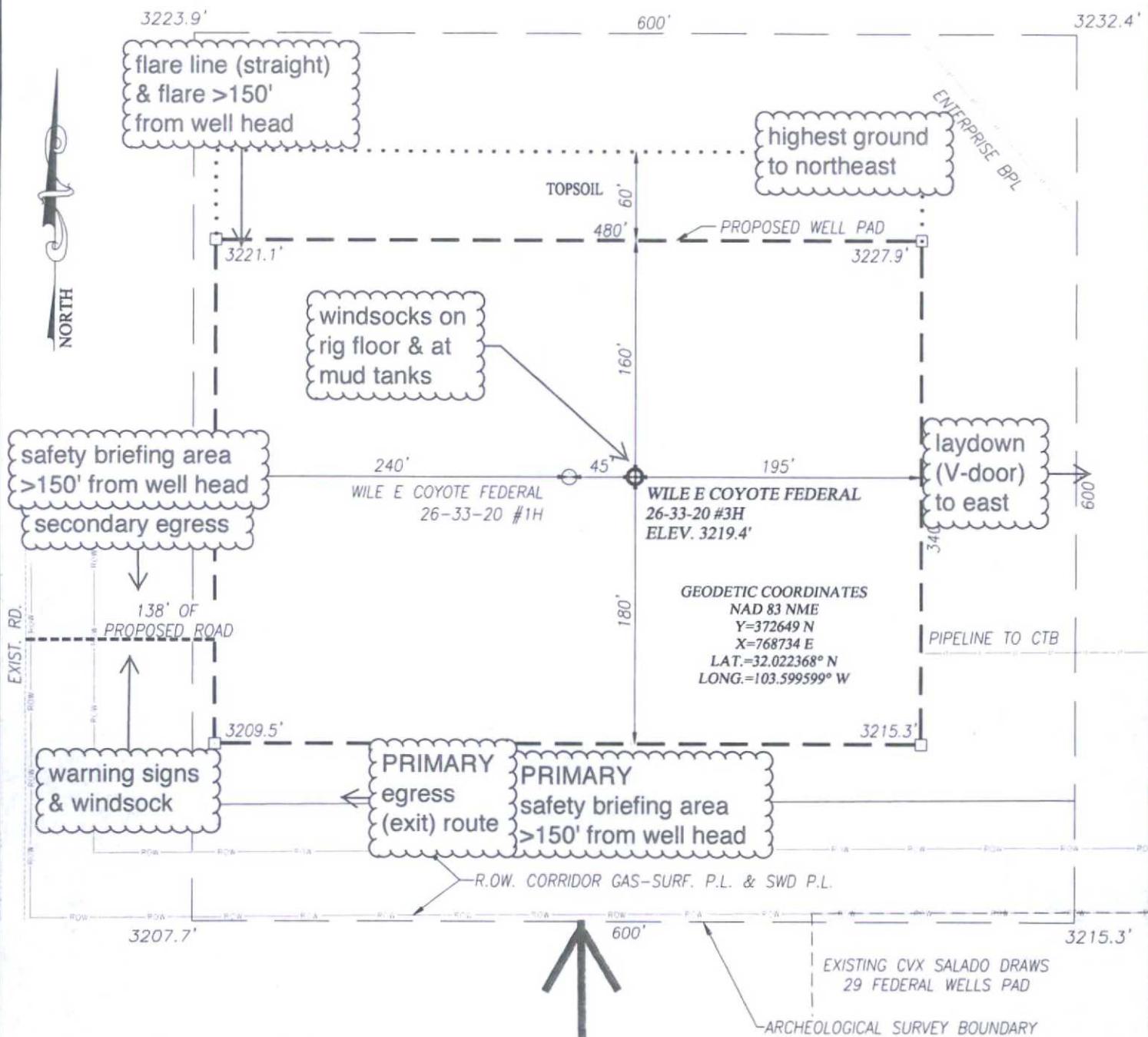
There are no residents within 2 miles.

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

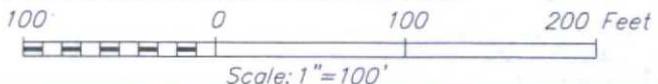
Contractors

Axiom Medical (Houston)	(877) 502-9466
Basic Energy (Artesia)	(575) 746-2217
Baker Hughes (Hobbs)	(575) 392-5556
DXP Safety (Hobbs)	(575) 393-9188
DXP Safety (Odessa)	(800) 530-8693
Indian Fire & Safety (Hobbs)	(575) 393-3093
Key Energy (Carlsbad)	(575) 885-2053
M-I SWACO (Midland)	(432) 742-5627
Petro Safety (Tyler)	(903) 939-9087
Safety International (Odessa)	(432) 580-3770



DIRECTIONS TO WILE E COYOTE FEDERAL 26-33-20 #3H:
 FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. J2 (BATTLE AXE RD.), GO SOUTH-SOUTHWEST APPROX. 13.15 MILES ON BATTLE AXE ROAD TO END OF PAVEMENT. TURN RIGHT AND GO WEST APPROX. 0.3 MILES. TURN LEFT BACK ONTO BATTLE AXE ROAD AND GO SOUTHWEST APPROX. 4.0 MILES. TURN RIGHT AND GO WEST APPROX. 1.0 MILE. TURN RIGHT AND GO NORTH APPROX. 0.4 MILES. FOLLOW STAKED ROAD EAST APPROX. 138 FEET TO THE WELL LOCATION.

prevailing wind blows from South



ROADRUNNER OIL AND GAS, LLC

**WILE E COYOTE FEDERAL 26-33-20 #3H WELL
 LOCATED 220 FEET FROM THE SOUTH LINE
 AND 995 FEET FROM THE WEST LINE OF SECTION 20,
 TOWNSHIP 26 SOUTH, RANGE 33 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO**

Survey Date: 5/29/14	CAD Date: 6/19/14	Drawn By: ACK
W.O. No.: 14110583	Rev: 8/18/14	Rel. W.O.:
		Sheet 1 of 1

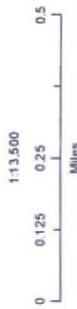
PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO HOBBS, N.M. 88240
 (575) 393-3117 www.jwsc.biz
 TBPLS# 10021000

Roadrunner Oil & Gas, LLC

Wile E Coyote Federal 26-33-20 #3H
H₂S Contingency Plan:
1 Mile Radius Map

Section 20, Township 26S, Range 33E
Lea County, New Mexico

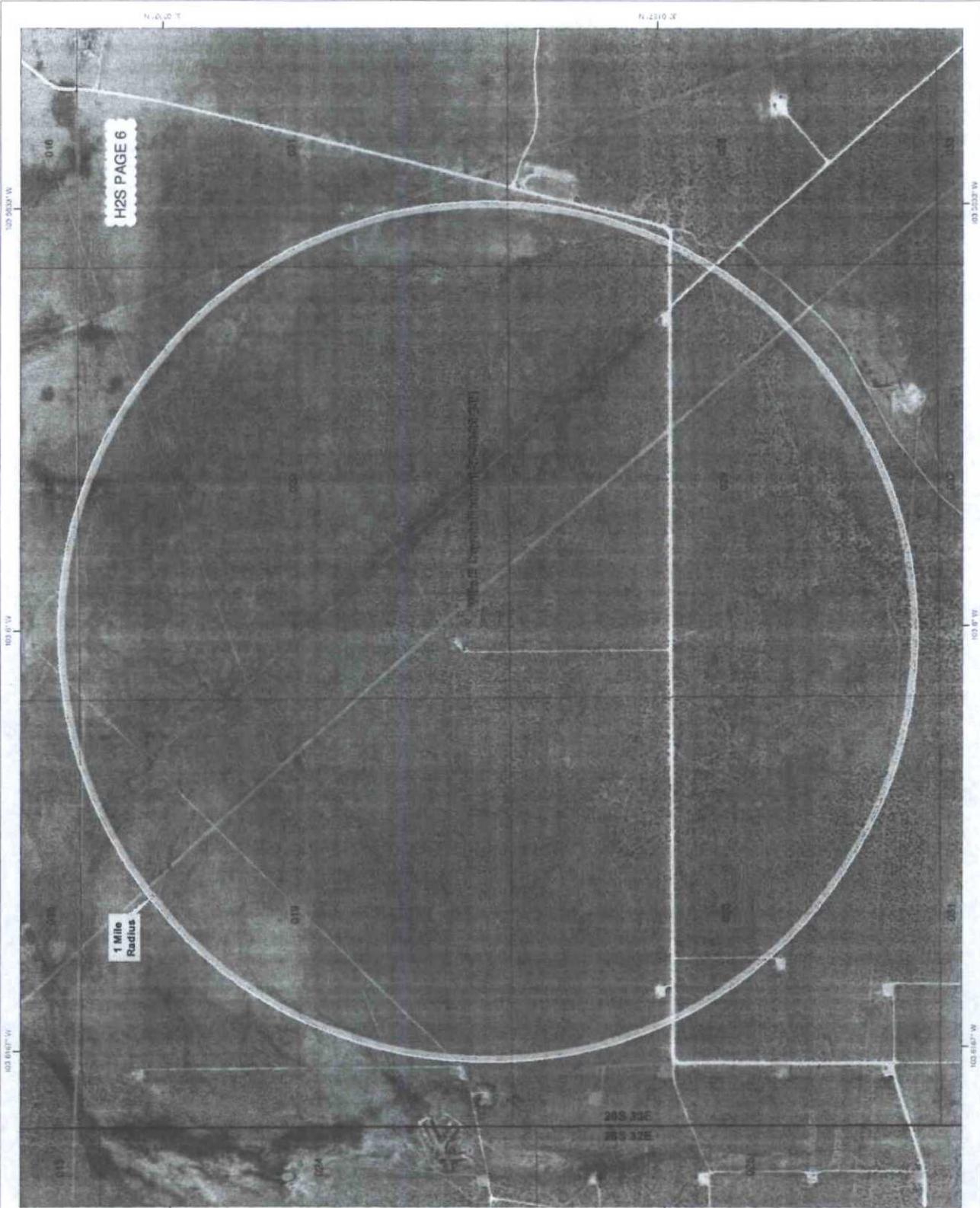
Wile E Coyote Federal 26-33-20 #3H



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMIT WEST
A PERMIT COMPANY

Prepared by Permit West, Inc. - September 29, 2014
for Roadrunner Oil & Gas, LLC

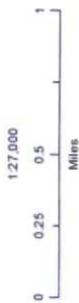


Roadrunner Oil & Gas, LLC

Wile E Coyote Federal 26-33-20 #3H
H2S Contingency Plan:
2 Mile Radius Map

Section 20, Township 26S, Range 33E
Lea County, New Mexico

Wile E Coyote Federal 26-33-20 #3H



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST
INC.

Prepared by Permits West, Inc., September 28, 2014
for Roadrunner Oil & Gas, LLC

