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
May 27, 2004

RECEIVED
MAR 0 1 2006
OCD-ARTESIA

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 / [3] API Number
Armstrong Energy Corporation	001092 / 30 – 015-30693

[3] Property Code	[5] Property Name	[6] Well No.
	Oxy Sosa State	**1**

[9] Proposed Pool 1	[10] Proposed Pool 2
Red Lake QN-GB-SA 51300	**Empire**

[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
K	12	17S	27E		1780	South	1980	West	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
E	G	R	S	4576
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
N	8800	San Andres	Unknown	April 1, 2006

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
115 ft.	1.5 mi., SE/4 Sec. 9-T24S-R23E	Hess Spring 1.6 mi., Sitting Bull Falls 4 mi.

Pit: Liner: Synthetic X 12 mils thick Clay ☐ Pit Volume: 2000 bbls 50'x50'x5' Drilling Method:

Closed-Loop System ☐ Fresh Water X Brine X Diesel/Oil-based ☐ Gas/Air ☐

C-144

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½"	13 3/8" (Existing)	48	407'	363 sx.	Surface
11"	8 5/8" (Existing)	24 & 32	1503'	735 sx.	Surface
7 7/8"	4 ½"	11.6	9685'	**295 sx. 15:61:11 Poz/C/CSE, 75 sx. "C"**	7833' (CBL)

[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.

Armstrong Energy Corporation proposes to reenter the Oxy Sosa State #1, drill out plugs at 0-30', 267-457', 1380-1550', 3800-3946', 4998-5170' and 6150-6294', run a casing–cement bond log, circulate cement behind the 4 ½" casing to cover the San Andres interval, perforate 3148-3160' and production test the San Andres. If this zone is not productive, other zones maybe tested depending on cement quality. If testing is unsuccessful, the well will be plugged and abandoned in accordance to State Regulations.

A mud program, pit plan,blowout preventer plan and H_2S contingency plan are attached.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Printed name: Bruce A. Stubbs

Title: Engineer

E-mail Address: pecos@lookingglass.net

Date: 2-24-2006 Phone: 505-624-2800

OIL CONSERVATION DIVISION

Approved by: Paul W. Drum

Title: District II Supervisor

Approval Date: MAR 0 5 2006 Expiration Date: MAR 0 5 2007

Conditions of Approval Attached ☐

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-30693	51300	Red Lake; QN-GB-SA

[4] Property Code	[5] Property Name	[6] Well Number
	Oxy Sosa State	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
001092	Armstrong Energy Corporation	3461' GL

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	12	17S	27E		1780'	South	1980'	West	Eddy

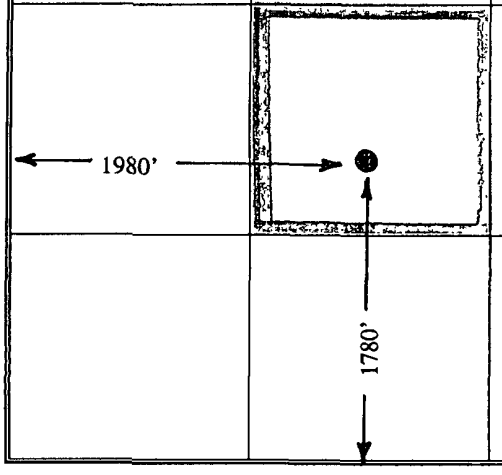
[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40	N		

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

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Bruce A. Stubbs
Printed Name

Engineer pecos@lookingglass.net
Title and E-mail Address

February 27, 2006
Date

[18] 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.

Date of Survey

Signature and Seal of Professional Surveyor:

Original signed by: Gary Jones, #7977, Basin Surveys 6/25/1999

Certificate Number

nch Dr., Hobbs, NM 88240
. Grand Avenue, Artesia, NM 88210
rict III
000 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-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☐

Operator: Armstrong Energy Corporation Telephone: 505-625-2222 e-mail address: pecos@lookingglass.net
Address: P.O. Box 1973, Roswell, new Mexico 88202-1973
Facility or well name: Oxy Sosa State #1 API #: 30-015-30693 U/L or Qtr/Qtr K Sec 12 T 17 S R 27 E
County: Eddy Latitude 32.846111 N Longitude 104.234444 W NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☐ State X Private ☐ Indian ☐

RECEIVED
MAR 0 1 2006
OCD-ARTESIA

Pit	**Below-grade tank**		
Type: Drilling ☐ Production ☐ Disposal ☐ Workover X Emergency ☐	Volume: ____bbl Type of fluid: _____		
Lined X Unlined ☐	Construction material: _____		
Liner type: Synthetic ☐ Thickness 12 mil Clay ☐	Double-walled, with leak detection? Yes ☐ If not, explain why not.		
Pit Volume 2000 bbl			
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) 50 ft.	Less than 50 feet	(20 points)	
	50 feet or more, but less than 100 feet	(10 points)	~~10~~
	100 feet or more	(0 points)	20
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)	
	No X	(0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.) ¼ mile north	Less than 200 feet	(20 points)	
	200 feet or more, but less than 1000 feet	(10 points)	
	1000 feet or more X	(0 points)	0
	Ranking Score (Total Points)		~~10~~ 20

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 2-24-2006
Printed Name/Title Bruce A. Stubbs Engineer Signature B A Stubbs

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: MAR 0 3 2006
Printed Name/Title _____ Signature _____ Date: _____

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 17S Range: 27E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 02/24/2006

							(Depth Water in Feet)		
Bsn	**Tws**	**Rng**	**Sec**	**Zone**	**X**	**Y**	**Wells**	**Min**	**Max**	**Avg**
RA	17S	27E	05				1	30	30	30
RA	17S	27E	07				1	14	14	14
RA	17S	27E	11				1	50	50	50
RA	17S	27E	16				5	175	260	194
RA	17S	27E	17				4	50	931	283
RA	17S	27E	18				2	60	111	86
RA	17S	27E	20				1	80	80	80
RA	17S	27E	23				1	40	40	40
RA	17S	27E	32				2	100	140	120

Record Count: 18

Oxy Sosa State #1
1780' FSL & 1980 FWL Sec. 12-T17S-R27E
Eddy County, New Mexico

San Andres Reentry
February 23, 2006

1. Dig out cellar, and nipple up well head on 8 5/8" casing, set slips and pack off 4 ½" casing.

2. Rig up completion unit, reverse unit, steel pits, B.O.P. and flare line.

3. P.U. 3 3/4" bit and drill out surface plug, P.U. six 3" O.D. D.C. and trip in hole to plug at 267', drill out plug, T.I.H. to plug at 1335', drill out plug, T.I.H. to plug at 3800', drill out plug, T.I.H. to plug at 4998', drill out plug, T.I.H. to plug at 6150', drill out plug,T.I.H. to plug at 8857' and circulate hole clean.

4. Test casing at 2000 psi for 30 min. If casing tests, P.O.H. and run casing bond log from 7800' to 1500'.

5. Place cement across San Andres interval by perforating four (4) shots at +/- 3400' and +/- 3000'. T.I.H. with packer, set packer at +/- 3350' and establish circulation with upper perforations. Circulate annulus clean, P.O.H. with packer, T.I.H. with cement retainer. Set retainer at +/- 3350' and establish circulation. Pump 20 bbls. preflush and 100 sx. Class "C" cement with friction reducer and retarder. Displace cement to retainer, sting out of retainer and P.O.H., pressure casing to 500 psi and S.I.O.N.

6. T.I.H. with 3 3/4" bit and drill collars and drill out cement and clean out to 3350'. Test casing at 1000 psi for 30 minutes. Circulate hole clean, spot 200 gals 15% NEFE acid at 3160' and P.O.H.

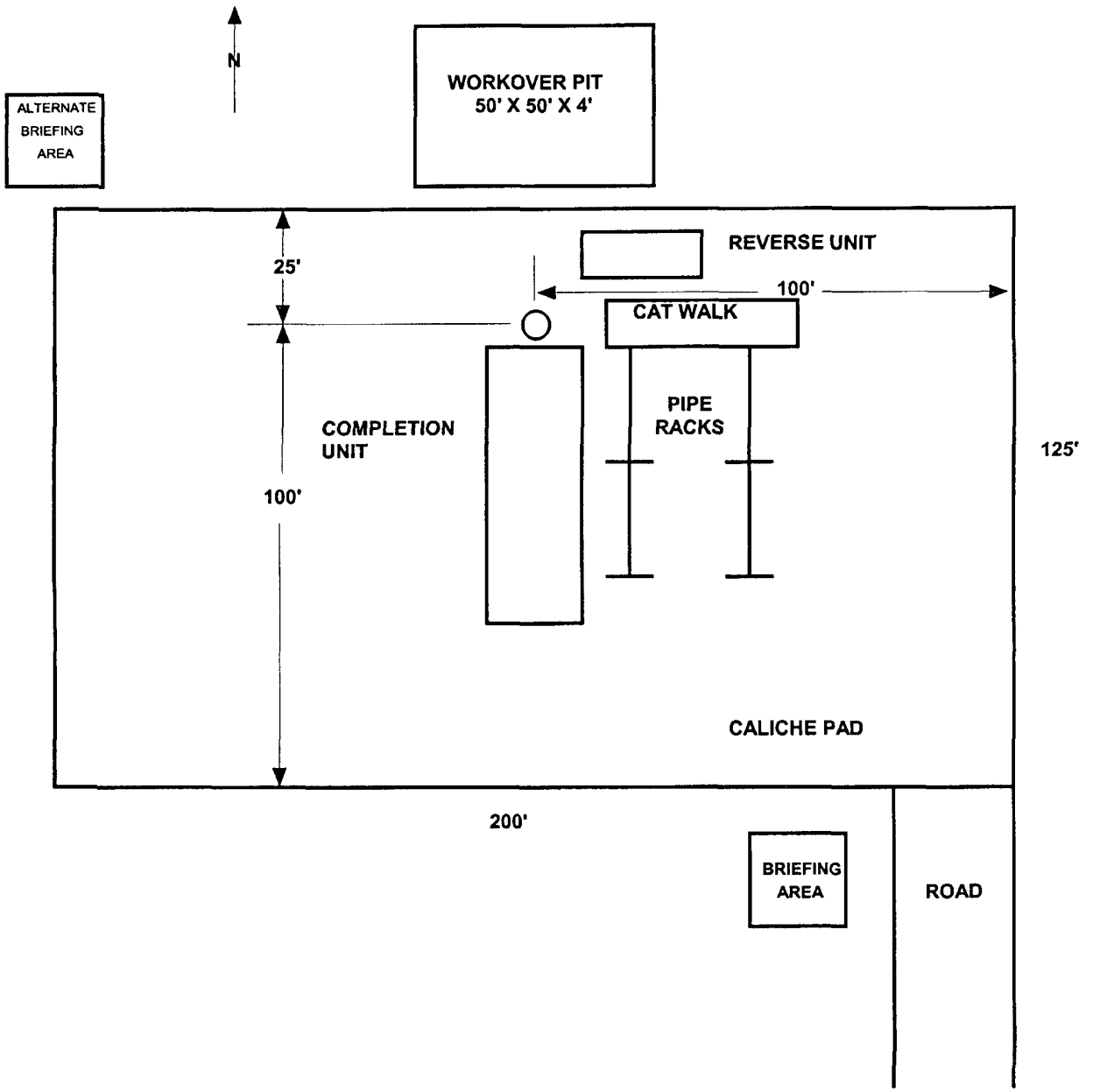
7. G.I.H. with perforating guns and perforate 3148-60', 12', with 2 jspf, 25 shots, 180° phasing, 0.42" diameter holes, deep penetrating charges. P.O.H. with guns.

8. T.I.H. with packer to 3075', circulate excess acid into tubing, set packer and breakdown formation. Establish rate and displace acid. Shut down and observe bleed off. Swab to recover load and test. Evaluate for additional stimulation.

9. If warranted acidize the San Andres interval 3148-60' with 3000 gals. 20% NEFE acid and 40 RCN ballsealers at 3 to 5 BPM with a maximum treating pressure of 4000 psi. Flow or swab to recover load and test.

10. If warranted run 2 3/8" tubing with S.N. and mud anchor with S.N. below 3175'. Run 3/4" and 7/8" rods with 1 ½" pump, set pumping unit and test tank. Start pumping and test.

LOCATION LAYOUT

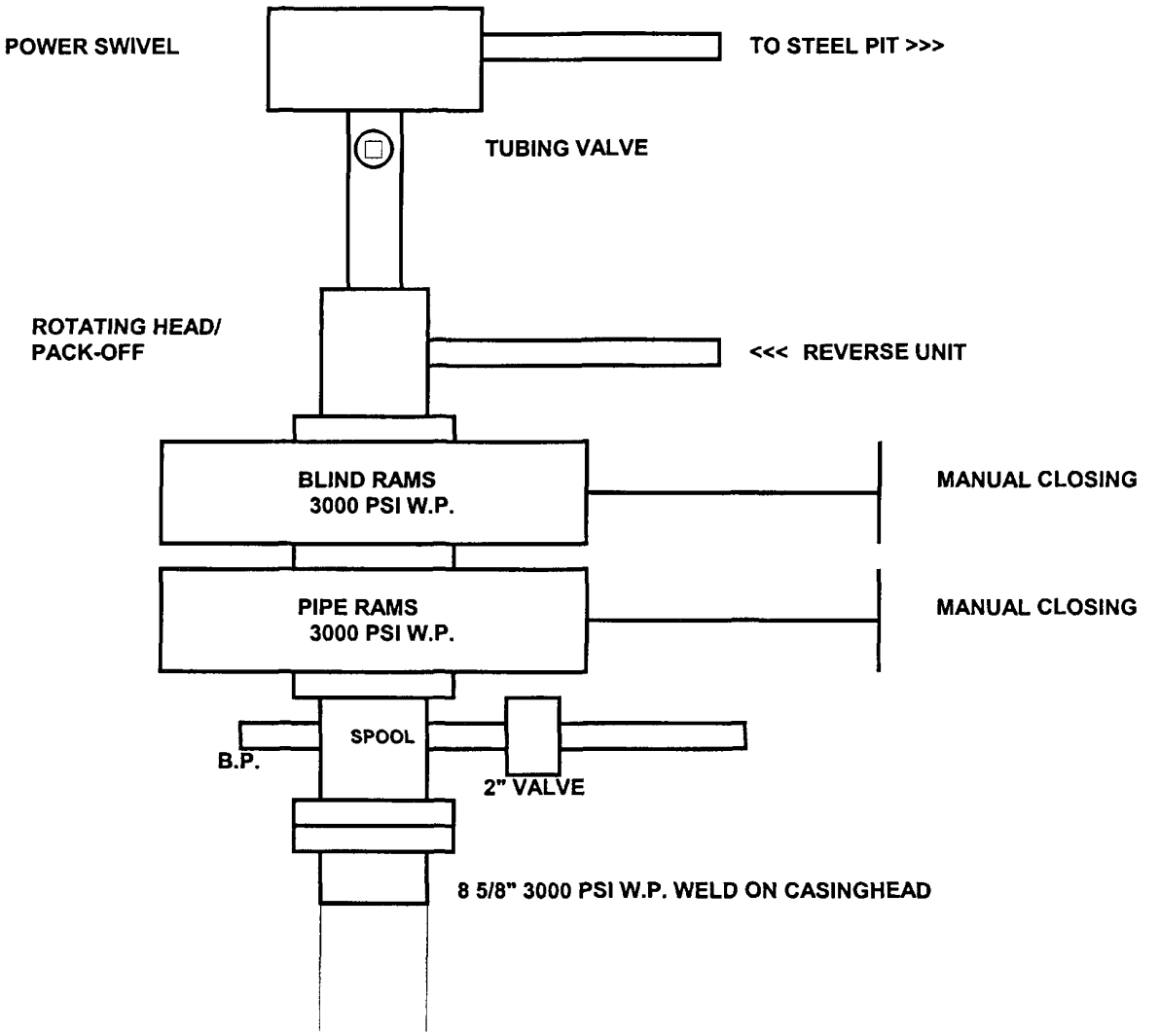


ARMSTRONG ENERGY CORPORATION

OXY SOSA STATE #1
1780' FSL & 1980' FWL
SECTION 12-T17S-R23E
EDDY COUNTY, NEW MEXICO

API No.: 30-015-30693

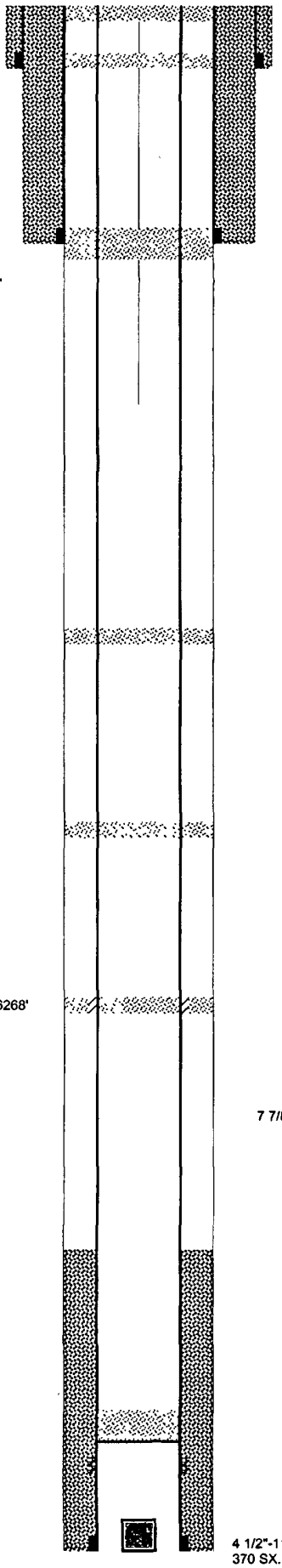
BOP STACK



ARMSTRONG ENERGY CORPORATION

OXY SOSA STATE #1
1780' FSL & 1980' FWL
SECTION 12-T17S-R23E
EDDY COUNTY, NEW MEXICO

API No.: 30-015-30693



20 SX. SURFACE PLUG
SQUEEZE W/ 35 SX
TOP OF PLUG @ 267'
PERF @ 457'
13 3/8"-48 #/FT., H-40 @ 407'
363 SX.
CIRC. 100 SX.

17 1/2" HOLE

190 FT. PLUG

QUEEN 855'

PENROSE 1127'

11" HOLE

8 5/8"-24-32 #/FT., K-55 @ 1503'
735 SX
CIRC 57 SX.

PREMIER 1632'
SAN ANDRES 1652'

SQUEEZE W/ 40 SX
TOP OF PLUG @ 1380'
PERF @ 1550'

170 FT PLUG

OXY SOSA STATE #1
1780' FSL & 1980' FWL
SEC. 12-T17S-R27E
EDDY COUNTY, NEW MEXICO

API No.: 30-015-30693
SPUD DATE:7-24-99

LAT: N 32.846111
LONG: W 104.234444

GLORIETTA 3430'

SQUEEZE W/ 45 SX
TOP OF PLUG @ 3800'
PERF @ 3946'

146 FT. PLUG

TUBB 4412'

ABO 5120'

SQUEEZE W/ 45 SX
TOP OF PLUG @ 4998'
PERF @ 5170'

172 FT. PLUG

WOLFCAMP LIME 6268'

SQUEEZE W/ 45 SX
TOP OF PLUG @ 6150'
CUT @ 6294'

144 FT. PLUG

7 7/8" HOLE

TOC @ 7833' (CBL)

STRAWN 8728'

TOP OF PLUG @ 8857'
20 SX CEMENT ON TOP OF PLUG
CIBP @ 9096'
9136-9145', 40 SHOTS

239 FT PLUG

ATOKA 9048'
MORROW 9152'

GUNS @ 9582'

4 1/2"-11.6 #/FT.=.6528 GALS./FT

CHESTER 9605'

4 1/2"-11.6 #/FT. N-80 @ 9685'
370 SX.

4 1/2" X 7 7/8" = .2278 CU.FT./FT.

Armstrong Energy Corporation
P.O. Box 1973
Roswell, New Mexico 88202
505-625-2222

Hydrogen Sulfide (H_2S)
Contingency Plan

For the:

Oxy Sosa State #1
Section 12K-T17S-R27E
Eddy County, New Mexico

Table of Contents

PREFACE

An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per state and federal requirements, etc.

This Contingency Plan is intended for use on (AEC) projects, such as drilling, critical well work, completions, etc.

A copy of the Plan shall be maintained in the Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

WELL AND SITE DESCRIPTION

Oxy Sosa State #1

The Oxy Sosa State #1 was drilled in 1999 and did not report any zones containing H_2S or abnormally pressured zones. Mud weight at T.D. was 10.5 ppg with a 44 vis, 7.2 cc fluid loss and a ph of 10.0. 4 ½" casing was set at 9685' and cemented from T.D back to 7833'. It is possible that zones in the San Andres, Glorietta and Yeso sequence and the Wolfcamp through Canyon sequence have bled into the wellbore and minor accumulations of gas and liquids containing H_2S may be present in the wellbore and could be circulated to the surface during the cleanout of the wellbore. Sufficient mud weights will be utilized to prevent any flow from the well.

H_2S monitoring, emergency response equipment, windsocks and warning signs will be installed and tested prior to drilling out the 8 5/8" shoe plug at 1503'.

Site Description

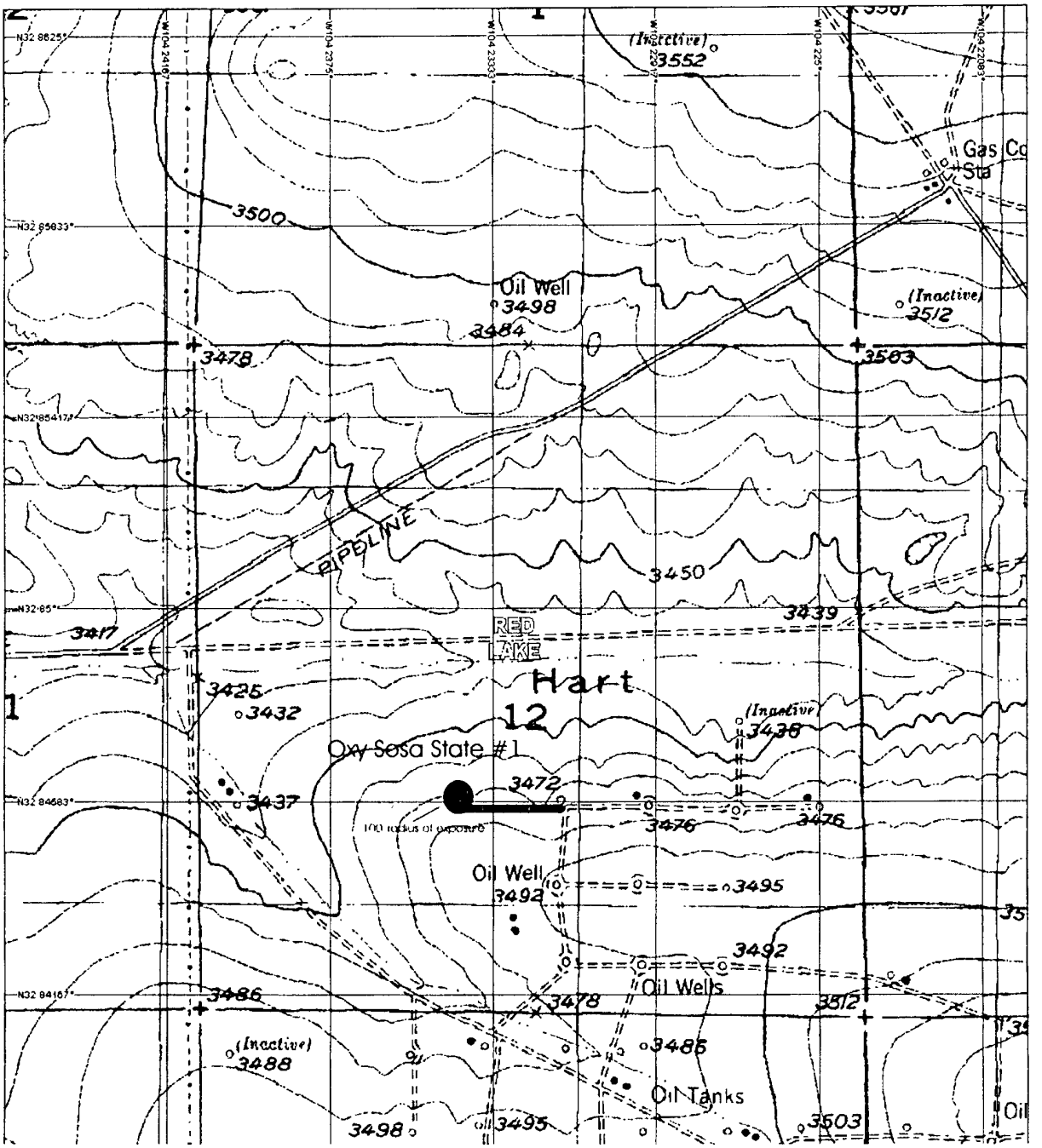
The well location is located approximately 2.5 miles north of State Highway 82, on CR-203. The location is located on flat ground with no obstructions to air circulation. Predominately west winds will provide good air flow across location and away from the rig floor. Wind direction should be observed and escape routes modified for changing conditions.

Radius of Exposure

The 100 ppm radius of exposure is calculated to be 101 ft. with a gas flow of 20,000 SCFGD and a concentration of H_2S of 5.0%.

$$\mathbf{X = [1.589 \times .05 \times 20{,}000]^{0.6258} = 101 \text{ feet}}$$

X	Radius of Exposure, 100 ppm
.05	5% by volume concentration of H_2S
20,000	SCFGD



Radius of Exposure Map & Site Location

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages thirteen (13) through fifteen (15) in this document for further responsibilities:

1. Notify the senior ranking contract representative on site.
2. Notify AEC representative in charge.
3. Notify civil authorities if the AEC Representative cannot be contacted and the situation dictates.
4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

AEC Personnel:

A. Engineer: The AEC Drilling Engineer or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:

1. Notification to AEC management.
2. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
3. Coordinating with the Drilling Foreman for notification and incident control.
4. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.

B. Drilling Foreman (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer.

Contract Drilling Personnel will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages thirteen (13) through fifteen (15) in this document.

Other Contractor Personnel will report to the safe briefing area to assist AEC personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

Civil Authorities (Law Enforcement, Fire, and **EMS)** will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

H_2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H_2S alarm.

All Personnel:

1. On alarm, don escape unit (if available) and report to upwind briefing area.

Rig Manager/Operator:

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and /or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.

4. Notify Contractor management and AEC Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

Two People Responsible For Shut-in and Rescue:

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

All Other Personnel:

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. Teams will be organized to stop traffic on the access road and prevent entry into the ROE.

2. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE. In the event of a release of gas containing H_2S the first responder must secure the area and prevent entry of other persons into the 100 ppm radius of exposure (ROE). The ROE should be recalculated and any public places within the ROE must be evacuated.

AEC Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Drilling Engineer/Operations Chief Officer, and Police, Fire Department, or other local emergency services as required.

Training

There will be an initial training session prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each

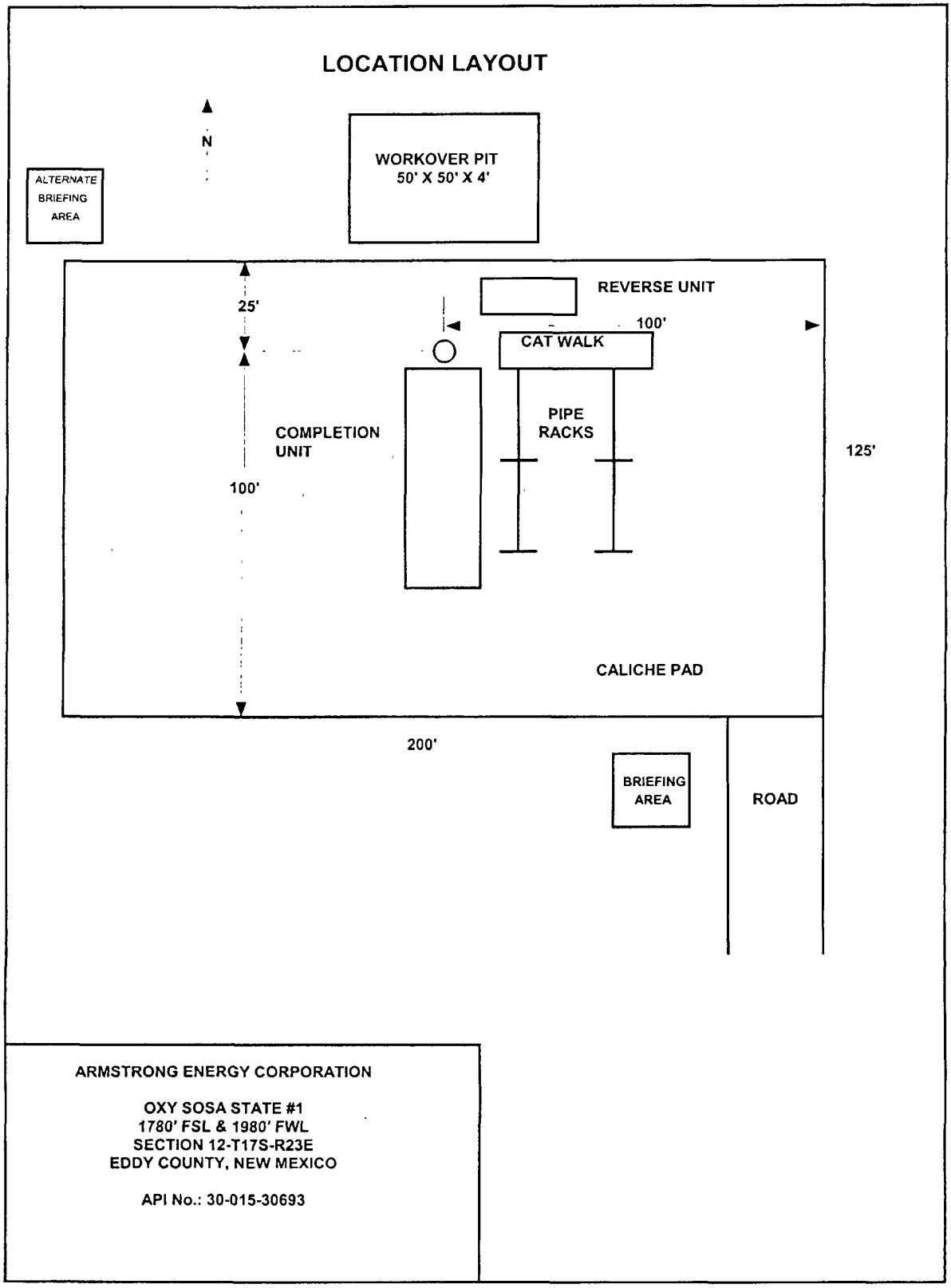
crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan (Contingency Plan). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release.

Characteristics of H_2S and $S0_2$

Gas Characteristics					
Name	**Chemical Formula**	**S.G. Air=1.0 ***	**Threshold Limit**	**Hazardous Limit**	**Lethal Concentration**
Hydrogen Sulphide	H_2S	1.89	10 ppm	100 ppm/hr.	600 ppm
Sulfur Dioxide	SO_2	2.21	2 ppm		1000 ppm
* Caution - Gases are heavier than air and will concentrate in low confined areas.					



Location Layout

Contacting Authorities

AEC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as; type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

Location	Entity	Phone No.:
Eddy County	Sheriff's office	505-885-2111
Roswell	State Police	505-622-7200
Artesia	New Mexico Oil Conservation Division	505-748-1283
	Ambulance	911
Loco Hills	Fire Department	505-746-9888
Artesia	Fire Department	505-746-5051
Roswell	Armstrong Energy Corporation Robert Armstrong - President Bruce Stubbs - Engineer	O-505-625-2222 H-505-622-0429 O-505-624-2800 H-505-623-6466 C-505-626-0973
Other Contacts		
Artesia	Halliburton Services	505-746-2757
Artesia	Sweatt Construction, Inc.	505-748-1238
Hobbs	Nova Mud, Inc.	505-393-8786
Artesia	Indian Fire & Safety, Inc.	505-746-4660
Odessa, TX	Wild Well Control, Inc.	432-550-6202
Odessa, TX	Cudd Pressure Control, Inc.	432-563-3356
Lubbock, TX	Flight for Life	806-743-9911
Albuquerque, NM	Med Flight Air Ambulance	505-842-4433

WELL CONTROL

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

Kick While Drilling - Procedures and Responsibilities

Driller:

1. Stop the power swivel and hoist the tubing to the next connection above the slips.
2. Stop the pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record tubing and casing shut-in pressures and pit volume increase and begin kill sheet.

Derrickman:

1. Close tubing valve.
2. Check for leaks.
3. Record shut-in casing pressure and pit volume increase.
4. Report readings and observations to Driller.
5. Verify actual mud weight in suction pit and report to Driller.
6. Be readily available as required for additional tasks.

Floorman # 1:

1. Go to BOP prepare to close pipe rams and await signal from Derrickman.
2. Close pipe rams.
3. Report to Driller, and be readily available as required for additional tasks.

Floorman # 2:

1. Notify Drilling Foreman or Rig Manager of well control situation.
2. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
3. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3:

1. Stand-by with Driller, and be readily available as required for additional tasks.

Rig Manager/Operator:

1. Notify AEC Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to AEC Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the AEC representative.

AEC Representative:

1. Notify Drilling Engineer/Operations Chief Officer, and Police, Fire Department, or other local emergency services as required.

Kick While Tripping - Procedures and Responsibilities

Driller:

1. Sound the alarm immediately when pipe when a kick is observed.
2. Position the upper tubing collar just above slips and set slips. Install tubing valve.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record tubing and casing shut-in pressures and pit volume increase, and begin kill sheets.

Derrickman: (same as while drilling)

Floor Man # 1:

1. Install full opening valve (with help from Floorman #2) in top tubing connection.
2. Tighten valve with pipe wrench.
3. Go to BOP control station and await signal from Derrickman.
4. Close pipe rams.
5. Check for leaks in the BOP.
6. Report to Driller, and be readily available as required for additional tasks.

Floor Man # 2:

1. Assist installing full opening valve in tubing string.
2. Notify Drilling Foreman or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3, Rig Manager/Tool Pusher, and AEC Representative: (same as while drilling)

PUBLIC RELATIONS

AEC recognizes that the news media have a legitimate interest in incidents at AEC facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and AEC employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.