

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

POTASH
FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

D-04-03
291

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-01059
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Samson Resources		7. If Unit or CA Agreement, Name and No.
3a. Address Samson Plaza—Two W. 2nd St. Tulsa, OK 74103	3b. Phone No. (include area code) (918) 591-1822	8. Lease Name and Well No. Bandit 15 Federal Com., #1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 810' FNL & 660' FEL At proposed prod. zone same Unit A R-111-P Potash		9. API Well No. 30-025-36591
14. Distance in miles and direction from nearest town or post office* 37 miles northeast of Carlsbad, NM Captain Controlled Water Basin		10. Field and Pool, or Exploratory Teas Penn Gas
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 40	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 15-T20S-R33E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 150'	19. Proposed Depth 14,000'	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3582' GL	22. Approximate date work will start* February 15, 2004	13. State NM
17. Spacing Unit dedicated to this well 320		
20. BLM/BIA Bond No. on file NM-2037		
23. Estimated duration 6 weeks		
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 12/31/03
Title Agent for Samson Resources		
Approved by (Signature) <i>WILLIAM S. CONDIT</i>	Name (Printed/Typed) WILLIAM S. CONDIT	Date FEB 13 2004
Title STATE DIRECTOR	Office NM STATE OFFICE	

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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 reverse)

Lease Responsibility Statement: Samson Resources Co. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

OPER. OGRID NO. 20165
PROPERTY NO. 33532
HOL CODE 86040
EFF. DATE 2/24/04
API NO. 30-025-36591

George R. Smith, agent

KZ

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

DISTRICT IV
P.O. Box 2088, Santa Fe, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 3D-025-36581	Pool Code 86040	Pool Name Teas Penn Gas
Property Code 33532	Property Name BANDIT "15" FEDERAL COM	Well Number 1
OGRID No. 20165	Operator Name SAMSON RESOURCES	Elevation 3582'

Surface Location

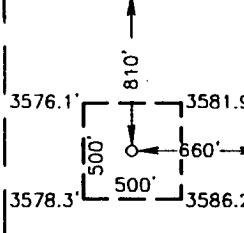
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	15	20-S	33-E		810	NORTH	660	EAST	LEA

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.
320			

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 contained herein is true and complete to the best of my knowledge and belief. <i>George R. Smith</i> Signature George R. Smith, agent for: Printed Name Samson Resources Title December 31, 2003 Date
GEODETIC COORDINATES NAD 1927 NME Y = 574698.5 N X = 712291.6 E LAT. = 32°34'41.03"N LONG. = 103°38'38.97"W	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. December 11, 2003 Date Surveyed AWB Signature & Seal of Professional Surveyor <i>Gary E. Eidsen</i> 12/19/03 03.11.1350 Certificate No. GARY EIDSON 12641

APPLICATION FOR DRILLING

SAMSON RESOURCES CO.

Bandit 15 Federal Com., Well No. 1
810' FNL & 660' FEL, Sec. 15-T20S-R33E
Lea County, New Mexico
Lease No.: NM-01059
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Samson Resources Co. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	1,340'	Penn Shale	12,150'
Yates	3,066'	Strawn	12,300'
Capitan	3,368'	Atoka	12,500'
Delaware	5,200'	Morrow	13,200'
1 st Bone Spring	9,400'	T.D.	14,000'
Wolfcamp	11,600'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 300'.

Oil: Possible in the Delaware below 5200'.

Gas: Possible in Atoka below 12,500' and the Morrow below 13,200'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
18 1/2"	16"	75.0#	K-55	BT&C	0' - 1,450'	Circ 890 sx "C" cement
14 3/4"	11 3/4"	54.5#	K-55	BT&C	0' - 3,100'	Circ. 1330 sx. HLC Prem Plus
10 5/8"	8 5/8"	32.0#	HC-K-55	LT&C	0' - 5,200'	Circ. 900 sx. Interfill C & Prem
7 7/8"	5 1/2"	20.0#	P110	LT&C	0' - 14,400'	1050 sx Zoneseal & 250 sx super H TOC 5000'

5. Minimum Specifications for Pressure Control Equipment:

NU 21 3/4" 2M WP Hydril & test to 800 psi before drilling 14 3/4" hole.

NU 13 5/8" 10M WP Shaffer, double over single w/ 13 5/8" Hydril annular preventer before drilling the 10 5/8" & 7 7/8" holes. Perform 3M test before drilling 10 5/8" hole & 5M test before drill 7 7/8" hole. See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 1,450':	Fresh water mud: 8.4 - 9.2 ppg	28 - 29	No W/L control
1,450' - 3,100':	Fresh/native brine 10.0 - 10.4 ppg	26 - 29	No W/L control
3,100' - 5,200':	Fresh water + addit. 8.8 - 9.6 ppg	26 - 29	No W/L control
5,200' - 12,300':	Fresh water/Cut brine 8.4 - 9.2 ppg	26 - 29	No W/L control
12,300' - 14,000':	Cut Brine/xcd Polymer 9.4 - 11.5 ppg	38 - 42	W/L control: <10cc

7. Auxiliary Equipment: Blowout Preventer, flow sensors and stabbing valve.

SAMSON RESOURCES CO.

Bandit 15 Federal Com., Well No. 1

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: None unless conditions warrant.

Logging: 5,000' to T.D: CNL-DNL w/GR-Cal.

5,000' to Surface: CNL-GR

Coring: Rotary sidewall if dictated by logs.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 6160 psi and surface pressure of 3080 psi with a temperature of 200°.

10. H_2S : None expected. The Mud Log Unit will be cautioned to use a gas trap to detect H_2S and if any is detected the mud weight will be increased along with H_2S inhibitors sufficient to control the gas.

11. Anticipated starting date: February 15, 2004.

Anticipated completion of drilling operations: Approximately 6 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

SAMSON RESOURCES

Bandit 15 Federal Com., Well No. 1
810' FNL & 660' FEL, Sec. 15-T20S-R33E
Lea County, New Mexico
Lease No.: NM-01059
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a USGS/BLM Topo map showing the location of the proposed well as staked. The well site location is approximately 37 road miles northeast of Carlsbad, New Mexico. Traveling east from Carlsbad there will be approximately 37.0 miles of paved highway and .3 mile of gravel oilfield road.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 32 miles to NM Highway #176. Continue east on #62/180 for 5.3 miles, .1 mile east of MM #73. Turn south, at a Woodbine Pet. and a Shackleford Oil Co. sign, for .3 mile to an east/west crossroad. This is the NE corner of the proposed well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: None required. The existing road will access the well site.
- B. Construction: None required except possibly re-routing part of the existing road around well site.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease R/W: None required.

3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. Samson Resources has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas production-process equipment and tank battery, if required, will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for the access road and well site pad will be obtained on location, if available, or from an approved Federal pit located in the SENW of Sec. 14-T20S-R33E. No surface materials will be disturbed except those necessary for actual grading and construction of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock and wildlife from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 500' X 500'.
- B. Mat Size: 300' X 210', plus 150' X 150' mud pits. The pits will be on the west.
- C. Cut & Fill: There will be a 2.5-4 foot cut on the north with fill to the south to level the existing sand dunes and basins.
- D. The surface will be topped with compacted caliche and the mud pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to work after completion or abandonment.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road is located in the Querecho Plains. The location has an overall northwesterly slope of 1% from an elevation of 3582 feet.
- B. Soil: The topsoil on the well site and access road is reddish brown colored fine sand. The soil is of the Kermit Palomas fine sands soils series.
- C. Flora and Fauna: The vegetation at the well site is a sparse to fair grass cover of three-awn, dropseed, burrograss, muhly and other miscellaneous native grasses along with plants of mesquite, yucca, sage, javelina, sparse shinnery oak brush, broomweed, cacti, buckwheat and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None.
- E. Residences and Other Structures: None, but existing oil field facilities.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road are on Federal surface.
- H. There is no evidence of archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P.O. Box 2285, Roswell, NM 88202 are conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

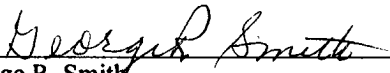
- A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:

Billy Goodwin
Samson Resources
Samson Plaza-Two West Second St.
Tulsa, OK 74103-3103
Office Phone: (918) 591-1822

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Samson Resources and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

December 31, 2003



George R. Smith
Agent for: Samson Resources

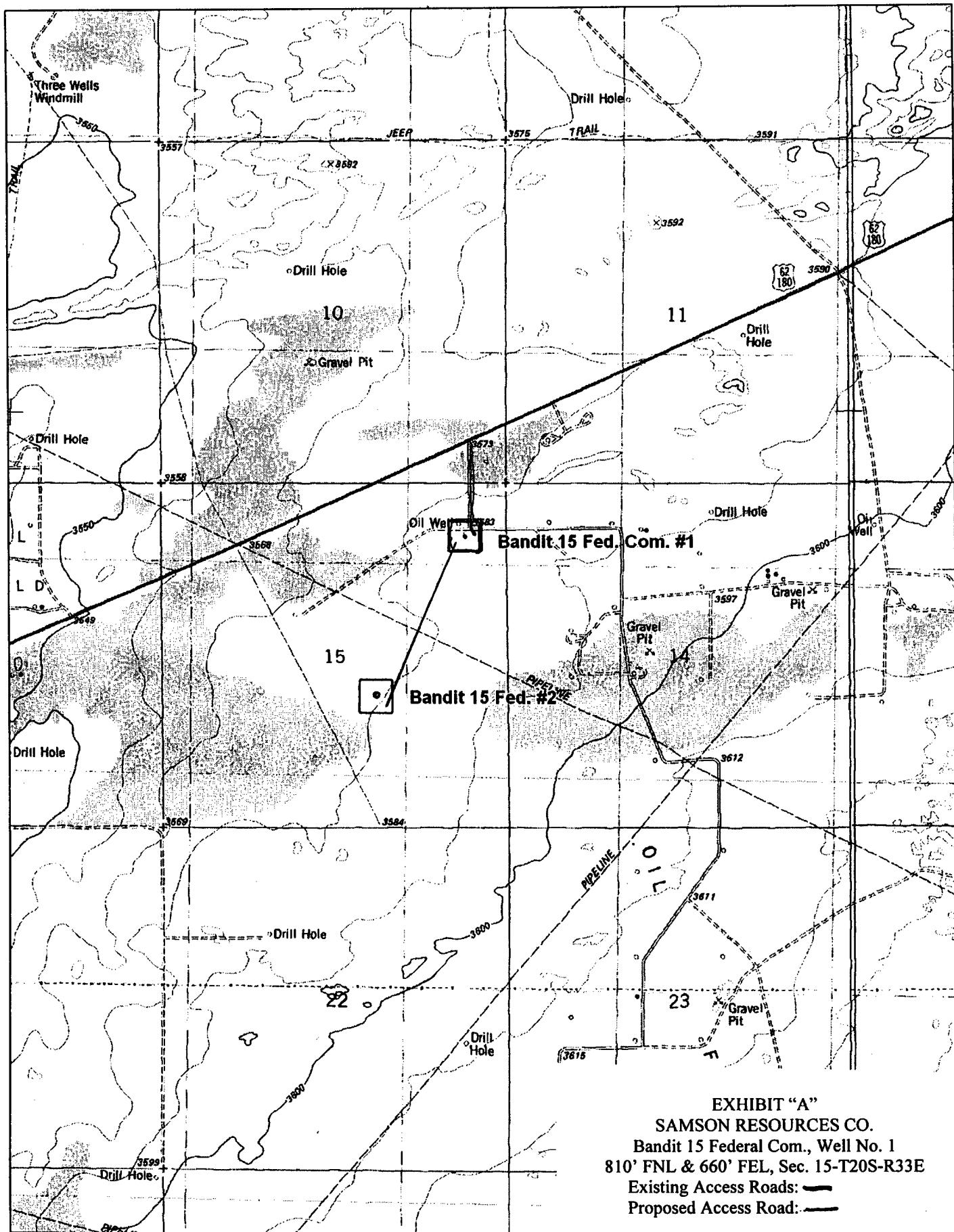


EXHIBIT "A"

SAMSON RESOURCES CO.

Bandit 15 Federal Com., Well No. 1

810' FNL & 660' FEL, Sec. 15-T20S-R33E

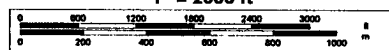
Existing Access Roads: —

Proposed Access Road: —

DELORME

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www.delorme.com

Scale 1 : 24,000
1" = 2000 ft



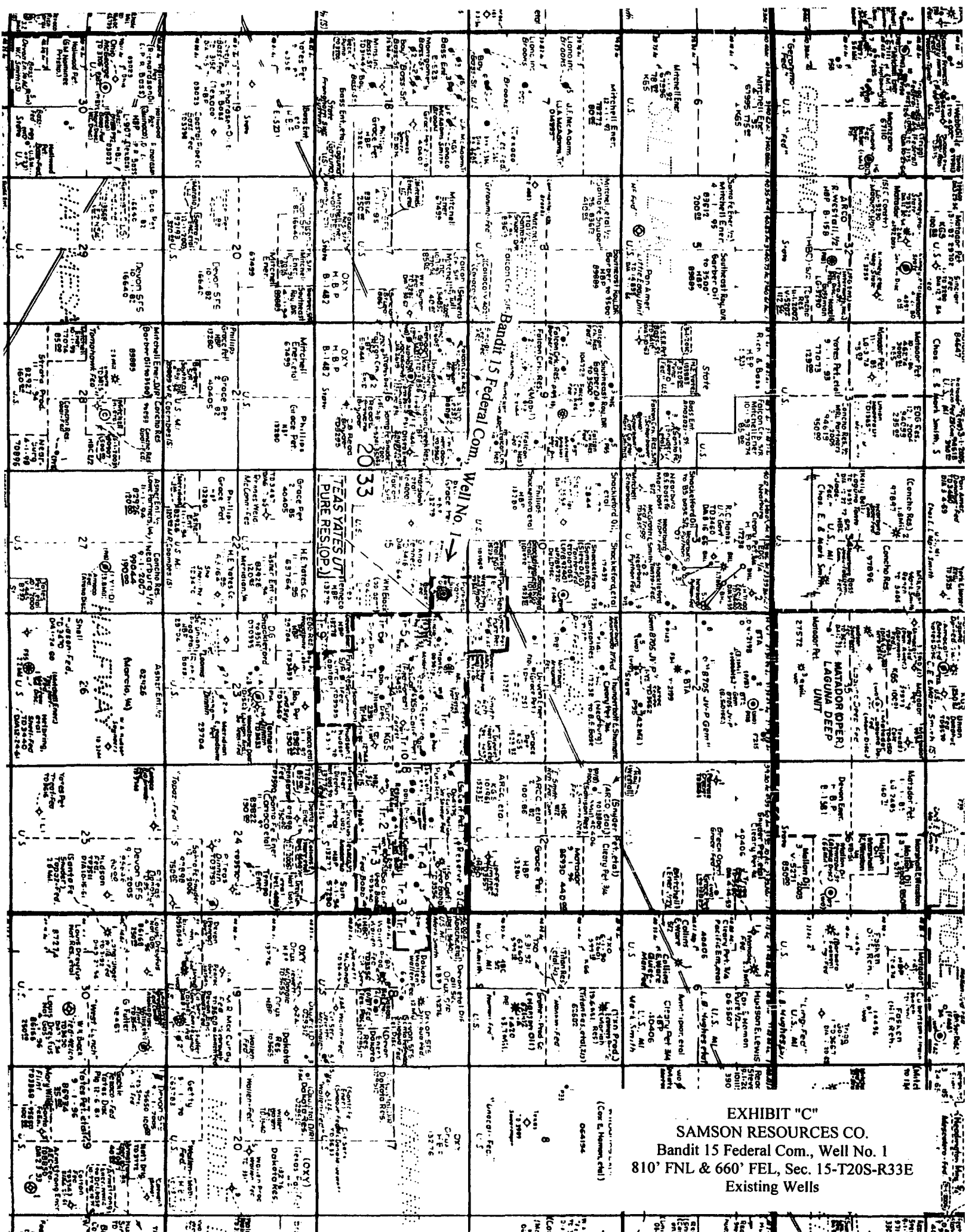




EXHIBIT "D"
SAMSON RESOURCES CO.
Bandit 15 Federal Com., Well No. 1
Pad & Pit Layout



RIG 715 BOP LAYOUT

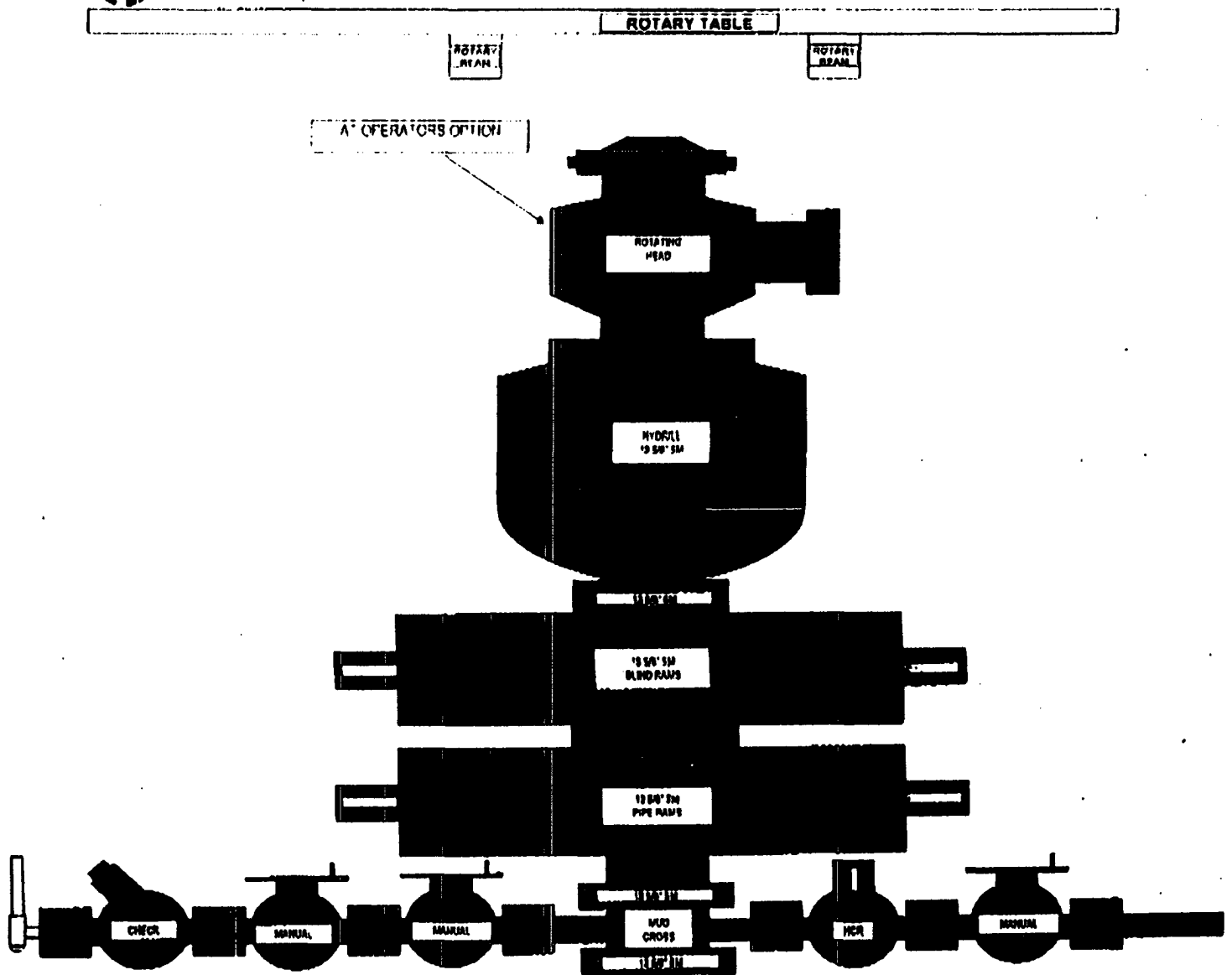


EXHIBIT "E"
 SAMSON RESOURCES CO.
 Bandit 15 Federal Com., Well No. 1
 BOP Specifications



N/O = NORMALLY OPEN
N/C = NORMALLY CLOSE

