District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☒AMENDED REPORT

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

1. Operator Name and Address	2. OGRID Number
Probity SWD, LLC PO Box 7307 Midland, TX 79708	296278
	3. API Number 30-015-45672

4. Property Code	5. Property Name	6. Well No.
324929	McDonald South SWD	1

7. Surface Location
(To be verified by field survey)

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
G	7	26S	29E		1750	FNL	1400	FEL	EDDY

8. Proposed Bottom Hole Location
(To be verified by field survey)

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
G	7	26S	29E		1750	FNL	1400	FEL	EDDY

9. Pool Information

Pool Name	Pool Code
SWD; Devonian-Silurian	97869

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	P	2909.2’
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
No	15,700’	Devonian	TBD	2/15/2022

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
51’ avg	3520’	1830’

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26.5”	20.0”	94.0 lb/ft	550’	1645	SURFACE
Intermdt	17.5”	13.375”	68.0 lb/ft	3200’	1615	SURFACE
Production	12.25”	9.625”	53.5 lb/ft	11,100’	1945	SURFACE
Liner	8.5”	7.625”	39.0 lb/ft	10,800’-15,100’	400	TOL
OH	6.5”			15,100’ – 15,700’		

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	10000	10000	Hydril, Cameron or Equivalent

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 I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.** Signature:	OIL CONSERVATION DIVISION
	Approved By: KURT SIMMONS
Printed name: Ben Stone	Title: NMOCD, SANTA FE
Title: Agent for Probity SWD, LLC	Approved Date: 09/27/2021 Expiration Date: 09/27/2023
E-mail Address: ben@sosconsulting.us	
Date: 9/21/2021 Phone: 903-488-9850	Conditions of Approval Attached

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-45672	97869	SWD; Devonian-Silurian

Property Code	Property Name	Well Number
	McDONALD SOUTH SWD	1

OGRID No.	Operator Name	Elevation
296278	PROBITY SWD, LLC.	2909'

Surface Location

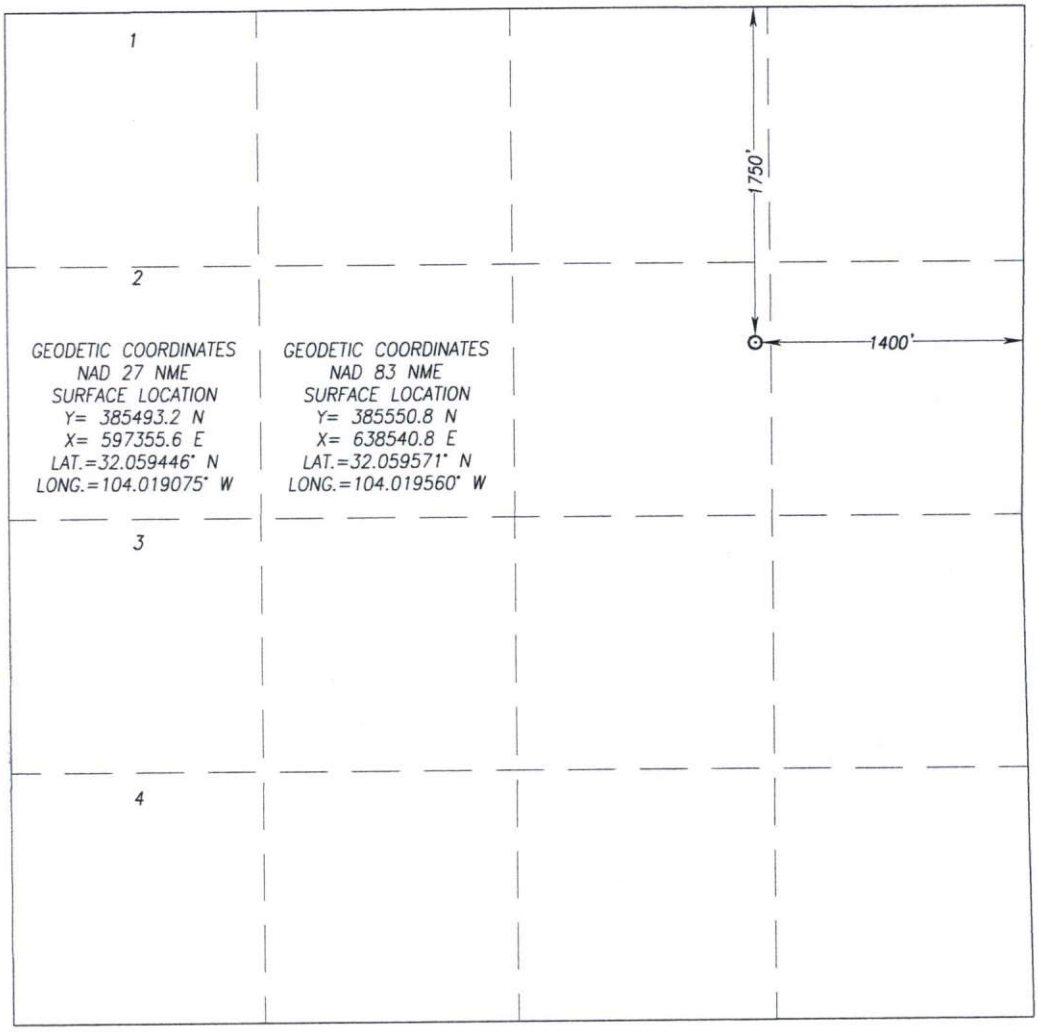
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	7	26-S	29-E		1750	NORTH	1400	EAST	EDDY

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.

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.

Signature — Date: 1/10/2019

Ben Stone
Printed Name

ben@sosconsulting.us
E-mail Address

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, 2018
Date of Survey

Signature & Seal of Professional Surveyor:

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

12/27/2018

Certificate Number: Gary G. Eidson 12641; Ronald J. Eidson 3239

LSL — JWSC W.O.: 18.11.1317

Probity SWD, LLC
McDonald South SWD Well No.1
1750' FNL & 1400' FEL
Section 7, Twp 26-S, Rng 29-E
Eddy County, New Mexico

PLEASE NOTE – SPECIAL CONSIDERATIONS

This C-101 is being submitted to reinstate or otherwise maintain the existing API number. The original APD expired January 31, 2021

Nothing has changed – as instructed by OCD Engineering, this C-101 is being submitted only to reactivate the API and well file information.

The existing permit, SWD-1879, has recently been extended making the new expiration date August 13, 2022.

Probity SWD, LLC

McDonald South SWD Well No.1
1750' FNL & 1400' FEL
Section 7, Twp 26-S, Rng 29-E
Eddy County, New Mexico

Well Program - New Drill

Objective: Drill new well for commercial salt water disposal into the Devonian and Silurian; mudlogging and e-logging to determine final depths.

1. **Geologic Information** - Devonian Formation

The Devonian and Silurian both consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are present within the subject formations in the area. Depth control data was inferred from deep wells to the north, south and east. If the base of Devonian and top of Silurian and/or Ordovician rocks come in as expected the well will only be drilled deep enough for adequate logging rathole.

Estimated Formation Tops:

B/Fresh Water	250’
Salado	275’
B/Salt	2750’
Delaware Sand	3000’
Bone Spring	6800’
Wolfcamp	9920’
Strawn	12500’
Morrow	13300’
Woodford Shale	14784’
Devonian	15066’
Silurian TD	15700’
Ellenburger (est.)	16900’

2. **Drilling Procedure**

a. MIRU drilling rig and associated equipment. Set up H_2S wind direction indicators; brief all personnel on Emergency Evacuation Routes.
b. All contractors conduct safety meeting prior to current task. All equipment inspected daily. Repair / replace as required.
c. Well spud operations commence.
d. Mud logger monitoring returns; cuttings & waste hauled to specified facility. (R360, Eddy County or Sundance, Lea County)
e. After surface casing set/drilled; if H_2S levels >20ppm detected, implement H_2S Plan accordingly. (e.g., cease operations, shut in well, employ H_2S safety trailer & personnel safety devices, install flare line, etc. - refer to plan.)
f. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
g. Sundry forms filed as needed - casing, cement, etc. - operations continue to completion.

Well Program - New Drill (cont.)

3. **Casing program** - Casing designed as follows:

STRING	HOLE SZ	DEPTH	CSG SZ	COND	WT/GRD	CLLPS/BRS	TNSN
						(Minimum Safety Factors)	
Surface	26.5"	0-550'	20.0"	New	94.0 lb. J/K-55	1.125/1.1	1.8
Intermediate	17.5"	0-3200'	13.375"	New	68.0 lb. K-55	1.125/1.1	1.8
2nd Inter	12.25"	0-11,100'	9.625"	New	53.5 lb. P-110	1.125/1.1	1.8
Prod/ Liner*	8.5"	10,800'-15,100'	7.625"	New	39.0 lb. P-110	1.125/1.1	1.8
Openhole*	6.5" hole	15,100'-15,700'	OH	n/a	n/a	n/a	n/a

Notes:

- ✓ On both Intermediate casing strings, the cement will be designed to circulate to surface. Both strings will have cement bond logs run (radial, CET or equivalent) to surface.
- ✓ While running all casing strings, the pipe will be kept a minimum of 1/3 full at all times to avoid approaching the collapse pressure of casing.
- ✓ Based on mudlogging and e-logs, 7.625" casing shoe is expected to be set at 15,100'. TD may be from 15,650' to 15,700' as determined by logging and suitable porosity has been exposed. IN ANY EVENT, maximum openhole interval would be from 15,100' to 15,700' and sundry notice will document such events and a C-105 completion report filed within 60 days.

4. **Cementing Program:**

Surface – LEAD Slurry: 1330 sacks of Class C containing 4% gel + 2% CaCl2 + .4 pps defoamer + .125 pps cello flake + 3 pps Koal Seal. Weight 13.7 ppg, yield 1.68 ft3/sack; TAIL Slurry: 315 sacks of Class C Neet containing 2% CaCl2. Weight 14.8 ppg, yield 1.34 ft3/sack; 100% excess, circulate to surface.

1st Intermediate – LEAD Slurry: 1,350 sacks of Class C containing 4% gel + .4 pps defoamer + .125 pps cello flake + 5% NaCl. Weight 13.2 ppg, yield 1.83 ft3/sack; TAIL Slurry: 265 sacks of Class C Neet. Weight 14.8 ppg, yield 1.32 ft3/sack; 50% excess, circulate to surface.

Production – LEAD Slurry: 1,400 sacks of Class H containing 10% gel + .4 pps defoamer + .125 pps cello flake + 1 pps Koal Seal + 5% NaCL. Weight 11.9 ppg, yield 2.473 ft3/sack; TAIL Slurry: 545 sacks of Class H containing 2% retarder + .2 pps defoamer. Weight 15.6 ppg, yield 1.18 ft3/sack; 30% excess, circulate to surface.

Liner – Slurry: 400 sacks of Class H containing .3% retarder + .7% fluid loss additive + .2% dispersant + .4 pps defoamer +.1% Anti-Settling agent. Weight 15.2 ppg, yield 1.32 ft3/sack. 30% excess; TOC calculated @ Top of Liner 9,300'.

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described NMOCD Rules and Regulations and API RP 53, Section 17. Minimum working pressure of the BOP and related equipment required for the drilling shall be 10000 psi. The NMOCD Artesia district office shall be notified a minimum of 4 hours in advance for a representative to witness BOP pressure tests. The test shall be performed by an independent service

Well Program - New Drill (cont.)

company utilizing a test plug (no cup or J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the OCD district office. Test shall be conducted at:

a. Installation;
b. after equipment or configuration changes;
c. at 30 days from any previous test, and;
d. anytime operations warrant, such as well conditions

6. **Mud Program & Monitoring** - Mud will be balanced for all operations as follows:

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0-800'	FW Spud Mud	8.5-9.2	70-40	20	12	NC	10.0
800'-3200'	Brine Water	9.8-10.2	28-32	NC	NC	NC	10.0
3200'-11,100'	FW/Gel	8.7-9.0	28-32	NC	NC	NC	9.5-10.5
11,500'-15,100'	XCD Brine Mud	11.0-12.5	45-48	20	10	<5	9.5-10.5
15,100'-15,700'	FW Mud	8.4-8.6	28-30	NC	NC	NC	9.5-10.5

Mud and all cuttings monitored w/ cuttings recovered for disposal. Returns shall be visually and electronically monitored. In the event of H_2S, mud shall be adjusted appropriately by weight and H_2S scavengers.

7. **Auxiliary Well Control and Monitoring** – Hydraulic remote BOP operation, mudlogging to monitor returns.

8. **H_2S Safety** - This well and related facilities are not expected to have H_2S releases. However, there may be H_2S in the area. There are no private residences or pubic facilities in the area but a contingency plan has been developed. Probity SWD, LLC will have a company representative available to personnel throughout all operations. If H_2S levels greater than 10ppm are detected or suspected, the Probity SWD H_2S Contingency Plan will be implemented at the appropriate level.

H2S Safety - There is a low risk of H_2S in this area. The operator will comply with the provisions of NMAC 19.15.11 and BLM Onshore Oil and Gas Order #6.

a) Monitoring - all personnel will wear monitoring devices.

b) Warning Sign - a highly visible H_2S warning sign will be placed for obvious viewing at the vehicular entrance point onto location.

c) Wind Detection - two (2) wind direction socks will be placed on location.

d) Communications - will be via cellular phones and/or radios located within reach of the driller, the rig floor and safety trailer when applicable.

e) Alarms - will be located at the rig floor, circulating pump / reverse unit area and the flareline and will be set for visual (red flashing light) at 15 ppm and visual and audible (115 decibel siren) at 20 ppm.

f) Mud program - If H_2S levels require, proper mud weight, safe drilling practices and H_2S scavengers will minimize potential hazards.

Well Program - New Drill (cont.)

g) Metallurgy - all tublars, pressure control equipment, flowlines, valves, manifolds and related equipment will be rated for H_2S service if required.

The Probity SWD, LLC H_2S Contingency Plan will be implemented if levels greater than 10ppm H_2S are detected.

9. **Logging, Coring and Testing** – Probity SWD, LLC expects to run;

a. Mud logging through the interval will ensure the target interval remains Devonian and Silurian.
b. CBL (Radial, CET or equivalent) on both intermediate casing strings.
c. Standard porosity log suite from TD to approximately 8,500'.
d. No corings or drill tests will be conducted. (The well may potentially be step rate tested in the future if additional injection pressures are required.)

10. **Potential Hazards** - No abnormal pressures or temperatures are expected.

No loss of circulation is expected to occur with the exception of drilling into the target disposal zone. All personnel will be familiar with the safe operation of the equipment being used to drill this well.

The maximum anticipated bottom-hole pressure is 7200 psi and the maximum anticipated bottom-hole temperature is 190° F.

11. **Waste Management** - All drill cuttings and other wastes associated with and drilling operations will be transported to the Lea County Sundance facility (or alternate), permitted by the Environmental Bureau of the New Mexico Oil Conservation Division.

12. **Anticipated Start Date** - Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take six to seven weeks. Installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment. At the time of this submittal, and subject to the availability of the drilling contractor, the anticipated start date is:

February 15, 2022.

13. **Configure for Salt Water Disposal** – Subsequent to SWD permit approval from OCD and prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per BLM and OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity. Anticipated daily maximum volume is 25,000 bpd and average of 17,500 bpd at a maximum surface injection pressure of 3020 psi (0.2 psi/ft to uppermost injection interval, i.e., casing shoe). If satisfactory disposals rates cannot be achieved at default pressure of .2 psi/ft, Probity SWD, LLC will conduct a step-rate test and apply for an injection pressure increase 50 psi below parting pressure.

Probity SWD, LLC
McDonald South SWD Well No.1
1750' FNL & 1400' FEL
Section 7, Twp 26-S, Rng 29-E
Eddy County, New Mexico

McVay Rig #2
Well Control Plan

Well Control Procedures

Component and Preventer Compatibility Table

Component	*OD*	*Preventer*	*WP*
Drill Pipe	5"	Upper VBR: 4"-7" Lower: 5" fixed	10M
Heavyweight Drill Pipe	5"	Upper VBR: 4"-7" Lower: 5" fixed	10M
Drill Collars & MWD Tools		Upper VBR: 4"-7"	10M
Mud Motor	6 1/2"	Upper VBR: 4"-7"	10M
Production Casing	5 1/2"	Upper VBR: 4"-7"	10M
All	0-13 5/8"	Annular	5M
Open Hole		Blind Rams	10M

1. *General Procedures While Drilling:*

a. Sound alarm - alert crew
b. Space out drill string
c. Shut down pumps and stop rotary
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and Probity company representative
i. Call Probity engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

2. *General Procedures While Tripping:*

a. Sound alarm - alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and Probity company representative

McVay Rig #2
Well Control Plan (pg.2)

i. Call Probity engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

3. *General Procedures While Running Casing:*

a. Sound alarm - alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and Probity company representative
i. Call Probity engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

4. *General Procedures With No Pipe in Hole (Open Hole):*

a. Sound alarm - alert crew
b. Open HCR
c. Shut well in with blind rams
d. Close choke
e. Confirm shut in
f. Notify rig manager and Probity company representative
g. Call Probity engineer
h. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
i. Regroup, identify forward plan

5. ***General Procedures While Pulling BHL Through BOP Stack:***

l. Prior to pulling last joint of drill pipe through stack, perform flow check and if flowing:
a. Sound alarm - alert crew
b. Stab full opening safety valve and close
c. Space out drill string with tool joint just beneath upper pipe ram
d. Open HCR
e. Shut well in utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and Probity company representative

McVay Rig #2
Well Control Plan (pg.3)

i. Call Probity engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

2. With BHL in the BOP stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm - alert crew
    b. Stab full opening safety valve and close
    c. Space out drill string with tool joint just beneath upper pipe ram
    d. Open HCR
    e. Shut well in utilizing upper VBRs
    f. Close choke
    g. Confirm shut in
    h. Notify rig manager and Probity company representative
    i. Call Probity engineer
    j. Read and record:
        i. Shut in drill pressure and shut in casing pressure
        ii. Pit gain
        iii. Time
    k. Regroup, identify forward plan

3. With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately available
    a. Sound alarm - alert crew
    b. If possible to pick up high enough, pull string clear of the stack and follow ***Open Hole*** scenario
    c. If impossible to pick up high enough to pull the string clear of the stack:
        i. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close
        ii. Space out drill string with tool joint just beneath the upper pipe ram
        iii. Open HCR
        iv. Shut in utilizing upper VBRs
        v. Close choke
        vi. Confirm shut in
        vii. Notify rig manager and Probity company representative
        viii. Read and record:
            1. Shut in drill pipe pressure and shut in casing pressure
            2. Pit gain
            3. Time
            d. Regroup and identify forward plan

If annular is used to shut in well and pressure build to or is expected to get to 50% of Rated Working Pressure (RWP), confirm space-out and swap to upper VBRs for shut in.

WELL SCHEMATIC - PROPOSED
McDonald South SWD Well No.1

API 30-015-xxxxx

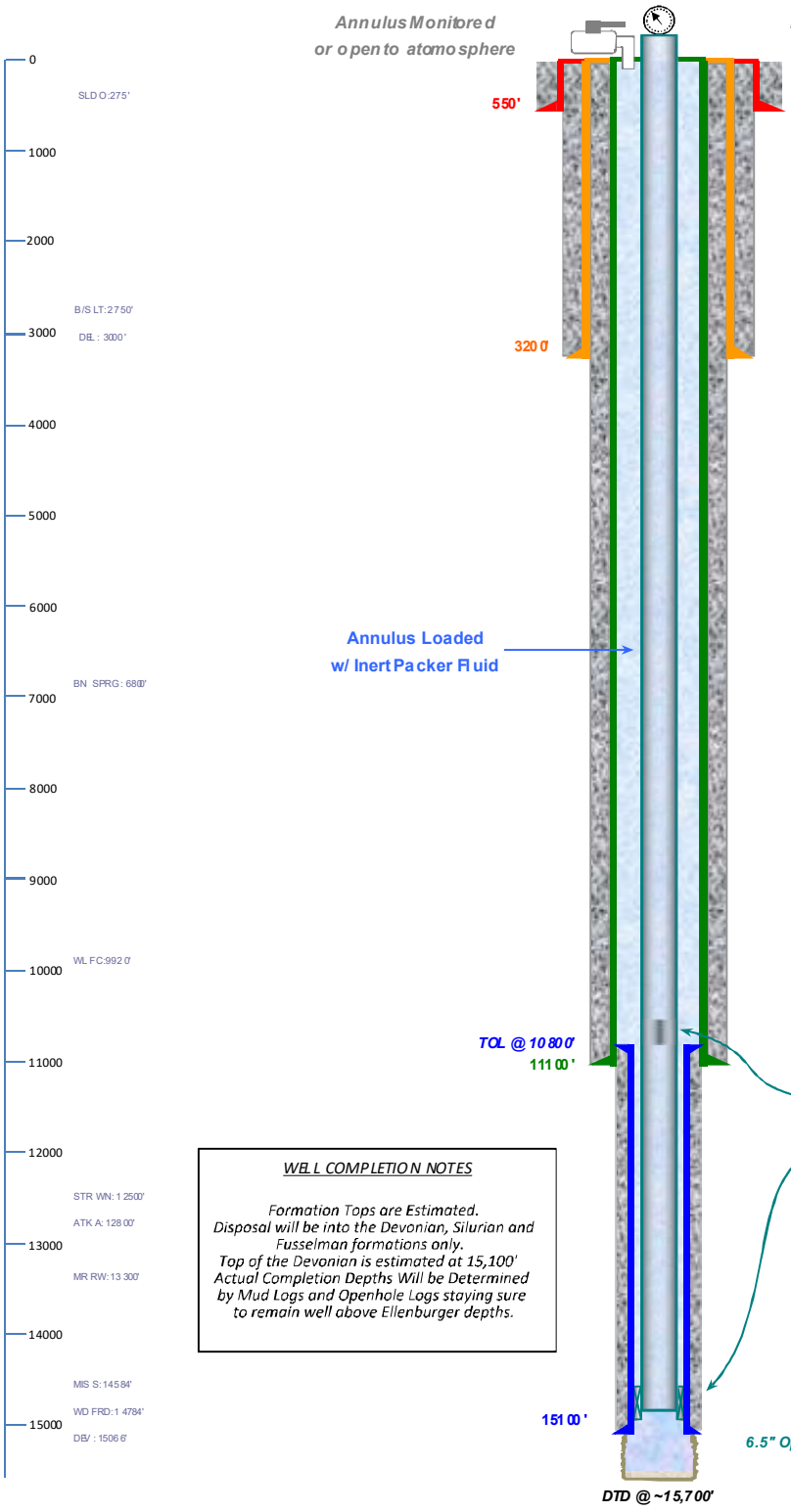
1750' FNL & 1400' FEL, SEC. 7-T26S-R29E
EDDY COUNTY, NEW MEXICO

Proposed: SWD; Devonian-Silurian-Fusselman

Spud Date: 2/15/2022
SWD Config Dt: 4/01/2022

Annulus Monitored or open to atomosphere

Injection Pressure Regulated and Volumes Reported
3020 psi Max. Surface (0.2 psi per foot)



Surface Casing
20.0", 94.0# J-55 Csg. (26.0" Hole) @ 550'
1645 sx - Circulate to Surface

Intermediate Casing
13.375", 68.0# Csg. (17.5" Hole) @ 3200'
1615 sx - Circulate to Surface

Annulus Loaded w/ Inert Packer Fluid

Drill and set casing as designed w/ all strings cemented to surface. Install 7.625" liner @ ~15,100 w/ 200 sx to TOL. Drill 6.5" openhole to approx. 15,700' TD w/ mudlog for interval/ formation verification. Acidize formation; run 5.5" (5.0" FJ inside liner) injection TBG on PKR set at 15,000'.+ Conduct OCD witnessed MIT. Well ready for injection upon completion of surface facilities.

Production Casing
9.625", 53.5# P-110 Csg. (12.25" Hole) @ 11100'
1945 sx - Staged; Circulate to Surface
(DV @6400')

Split String Tubing Transition ~10,740'
5.5" to liner w/ 5.0" Flush Joint inside liner
IPC Tubing set in PKR ~ 15,000'+
(Within 100' of Uppermost Disposal Interval)

Liner Casing
7.625", 39.0# P-110 Csg (8.5" Hole) 10,800' to 15,100'
400 sx Cls H - TOC @ Top of LNR

6.5" Openhole Interval: 15,100' to 15,700' (Maximum)

WELL COMPLETION NOTES

Formation Tops are Estimated.
Disposal will be into the Devonian, Silurian and Fusselman formations only.
Top of the Devonian is estimated at 15,100'
Actual Completion Depths Will be Determined by Mud Logs and Openhole Logs staying sure to remain well above Ellenburger depths.

Drawn by: Ben Stone, 12/18/2018

HYDROGEN SULFIDE CONTINGENCY PLAN

POLICY OF

PROBITY SWD, LLC

FOR OPERATIONS IN SOUTHEAST NEW MEXICO

MUST BE REVIEWED BY ALL PERSONNEL
PRIOR TO COMMENCEMENT OF OPERATIONS

(Revised August 2021)

SCOPE

THIS CONTINGENCY PLAN ESTABLISHES GUIDELINES FOR ALL COMPANY AND CONTRACTOR PERSONNEL WHO'S WORK ACTIVITIES MAY INVOLVE EXPOSURE TO HYDROGEN SULFIDE (H2S) GAS. GUIDELINES ADDRESSING PUBLIC SAFETY ARE INCLUDED.

OBJECTIVE

1. PREVENT ANY AND ALL ACCIDENTS AND PREVENT THE UNCONTROLLED RELEASE OF HYDROGEN SULFIDE INTO THE ATMOSPHERE.

2. PROVIDE PROPER PROCEDURES TO HANDLE EMERGENCIES AND POSSIBLE EVACUATION.

3. PROVIDE IMMEDIATE AND ADEQUATE MEDICAL ATTENTION SHOULD AN INJURY OCCUR.

COMPLIANCE

THIS PLAN COMPLIES WITH NEW MEXICO OIL CONSERVATION DIVISION RULES AND REGULATIONS PER 19.15.11.9 NMAC (December 2008), API RP49 (May 2001).

IMPLEMENTATION

THIS PLAN WITH ALL DETAILS IS TO BE FULLY IMPLEMENTED BEFORE OPERATIONS COMMENCE PURSUANT TO THE CONDITION BEING:

NORMAL / LOW CONDITIONS: KNOWN H2S ***IS AT OR LESS THAN 10 PPM.***
HIGH RISK CONDITIONS: KNOWN H2S ***MAY APPROACH OR BE MORE THAN 100 PPM.***

ACTIVATE EMERGENCY RESPONSE PLAN: *WHEN A RELEASE MAY CREATE AN H2S CONCENTRATION OF* ***MORE THAN 100 PPM IN A PUBLIC AREA, 500 PPM AT A PUBLIC ROAD OR 100 PPM 3000 FEET FROM THE SITE OF RELEASE.***

- ***FOR A SPECIFIC PROJECT, APPLICABLE MAPS WILL BE SUBMITTED FOR THE LOCATION TO DETAIL MEETING PLACES, EVACUATION ROUTES AND ROAD CONTROL MEASURES AS APPROPRIATE.***
- ***THE COMPANY REPRESNTATIVE OR DESIGNEE SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THIS PLAN AND IN COMPLETE COMMAND DURING ANY EMERGENCY.***

OVERVIEW OF PLAN

APPENDICES

I. PERSONNEL RESPONSIBILITY

COMPANY FOREMAN / DESIGNATED PERSONNEL	SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THIS PLAN. SHALL BE IN COMPLETE COMMAND DURING ANY EMERGENCY. SHALL DESIGNATE A BACK-UP.
ALL PERSONNEL	1. ON ALARM, DON ESCAPE UNIT AND REPORT IN UP WIND BRIEFING AREA. 2. CHECK STATUS OF PERSONNEL (BUDDY SYSTEM). 3. SECURE BREATHING EQUIPMENT. 4. AWAIT ORDERS FROM SUPERVISOR.
DRILLING FOREMAN / RIG OPERATOR	1. REPORT TO UP WIND BRIEFING AREA. 2. DON BREATHING EQUIPMENT AND RETURN TO POINT OF RELEASE WITH TOOL PUSHER OR DRILLER (BUDDY SYSTEM). 3. DETERMINE H2S CONCENTRATIONS. 4. ASSESS SITUATION AND TAKE CONTROL MEASURES.
TOOL PUSHER	1. REPORT TO UP WIND SAFETY BRIEFING AREA. 2. DON BREATHING EQUIPMENT AND RETURN TO POINT OF RELEASE WITH DRILLING FOREMAN OR DRILLER (BUDDY SYSTEM). 3. DETERMINE H2S CONCENTRATION. 4. ASSESS SITUATION AND TAKE CONTROL MEASURES.
DRILLER	1. DON ESCAPE UNIT. 2. CHECK MONITOR FOR POINT OF RELEASE. 3. REPORT TO BRIEFING AREA. 4. CHECK STATUS OF PERSONNEL (IN AN ATTEMPT TO RESCUE, USE THE BUDDY SYSTEM). 5. ASSIGNS LEAST ESSENTIAL PERSON TO NOTIFY DRILLING FOREMAN AND TOOL PUSHER BY QUICKEST MEANS IN CASE OF THEIR ABSENCE. 6. ASSUMES THE RESPONSIBILITIES OF THE DRILLING FORMAN AND TOOL PUSHER UNTIL THEY ARRIVE SHOULD THEY BE ABSENT.
DERRICK MAN FLOOR MAN #1 FLOOR MAN #2	WILL REMAIN IN SAFETY BRIEFING AREA UNTIL INSTRUCTED BY SUPERVISOR.
MUD ENGINEER	1. REPORT TO BRIEFING AREA. 2. WHEN INSTRUCTED, BEGIN CHECK OF MUD FOR PH AND H2S LEVEL.

SAFETY PERSONNEL	I. MASK UP AND CHECK STATUS OF ALL PERSONNEL AND SECURE OPERATIONS AS INSTRUCTED BY DRILLING FOREMAN AND REPORT TO BRIEFING AREA.

2. NORMAL / LOW H2S CONDITION

CONDITIONS ARE CONSIDERED NORMAL WHEN THERE ARE REASONABLE EXPECTATIONS THAT NONE OR LOW CONCENTRATIONS OF H2S WILL BE ENCOUNTERED DURING ALL PHASES OF THE CURRENT OPERATIONS. (SEE APPENDIX 'C', THRESHOLDS, PRGPH.3)

1. LOW H2S - LEVELS ARE KNOWN TO CONSISTENTLY BE AT OR **BELOW 10 PPM**.

2. NORMAL CONDIDTION EXPECTATIONS ARE BASED ON HISTORICAL EVIDENCE OF THE AREA, GEOLOGIC FORMATIONS AND TYPE OF OPERATIONS WITH REGARD TO FLUIDS BEING UTILIZED FOR DRILLIING AND/OR WORKOVER TASKS.

3. OPERATING IN A NORMAL CONDITION DOES NOT RELIEVE ANY PERSONNEL OF THEIR RESPONSIBILITY, NOR SHOULD IT LESSEN THEIR ATTENTION TO KNOWING THE SAFETY PROCEDURES THAT WILL IMMEDIATELY BE IMPLEMENTED UPON ANY EVIDENCE OF CHANGING H2S LEVELS.

4. ALL PERSONNEL WORKING ON SITE WILL DON PERSONAL H2S DETECTORS.

5. A WINDSOCK OR OTHER WIND DIRECTION INDICATOR WILL BE ON LOCATION AND EASILY VISIBLE FROM ALL AREAS.

6. ALL PERSONNEL WILL HAVE A CURRENT H2S TRAINING CARD.

7. ALL PERSONNEL WILL HAVE VIEWED THIS H2S CONTINGENCY PLAN.

3. EMERGENCY RESPONSE PROCEDURES

NOTICE: FOR ALL SITES AND OPERATIONS WHERE REASONABLE EXPECTATIONS ARE THAT H2S LEVELS MAY BE **ABOVE 100 PPM**, ALL SERVICE COMPANY PERSONNEL HAVE READ THIS H2S CONTINGENCY PLAN AND WILL VERBALLY INDICATE STRICT ADHERENCE TO WITH ALL PROCEDURES ESPECIALLY WITH REGARD TO THEIR JOB TITLE AND DUTIES ON THIS LOCATION.

IMMEDIATE PROCEDURES

A. IN THE EVENT OF ANY EVIDENCE OF H2S LEVEL **ABOVE 100 PPM**, (OR IS APPROACHING 100 PPM) TAKE THE FOLLOWING STEPS:

1. SECURE BREATHING EQUIPMENT.

2. ORDER NON-ESSENTIAL PERSONNEL OUT OF DANGER ZONE.

3. TAKE STEPS TO DETERMINE IF THE H2S LEVEL CAN BE CORRECTED OR SUPPRESSED AND, IF SO, PROCEED IN NORMAL OPERATION.

B. IF UNCONTROLLABLE CONDITIONS OCCUR:

1. TAKE STEPS TO PROTECT AND/OR REMOVE ANY PUBLIC IN THE DOWN-WIND AREA FROM THE RIG - PARTIAL EVACUATION AND ISOLATION. NOTIFY NECESSARY PUBLIC SAFETY PERSONNEL AND THE BUREAU OF LAND MANAGEMENT OF THE SITUATION.

2. REMOVE ALL PERSONNEL TO SAFE BREATHING AREA.

3. NOTIFY PUBLIC SAFETY PERSONNEL TO SAFE BREATHING AREA.

4. PROCEED WITH BEST PLAN (AT THE TIME) TO REGAIN CONTROL OF THE WELL. MAINTAIN TIGHT SECURITY AND SAFETY PROCEDURES.

EMERGENCY ACTIONS

WELL BLOWOUT - IF EMERGENCY

1. EVACUATE ALL PERSONNEL IF POSSIBLE.

2. IF SOUR GAS - EVACUATE RIG PERSONNEL.

3. IF SOUR GAS - EVACUATE PUBLIC WITHIN 3000 FT RADIUS OF EXPOSURE.

4. DON SCBA AND RESCUE.

5. CALL 911 FOR EMERGENCY HELP (FIRE DEPT AND AMBULANCE) AND NOTIFY COMPANY FOREMAN / DESIGNATED PERSONNEL.

6. GIVE FIRST AID.

PERSON DOWN LOCATION / FACILITY

1. IF IMMEDIATELY POSSIBLE, CONTACT 911. GIVE LOCATION AND WAIT FOR CONFIRMATION.

2. DON SCBA AND RESCUE.

AS APPLICABLE FOR TODAY'S CURRENT OPERATIONS / EVENTS

TAKING A KICK

WHEN TAKING A KICK DURING AN H2S EMERGENCY, ALL PERSONNEL WILL FOLLOW STANDARD BOP PROCEDURES AFTER REPORTING TO ·BRIEFING AREA AND MASKING UP.

OPEN-HOLE LOGGING

ALL UNNECESSARY PERSONNEL OFF FLOOR. DRILLING FOREMAN AND SAFETY PERSONNEL SHOULD MONITOR CONDITION, ADVISE STATUS AND DETERMINE NEED FOR USE OF AID EQUIPMENT.

RUNNING CASING OR PLUGGING

FOLLOWING THE SAME PROCEDURE AS ABOVE. DRILLING FOREMAN AND SAFETY PERSONNEL SHOULD DETERMINE IF ALL PERSONNEL HAVE ACCESS TO PROTECTIVE EQUIPMENT.

WELL OUT OF CONTROL

THE DECISION TO IGNITE THE WELL IS THE RESPONSIBILITY OF COMPANY FOREMAN. IN THE EVENT HE IS INCAPACITATED, IT BECOMES THE RESPONSIBILITY OF THE CONTRACT RIG TOOL PUSHER. THE DECISIONSHOULD BE MADE ONLY AS A LAST RESORT AND IN A SITUATION WHEREIT IS CLEAR THAT:

1. HUMAN LIFE AND PROPERTY ARE ENDANGERED.

2. THERE IS NO HOPE CONTROLLING THE BLOWOUT UNDER THE PREVAILING CONDITIONS AT THE WELL.

NOTIFY THE DISTRICT OFFICE IF TIME PERMITS,
BUT DO NOT DELAY IF HUMAN LIFE IS IN DANGER.

INITIATE EVACUATION PLAN.

IGNITION PROCEDURES

INSTRUCTIONS FOR IGNITING THE WELL

1. TWO PEOPLE ARE REQUIRED FOR THE ACTUAL IGNITING OPERATION. THEY MUST WEAR SELF-CONTAINED BREATHING APPARATUS (SCBA) UNITS AND HAVE SAFETY ROPE ATTACHED. ONE MAN (TOOL PUSHER OR SAFETY ENGINEER) WILL CHECK THE ATMOSPHERE FOR EXPLOSIVE GASES WITH THE EXPLOSIMETER. THE OTHER MAN (DRILLING FOREMAN) IS RESPONSIBLE FOR IGNITING THE WELL.

2. PRIMARY METHOD TO IGNITE: 25 MM FLARE GUN WITH RANGE OF APPROXIMATELY 500 FEET.

3. IGNITE UP WIND AND DO NOT APPROACH ANY CLOSER THAN IS WARRANTED.

4. SELECT THE IGNITION SITE BEST FOR PROTECTION, AND WHICH OFFERS AN EASY ESCAPE ROUTE.

5. BEFORE FIRING, CHECK FOR PRESENCE OF COMBUSTIBLE GAS.

6. AFTER LIGHTING, CONTINUE EMERGENCY ACTION AND PROCEDURE AS BEFORE.

7. ALL UNASSIGNED PERSONNEL WILL LIMIT THEIR ACTIONS TO THOSE DIRECTED BY THE DRILLING FOREMAN.

REMEMBER: AFTER 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.

4. HIGH RISK / EMERGENCY EQUIPMENT REQUIREMENTS

A. SIGNS

1. ONE SIGN LOCATED AT LOCATION ENTRANCE WITH THE FOLLOWING LANGUAGE:

(LEASE) CAUTION - POTENTIAL POISON GAS HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION

B. WINDSOCK- WIND STREAMERS

1. ONE 36" (IN LENGTH) WINDSOCK LOCATED AT PROTECTION CENTER, AT HEIGHT VISIBLE FROM RIG FLOOR.

2. ONE 36" (IN LENGTH) WINDSOCK LOCATED AT HEIGHT VISIBLE FROM PIT AREAS.

C. HYDROGEN SULFIDE DETECTOR AND ALARMS

1. H2S MONITORS WITH ALARMS WILL BE LOCATED ON THE RIG FLOOR, AT THE BELL NIPPLE, AND AT THE FLOW LINE. ***THESE MONITORS WILL BE SET TO ALARM AT 15 PPM WITH RED LIGHT, AND TO ALARM AT 20 PPM WITH RED LIGHT AND AUDIBLE ALARM.***

2. HAND OPERATED DETECTORS WITH TUBES.

3. H2S MONITOR TESTER.

D. CONDITION FLAGS

1. ONE EACH OF ORANGE, YELLOW, AND RED CONDITION FLAGS TO BE DISPLAYED TO DENOTE CONDITIONS:

GREEN - NORMAL CONDITIONS
YELLOW - POTENTIAL DANGER
RED - DANGER, H2S PRESENT

2. CONDITION FLAG SHALL BE POSTED AT LOCATION SIGN ENTRANCE.

E. AUXILIARY RESCUE EQUIPMENT

1. STRETCHER

2. 100' LENGTH OF 5/8" NYLON ROPE.

F. MUD INSPECTION DEVICES - GARRETT GAS TRAIN OR HACH TESTER FOR INSPECTION OF SULFIDE CONCENTRATION IN MUD SYSTEM.

G. FIRE EXTINGUISHER - ADEQUATE FIRE EXTINGUISHERS SHALL BE LOCATED AT STRATEGIC LOCATIONS.

H. BLOW OUT PREVENTION EQUIPMENT - THE WELL SHALL HAVE HYDRAULIC BOP EQUIPMENT FOR THE ANTICIPATED BOTTOM HOLE PRESSURE. EQUIPMENT IS TO BE TESTED ON INSTALLATION.

I. COMBUSTIBLE GAS DETECTOR - THERE SHALL BE ONE COMBUSTIBLE GAS DETECTOR ON LOCATION AT ALL TIMES.

J. BOP TESTING - BOP AND CHOKE LINE AND KILL LINE WILL BE TESTED.

K. AUDIO SYSTEM - RADIO COMMUNICATION WILL BE AVAILABLE AT THE ***RIG, RIG FLOOR*** OR ***TRAILER*** AND ***VEHICLES***.

L. SPECIAL CONTROL EQUIPMENT - MAKE SURE OF HYDRAULIC BOP EQUIPMENT WITH REMOTE CONTROL ON GROUND AND ROTATING HEAD.

5. EMERGENCY TELEPHONE NUMBERS

(Revised August 2021)

CONTACT PARTY	OFFICE
PROBITY SWD, LLC	
G.A. BABER	**CELL: 575-318-7521**
MIDLAND OFFICE	**432-870-1122**
STEVE JETER	
STATE POLICE	
ROSWELL, NM	**575-827-9312**
EDDY COUNTY	**575-885-3138**
SHERIFF	
EDDY COUNTY	**575-887-7551**
LEA COUNTY	**575-396-3611**
EMERGENCY MEDICAL	
EDDY COUNTY	**911 OR 575-746-2701**
LEA COUNTY	**911 OR 575-394-3258**
EMERGENCY RESPONSE	
EDDY COUNTY	**575-746-9620**
LEA COUNTY	**575 396-8602**

CONTACT PARTY (cont.)	OFFICE
FIRE DEPARTMENTS	
ARTESIA	575-746-5051
CARLSBAD	575-682-5450
HOBBS	575-397-9308
EUNICE	575-394-3258
JAL FIRE DEPT.	575-395-2221
POLICE DEPARTMENTS	
ARTESIA	575-746-5000
CARLSBAD	575-885-2111
LOCO HILLS	575-677-2349
HOBBS	575-397-3365
EUNICE	575-394-0112
JAL	575-395-2501
CALLAWAY SAFETY EDDY & LEA COUNTIES	575-392-2973
WILD WELL CONTROL ODESSA, TX	OFFICE: 281-784-4700

6. SAFETY BRIEFING

SERVICE COMPANY AND VISITING PERSONNEL

A. EACH SERVICE COMPANY THAT WILL BE ON THIS WELL WILL BE NOTIFIED IF THE ZONE CONTAINS H2S.

B. EACH SERVICE COMPANY MUST PROVIDE FOR THE TRAINING AND EQUIPMENT OF THEIR EMPLOYEES BEFORE THEY ARRIVE AT THE WELL SITE.

C. EACH SERVICE COMPANY WILL BE EXPECTED TO ATTEND A SAFETY BRIEFING.

7. EVACUATION PLAN

GENERAL REQUIREMENTS

EVACUATION ROUTES SHOULD BE ESTABLISHED PRIOR TO SPUDDING EACH WELL AND DISCUSSED WITH ALL RIG PERSONNEL.

H_2S Contingency Plan (continued)

1. DESIGNATED AREA

A. PARKING AND VISITOR AREA: ALL VEHICLES ARE TO BE PARKED AT A PRE-DETERMINED AND SAFE DISTANCE FROM THE WELLHEAD. THIS WILL BE THE DESIGNATED SMOKING AREA.

B. TWO BRIEFING AREAS ON EITHER SIDE OF THE LOCATION AT THE MAXIMUM ALLOWABLE DISTANCE FROM THE WELL BORE SO THEY OFFSET PREVAILING WINDS PERPENDICULARLY, OR AT A 45-DEGREE ANGLE IF WIND DIRECTION TENDS TO SHIFT IN THE AREA.

C. IF A MOVABLE H2S SAFETY TRAILER IS USED, IT SHOULD BE DEPT UPWIND OF EXISTING WINDS. WHEN WIND IS FROM THE PREVAILING DIRECTIONS, BOTH PROTECTION CENTERS SHOULD BE ACCESSIBLE.

2. EVACUATION IMPLEMENTATION AND PUBLIC SAFETY

CONDITIONS ARE SUCH THAT A RELEASE MAY CREATE AN H2S CONCENTRATION OF MORE THAN 100 PPM IN A PUBLIC AREA, 500 PPM AT A PUBLIC ROAD OR 100 PPM 3000 FEET FROM THE SITE OF RELEASE.

TO PROTECT THE PUBLIC FROM HAZARDOUS GAS SITUATIONS ARE AS FOLLOWS:

(NOTE: REFER ALSO TO APPENDIX 'C', POTENTIALLY HAZARDOUS VOLUMES.)

1. WHEN THE COMPANY APPROVED SUPERVISOR (DESIGNATED PERSONNEL, I.E., DRILLING FOREMAN, CONSULTANT, RIG PUSHER, OR DRILLER) DETERMINES THE H2S 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 AREA MAP.

2. COMPANY FOREMAN OR DESIGNATED PERSONNEL WILL NOTIFY LOCAL GOVERNMENT AGENCY THAT A HAZARDOUS CONDITION EXISTS AND EVACUATION NEEDS TO BE IMPLEMENTED.

3. COMPANY SAFETY PERSONNEL THAT HAVE BEEN TRAINED IN THE USE OF H2S DETECTION EQUIPMENT AND SELF-CONTAINED BREATHING EQUIPMENT WILL MONITOR H2S CONCENTRATIONS, WIND DIRECTIONS, AND AREA OF EXPOSURE. THEY WILL DELINEATE THE OUTER PERIMETER OF THE HAZARDOUS GAS AREA. EXTENSION TO THE EVACUATION AREA WILL BE DETERMINED FROM INFORMATION GATHERED.

4. LAW ENFORCEMENT PERSONNEL (STATE POLICE, POLICE DEPT., FIRE DEPT., AND SHERIFF'S DEPT.) WILL BE CALLED TO AID IN SETTING UP AND MAINTAINING ROAD BLOCKS. ALSO, THEY WILL AID IN EVACUATION OF THE PUBLIC IF NECESSARY.

IMPORTANT: 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 SAFETY PERSONNEL WILL DETERMINE WHEN THE AREA IS SAFE FOR RE-ENTRY.

FINAL WORD

IT IS THE RESPONSIBILITY OF EVERY CONTRACTOR EMPLOYED BY PROBITY SWD, LLC TO HAVE ALL THIER EMPLOYEES CERTIFIED IN H_2S SAFETY.

ALL PERSONNEL ON A PROBITY SWD, LLC SITE WILL BE REQUIRED TO HAVE ON THEIR PERSON (OR ON SITE) AN H_2S TRAINING CERTIFICATE CARD THAT IS VALID FOR THE CURRENT DATE.

IMPLEMENTATION OF THIS PLAN IS

A MATTER OF LIFE AND DEATH.

APPENDIX 'A'

TRAINING REQUIREMENTS

WHEN WORKING IN AN AREA WHERE ***ANY LEVEL*** OF HYDROGEN SULFIDE GAS (H2S) MIGHT BE ENCOUNTERED, DEFINITE TRAINING REQUIREMENTS MUST BE CARRIED OUT. ALL COMPANIES WILL INSURE THAT ALL PERSONNEL AT THE WELL SITE WILL HAVE HAD ADEQUATE TRAINING IN THE FOLLOWING:

1. HAZARDS AND CHARACTERISTICS OF H2S.
2. PHYSICAL EFFECTS OF HYDROGEN SULFIDE ON THE HUMAN BODY.
3. TOXICITY OF HYDROGEN SULFIDE AND SULFUR DIOXIDE.
4. H2S DETECTION.
5. EMERGENCY RESCUE.
6. RESUSCITATORS.
7. FIRST AID AND ARTIFICIAL RESPIRATION.
8. EFFECTS OF H2S ON METALS.
9. LOCATION SAFETY.

IT IS THE RESPONSIBILITY OF EVERY CONTRACTOR EMPLOYED BY PROBITY SWD, LLC TO HAVE ALL THIER EMPLOYEES CERTIFIED IN H2S SAFETY.

ALL PERSONNEL ON A PROBITY SWD, LLC SITE WILL BE REQUIRED TO HAVE ON THEIR PERSON AN H2S TRAINING CERTIFICATE CARD THAT IS VALID FOR THE CURRENT DATE.

APPENDIX 'A' (continued)

FIRST AID FOR H2S POISONING

DO NOT PANIC - REMAIN CALM - THINK !

1. HOLD YOUR BREATH. (DO NOT INHALE FIRST - JUST STOP BREATHING.)

2. PUT ON BREATHING APPARATUS.

3. REMOVE VICTIM(S) TO FRESH AIR AS QUICKLY AS POSSIBLE. (GO UP-WIND FROM SOURCE OR AT RIGHT ANGLE TO THE WIND - NOT DOWNWIND.)

4. **YELL (!)** ***"SOMEONE CALL 911".***

5. BRIEFLY APPLY CHEST PRESSURE - ARM LIFT METHOD OF ARTIFICIAL RESPIRATION TO CLEAN THE VICTIM'S LUNGS AND TO AVOID INHALING ANY TOXIC GAS DIRECTLY FROM THE VICTIM'S LUNGS.

6. PROVIDE FOR PROMPT TRANSPORTATION TO THE HOSPITAL AND CONTINUE GIVING ARTIFICIAL RESPIRATION IF NEEDED.

7. HOSPITAL(S) OR MEDICAL FACILITIES NEED TO BE INFORMED, BEFORE-HAND, OF THE POSSIBILITY OF H2S GAS POISONING - NO MATTER HOW REMOTE THE POSSIBILITY IS.

8. NOTIFY EMERGENCY ROOM PERSONNEL THAT THE VICTIM(S) HAS BEEN EXPOSED TO H2S GAS.

BESIDES BASIC FIRST AID, EVERYONE ON LOCATION SHOULD HAVE A GOOD WORKING KNOWLEDGE OF ARTIFICIAL RESPIRATION, AS WELL AS FIRST AID FOR EYES AND SKIN CONTACT WITH LIQUID H2S.

EVERYONE NEEDS TO MASTER THESE NECESSARY SKILLS.

APPENDIX 'B'

STATUS CHECK LIST

APPLICABLE TO ALL OPERATIONS WHEN LEVELS ARE EXPECTED THAT APPROACH OR ARE ABOVE 100 PPM H2S.

NOTE: ALL ITEMS ON THIS LIST MUST BE COMPLETED BEFORE DRILLING TO PRODUCTION CASING POINT.

1. SIGN AT LOCATION ENTRANCE.

2. TWO (2) WINDSOCKS LOCATED AS REQUIRED.

3. TWO (2) 30-MINUTE PRESSURE DEMAND AIR PACKS ON LOCATION FOR ALL RIG PERSONNEL AND MUD LOGGERS.

4. AIR PACK INSPECTED FOR READY USE.

5. CASCADE SYSTEM AND HOSE LINE HOOK-UP.

6. CASCADE SYSTEM FOR REFILLING AIR BOTTLES.

7. SAFE BREATHING AREAS SETUP.

8. CONDITION FLAG ON LOCATION AND READY FOR USE.

9. H2S DETECTION SYSTEM HOOKED UP.

10. H2S ALARM SYSTEM HOOKED UP AND READY.

11. OXYGEN RESUSCITATOR ON LOCATION AND TESTED FOR USE.

12. STRETCHER ON LOCATION AT SAFETY TRAILER.

13. 1 - 100' LENGTH OF NYLON ROPE ON LOCATION.

14. ALL RIG CREW AND SUPERVISORS TRAINED AS REQUIRED.

15. ALL OUTSIDE SERVICE CONTRACTORS ADVISED OF POTENTIAL H2S HAZARD ON WELL.

16. NO SMOKING SIGN POSTED.

17. HAND OPERATED H2S DETECTOR WITH TUBES ON LOCATION AND CHECKED BY DATE IS WITHIN CURRENT TIME FRAME.

APPENDIX 'B' (continued)

PROCEDURAL CHECK LIST

PERFORM DURING EACH TOUR:

1. CHECK FIRE EXTINGUISHERS TO SEE THAT THEY HAVE THE PROPER CHARGE.

2. CHECK BREATHING EQUIPMENT TO ENSURE THAT IT HAS NOT BEEN TAMPERED WITH.

3. MAKE SURE ALL THE H2S DETECTION SYSTEM IS OPERATIVE. PERFORM EACH WEEK:

4. CHECK EACH PIECE OF BREATHING EQUIPMENT TO MAKE SURE THAT DEMAND REGULATOR IS WORKING. THIS REQUIRES THAT THE BOTTLE BE OPENED AND THE MASK ASSEMBLY BE PUT ON TIGHT ENOUGH SO THAT WHEN YOU INHALE, YOU RECEIVE AIR.

5. BLOW OUT PREVENTER SKILLS ARE APPROPRIATELY COVERED BY CREW.

6. CHECK SUPPLY PRESSURE ON BOP ACCUMULATOR STAND BY SOURCE.

7. CHECK ALL SCBA UNITS FOR OPERATION:

DEMAND REGULATOR

ESCAPE BOTTLE AIR VOLUMES

SUPPLY BOTTLE OF AIR VOLUME

8. CHECK BREATHING EQUIPMENT MASK ASSEMBLY TO SEE THAT STRAPS ARE LOOSENED AND TURNED BACK, READY TO PUT ON.

9. CHECK PRESSURE ON BREATHING EQUIPMENT AIR BOTTLES TO MAKE SURE THEY ARE CHARGED TO FULL VOLUME.

10. CONFIRM PRESSURE ON ALL SUPPLY AIR BOTTLES.

11. PERFORM BREATHING EQUIPMENT DRILLS WITH ON-SITE PERSONNEL.

12. CHECK THE FOLLOWING FOR AVAILABILITY:

EMERGENCY TELEPHONE LIST

HAND OPERATED H2S DETECTORS AND TUBES

APPENDIX 'C'

GENERAL INFORMATION

TOXIC EFFECTS OF HYDROGEN SULFIDE

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 COLORLESS. IT FORMS AN EXPLOSIVE MIXTURE WITH AIR BETWEEN 4.3 AND 46.0 PERCENT BY VOLUME.

HYDROGEN SULFIDE IS ALMOST AS TOXIC AS HYDROGEN CYANIDE AND IS BETWEEN FIVE AND SIX TIMES MORE TOXIC THAN CARBON MONOXIDE.

TOXICITY DATA FOR HYDROGEN SULFIDE AND VARIOUS OTHER GASES ARE COMPARED IN TABLE I.

PHYSICAL EFFECTS AT VARIOUS HYDROGEN SULFIDE EXPOSURE LEVELS ARE SHOWN IN TABLE II.

TABLE I

TOXICITY OF VARIOUS GASES

COMMON NAME	*CHEMICAL FORMULA*	*SPECIFIC GRAVITY*	*THRESHOLD LIMIT (1)*	*HAZARDOUS LIMIT (2)*	*LETHAL CONCENTRATION (3)*
HYDROGEN SULFIDE	**H2S**	**1.19**	**10 PPM**	**100 PPM/HR**	**600 PPM**
HYDROGEN CYANIDE	**HCN**	**0.94**	**10 PPM**	**150 PPM/HR**	**300 PPM**
SULFUR DIOXIDE	**SO2**	**2.21**	**2 PPM**	**N/A**	**1000 PPM**
CHLORINE	**CL2**	**2.45**	**1 PPM**	**150 PPM/HR**	**1000 PPM**
CARBON MONOXIDE	**CO**	**0.97**	**50 PPM**	**150 PPM/HR**	**1000 PPM**
CARBON DIOXIDE	**CO2**	**1.52**	**5000 PPM**	**5%**	**10%**
METHANE	**CH4**	**0.55**	**90,000 PPM**	**COMBUSTIBLE @ 5% IN AIR**	**N/A**

(1) THRESHOLD LIMIT - CONCENTRATION AT WHICH IT IS BELIEVED THAT ALL WORKERS MAY BE REPEATEDLY EXPOSED DAY AFTER DAY WITHOUT ADVERSE EFFECTS.

(2) HAZARDOUS LIMIT - CONCENTRATION THAT MAY CAUSE DEATH WITH PROLONGED EXPOSURE.

(3) LETHAL CONCENTRATION - CONCENTRATION THAT WILL CAUSE DEATH WITH SHORT-TERM EXPOSURE.

APPENDIX 'C' (continued)

TABLE II

PHYSICAL EFFECTS OF HYDROGEN SULFIDE

CONCENTRATION	*PHYSICAL EFFECTS*
0.001 or 10 PPM	**OBVIOUS AND UNPLEASANT ODOR. SAFE FOR 8 HOURS OF EXPOSURE.**
0.002 or 20 PPM	**MAY STING EYES AND THROAT. MAY CAUSE FLU-LIKE SYMPTOMS.**
0.010 or 100 PPM	**KILLS SMELL IN 3 - 15 MINUTES. STINGS EYES AND THROAT. MAY HAVE SOME DIZZINESS AFTER PROLONGED EXPOSURE.**
0.050 or 500 PPM	**DIZZINESS; BREATHING CEASES IN A FEW MINUTES; NEEDS PROMPT RESUSCITATION. MAY CAUSE LUNG DAMAGE OR DEATH AFTER 4 HOURS EXPOSURE.**
0.070 or 700 PPM	**UNCONSCIOUS QUICKLY; DEATH WILL RESULT IF NOT RESCUED PROMPTLY.**
0.100 or 1000 ppm	**UNCONSCIOUS AT ONCE; FOLLOWED BY DEATH WITHIN MINUTES.**

SCBA'S SHOULD BE WORN WHEN...

A. ANY EMPLOYEE WORKS NEAR THE TOP OR ON TOP OF ANY TANK UNLESS TESTS REVEAL LESS THAN 10 PPM OF H2S.

B. WHEN BREAKING OUT ANY LINE WHERE H2S CAN REASONABLY BE EXPECTED.

C. WHEN SAMPLING AIR IN AREAS TO DETERMINE IF TOXIC CONCENTRATIONS OF H2S EXISTS.

D. WHEN WORKING IN AREAS WHERE OVER 100 PPM H2S HAS BEEN DETECTED.

E. AT ANY TIME THERE IS A DOUBT AS TO THE H2S LEVEL IN THE AREA TO BE ENTERED.

APPENDIX 'C' (continued)

POTENTIALLY HAZARDOUS VOLUMES

THIS IS THE VOLUME OF H2S GAS OF SUCH CONCENTRATION THAT:

1. THE 100-PPM RADIUS OF EXPOSURE (1) INCLUDES A PUBLIC AREA (2);
2. THE 500-PPM RADIUS OF EXPOSURE INCLUDES A PUBLIC ROAD (3);
3. THE 100-PPM RADIUS OF EXPOSURE EXCEEDS 3000 FEET.

(1) RADIUS OF EXPOSURE MEANS THE RADIUS CONSTRUCTED WITH THE POINT OF ESCAPE AS ITS STARTING POINT AND ITS LENGTH.

(2) PUBLIC AREA IS A BUILDING OR STRUCTURE THAT IS NOT ASSOCIATED WITH THE WELL, FACILITY OR OPERATION FOR WHICH THE RADIUS OF EXPOSURE IS BEING CALCULATED AND THAT IS USED AS A DWELLING, OFFICE, PLACE OF BUSINESS, CHURCH, SCHOOL, HOSPITAL OR GOVERNMENT BUILDING, OR A PORTION OF A PARK, CITY, TOWN, VILLAGE OR DESIGNATED SCHOOL BUS STOP OR OTHER SIMILAR AREA WHERE MEMBERS OF THE PUBLIC MAY REASONABLY BE EXPECTED TO BE PRESENT.

(3) PUBLIC ROAD MEANS A FEDERAL, STATE, MUNICIPAL OR COUNTY ROAD OR HIGHWAY.

RADIUS OF EXPOSURE

THE RADIUS OF EXPOSURE IS CALCULATED USING THE FOLLOWING PASQUILL-GIFFORD DERIVED EQUATION (OR BY OTHER SUCH METHOD) AS FOLLOWS:

A. FOR DETERMINING THE 100-PPM RADIUS OF EXPOSURE:

$$X = [(1.589)(\text{H2S CONCENTRATION})(Q)]^{(0.6258)}$$

WHERE "X" IS THE RADIUS OF EXPOSURE IN FEET, THE H2S CONCENTRATION IS THE DECIMAL EQUIVALENT OF THE MOLE OR VOLUME FRACTION OF H2S IN THE GASEOUS MIXTURE;

AND "Q" IS THE ESCAPE RATE EXPRESSED IN CUBIC FEET PER DAY (CORRECTED FOR STANDARD CONDITIONS OF 14.73 PSI ABSOLUTE AND 60 DEGREES FAHRENHEIT)

B. FOR DETERMINING THE 500-PPM RADIUS OF EXPOSURE:

$$X = [(0.4546)(\text{H2S CONCENTRATION})(Q)]^{(0.6258)}$$

WHERE "X" IS THE RADIUS OF EXPOSURE IN FEET, THE H2S CONCENTRATION IS THE DECIMAL EQUIVALENT OF THE MOLE OR VOLUME FRACTION OF H2S IN THE GASEOUS MIXTURE;

AND "Q" IS THE ESCAPE RATE EXPRESSED IN CUBIC FEET PER DAY (CORRECTED FOR STANDARD CONDITIONS OF 14.73 PSI ABSOLUTE AND 60 DEGREES FAHRENHEIT)

C. FOR A WELL BEING DRILLED, COMPLETED, RECOMPLETED, WORKED OVER OR SERVICED IN AN AREA WHERE INSUFFICIENT DATA EXISTS TO CALCULATE A RADIUS OF EXPOSURE BUT WHERE H2S COULD REASONABLY BE EXPECTED TO BE PRESENT IN CONCENTRATIONS IN EXCESS OF 100 PPM IN THE GASEOUS MIXTURE, A 100 PPM RADIUS OF EXPOSURE EQUAL TO 3000 FEET IS ASSUMED.

APPENDIX 'C' (continued)

REGULATORY THRESHOLD

A. DETERMINATION OF H2S CONCENTRATION

1. THE H2S CONCENTRATION IN THE GASEOUS MIXTURE WITHIN WELLS, FACILITIES OR OPERATIONS SHALL BE DETERMINED EITHER BY TESTING, TESTING A REPRESENTATIVE SAMPLE OR USING PROCESS KNOWLEDGE IN LIEU OF TESTING. IF THE PERSON USES A REPRESENTATIVE SAMPLE OR PROCESS KNOWLEDGE, THE CONCENTRATION DERIVED FROM THE REPRESENTATIVE SAMPLE OR PROCESS KNOWLEDGE SHALL BE REASONABLY REPRESENTATIVE OF THE H2S CONCENTRATION WITHIN THE WELL OR FACILITY.

2. THE TESTS USED TO MAKE THE DETERMINATION SHALL BE CONDUCTED IN ACCORDANCE WITH APPLICABLE ASTM OR GPA STANDARDS OR BY STANDARDLY ACCEPTED METHOD.

3. IF A CHANGE OR ALTERATION MAY MATERIALLY INCREASE THE H2S CONCENTRATION IN A WELL, FACILITY OR OPERATION, TESTING SHALL BE CONDUCTED TO MAKE A NEW DETERMINATION.

B. CONCENTRATIONS DETERMINED TO BE BELOW 100 PPM - IF THE H2S CONCENTRATION IN A GIVEN WELL, FACILITY OR OPERATION IS LESS THAN 100 PPM, NO FURTHER ACTIONS SHALL BE REQUIRED ***EXCEPT AS PROVIDED IN THIS H2S CONTINGENCY PLAN CONCERNING "NORMAL / LOW H2S CONDITIONS".***

C. CONCENTRATIONS DETERMINED TO BE ABOVE 100 PPM

1. IF THE H2S CONCENTRATION IN A GIVEN WELL, FACILITY OR OPERATION IS DETERMINED TO BE 100 PPM OR GREATER, THEN THE RADIUS OF EXPOSURE SHALL BE CALCULATED TO COMPLY WITH APPLICABLE REQUIREMENTS OF STATE AND FEDERAL LAW.

2. IF CALCULATION OF THE RADIUS OF EXPOSURE REVEALS THAT A POTENTIALLY HAZARDOUS VOLUME IS PRESENT, THE RESULTS OFTHE H2S CONCENTRATION DETERMINATION AND THE CALCULATION OF THE RADIUS OF EXPOSURE SHALL BE PROVIDED TO NMOCD AND BLM. FOR A WELL, FACILITY OR OPERATION, THE ACCOMPLISH THE DETERMINATIONS, CALCULATIONS AND SUBMISSIONS WILL BE MADE BEFORE OPERATIONS BEGIN.

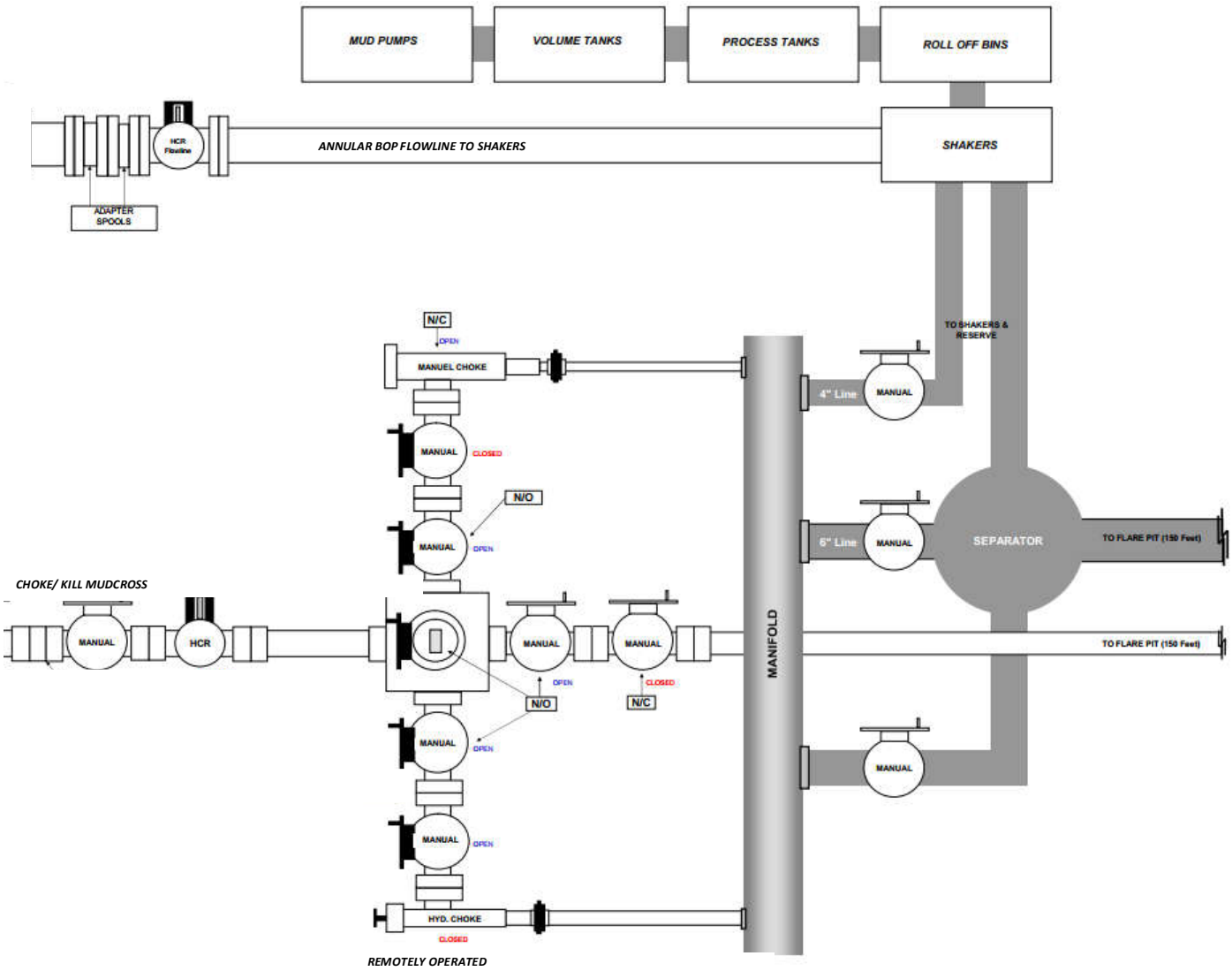
D. RECALCULATION - OF THE RADIUS OF EXPOSURE SHALL BE PERFORMED IF:

1. THE H2S CONCENTRATION IN A WELL, FACILITY OR OPERATION INCREASES TO 100 PPM OR GREATER.

2. THE CONCENTRATION OF H2S INCREASES BY A FACTOR OF 25% IN AN AREA THAT PREVIOUSLY HAD A H2S CONCENTRATION OF 100 PPM OR GREATER.

IF A POTENTIALLY HAZARDOUS VOLUME IS PRESENT, THE RESULTS SHALL BE PROVIDED TO THE NMOCD AND BLM WITHIN 60 DAYS.

McVay Rig #2
10M Choke Assembly/ Closed Loop
Probity - McDonald South SWD #1



State of New Mexico
Energy, Minerals and Natural Resources Department

September 1, 2021

Probity SWD, LLC (OGRID 296278)
c/o Ben Stone
E-mail contact: ben@sosconsulting.us

RE: **Administrative Order SWD-1879; Extension of Deadline to Inject**
Well: McDonald South SWD Well No. 1 (API 30-015-45672)
Located: Unit G, Sec 7, T26S, R29E, NMPM, Eddy County, New Mexico
Order Date: August 13, 2020
Injection formations: Devonian formation; 15,100 feet to 15,700 feet

Dear Mr. Stone:

Reference is made to your July 27, 2021 request on behalf of Probity SWD, LLC (the "operator") to extend the deadline stipulated in the above titled order to commence injection for the above referenced well for reasons outlined in your correspondence. The current deadline date to commence injection under said order is one year after issuance of the order: August 13, 2021.

It is the Division's understanding from your correspondence that since the date of issuance of this permit, no additional wells that penetrate the approved injection interval were drilled in the one-mile Area of Review (AOR). Additionally, three new affected parties have been identified in the AOR and provided notice. Therefore, the extension request could be reviewed administratively for approval.

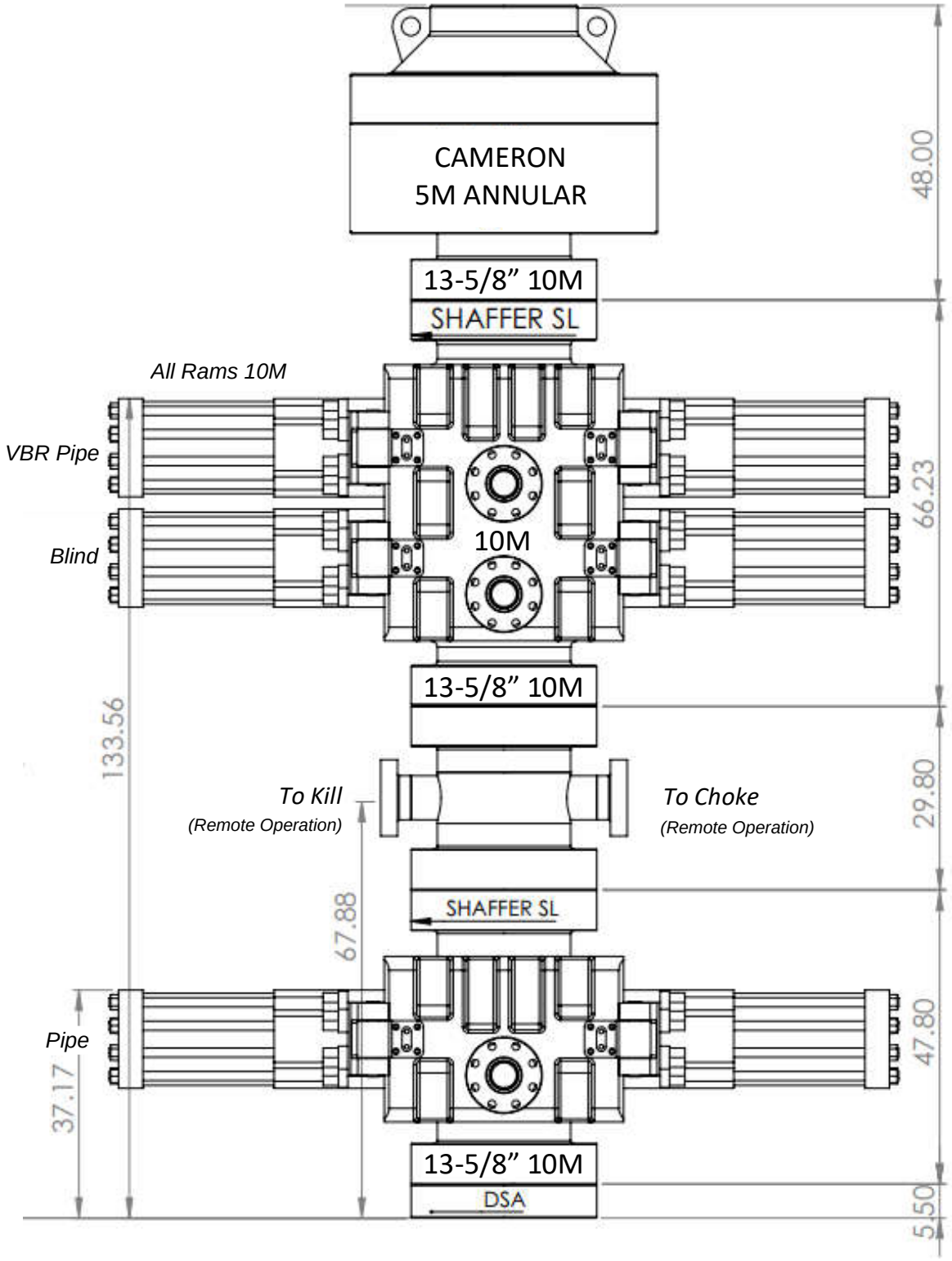
The Division finds that for reasons you have stated, the granting of this request to extend this administrative order is in the interest of conservation, will prevent waste, and will protect the environment. Therefore, the deadline to commence injection for the existing order is hereby extended until **August 13, 2022**.

All requirements of the above referenced administrative order and agreements in the application remain in full force and effect. Any additional extension of the deadline to commence injection for this administrative order will not be considered unless the operator has already commenced drilling of the referenced well. Otherwise, the injection authority shall expire under the terms of the extended administrative order and the operator shall be required to submit a new application to obtain injection authority for the referenced well.

ADRIENNE SANDOVAL
Director

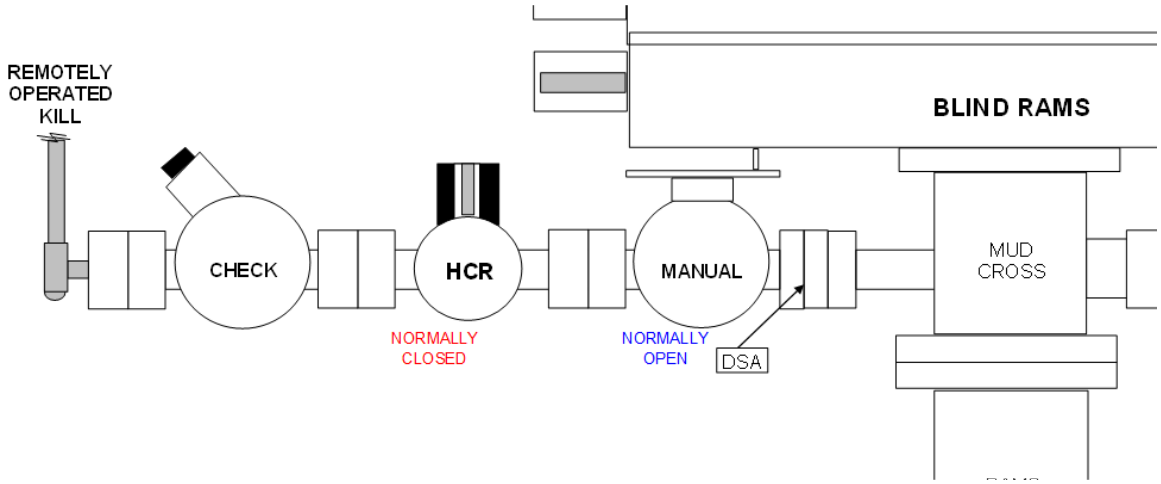
AS/bl
cc: Oil Conservation Division – Artesia District Office
Order SWD-1879

McVay Rig #2
Full Stack 10M
Probity - McDonald South SWD #1



McVay Rig #2
Remote Kill Line Side/ Closed Loop
Probity - McDonald South SWD #1

All kill line equipment and hose certifications and tests will be submitted via sundry when rig is assigned.



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 51017

COMMENTS

Operator: PROBITY SWD, LLC P.O. Box 7307 Midland, TX 79708	OGRID: 296278
	Action Number: 51017
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 9/24/2021	9/24/2021

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CONDITIONS

Action 51017

CONDITIONS

Operator: PROBITY SWD, LLC P.O. Box 7307 Midland, TX 79708	OGRID: 296278
	Action Number: 51017
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	9/24/2021
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/24/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	9/24/2021
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/24/2021
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud	9/24/2021