30-025-40531

FASKEN OIL AND RANCH, LTD.

303 W. WALL AVE.

SUITE 1800

MIDLAND, TEXAS 79701-5116

CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE

DRILLING OPERATIONS

CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE

DRILLING OPERATIONS

I. **HYDROGEN SULFIDE PHYSICAL PROPERTIES AND TOXICITY** - Hydrogen sulfide is extremely toxic. The acceptable concentration for eight-hour exposure is 20 ppm, which is .002% by volume. Hydrogen sulfide is heavier than air (specific gravity - 1.192) and is colorless. It forms an explosive mixture with air between 4.3 and 46.0 volume percent. Toxicity data for hydrogen sulfide and various gasses are compared in the table below.

Common Name	Chemical Formula	Sp. Gravity (Air =1)	Threshold Limit	Hazardous Limit	Lethal Conc.
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm	300 ppm
Hydrogen Sulfide	H_2S	1.18	10 ppm * 20 ppm **	250 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21	5 ppm	--	1000 ppm
Chlorine	Cl_2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO_2	1.52	5000 ppm	5%	10%
Methane	CH_4	0.55	9%	Combustabe above 5% in air	---

*Threshold Limit - concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects, 10 ppm = 1972 ACGIH concentration (American Conference of Governmental Industrial Hygienist)

**Threshold Limit = 20 ppm - 1966 ANSI acceptable ceiling concentration for eight-hour exposure (based on a 40-hour week) per OSHA Rules and Regulations (Federal Register, Vol. 37, #202, Part II, dated October 18, 1972.

II. **PHYSICAL EFFECTS OF HYDROGEN SULFIDE** - The physiological effects of hydrogen sulfide are summarized in the table below.

Concentration		
Percent Vol.	ppm	Physical Effects
0.001	10	obvious and unpleasant odor
0.002	20	Safe for 8-hour exposure.
0.01	100	Kills smell in 3 to 15 minutes, may sting eyes and throat.
0.02	200	Kills smell shortly, stings eyes and throat.
0.05	500	Dizziness, breathing ceases in a few minutes, needs prompt artificial resuscitation.
0.07	700	Unconscious quickly, death will result if not rescued promptly.
0.10	1000	Unconscious at once, followed by death within minutes.

III. **ACCIDENTAL RELEASE OF HYDROGEN SULFIDE** - The possible release of hydrogen sulfide gas could result from leakage at either wellhead, flow lines, separators or drill string at this drilling location.

A. In the event of an accidental release, the tool pusher, supervisor or agent of the operator in the vicinity at the time of the discharge will be in charge of all activities on the ground and shall be responsible for the following.

1. Notify all personnel, Company or outside, that are in the area to evacuate as soon as possible. This includes drilling rig crews, roustabout gangs, supervisory personnel, maintenance personnel, sales representatives, farm or ranch hands, visitors and all others that may be in the vicinity.

2. Notify the County Sheriff's office, and the Department of Public Safety, and request their assistance to provide road blocks and direct traffic away from the drilling location. They should also be asked to assist in the evacuation of residents, if any, in affected area.

3. Alert local Hospital and Fire Department in the event that medical services or ambulance assistance is needed.

4. Call the Operations Manager in the Midland Office and advise him of the nature and extent of the emergency situation

B. Operations Manager or his assistant will notify the appropriate state and federal agencies that the contingency plan has been activated and what level and type of reaction has already been initiated.

C. Fasken's Senior Representative or employee on the scene will be in charge and shall initiate measures necessary to bring the gas flow under control securing whatever additional personnel and equipment are necessary to control the flow in the shortest time thereby reducing potential exposure of the general public to hydrogen sulfide.

IV. **WEATHER CONDITIONS** - During adverse weather conditions such as drizzle, rain, fog, calm winds, and snow, hydrogen sulfide collects in low lying areas. These areas should be avoided, any personnel in such areas should be evacuated, and law enforcement personnel should be requested to keep people and traffic from entering. Should moderate, undirectional winds be blowing hydrogen sulfide from the source of the discharge toward a populated area, residents and other personnel should be evacuated by law enforcement personnel who should then maintain an exclusion perimeter to avoid people from reentering the area until the emergency is over.

V. **TERMINATION OF EMERGENCY AND FOLLOW-UP PROCEDURES** - Fasken's Senior Representative or employee on the scene, with the cooperation of the Senior Law Enforcement Officer in whose jurisdiction the emergency occurred, will declare the emergency terminated when there is no further danger to oilfield personnel or general public. This will occur only after a sufficient number of gas measurements in the vicinity have been made by a qualified technician showing that hydrogen sulfide concentration is below the 20 ppm threshold. In addition, the Operator's Senior Representative or employee will perform the following duties connected with the emergency:

A. Notify all cooperating law enforcement agencies and emergency medial services that the emergency has been terminated.

B. Notify all evacuees that they may return safely to their residences or job sites.

C. Make an estimate of damages and/or expenses incurred in the control of the emergency, the evacuation of any persons and the destruction of property, if any, including domestic animals and livestock. He is to make an itemized list of all such damages and/or expenses along with their addresses, and any other specific information pertinent to the situation. He is to deliver this list to the Operations Manager as soon as possible.

D. **UNDER NO CIRCUMSTANCE** are damage estimates, names of affected personnel, if any, or any other information pertaining to the emergency to be given to the press. Public information regarding the emergency will be issued by headquarters office in Midland, Texas.

VI. Copies of the Contingency Plan are available in Fasken's office in Midland, Texas.

VII. This plan is subject to approval of the state and federal agencies and shall be revised as required.

Fasken Oil and Ranch, Ltd.

H2S Contingency Plan

Emergency Phone Numbers

Quail "16" State No. 4H

Fasken Oil and Ranch, Ltd.	432 687-1777

Key Personnel

Tommy Taylor, Drilling Manager	432 556-2228
Cory Frederick, Drilling Engineer	432-288-0086
Deryl Briles, Drilling Foreman	432 556-4269
Jimmy Davis, Operations Manager	432 557-5668

Hobbs, Lea County, New Mexico

Ambulance	911
State Police	911 or 575 392-5580
Sheriff's Office	911 or 575 396-3611
Fire Department	911 or 575 397-9308
Local Emergency Planning Committee	575 393-2870
New Mexico Oil Conservation Division	575 393-6161

Carlsbad, Eddy County, New Mexico

Ambulance	911
State Police	911 or 575 885-3138
Sheriff's Department	911 or 575 887-7551
Fire Department	911 or 575 885-3125
Local Emergency Planning Committee	575 887-7553
Bureau of Land Management	575 887-6544
New Mexico Oil Conservation Division (Artesia)	575 748-1283

Statewide and National Emergency Numbers

New Mexico Department of Homeland Security And Emergency Management	505 476-9600
New Mexico State Emergency Operations Center (24 Hour Number)	505 476-9635
National Emergency Response Center	800 424-8802

Other Numbers for Emergency Response

Boots & Coots IWC	800 256-9688 or 281 931-8884
Cudd Pressure Control	432 563-3356
MCH Care Star Flight Service (air ambulance)	432 640-4000
Aerocare (air ambulance)	806 725-1111

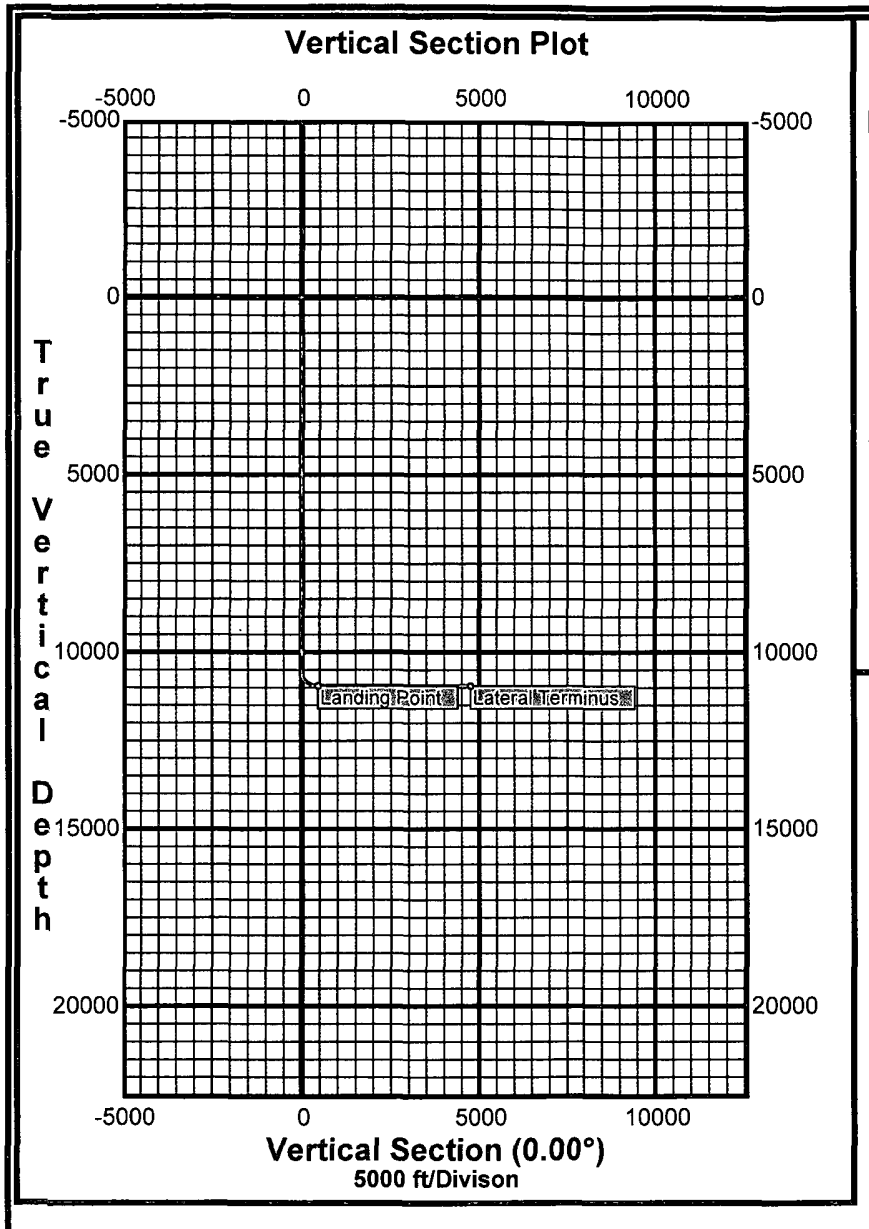
Job Number: 1
Company: Fasken Oil and Ranch, Ltd.
Lease/Well: Quail "16" State Com. No. 4H
Location: Section 16, T20S, R34E
Rig Name: Precision Drilling 75
State/County: NM/ Lea
Country: USA
API Number:

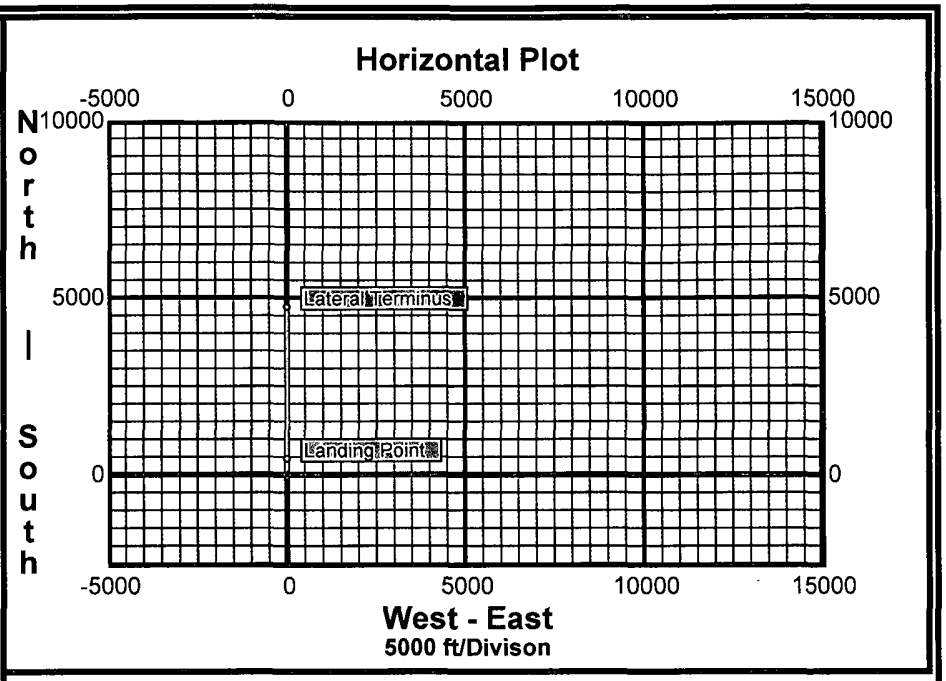
Elevation (To MSL): 0.00 ft
RKB: 0 00 ft
Projection System: US State Plane 1927 (Exact solution)
Projection Group: Texas Central 4203
Projection Datum: CLARKE 1866
Magnetic Declination: 3.22
Grid Convergence: 2.41208 E
Date: Tuesday, April 17, 2012

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 0.00°
Northing: 810940.54 Easting: 3455231.48
Latitude: 31°48'43.5024" N Longitude: -95°38'50.7877" W
Direction Reference: Grid North

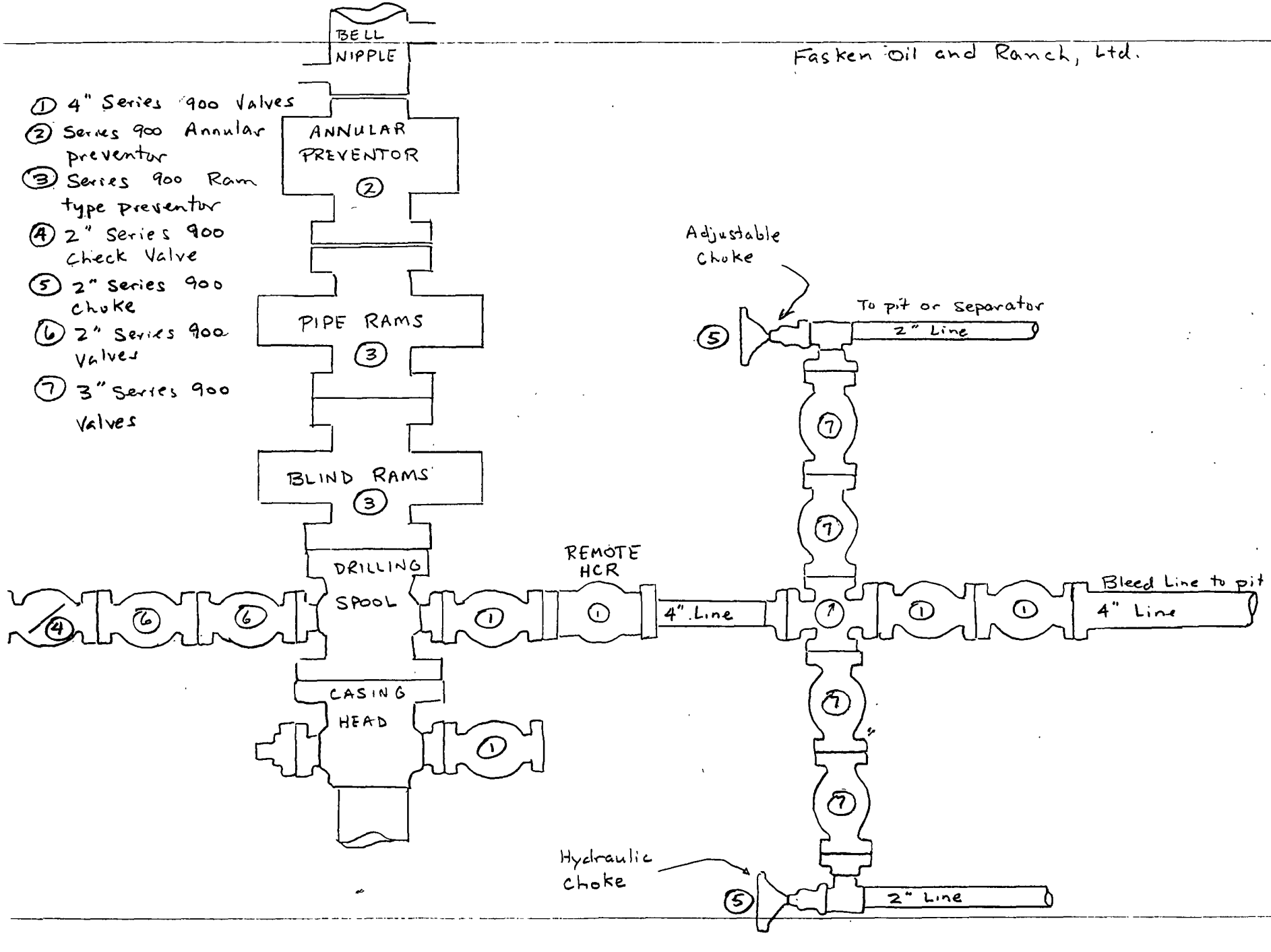
Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Walk Rate °/100Ft	Build Rate °/100Ft	Comment
0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	
100 00	0.00	0 00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
10550.00	0.00	0.00	10550.00	0.00	0.01	0.01	0.01	0.00	0.00	Tie in point @ 10550.00 MD, 0
10570.00	3.00	0.00	10569 99	0 00	0.53	0.53	0.53	0.00	15 00	
10590.00	6.00	0.00	10589 93	0.00	2.10	2.10	2.10	0.00	15.00	
10610.00	9.00	0.00	10609.75	0.00	4.71	4 71	4.71	0.00	15 00	
10630.00	12 00	0.00	10629 42	0.00	8.36	8.36	8.36	0.00	15 00	
10650.00	15.00	0.00	10648.86	0.00	13.03	13.03	13.03	0.00	15.00	
10670 00	18.00	0.00	10668.04	0.00	18.70	18.70	18.70	0.00	15.00	
10690.00	21.00	0.00	10686.89	0.00	25.38	25 38	25.38	0.00	15.00	
10710.00	24.00	0.00	10705.36	0.00	33.03	33.03	33.03	0.00	15.00	
10730.00	27.00	0.00	10723.41	0.00	41.64	41.64	41.64	0.00	15.00	
10750.00	30.00	0 00	10740.99	0.00	51.18	51 18	51 18	0 00	15.00	
10770 00	33.00	0.00	10758 04	0.00	61.63	61 63	61.63	0 00	15 00	
10790.00	36.00	0.00	10774.52	0.00	72.96	72.96	72.96	0.00	15.00	
10810.00	39.00	0.00	10790.38	0.00	85.13	85.13	85.13	0.00	15.00	
10830.00	42 00	0.00	10805.59	0.00	98.12	98.12	98.12	0.00	15 00	
10850 00	45.00	0.00	10820.09	0.00	111.89	111 89	111.89	0.00	15.00	
10870.00	48.00	0.00	10833.86	0.00	126.39	126.39	126.39	0.00	15.00	
10890.00	51.00	0.00	10846.85	0.00	141 60	141.60	141.60	0 00	15.00	
10910.00	54 00	0.00	10859.02	0.00	157.46	157 46	157.46	0.00	15.00	
10930.00	57 00	0.00	10870.35	0 00	173.94	173.94	173 94	0.00	15 00	
10950.00	60 00	0.00	10880.80	0 00	191.00	191 00	191.00	0.00	15.00	
10970.00	63 00	0.00	10890.34	0 00	208.57	208.57	208.57	0.00	15 00	
10990 00	66 00	0 00	10898.95	0.00	226.62	226.62	226.62	0.00	15 00	
11010 00	69.00	0 00	10906.60	0.00	245.10	245.10	245 10	0.00	15.00	
11030.00	72.00	0.00	10913 28	0.00	263.95	263.95	263.95	0.00	15.00	
11050.00	75 00	0 00	10918 96	0.00	283.12	283.12	283.12	0.00	15 00	
11051.02	75 15	0.00	10919.22	0.00	284.11	284.11	284.11	0 00	15 00	
11121.38	75 15	0.00	10937.25	0.00	352.11	352.11	352.11	0 00	0.00	
11126.38	75.90	0.00	10938.50	0.00	356.96	356.96	356.96	0.00	15.00	
11131.38	76 65	0.00	10939.68	0 00	361.81	361.81	361.81	0.00	15 00	
11136.38	77 40	360.00	10940.81	0 00	366.69	366.69	366 69	0.00	15.00	
11141.38	78 15	360.00	10941.86	0.00	371.57	371.57	371.57	0.00	15.00	
11146.38	78.90	360.00	10942.86	0 00	376.47	376.47	376.47	0.00	15.00	
11151 38	79.65	360.00	10943.79	0.00	381.38	381.38	381.38	0.00	15.00	
11156.38	80.40	360.00	10944 65	0.00	386.31	386.31	386.31	0.00	15.00	
11161.38	81.15	360.00	10945.46	0.00	391 24	391.24	391.24	0.00	15.00	
11166.38	81.90	360.00	10946.19	0.00	396.19	396 19	396.19	0 00	15 00	
11171.38	82.65	360 00	10946.86	0.00	401.14	401.14	401.14	0.00	15 00	
11176.38	83.40	360.00	10947.47	0.00	406.11	406.11	406.11	0.00	15 00	
11181.38	84.15	360.00	10948.01	0 00	411.08	411.08	411.08	0.00	15.00	
11186 38	84.90	360 00	10948 49	0.00	416.05	416.05	416.05	0.00	15.00	

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Walk Rate °/100Ft	Build Rate °/100Ft	Comment
11191.38	85.65	360 00	10948.90	0 00	421 04	421.04	421.04	0.00	15.00	
11196.38	86.40	360 00	10949 25	0.00	426.03	426.03	426 03	0 00	15.00	
11201.38	87.15	360 00	10949.53	0.00	431.02	431.02	431.02	0.00	15.00	
11206.38	87.90	360 00	10949.74	0.00	436.01	436 01	436.01	0.00	15.00	
11211.38	88.65	360 00	10949.89	0.00	441.01	441.01	441.01	0.00	15.00	
11216.38	89.40	360.00	10949.98	0.00	446.01	446.01	446.01	0.00	15.00	
11220.36	90.00	360 00	10950.00	0.00	449.99	449 99	449.99	0 00	15 00	
15517.37	90.00	0.00	10950.00	0.00	4747.00	4747.00	4747.00	0.00	0.00	

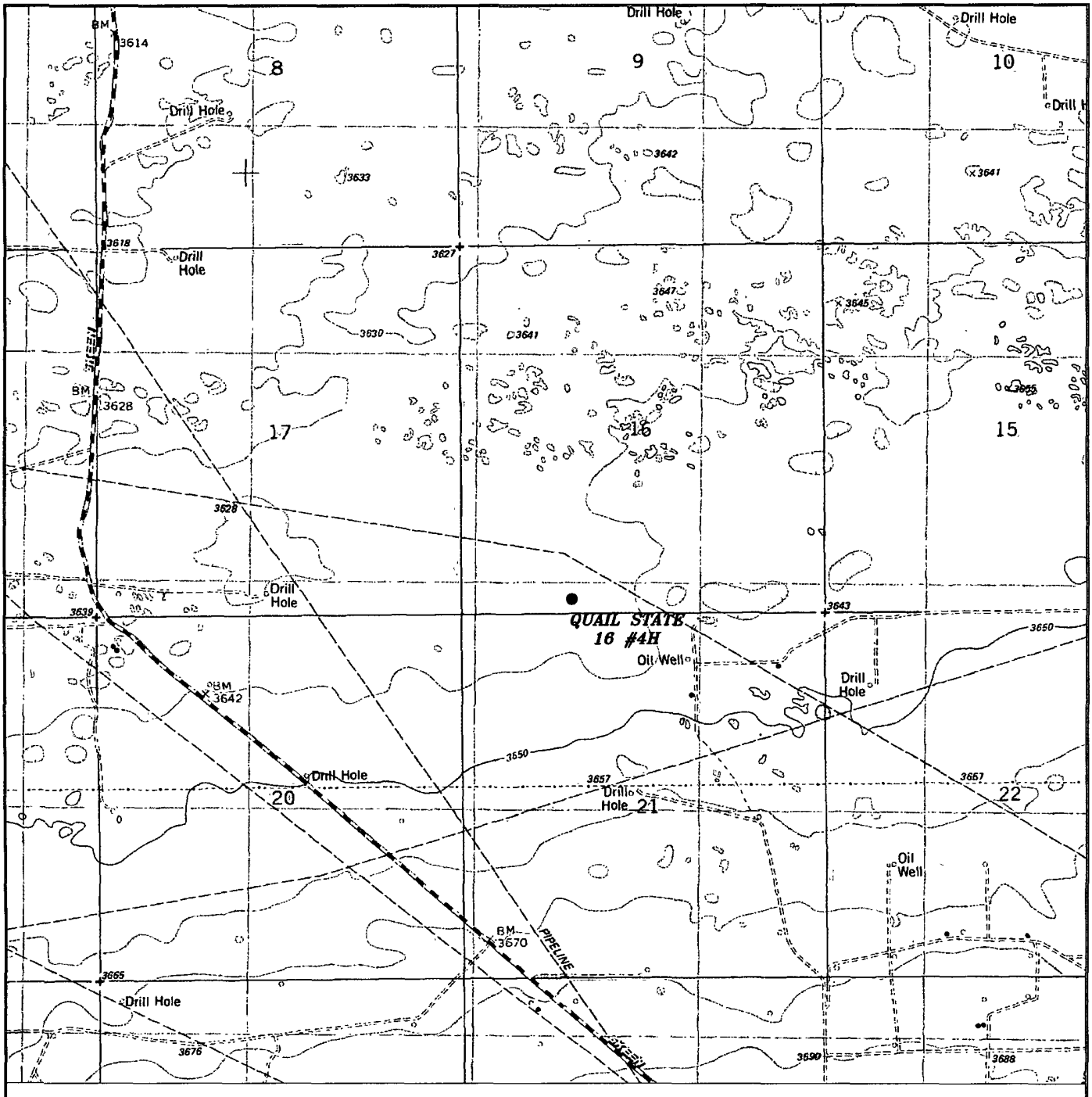

Vertical Section Plot
-5000
0
5000
10000
True Vertical Depth
Landing Point
Lateral Terminus
Vertical Section (0.00°)
5000 ft/Divison


Horizontal Plot
-5000
0
5000
10000
15000
North | South
Lateral Terminus
Landing Point
West - East
5000 ft/Divison

Fasken Oil and Ranch, Ltd.



1. 4" Series 900 Valves
2. Series 900 Annular preventor
3. Series 900 Ram type preventor
4. 2" Series 900 Check Valve
5. 2" Series 900 Choke
6. 2" Series 900 Valves
7. 3" Series 900 Valves



QUAIL STATE 16 #4H
Located 200' FSL and 1650' FWL
Section 16, Township 20 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

Basin Surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 26514
Survey Date:	04-04-2012
Scale:	1" = 2000'
Date:	04-12-2012

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FASKEN OIL AND RANCH, LTD