SECRETARY'S POTASH

Form 3160-3 (August 2007)

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

(August 2007)			·O	OMB No. 10 Expires July 3	04-0137	
UNITED STATES DEPARTMENT OF THE I	NTERIOR	''Ogg Ocor	Robbs 2013	5. Lease Serial No. NM-59392	<u></u>	
BUREAU OF LAND MAN.	AGEMENI	DEENTED ()	e so.	6. If Indian, Allotee or	Tribe Name	
APPLICATION FOR PERMIT TO I	DRILL OR	KEEN LER A	20			
(August 2007) UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN. APPLICATION FOR PERMIT TO I la. Type of work:	7 If Unit or CA Agreement, Name and No.					
10: Type of treat.	✓ Sing	le Zone Mu	ltiple Zone	Lease Name and Wel Lusk AHB Federal		
Name of Operator Yates Petroleum Corporation	<ô	2557	5 > .	9. API Well No.	40990	
3a. Address 105 S. Fourth St. Artesia, NM 88210	3b. Phone No. (575-748-412	(include area code) 20		10. Field and Pool, or Exp Undesignated/2nd B	one Spring East	
4. Location of Well (Report location clearly and in accordance with arry	v State requiremen	nts.*)		11. Sec., T. R. M. or Blk.	and Survey or Area	
At surface 150' FNL & 660' FWL At proposed prod. zone 330' FSL & 660' FWL				 Section 35, T19S-32E	:	
14. Distance in miles and direction from nearest town or post office* Approximately 37 miles from Carlsbad				12. County or Parish Lea	13. State NM	
15. Distance from proposed*	16. No. of acr	es in lease	17. Spacir	g Unit dedicated to this well		
location to nearest property or lease line, ft. 150' (Also to nearest drig. unit line, if any)	636.08		W2W2	2, 160 acres		
18. Distance from proposed location*	19. Proposed Depth 20. BLM/			/BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft.	14278' MD	(Pilot Hole)		IONWIDE BOND #NMB000434		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxima 01/17/2012	ate date work will	start*	23. Estimated duration 30 days		
3574' GL	24. Attach			30 days		
The following, completed in accordance with the requirements of Onshor			e attached to th	is form:		
Well plat certified by a registered surveyor. A Drilling Plan.			er the operation	ns unless covered by an exi	isting bond on file (see	
A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).	Lands, the	5. Operator cert	ification	ormation and/or plans as ma	ay be required by the	
25. Signature 74./h	Name (A	Printed/Typed) Hahn		Da O	nte 7/17/2012	
Title Land Regulatory Agent						
Approved by (Signature)	Name (Printed/Typed)		Đị	ate JAN 2 9 2013	
Title STATE DIRECTUR	Office		MM	STATE OFFIC	28]	
Application approval does not warrant or certify that the applicant hold	s legal or equita	ble title to those r	ights in the su	oject lease which would enti-	tle the applicant to	
conduct operations thereon. Conditions of approval, if any, are attached.			APF	BOVAL FOR T	MO YEARS_	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	ime for any per to any matter wit	rson knowingly an thin its jurisdiction	d willfully to i	nake to any department or a	gency of the United	

Capitan Controlled Water Basin

(Continued on page 2)

Approval Subject to General Requirements & Special Stipulations Attached

*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

YATES PETROLEUM CORPORATION

Lusk AIB Federal #10H 150' FNL & 660' FWL Surface Hole Location 330' FSL and 660' FWL Bottom Hole Location Section, 35-T19S-R32-E Lea County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	1071'	Avalon Sand	7861' Oil Pay
Top of Salt	1156'	Middle Avalon	8182'
Base of Salt	2681'	Lower Avalon	8516'
Yates	2901' Oil Pay	1 st Bone Spring Sand	8751' Oil Pay
Capitan Reef	3211'	2 nd Bone Spring Sand	9371' Oil Pay
Beİl Canyon	4701' Oil Pay	2 nd Bong Spring Target	9706' Oil Pay
Cherry Canyon	4986' Oil Pay	Base 2 nd B.S. Sand	9811 Oil Pay
Brushy Canyon	6181' Oil Pay	TD	14278' Oil Pay
Bone Spring Lime	7666' Oil Pay		•

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

Water: Approx 250' - 350' Oil or Gas: All Potential Zones

3. Pressure Control Equipment: Pressure Control Equipment: Yates Petroleum Corporation hereby request a variance to allow us to place a 2000 PSI annular system with a 21 1/4" opening will be installed on the 20" a 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375" casing and 5000 PSI BOPE will be installed on the 9.625" casing. Pressure tests to 1000 PSI, 3000 PSI and 5000 PSI respectively and held for 30 minutes will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit. See COA - Low pressure tests

Auxiliary Equipment:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.
- 4. THE PROPOSED CASING AND CEMENTING PROGRAM:
 - A. Casing Program: (All New)

Hole Size	Casing Size	Wt./Ft	<u>Grade</u>	Coupling	<u>Interval</u>	Length	
26"	20"	106.5#	J-55	ST&C	0-80'	80'	
26"	20"	94#	J-55	ST&C	80-900'	' 820'	
26"	20"	106.5#	J-55	ST&C	900'-1400'1145	200'	
17 1/2"	13 3/8"	61#	HCK-55	ST&C	0-80'	80'	Seens
17 1/2"	13 3/8"	54.50#	J-55	ST&C	80'-1800'	1720'	١١٥٦٠ - ١
17 1/2"	13 3/8"	61#	HCK-55	ST&C	1800'-2850'	1050'	
12 1/4"	9 5/8"	40#	HCK-55	LT&C	0-80'	80'	
12 1/4"	9 5/8"	36#	K-55	LT&C	80'-3500'	3420'	
12 1/4"	9 5/8"	40#	HCK-55	LT&C	3500'-4800'	1300'	
8 3/4"	5 1/2"	17#	P-110	LT&C	0-9220'	9220'	
8 1/2"	5 ½"	17#	P-110 Buttresss	LT&C	9220'-14278'	5058'	
8 3/4"	5 1/2" 5 ½"	17#	P-110	LT&C	0-9220'	9220'	

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

Lusk AHB Federal #10H Page 2

Pilot hole will be drilled to 10000'. A 200' isolation plug will be placed from 10000' to 9800' cemented with 100 sacks of Class 'H' (Wt 17.5 Yld 0.94) excess of 10%. Additives being fresh water 3.352 gal/sk, Dispersant 0.30 gal/sk, Retarder Acc 0.070 gal/sk, Antifoam 0.020 gal/sk. A 600' kick off plug will be placed from approx. 9500' to 8900' and cemented with 360 sacks of Class 'H' (Wt 17.5 Yld 0.94) excess 35%. Additives being fresh water 3.352 gal/sk, Dispersant 0.30 gal/sk, Retarder Acc 0.060 gal/sk, Antifoam 0.020 gal/sk. Well will then be kicked off at 9229' and directionally drilled at 12 degrees per 100' with an 8 3/4" hole to 9979' MD (9706 TVD). Hole will then be reduced to 8 ½" and drilled to 14278' MD (9706 TVD) where 5 ½ "casing will be set and cemented. A DV tool will be set at approx.7000'. Penetration point of the producing zone will be encountered at 627' FNL and 663' FWL of Section 35, T19S-R32E. Deepest TVD in the Pilot hole will be 10000'.

B. **CEMENTING PROGRAM**:

Surface casing: 1520 sx 35:65:6 PzC (Wt.12.50 Yld 2.0) Tail in w/200 sx "C" +2% CaCl2 (Wt 14.80 Yld 1.34). 100% excess. TOC-Surface.

Intermediate Casing I: (0-2850') 1840 sx 35:65:6 PzC (Wt 12..50 Yld 2.00); Tail in w/200 sx "C" +2% CaCl2 (Wt 14.80 Yld 1.34). 100% excess. TOC Surface.

Intermediate Casing 2

Stage 2: (0-3150') Lead with 845 sx 35:65:6PzC (Wt 12.50 Yld 2.00). Tail in with 200 sx Class 'C' +2% CaCl2 (Wt 14.80 Yld 1.34). 100% excess. TOC Surface.

Stage 1: (3150'-4800')

Lead in with 375 sx 35:65;6PzC (Wt 12.50 Yld 2.00). Tail in w/200 sx Class 'C' + 2% CaCl2 (Wt 14.80 Yld1.34). 100% excess. TOC 3150'.

Production Casing will be cemented using a DV Tool at 7000'.

Stage 2: (3800'-7000')

Lead with 545 sx 35:65:6PzC (Wt 12.50 Yld 2.00). Tail in with 200 sx PecosVILt (Wt 13.00 Yld 1.41). With additives iincluding 30% CaCO2, 3.2% Expansion Additive, 2% Antifoam, .8% Retarder, 15% Fluid Loss. 35% excess. TOC 3800'.

Stage 1: (7000'-14278')

Lead with 495 sx 35:65:6PzC (Wt 12.50 Yld 2.00). Tail in with 1060 sx of Pecos VLt (Wt 13.00 Yld 1.41) With additives including 30% CaCO2, 3.2% Expansion Additive, 2% Antifoam, .8% Retarder, 15% Fluid Loss. 35% excess. TOC 7000'.

5. Mud Program and Auxiliary Equipment:

Sela	<u>Interval</u>	_Type	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
•	0-1,000 1	Fresh Water	8.6-9.2	32-34	N/C
	Jus 1100'-2850'	Brine	10.00	28-29	N/C
	2850'-4800'	Fresh Water	8.6-9.2	28-32	N/C
	4800'-10000'	Cut Brine	8.8-9.2	30-34	N/C
	9229'-14278'	Cut Brine	8.8-9.2	30-34	<10cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples:

30 samples to 4800'. 10' samples 4800' to TD.

Logging:

GR Neutron 30 degrees dev to surface.

Density 30 degrees dev to intermediate casing. Laterlog 30 degrees dev to intermediate casing. CMR 30 degrees dev to intermediate casing. Schlumberger Tools Platform /HRLA/CMR

Coring:

None.

DST's:

None.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From:	0	TO:	1100'	Anticipated Max. BHP:	526	PSI
From:	1100'	TO:	2850'	Anticipated Max. BHP:	1512	PSI
From:	2850'	TO:	4800'	Anticipated Max. BHP:	2296	PSI
From:	4800'	TO:	9706'	Anticipated Max. BHP:	4643	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

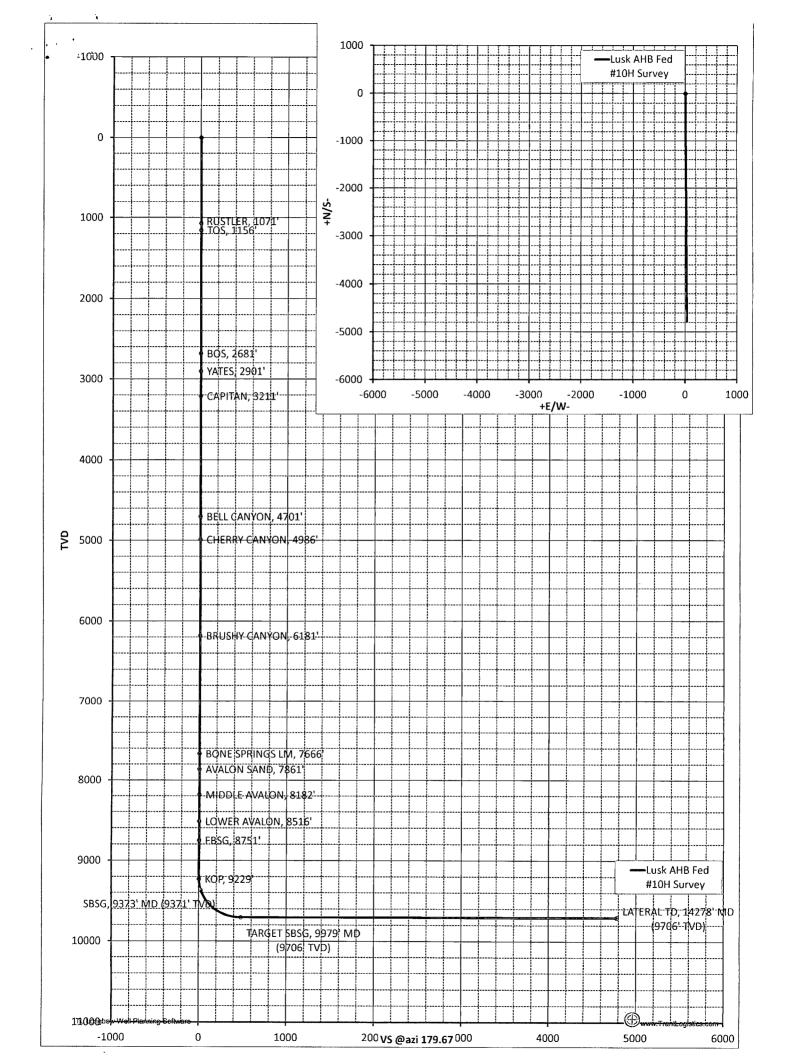
8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 15 days.

Operator Co.

Your Co.

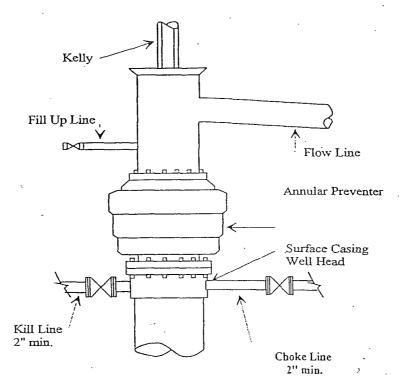
2.2									. 34.3
				Survey/Planni	ng Repor	ties see 198	\$455 VERILE VARIA	45.50	
Operator	Yates Pet	roleum Corp		Northing			[⊕] Date	3-Jul-12	
	Yates Petroleum Corp.			Easting			System	2 - St. Pla	ne
		Fed #10H S		Elevation			Datum	1983 - NA	.D83
	Sec. 35, 1		- m X make - Collection and the Collection of th	Latitude				4302 - Uta	
Rig				Longitude			Scale Fac.		
Job				Units	Feet		Converg.		
MD)	OINC		* TVD			∛VS@179.67		TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1071.00	0.00	0.00	1071.00	0.00	0.00	0.00	0.00	0.00	0.00
1071: RUSTLER	R, 1071'	grant or an amount of the second of the seco		er de la	man and a management of the second of the se		The Control of the Co	ar and the second second second	
1156.00	0.00	0.00	1156.00	0.00	0.00	0.00	0.00	0.00	0.00
1156: TOS, 1156	6'	with as or - refrontace to or how -	an gaspe conjugate to 1 to 100 or 10						· · · · · · · · · · · · · · · · · · ·
2681.00	0.00	0.00	2681.00	0.00	0.00	0.00	0.00	0.00	0.00
2681: BOS, 268	ALL SHAPE AND ADDRESS OF THE PARTY OF THE PA	A	The same provided in the same of the same		, J.		\$40. TY	Total Comment	
2901.00	0.00	0.00	2901.00	0.00	0.00	0.00	0.00	0.00	0.00
2901: YATES, 29	901'	consider the second constraint			· mate about them. Mr announce was	er opportunities at the contract of the contra	to a substitutiva and a substitu	, <u> </u>	THE PART OF THE PA
3211.00	0.00	0.00	3211.00	0.00	0.00	0.00	0.00	0.00	0.00
3211: CAPITAN,	, 3211'		* * * * *		-	e i	*.		
4701.00	0.00	0.00	4701.00	0.00	0.00	0.00	0.00	0.00	0.00
4701: BELL CAN	NYON, 470		The second second			E Total	V. 100		
4986.00	0.00	0.00	4986.00	0.00	0.00	0.00	0.00	0.00	0.00
4986: CHERRY	CANYON, 2	1986'	• and complete commenced to a free commenced to	material of a management of the second of th	- * * / ****************	Control of the Control of Section	house glocalisations and the first first first source of the contraction of the first of		tan a sample provided the sample of the samp
6181.00	0.00	0.00	6181.00	0.01	0.00	-0.01	0.00	0.00	0.00
6181: BRUSHY (CANYON, 6	181'		- an area consistent and a second		The same of the sa	14.75	11 4 5 22 5 5	1.20
7666.00	0.00	0.00	7666.00	0.01	0.00	-0.01	0.00	0.00	0.00
7666: BONE SPI	RINGS LM,	7666'		And the control of th			A STATE OF THE PARTY OF THE PAR	357	
7861.00	0.00	0.00	7861.00	0.01	0.00	-0.01	0.00	0.00	0.00
7861: AVALON S	SAND, 786	1'						٠,	
8182.00	0.00	0.00	8182.00	0.01	0.00	-0.01	0.00	0.00	0.00
8182: MIDDLE A	VALON, 8	182'	the state of	at a		(34) (34)	530 San San	region in the second	1 (4)
8516.00	0.00	0.00	8516.00	0.01	0.00	-0.01	0.00	0.00	0.00
8516: LOWER A	VALON, 85	516'	and the state of t	3		7	2		
8751.00	0.00	0.00	8751.00	0.01	0.00	-0.01	0.00	0.00	0.00
8751: FBSG, 87	51'	gent ten or		makes a real community programmed from Address Andress		The state of the second	**************************************	course on the course of conductor table of labe	
9228.54	0.00	179.67	9228.54	0.01	0.00	-0.01	0.00	1.95	0.00
9228.54: KOP, 9	229'	384	The same of the sa		K 11.	4.8			
9300.00	8.58	179.67	9299.73	-5.33	0.03	5.33	12.00	0.00	12.00
9373.21	17.36	179.67	9371.00	-21.74	0.13	21.74	12.00	0.00	12.00
9373.21: SBSG,	9373' MD (9371' TVD)	- make and the later of	in a second		Samples are a signal service.	- Marie Waller		
9400.00	20.58	179.67	9396.34	-30.45	0.18	30.45	12.00	0.00	12.00
9500.00	32.58	179.67	9485.61	-75.10	0.44	75.10	12.00	0.00	12.00
9600.00	44.58	179.67	9563.65	-137.34	0.80	137.34	12.00	0.00	12.00
9700.00	56.58	179.67	9627.04	-214.45	1.25	214.45	12.00	0.00	12.00
9800.00	68.58	179.67	9673.01	-303.04	1.77	303.05	12.00	0.00	12.00
9900.00	80.58	179.67	9699.56	-399.26	2.33	399.27	12.00	0.00	12.00
9978.53	90.00	179.67	9706.00	-477.45	2.79	477.46	12.00	0.00	12.00
9978.53: TARGE	ET SBSG, 9	979' MD (97	06' TVD)	1.55	3/4/2	Nos A	Service Control		
14278.21	90.00	179.67	9706.01	-4777.05	27.91	4777.13	0.00	0.00	0.00
14278.21: LATE	RAL TD, 14	1278' MD (97	06' TVD)			560 S	1 con in an east-fides		and the second second



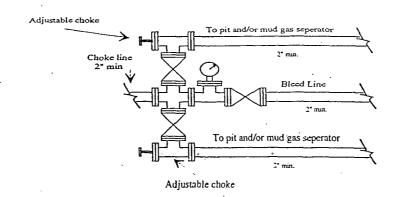


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Typical low Pressure System
Schematic
Annular Preventer 2,000 psi



Typical 2,000 psi choke manifold assembly with at least these minimun features

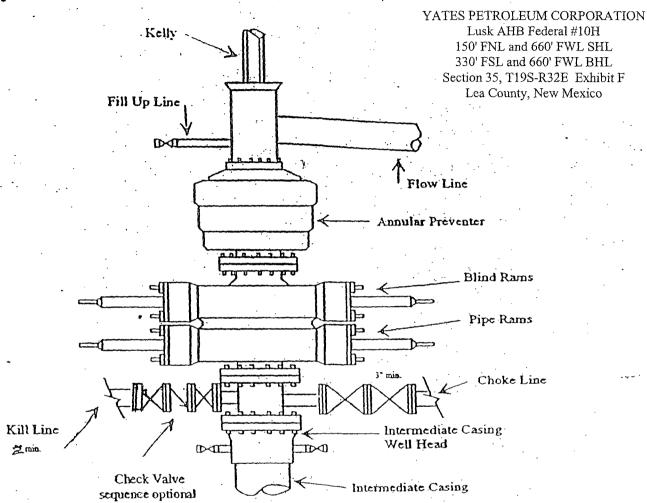




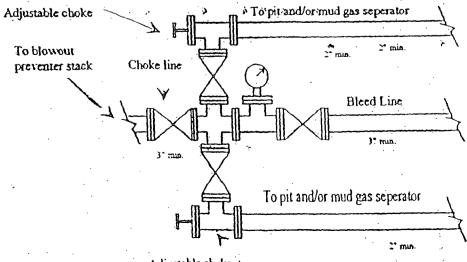


Yates Petroleum Corporation

Typical 3.000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack



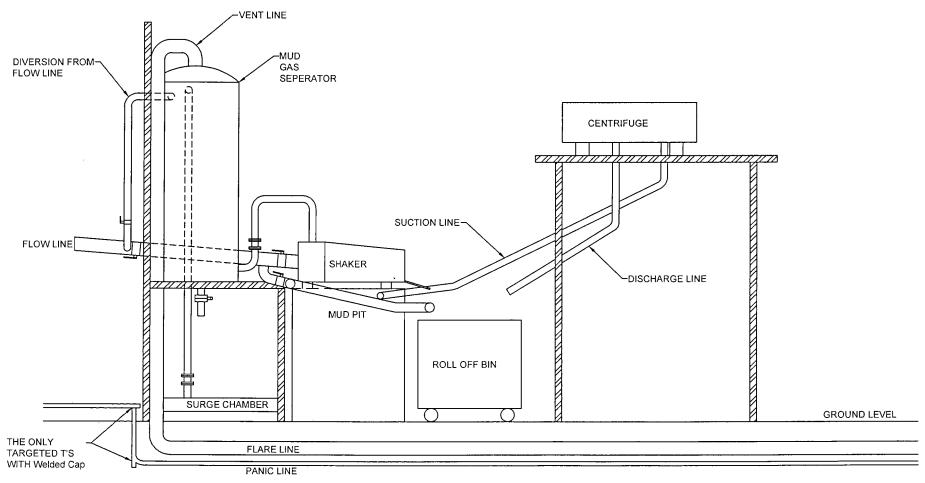
Typical 3,000 psi choke manifold assembly with at least these minimun features



Adjustable choke >

YATES PETROLEUM CORPORATION

Piping from Choke Manifold to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.

