

JAN 20 2009

## HENRY PETROLEUM LP

Univ3 Vincent23 #7  
 Vincent Prospect  
 Upton Co., TX  
 DRILLING PERMIT #673728  
 API #42-461-36188

Patterson Rig #508 KB = 16'

PROPOSED TD: 10,795'

## PROPOSED CASING DESIGN

Casing	Size	Hole Size	Setting Depth
Surface	9-5/8"	12-1/4"	500' MD
Production	5-1/2"	7-7/8"	10,795' MD

**SURFACE LOCATION**

1320' FSL & 1980' FWL, Sec. 23, Blk. 3, ULS Survey,  
 Upton County, Texas

**Special Notes:** This well will have all N-80 production casing

ORIG: Well File  
 XC: Dan Varner Sharon McCain  
 Rick Vannoy Shirley Houchins  
 Larry Gates Bob Howard  
 Terrell Hansen James Moore  
 Jim Rivest Marvis Schneider  
 Brad Boen  
 Bobby Delcore (2)

**SUBMITTED BY:** Terrell Hansen

Approvals:	Signature	Date
Engineer	<i>Terrell Hansen</i>	12-15-08
Geologist	<i>JS for Debbie O</i>	12-16-08
Drilling Engr. Supv.	<i>Lucy Allen</i>	12/15/2008

461-36188

# Henry Petroleum LP Univ3 Vincent23 #7

## CONTRACTOR LIST

Last Revised: 11/6/2008

Service	VENDOR	CONTACT PERSON	Phone Number	Mobile / Home
Drilling Rig - Rig #508 - T.P.	Patterson Drilling	Randall Handley		557-4184 Cell
Drilling Rig - Rig #508	Patterson Drilling	Rig Phone	634-3787	894-6648 Cell
Drilling Rig - Supt.	Patterson Drilling	JD Jonas	682-9401	894-2411 Cell
Rathole/Mousehole	Bid out			
BHA Rental Tools	Bid out			
Casing Crews	Bid out			
Bits (12-1/4") (Rental)	Security	Bill Stark	632-4305	661-4870 Cell
Bits (7-7/8" PDC)	Security	Bill Stark	632-4305	661-4870 Cell
Bits (7-7/8" insert)	Hughes	Garland Hadley	498-9898	935-2030 Cell
Bits (7-7/8" insert)	Smith	Mark Hunter	620-0432	553-7893
Corrosion Chemical	Corrosion Ltd.	Tommy Farrel	800-669-8023	505-631-3351
Welding	Haley Heideberg		556-0576	263-0614
	Way West	Chuy Olivas	381-6321	238-2072 Cell
Roustabouts	Top Construction	Victor Jordan	570-9129	638-1502 Cell
Mud	Buckeye	Steve Spyres	682-7422	634-0793 Cell
Wellheads	Wellhead Specialties	Quen Hussey	530-2448	559-6457 Cell
9-5/8" Csg & 5-1/2" Csg	JD Rush	Juanita Homer	281-617-5509	281-387-5216 Cell
	JD Rush	Office	281-558-8004	
Casing Transportation	McClatchy Bros.		520-9443	694-9691
Ryt-wrap	Permian Enterprises	Raymond Marrero	332-0903	800-725-0904 / 638-6655 Cell
Cementing	BJ Services	Odessa Yard	381-2301	
	BJ Services	Midland	683-2781	
Field Sup.	BJ Services	Ruben Rocha		631-4948 Cell
Acct. Rep.	BJ Services	Randy Kuiper		556-6357 Cell
Pit Lining & Water Well	Dubose	Robert Scott	634-7654	634-4451 (both cells)
Water Hauling	Outlaw	Joey McMahan	559-2052	556-3878 Cico Alvaredi
	BHD Trucking	Junior Guevara	302-0214	894-2001
Temperature Srvy (if needed)	Subsurface Well Testing	Allen Arnett	682-7580	631-3610 Cell
Centralizers/Float Eq.	Weatherford Gemoco	Mike Sneed	563-2255	557-0365 Cell
H2S Equipment	Midland Safety	Bart Campbell	520-3838	888-395-5235 (24hr service)
Cased-Hole Logging	Halliburton	Dale Lay	563-1214	238-7341 Cell
Tenant				
Landowner				

## PERSONNEL LIST

	NAME	POSITION	HOME	OFFICE / MOBILE
2	Dan Varner	Operations Supt.	695-4599	685-4380 / 634-4392 Cell
2	Rick Vannoy	Drilling Supt.		934-1692 Cell
3	Jim Rivest	Drig Field Supt.		288-2298 Cell
	Frank Savage	Safety Coordinator	(254) 319-4267 (extra cell)	664-8912 Cell
	Dallas Frazier	Drig Foreman	520-8969	770-7873 Cell
	Gary Chastain	Drig Foreman		770-7688 Cell
	Mark Kincaid	Drig Foreman		557-4056 Cell
1	Brad Boen	Drig Foreman		631-9998 Cell
	Michael Walker	Drig Foreman	618-0305	553-3316 Cell
	Vernon Johnson	Drig Foreman	332-8199	557-3739 Cell
	Vernon Wills	Drig Foreman	614-1061	553-9015 Cell
	Larry White	Drig Foreman		853-4469 Cell
1	Bobby Delcore	Drig Foreman		530-8788 Cell
	Ronnie Hofer	Drig Foreman		557-6040 Cell
	Lance Mosley	Forman (water)		556-0638 Cell
	James Moore	Prod. Foreman		634-8134 Cell
	Robbie Woodruff	Foreman (locations & roads)	686-9234	631-5393 Cell
	David Corbett	Foreman (locations & roads)	694-7656	634-4399 Cell
4	Larry Gates	Drilling Engr. Supv.	685-9909	686-3038 / 634-4381 Cell
5	Terrell Hansen	Drilling Engr.	699-4784	686-3046 / 230-8924 Cell
	Bob Howard	Consultant		553-3288 Cell
	Debra Osborne	Geologist	686-0042	683-7443 / 425-8406 Cell
	James Caputo	Geologist	218-6867	683-7443 / 230-4189 Cell
	Marvis Schneider	Purchasing		683-7443 / 770-0719 Cell
	Don Horner	RRC-District 7C		325-657-7450

All numbers are 432 area code unless otherwise stated.

**Henry Petroleum LP  
Drilling Procedure  
Univ3 Vincent23 #7**

**General Information**

**Keep pipe moving in open hole to avoid getting stuck**

1. E-mail daily report and cost sheet by 7:00 am each morning.
2. Post a copy of the drilling permit, plat, and Water Board Letter in the upper dog house during all drilling operations. **Notify the TRC at least 8 hours prior to setting each string of casing. Record the date, time, and the TRC representative on the Casing and Cementing Report.**
3. Post emergency numbers for the appropriate county, Carestar Service, and numbers for foreman, Drilling Superintendent, and Operations Superintendent in the upper doghouse.
4. **Deviation Surveys** – First dev. svy at 250'±. Second svy at surface casing depth. Remainder of surveys at intervals no greater than 500' apart. Max deviation from surf to 1000' is 3° with a max dogleg of 1° per 100'. Max deviation from 1000' to TD is 5° with a max dogleg of 1.5° per 100'.
5. The hole should be kept full at all times. Fill up the hole every 5 stands of DP and every stand of DC's.
6. Have the driller or rig pusher contact you immediately if a downhole flow is indicated.
7. **The casing pressure should not be allowed to go above 500 psi to avoid breaking down the surface casing shoe. If the well is shut-in to control a flow, make sure that the driller or rig pusher knows to call you, the Drilling Superintendent, or the Operations Superintendent immediately.**
8. Check the DP & DC inventory on location prior to well spud. Check all X/O's to verify they are full bore and do not have internal shoulders. SLM out of hole on the last anticipated bit trip prior to TD. Verify the drill pipe joint count before laying down the drill pipe at TD. Discuss any discrepancies with Drlg Supt.
9. If a mud logger is required for this well, make sure that the trailer is rigged up at least 125' from the flow line. (see Geologic prog page)
10. **Check the Drilling Permit for required H2S equipment (Rule 36). If H2S equipment is required for this well, make sure that it is in good working order, monitors are working, and any new crew members have the required training. Also make sure that the rig pusher is aware that H2S scavenger may be needed to protect the DP.**

11. When pipe is out of hole, keep hole covered.
12. **Do Not pull more than 40,000# over string weight without calling the Drlg Supt. Drilling foreman and toolpusher need to be checking the over-pull margin at all stages during the well.**
13. Measure O.D., I.D. Length of every item that might be run below the rotary table or installed in drill string above rotary table. This includes TIW valves, float valves, etc. Make sure that the TIW valve is full opening.
14. **MOST WELL CONTROL ISSUES IN THIS AREA HAVE OCCURED BELOW THE TOP OF THE WOLFCAMP.** Make sure that the rig pusher knows the depth of the Wolfcamp top and to install the rotating head rubber by at least 50' above this point.
15. On trips in the hole control the pipe running speed, stage in, and bring the pump on the hole slowly, to reduce lost circulation problems.

#### **Daily Check List**

1. **Verify geograph recording weight indicator reading is functioning throughout all drilling operations until casing is on bottom and the cement job is complete. Verify geograph is recording ROP data while making new hole.**
2. Verify weight indicator accuracy periodically throughout the course of the well. Know the estimated weight of the traveling equipment, the expected buoyed weight of the drill string at TD, and the expected buoyed weight of the casing at TD.
3. Insure that a full opening TIW valve, necessary X/O's, and safety valve wrenches available on rig floor at all times. Keep TIW valve in the open position.
4. Check the accumulator pressure and make sure that all BOP equipment appears to be in good working order.
5. Obtain slow pump rates with each pump and record on each tour after topping the Wolfcamp.
6. After topping the Wolfcamp, check to see if and how rig crews are adequately checking for flow when making connections.
7. Check the Derrickman's efforts to monitor pit levels to identify losses, flows, etc. Note on the morning report the depth of noticeable mud losses, show of oil on the mud pits, and any drilling breaks of 5' or more below the top of the Wolfcamp.

8. Observe equipment, work practices, and housekeeping issues that might affect operational safety. Discuss any important observations with the rig pusher and / or the Drlg Supt.

### **Surface Hole Drilling/Casing**

1. Drill the surface hole to fit casing as per the casing & cementing plan. **Be sure to use a float in the BHA.** Circ hole clean. Make sure that the required deviation surveys, centralizers, and setting depth are followed to comply with all RRC rules. Make sure that the cementing company has the correct information for the RRC form W-15.
2. WOC at least 6 hours after plug down prior to cutting off casing and welding on casing head (9-5/8" SOW x 11" 3M w/ C-22 profile). Test the bradenhead weld to 500 psi. Verify surface samples are firm prior to NU wellhead. **Install wear bushing.**
3. NU BOP with the following configuration: rotating head, annular, 4-1/2" pipe rams, blind rams, mud cross, and DSA (if needed). Test all rams, upper and lower Kelly valves, all valves on choke manifold, standpipe, and mud pump lines as specified.

<b>Pressure Test</b>	<b>Low Press.</b>	<b>High Press.</b>	<b>Time</b>
Annular BOP	300 psi	1000 psi	5 min
BOP Rams	300 psi	1000 psi	5 min
Upper & Lower Kelly valves	300 psi	1000 psi	5 min
All valves on Choke Manifold	300 psi	1000 psi	5 min
Standpipe & mud lines	300 psi	1000 psi	5 min
Surface casing	300 psi	-	30 min

4. During the casing test, if the pressure has dropped more than 10% of the actual shut-in test pressure after 30 minutes, contact the Drilling Superintendent for possible remedial operations. **(This is a required RRC test)**
5. Leave chokes aligned for a soft shut in. **NOTE: After drilling out the shoe, maximum surface casing pressure should be less than 500 psi to avoid breaking down the shoe. Contact the Operations Superintendent if casing pressure approaches 500 psi.**
6. WOC a total of 12 hours before drilling out shoe.

**Production Hole Drilling/Casing**

**Keep pipe moving in open hole to avoid getting stuck**

1. PU PDC bit and BHA per attached table and TIH. **Be sure to use a ported flapper-style float in the BHA.** Email detail of BHA with morning report.
2. RIH and tag cement float equipment. Drill out cement inside of casing and float equipment.
3. Monitor rotary torque gauge and insure it is functioning.
4. Drill new formation, varying parameters to maximize ROP. Let hole conditions and ROP dictate actual parameters used. Be on the look-out for abnormal drilling string vibrations, stalling of the rotary table, changes in pump pressure, etc. Make adjustments to the drilling parameters as necessary to prevent damaging the bit.
5. If bit trip is required before reaching TD, SLM out of hole to verify drillers depth.
6. Drill down to ~4200', allowing the drilling fluid to brine-up. At ~4200', swap-out mud systems to a "Spraberry-type" FW gel system. Do not drill deeper than 4400' with brine water. If possible, conduct swap-out during the daylight. Do not shutdown to take a survey in the middle of the swap-out. **Keep pipe moving in the open hole to prevent getting stuck.**
7. **Install rotating head rubber ~50' above the top of the Wolfcamp.**
8. Prior to reaching TD, discuss the adjusted cement volume based the depth of any hole size changes (if no OH logs run) with the Drilling Supt. and make sure that the cementing company has field blend pump times.
9. Circulate until the hole is clean at TD before TOH.
10. At TD, if funnel vis is 39 or more, add 8 sx lignite to the mud to reduce vis and surge pressure while running casing. Additional lignite should be added while running csg if vis is above 36.
11. TOH & LD drill string. Monitor drag on TOO. **CONTACT DRLG SUPT IF THERE ARE ANY TIGHT SPOTS.** Work through any tight spots and verify the hole is slick.
12. Run 5-1/2" casing as specified. E-Mail the anticipated pipe tally to the Drilling Engineer prior to running pipe for a final check.
13. **KEEP PIPE MOVING IN THE OPEN HOLE---EVEN WHILE FILLING UP CASING.**

14. Cement casing as specified. **If cementing problems occur, discuss running a temperature survey with the Operations Superintendent. If needed, run the temperature log 6 to 20 hours after cementing and have the slick line company send the log and PBTD to Drilling Engineering.**
15. Be sure to report all required information on the Casing / Cementing Report and include any comments that might help in the design of future wells.
16. Verify that the annulus is static. PU the BOP and hang full string weight on the slips.
17. RDMO drilling rig.

### **Mud Program**

<b>Interval</b>	<b>Type</b>	<b>MW</b>	<b>FV</b>	<b>pH</b>	<b>API FL</b>
0 – 500'	Spud	8.3-8.7	34	10.5-11.0	NC
500' – 4200'	FW/Cut Brine	8.3-10.0	28-29	10.5-11.0	NC
4200' – 10,795'	FW/gel	8.6-9.2	40-44	10.5-11.0	Lower to 10cc @ TD only if openhole logs are needed

### **Mud Notes**

1. Drill with fresh water base spud mud to surface casing setting depth.
2. Prior to spud, it is recommended to build a high vis pill to use in the event that river bed rocks are encountered that will effect the stability of the surface hole. Drill surf hole through steel pits if additional viscosity is required.
3. Use lime as necessary to control pH.
4. MW and salinity will increase during upper portion of production hole. An elevated chloride level will increase the MW.
5. Drill hole to ~4200', allowing mud to brine up. At ~4200', swap-out mud in hole to FW gel system with adequate viscosity to prevent further leaching of the salt. Maintain MW as low as possible to reduce the likelihood of lost returns. Use cottonseed hulls for seepage and losses.
6. Have an LCM pill built prior to 6000' in the event lost returns are encountered.
7. Where available, utilize the desander to remove solids and keep MW down.
8. Take care not to add brine water while drilling with mud as this will cause mud wt to increase.
9. Allow MW to drift up to at least 9.0 ppg by the depth of the Lower Wolfcamp. If the hole will not support 9.0 ppg mud, maintain highest MW possible.

### **Corrosion Control Notes:**

Insure that the drill pipe corrosion control program is followed as per the drilling contractor's recommendation. If the contractor is not already doing so, request that H<sub>2</sub>S scavenger be added to their corrosion control program. If any unexpected water flows or H<sub>2</sub>S are encountered while drilling, make sure the rig pusher and the corrosion control vendor are notified immediately.



### **Additional Well Control Measures**

1. Request that the driller or rig pusher notify you or the Drilling Superintendent immediately if the well indicates a flow from down hole.
2. If a flow is detected, open the 4" line on the choke manifold and close the annular BOP. If possible keep the pump on the hole at slow pump rate. Reciprocate the pipe every 10 to 15 minutes to reduce the chances of getting stuck.
3. If the well must be shut-in due to safety concerns, record the SICP & the SIDPP.
4. **The casing pressure should not be allowed to go above 500 psi to avoid breaking down the surface casing shoe.**
5. Check for flow periodically while tripping. Especially check for flow before pulling drill collars.
6. From 50' above top of lower Wolfcamp to TD, monitor returns on each connection.
7. If a 5 ft drilling break is encountered anywhere in the Wolfcamp, notify Drilling Supt., stop drilling, and check for flow. If well is flowing, pull kelly out of the hole to tool joint and circ bottoms up. If well is static, drill an additional 5 ft. If still in a drilling break, pull the kelly out of the hole to tool joint, notify Drilling Supt., and circ bottoms up. Repeat this process for every additional 10 ft in the same drilling break.
8. **BE PREPARED FOR A POSSIBLE KICK ANYWHERE IN THE INTERVAL FROM THE TOP OF THE WOLFCAMP TO TD.**

**Univ3 Vincent23 #7 / Patterson 508**  
**Rig Information & Bit Program**

*Data from Patterson's Inventory & Personnel/Foreman must verify*

Derrick Rating	No. Lines	Drill Line Size	Drwks
390,500			National 610-M

**Bit Program**    *Subject to Optimization Changes at well site*

Interval	Hole Size	Make	Bit Type	IADC	WOB	RPM	Nozzles
0 - 500'	12.25	Re-Run	Tri Cone		All	120	3 X 13
500' - +8530'	7.875	SEC		PDC	20-30	65-85	7 X 13
+8530' - 10795'	7.875	SEC		PDC	20-35	60-80	7 X 13

**Univ3 Vincent23 #7 / Patterson #508  
BHA AND DRILLSTRING DATA**

All Information Subject to Verification by Foreman at Well Site

Surface Hole Drilling				Depth Range		0 - 500'								
Component	Approx. Length	Total Length	Max O.D.	Min I.D.	Top Conn.	Bottom Conn.	MU Torque*	Adj. Wt. ppf	Jt. Strength	Air Weight	Total Air Weight	Margin	Cap. (bpf)	Disp. (bpf)
Bit	1	1	12.25	-	6-5/8Reg	N/A		225	-	225	225	-	-	-
Bit Sub	3	4	8	3	6-5/8Reg	6-5/8Reg		147		441	666		0.0087	0.0534
(2) 8" DC	60	64	8	3	6-5/8Reg	6-5/8Reg	51,390	147	-	8,820	9,486	-	0.0087	0.0534
Reamer	5	69	12.25	2.25	6-5/8Reg	6-5/8Reg	53,000	157		785	10,271	-	0.0049	0.1409
(1) 8" DC	30	99	8	3	6-5/8Reg	6-5/8Reg	51,390	147	-	4,410	14,681	-	0.0087	0.0534
X/O	3	102	8	3	4-1/2XH	6-5/8Reg	-	147	-	441	15,122		0.0087	0.0534
(13) 6" DC	398	500	6.25	2.25	4-1/2XH	4-1/2XH	28,090	91	-	36,218	51,340	-	0.0049	0.0330

Production Hole Drilling			Depth Range 500' - 10,795'											
Component	Approx. Length	Total Length	Max O.D.	Min I.D.	Top Conn.	Bottom Conn.	MU Torque*	Adj. Wt. ppf	Joint Strength*	Air Weight	Total Air Weight	Margin	Cap. (bpf)	Disp. (bpf)
Bit	1	1	7.875	-	4-1/2Reg	-	-	86	-	96	96	-	-	-
6-Pt Reamer	5	6	7.875	2	4-1/2XH	4-1/2Reg	-	152		760	856		0.0039	0.0564
Pony collar	10	16	6.25	2	4-1/2XH	4-1/2XH	-	91	-	910	1,766	-	0.0039	0.0341
Reamer	5	21	7.875	2	4-1/2XH	4-1/2XH	-	152	-	760	2,526	-	0.0039	0.0564
(1) DC	30	51	6.25	2.25	4-1/2XH	4-1/2XH	28,090	91	-	2,730	5,256	-	0.0049	0.0330
Reamer	6	57	7.875	2	4-1/2XH	4-1/2XH	-	152	-	912	6,168	-	0.0039	0.0564
(20) DC	600	657	6.25	2.25	4-1/2XH	4-1/2XH	28,090	91	-	54,600	60,768	-	0.0049	0.0330
4.5 16.6 G	10138	10795	6.25	2.25	4-1/2XH	4-1/2XH	23,800	18.88	364,231	191,405	252,173	112,058	0.0049	0.0071

\*premium class drill pipe, no undersized drill collars

# Surface Casing & Cement

**Well Name:** Univ3 Vincent23 #7  
**County, State:** Upton, Texas  
**Drilling Rig:** Patterson #508

**Casing Size:** 9 5/8  
**Planned Setting Depth** 500'  
**Min / Max Setting Depth** 486' to 540'

**Hole Size:** 12 1/4

**Assumed avg. jt. Length** 42'  
**Estm. # of jts.** 11.9

## Bow Type Centralizers (every 4th jt. & top jt.)

- pin end of top Jt.	1
- pin end of Jt. #10	1
- pin end of Jt. #7	1
- pin end of Jt. #3	1
- 7' above shoe	1
<b>Total needed</b>	<b>5</b>

## Casing Design

Interval Length	500'
Weight - lbs/ft	36.0#
Grade	J-55
Nominal ID	8.921
Drift ID	8.765
Cap. (bpf)	0.0773
Connection	STC
Connection OD	10.625
Collapse	2020
Collapse Load Scenario	Evac. Inside
<b>Collapse DF≥1.125</b>	<b>9.14</b>
Burst	3520
Burst Load Scenario	Max test pres.
<b>Burst DF≥1.25</b>	<b>2.33</b>
Tensile Body (kips)	564
Tensile Conn. (kips)	394
<b>Tensile DF≥1.8 (air wt.)</b>	<b>21.89</b>
Min. MU torque	2955
<b>Opt. MU torque</b>	<b>3940</b>
Max. MU torque	4925
Hookload in Air	18 kips
Hookload in Mud	16 kips
Hookload w/ cmt in place	4 kips

1. Drill to setting depth plus footage to make the cmt head near the rig floor.
2. Run a Texas Pattern shoe, full shoe jt. & float collar.
3. If a PDC bit is not planned by the contractor use an insert float.
4. Make sure that the FC, shoe, & wiper plug are PDC drillable (if a PDC is planned)
5. Fill up as needed using a swedge
6. Makeup casing to the optimum torque for the pin end of each connection
7. Thread-lock the casing shoe & the pin end of the 2nd & 3rd joints
8. Use Best-O-Life 2000 pipe dope on box & pin of all other connections
9. Circulate at least 1 bottoms up with casing 1'± off bottom
10. RU cementing co. & Pump cement and displacement at 6-8 BPM
11. DO NOT reciprocate pipe. Catch wet & dry samples of lead & tail slurries
12. Drop wiper plug (do not flush cement lines to the pit).
13. DO NOT over displace by more than 1 barrel over calculated displacement.
14. If floats do not hold, rock floats in an attempt to get them to hold.
15. If floats still do not hold, shut-in 6 hrs. & check surf. samples prior to releasing pres.
16. If cmt does not circulate, call TRRC and the Operations Coordinator

## NOTE ON THE CASING - CEMENT REPORT:

a. Number of sacks of cement used
b. Slurry recipe
c. Slurry yield & slurry density
d. Number of centralizers used
e. The final lift pressure at reduced rate
f. Estimated % returns and/or lost circulation
g. Sacks of cement circulated
h. Time, contact person & details of all calls to TRRC
i. Time & date of spud and the time & date of plug down

## Cement Design - BJ Services

FW Pre-flush	30 bbls	Hole size	12.250 in
		Calc. lift press.	150 psi
<b>Lead Cement</b>	<b>None</b>	Density	
		Yield	
		Water Req'd	
		% Excess OH	
<b>Tail Cement</b>	Surface	500' BOC	Density 14.8 ppg
Sacks (incl shoe)	<b>315 sx</b>		Yield 1.35 cf/sk
Slurry Volume	<b>76 bbls</b>		Water Req'd 6.36 gal/sk
Mix Water	<b>48 bbls</b>		% Excess OH 159%
<b>Lead Slurry</b>	<b>Tail Slurry</b>		
	Class "C"		
	2% CaCl		
	1/8 pps celoflake		

Estm. Displacement 35.4 bbls

RECALCULATE ACTUAL DISPLACEMENT USING THE FINAL  
PIPE TALLY AS RAN IN THE HOLE

**No Fluid Caliper recommended.**

If lost circ while drig surf hole, pmp 20 - 30 bbls frac gel ahead of cmt and possibly 3 pps Kolseal in lead. Also discuss w/ Dril Supt. Hauling 200-300 sxs additional Class C neat & CaCl (not blended) for a possible 1" job.

# Production Casing & Cement

Well Name: Univ3 Vincent23 #7

County, State: Upton, Texas

Casing Size: 5 1/2

<b>Top of Ryt-wrap 3,985'</b>	
<b>Bottom of Ryt-wrap 6,720'</b>	
Marker jt. @	6,720'
Marker jt. @	8,100'
Float Collar @	10,775'
Length of Shoe jt.	20'
<b>Casing Shoe @ 10,795'</b>	
Assumed avg jt length	42.5'

## Bow Type Centralizers

pin end of every third jt. to top marker jt.	32
7' above shoe	1
<b>Total needed</b>	<b>33</b>

## Casing Design

Top of Interval	0	0'	0'
Bottom of Interval			10,795'
Interval Length	0'	0'	10,795'
Weight - lbs/ft			17.0#
Grade			N-80
Nominal ID			4.892
Drift ID			4.767
Cap. (bpf)			0.0233
Connection			LTC
Connection OD			6.05
Collapse Rating			6280
Collapse Load Scenario	Evac. Inside		
<b>Collapse DF21.125</b>			<b>1.24</b>
Burst Rating			7740
Burst Load Scenario	5000# frac press.		
<b>Burst DF21.25*</b>			<b>1.42</b>
Ten. Body Rating (kips)			397
Ten. Conn. Rating (kips)			348
<b>Ten. DF21.8 (air wt.)**</b>			<b>1.90</b>
Min. MU torque			2610
<b>Opt. MU torque</b>			<b>3480</b>
Max. MU torque			4350

Calc. Hookload in Mud 158 kips

Calc. Hookload w/ cmt in place 120 kips

Hookload in Air 184 kips

(Hookloads do not include weight of traveling equip.)

\*\*Safety factor of 1 is for test & screenout conditions

for frac stimulation w/ management approval

1. Make sure that the Hydril has been function tested and in good working order
2. Stop to fill up casing every 40 to 50 jts. & use a swedge to fill casing
3. Run the first 95 jts. (4000' +/-) lowering each jt. at not less than 25 sec / jt.
4. Circulate for 1-1/2 hrs then run remaining casing lowering at not less than 25 sec / jt.
5. **KEEP PIPE MOVING AS MUCH AS POSSIBLE TO AVOID GETTING STUCK**
6. Have Ryt-Wrap Tech patch all damage to Ryt-wrap caused by tongs, slips, & elev.
7. Make sure cementing co. has proper swedges for casing (LTC)
8. Makeup casing to the optimum torque for the pin end of each connection
9. Thread-lock the casing shoe & the pin end of the 2nd & 3rd joints
10. Use Best-O-Life 2000 pipe dope on box & pin of all other connections
11. **Do not pull more than 20,000# over the current actual string weight of casing**  
(Call Drilling Coordinator if necessary to exceed this hookload)
12. Circulate 1.5 casing volumes with casing 1'± off bottom  
(Discuss circ. time w/ Operations Coordinator if well has had a gas kick)
13. RU cementing co. & pump cement and displacement at 6-8 BPM
14. DO NOT reciprocate pipe. Catch wet & dry samples of lead & tail slurries
15. Drop wiper plug and flush cement lines to the pit.
16. Verify that the valve on the wash-up line is not leaking.
17. Monitor vol. of fluid in the mix tub to verify valve between mix tub & disp. tanks isn't leaking.
18. Gauge acid transport before & after pumping acid.
19. Unhook lines from transport after pumping acid.
20. Displace @ 6-7 BPM. Reduce rate to 2 BPM for the last 10 bbls. (Do not exceed 8 BPM)
21. If plug has not bumped by calculated displacement, over displace by up to 1 bbl.
22. If plug still has not bumped & the precautions listed have been followed, over displace by up to 4 additional barrel.
23. DO NOT over displace by more than a total of 5 barrels over calculated displacement.
24. If floats do not hold, rock floats in an attempt to get them to hold.
25. If floats still do not hold, shut-in 6 hrs. & check surface samples prior to releasing press.
26. If problems occur while cementing, discuss a Temp survey with the Operations Supt.

## NOTE ON THE CASING - CEMENT REPORT:

- a. Number of sacks of cement used
- b. Slurry recipe
- c. Slurry yield & slurry density
- d. Number of centralizers used
- e. The final lift pressure at reduced rate
- f. Estimated % returns and/or lost circulation
- g. Actual casing weight set on slips (not including wt. of blocks)
- h. Time, contact person & details of all calls to TRRC
- i. Time & date of plug down and time & date of rig release
- j. ph & Sp. Grav. of Acetic acid

## Cement Design - BJ Services

FW ahead of cmt	0 bbls		
FW Pre-flush	30 bbls	OH Size to:	
BJ's Sure Bond III	24 bbls	OH Size to:	TD > 7 7/8
FW Spacer	30 bbls	Calc. lift press.	1,690 psi

## Lead Cement w/ top @

NONE

## Tail Cement w/ top @ 5,845'

Density 14.2 ppg

Sacks (incl shoe) **890 sx**

Yield 1.25 cf/sk

Slurry Volume **200 bbls**

Water Req'd 5.71 gal/sk

Total Mix Water 121 bbls

% Excess OH 30%

## Lead Slurry

NONE

## Tail Slurry

50:50 H:Poz

2% Gel

.005 gps FP13L

0.2% FL-52A

1% Salt

(Salt is optional to adjust pump time)

Target pump time = 2.75 to 3.5 hrs.

(Estm. Displacement) 251 bbls (1000 gals 10% acetic acid followed by fr wtr)

**Note: Acetic acid should have a ph =1 to 2.5 & SG=1.009 to 1.03**

RECALCULATE ACTUAL DISPLACEMENT USING THE FINAL PIPE TALLY AS RAN IN THE HOLE

**HENRY PETROLEUM LP**  
**Drilling Prognosis – UNIV3 VINCENT23 #7**

Date: 9/22/2008

Revised: \_\_\_\_\_

KB: 2651'                      GL: 2635'  
Patterson #508                      GL to KB = 16'

**FORMATION TOPS**

Formations & Pays	Est. Top	Comments
San Andres	4,185	
Clearfork	6,345	
Spraberry	6,720	
Dean	8,100	
Wolfcamp	8,285	
Lower Wolfcamp	8,545	
Base WC BBLime	10,645	
<b>Total Depth</b>	<b>10,795</b>	

**WELLSITE GEOLOGY**

From-To	Sample Interval	Drilling Time Interval	Mudlogging Program
NONE			

**ELECTRIC LOGGING PROGRAM**

Open hole:	NONE.
Cased hole:	Halliburton - Compensated Neutron - GR-CCL TD to 3950'. GR to surface.

**CASING**

--

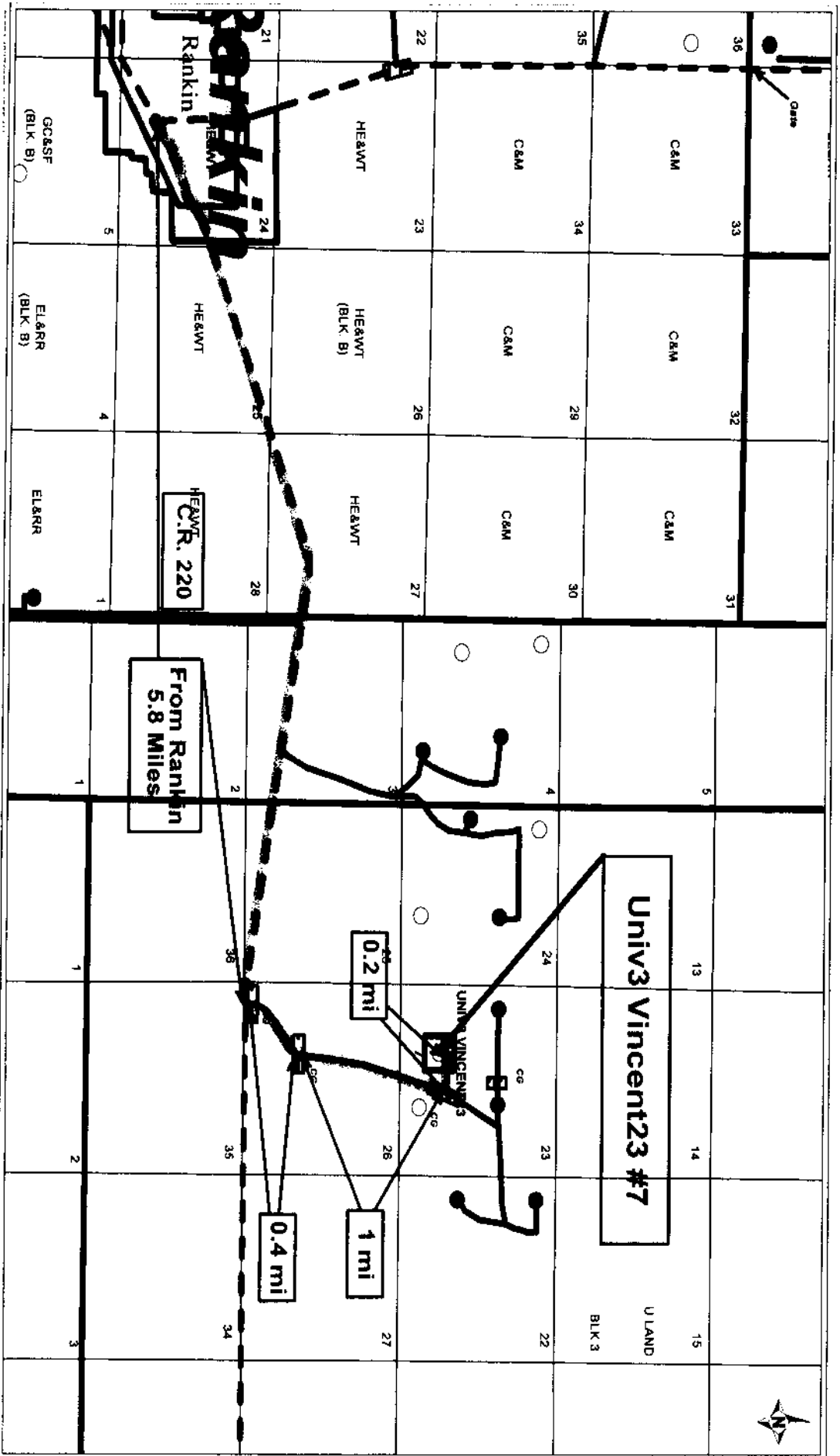
**LOCATION**

1320' FSL & 1980' FWL, Sec. 23, Blk. 3, ULS Survey  
Upton County, Texas

**DIRECTIONS TO THE UNIV3 VINCENT23 #7 LOCATION**

From Hwy 349 in Rankin, go East on Hwy 67 for 5 miles.  
Turn left (North), go through cattle guard & continue North for 0.4 miles.  
At second cattle guard, go North 1 mile. Turn left (West) go through the third cattle guard and go (West) 0.2 miles to location.

**API #42-461- 36188**



# **DIRECTIONS TO THE UNIV3 VINCENT23 #7 LOCATION**

From Hwy 349 in Rankin, go East on Hwy 67 for 5 miles.

Turn left (North), go through cattle guard & continue North for 0.4 miles.

At second cattle guard, go North 1 mile. Turn left (West) go through the third cattle guard and go (West) 0.2 miles to location.

**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <b>673728</b>	DATE PERMIT ISSUED OR AMENDED <b>Oct 25, 2008</b>	DISTRICT <b>* 7C</b>		
API NUMBER <b>42-461-36188</b>	FORM W-1 RECEIVED <b>Oct 23, 2008</b>	COUNTY <b>UPTON</b>		
TYPE OF OPERATION <b>NEW DRILL</b>	WELLBORE PROFILE(S) <b>Vertical</b>	ACRES <b>659.5</b>		
OPERATOR <b>HENRY PETROLEUM LP</b>		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: <b>(325) 657-7450</b>		
LEASE NAME <b>UNIV3 VINCENT23</b>		WELL NUMBER <b>7</b>		
LOCATION <b>5.6 miles NE direction from RANKIN</b>		TOTAL DEPTH <b>11000</b>		
Section, Block and/or Survey SECTION ◀ <b>23</b> BLOCK ◀ <b>3</b> ABSTRACT ◀ SURVEY ◀ <b>UNIVERSITY LAND</b>				
DISTANCE TO SURVEY LINES <b>1320 ft. SOUTH    1980 ft. WEST</b>		DISTANCE TO NEAREST LEASE LINE <b>1320 ft.</b>		
DISTANCE TO LEASE LINES <b>1320 ft. SOUTH    1980 ft. WEST</b>		DISTANCE TO NEAREST WELL ON LEASE <b>See FIELD(s) Below</b>		
FIELD(s) and LIMITATIONS: <p align="center"><b>* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</b></p>				
FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH	WELL # NEAREST WE	DIST
-----	-----	-----	-----	-----
<b>SHEEP MOUNTAIN (CONSOLIDATED)</b>	<b>659.50</b>	<b>10,000</b>	<b>7</b>	<b>7C</b>
<b>UNIV3 VINCENT23</b>	<b>1320</b>		<b>2484</b>	
<p align="center"><b>THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</b></p> <p>This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.</p>				



# Block 3, University Land

S 88°49'22" E 5391.89'

HENRY PETROLEUM LP

(85)

13

24

(96)

(86) (87)

14 15

23 22

(95) (94)

N 172°11' E 5329.36'

#14

#13

#7

EL  
2635

1980'

1320'

Univ3 Vincent23

659.5 Acres

Fnd. Univ Mon.

25

(97)

S 88°49'42" E 5390.01'

26 27

(98) (99)

Note: Survey Reconstruction filed in the Office of Luchini and Mertz Land Surveying Company.

Note: All bearings and coordinates shown are based on the Texas Coordinate System of 1927, Central Zone.

A combined grid factor of 0.9997709 must be divided into Section Line distances to obtain a true horizontal distance.

Note: Example: (S-99999) indicates General Land Office file number.

Note: NAD '27 Coordinates & Latitude/Longitude on well location in Section 23.

Note: Well location is approximately 5.6 miles northeast of Rankin.

#7

X: 1525199.65

Y: 578906.39

Latitude - 31°14'58.295" N

Longitude - 101°51'10.094" W

Railroad Commission Permit Plat

HENRY PETROLEUM LP  
"Univ3 Vincent23" Lease  
all of  
Section 23, Block 3,  
University Land,  
Upton County, Texas

SCALE: 1" = 1000'

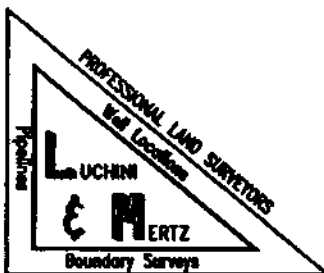
10-23-08



Steven L. Prewit

October 20, 2008

081020P1



PLEASE  
DO NOT STAPLE

## DEPTH OF USABLE-QUALITY GROUND WATER TO BE PROTECTED

### PLEASE READ ALL INSTRUCTIONS

The information requested is essential in order for this agency to provide an appropriate response. Please allow for receipt of this form in our offices at least two weeks before your operation begins. Due to the volume of these requests, at times, it may be difficult for us to handle telephone inquiries. Complete, keep the bottom sheet (goldenrod) for your files, and mail the top 3 sheets of the 4-sheet set of carbon-backed forms with a map to the address below. One sheet bearing our response will be returned to you. Another will be sent to the appropriate district office of the Railroad Commission. Individuals are entitled to request and review their personal information that the agency gathers on its forms. If you have questions on how to fill out this form or about the Surface Casing program, please contact us at 512/239-0515.

Surface Casing - MC 151

Date 10/10/2008

TCEQ File No.: SC-

7532

TCEQ

P.O. Box 13087

Austin, TX 78711-3087

ROY L. JOHNSON

(432) 561-7222

Name of person preparing this request & phone No. (with area code)

HENRY PETROLEUM LP 378642

Company (operator's name as on RRC form W-1)

3525 Andrews Highway - Suite 200

Mailing Address

Midland TX 79703-5000

City and State

ZIP Code

FOR TCEQ USE ONLY

### ALWAYS INCLUDE A MAP SHOWING YOUR WELL SITE AND ALL SURROUNDING SURVEYS

COUNTY	UPTON	Survey Name	UNIVERSITY LANDS
Block No.	3	Township	Section or Survey No. 23 (or) Lot No.
Abstract No. A-	LEASE Name	Univ3 Vincent23	Well No. 7
Distances, in feet, and directions measured at right angles from each of two intersecting		<input type="checkbox"/> Section or	<input type="checkbox"/> Survey lines
(NOT LEASE LINES) 1320 feet from SOUTH line and 1980 feet from WEST line.			
Distance (in miles) and direction from a nearby town in this County (name the town)			
5 miles NE from Rankin			
THE ABOVE INFORMATION IN THIS BLOCK MUST BE COMPLETE AND CORRECT			
API #	RRC Lease No.		RRC Dist. No. 7C
GPS Coord. (long/lat or X-Y state plane)			NAD

Elevation \_\_\_\_\_ Total Depth 10800 \_\_\_\_\_ Geologic Fm. at T.D. Wolfcamp

Purpose of the Request: ☒ New Drill ☐ Re-entry ☐ Plug & Abandon ☐ Other (specify) \_\_\_\_\_

Is this an amended request? ☐ Yes ☒ No

Previous File No. for this well: SC- \_\_\_\_\_

☐ Log included of same or nearby well (The applicable type of well log that shows the aquifers.) Please provide a location map or API# for attached log.

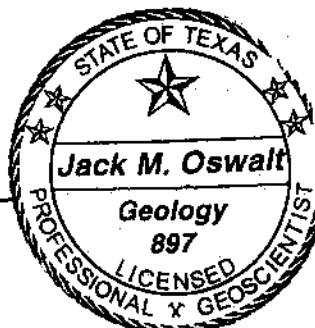
ALWAYS attach the electric log of any well that is to be reentered.

Additional remarks: \_\_\_\_\_

To protect usable-quality ground water at this location, the TEXAS COMMISSION ON ENVIRONMENTAL QUALITY recommends:

CO-UPTON, SUR-UL, BLK-3, SEC-23, LSE-UNIV3 VINCENT23, #6/450

The interval from the land surface to 20 feet below the base of the Cretaceous-age beds must be protected. The base of the Cretaceous is estimated to occur at a depth of 450 feet.



Very truly yours,

Jack M. Oswalt, P.G.

Date

October 21, 2008

Geologist, Surface Casing, TCEQ

typed by TCEQ

NOTE: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Approval of the well-completion methods for protection of this ground water falls under the jurisdiction of the Railroad Commission of Texas. This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operations into a nonproductive zone (RRC Form W-14).

TCEQ-0051 (Rev. 05-10-2006)

TYPE OR PRINT IN INK

FOLD

DO NOT WRITE HERE  
FOR TCEQ USE ONLY