

EXHIBIT “C”

09/01/2006

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY ALESSO EAST 125

CUSTOMER : GRIMMWAY FARMS
WELL # : ALESSO EAST WELL
METER : 345M001071
LEGAL :
LOCATION : NW CORNER OF 180TH ST W AND GASKELL
TEST DATE : 09/01/2006

EQUIPMENT

Motor: WESTINGHOUSE HP:125 Volts:480 R.P.M.:1770 Serial No:527B531641
Frame: Type:
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	280	FT
Draw Down From Standing to Pumping Level	13	FT
Pumping Water Level	293	FT
Discharge Head Above Ground	GA-112.0	258.7 FT
TOTAL LIFT	551.7	FT
WATER PUMPED	743	GPM.
Yield of Well (G.P.M. per foot Draw Down)	57.2	GPM/FT
HORSEPOWER INPUT TO MOTOR	162.5	H.P.
OVERALL PLANT EFFICIENCY	63.7	%
Acre Foot in 24 Hours	3.28	
Kilowatt Input to Motor	121.23	
Kilowatt Hours/Acre Foot Pumped	886.10	
Average Cost per KW		
Cost Per Acre Foot		

REVS: 43/61.3 OKAY DOING GOOD JOB
KH: 1.20
K: 40
ID: 101/4 82.50
SCALE: 9
AIRLINE:

TEST ENGINEER Jim Weir

WDS000111

09/30/2006 02:59 pm

S. A. CAMP PUMP COMPANY

JOA

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PUMP TEST FILE REPORT
GRIMMWAY ALESSO EAST 125

Name GRIMMWAY FARMS
Well ALESSO EAST WELL
Meter 345M001071
Legal
Location NW CORNER OF 180TH ST W AND
GASKELL

PUMP DATA INSTALLATION DATE 08/07/1998
PUMP SETTING 400
AIRLINE NONE
CTES SIZE 10 X 2 1/2 X 11/2
HOWLS 8 STAGES 11CHCA9 GOULDS
WELL DEPTH 14 TO 512
BANK 145 PERFORATIONS 466

Motor WESTINGHOUSE HP 125 Volts 480 R.P.M. 1770 Serial 627B531641
Frame Type Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	09/11/98	07/14/99	10/06/00	09/26/05	12/20/05	12/20/05	09/01/06
STANDING							
WATER	267.5'	270'	280'	278'	273.5'	273.5'	280'
DRAW DOWN	16.5'	14'	17'	12'	14.5'	13.9'	13'
PUMPING							
WATER	284'	284'	297'	290'	288'	287.4'	293'
DISCHARGE							
HEAD	177.2'	244.9'	184.8'	254.1'	136.3'	187.1'	258.7'
TOTAL							
LIFT	461.2'	528.9'	481.8'	544.1'	424.3'	474.5'	551.7'
G.P.M.	1111	916	1064	611	1155	1023	743
GPM/FT	67.3	65.4	62.6	50.9	79.7	73.6	57.2
H.P./RPM	176.1	165.5	174.3	164.4	175.4	170.4	162.5
EFF.	73.5	73.9	74.3	51.1	70.5	71.9	63.7
AC FT IN							
24 HRS	4.91	4.05	4.70	2.70	5.10	4.52	3.28
KW TO							
MOTOR	131.37	123.46	130.03	122.64	130.84	127.12	121.23
KW HOURS							
PER AC FT	642.1	732.0	663.7	1090.1	615.2	674.8	886.1
COST							
PER AC/FT							

WDS000112

S. A. CAMP PUMP COMPANY
Date: 07/10/99 13:05

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PUMP ESTIMATE REPORT
GRIMMWAY 125 ALLESSO E

CUSTOMER: GRIMMWAY FARMS
WELL # : ALLESSO WELL EAST
METER : P831-2998
LEGAL :
LOCATION: NW CORNER OF 180 TH ST W AND GASKELL

MOTOR WESTING HP 125 VOLTS 480 R.P.M. 1770 SERIAL 627B531G41
FRAME TYPE: PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

9 STAGES 11"CHCA9 GOULDS

G.P.M.	HEAD	B HP	BOWL EFF.	FIELD HEAD	FIELD INPUT HP	FIELD EFF.
1200	432.0	168.6	80.0%	410	177.5	70.0 %
1100	486.0	167.7	83.0%	470	176.5	74.0 %
1000	540.0	165.4	85.0%	520	174.1	75.4 %
900	585.0	159.5	86.0%	570	168.0	77.1 %
800	621.0	150.9	86.0%	610	158.8	77.6 %
700	639.0	137.9	85.0%	630	145.2	76.7 %
600	657.0	129.4	80.0%	650	136.2	72.3 %

DATE OF LAST WORK: 07/07/98
PUMP SETTING: 400 ft.
AIRLINE: 400 ft.
C.T.S. 0400-10" X 21/2" X 11/2"
BOWLS: 9 STAGES 11"CHCA9 GOULDS
WELL INFORMATION:

10/01/2007

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMWAY ALESSO WEST 200

CUSTOMER : GRIMWAY FARMS
WELL # : ALESSO WEST WELL
METER : 345M001064
LEGAL : 1/4 6522
LOCATION : 1/2 MILE WEST OF 180ST W ON NORTH SIDE OF GASKELL
TEST DATE : 10/01/2007

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:986944
Frame: 587 Type: CPU
Pump : PEERLESS Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	275 FT
Draw Down From Standing to Pumping Level	20 FT
Pumping Water Level	295 FT
Discharge Head Above Ground	GA-20.0 46.2 FT
TOTAL LIFT	341.2 FT
WATER PUMPED	1345 GPM.
Yield of Well (G.P.M. per foot Draw Down)	67.3 GPM/FT
HORSEPOWER INPUT TO MOTOR	208.5 H.P.
OVERALL PLANT EFFICIENCY	55.6 %
Acre Foot in 24 Hours	5.94
Kilowatt Input to Motor	155.54
Kilowatt Hours/Acre Foot Pumped	628.06
Average Cost per KW	
Cost Per Acre Foot	

REVS: 55/61.1 OFF MAYBE 100 GPM
KH: 1.20
K: 40
ID: 101/4 82.50
SCALE: 16.30
AIRLINE:

TEST ENGINEER Jim Weir

WDS000114

S . A . CAMP PUMP COMPANY

10/16/2007 05:00 pm

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PUMP TEST FILE REPORT

GRIMMWAY ALESSO WEST 200

Name GRIMMWAY FARMS
Well ALESSO WEST WELL
Meter 345MC01064
Legal
Location 1/2 MILE WEST OF 180ST W ON
NORTH SIDE OF GASKELL

!PUMP DATA INSTALLATION DATE 09/11/1998
!PUMP SETTING 385
!AIRLINE NONE
!CT&S SIZE 10 X 3 1/2 X 3 X 23/16 & 115/16
!BOWLS 9 STAGES 12DKHA9 FLOWAY
!WELL DEPTH 14 TO 616
!BLANK 310 PERFORATIONS 306

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 986944
Frame 587 Type CFU Pump PEERLESS Type Oil Lube Turbine

DATE	09/08/98	07/14/99	09/26/05	09/01/06	10/01/07
STANDING					
WATER	269.4'	265'	280'	282'	275'
DRAW DOWN	22.9'	23'	20'	18'	20'
PUMPING					
WATER	292.3'	288'	300'	300'	295'
DISCHARGE					
HEAD	180.2'	226.4'	231'	254.1'	46.2'
TOTAL					
LIFT	472.5'	514.4'	531'	554.1'	341.2'
G.P.M.	1312	1060	1114	1073	1345
GPM/FT	57.3	46.1	55.7	59.6	67.3
H.P./RPM	219.3	218.9	209.6		208.5
EFF.	71.4	62.9	71.3		55.6
AC FT IN					
24 HRS	5.80	4.58	4.92	4.74	5.94
KW TO					
MOTOR	163.60	163.30	155.36		155.54
KW HOURS					
PER AC FT	677.2	836.5	762.2		628.0
COST					
PER AC/FT					

WDS000115

S . A . CAMP PUMP COMPANY

Date: 07/20/99 08:37

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PUMP ESTIMATE REPORT

GRIMMWAY 200 ALESSO W

CUSTOMER: GRIMMWAY FARMS

WELL # : ALESSO WEST WELL

METER : 729K-1593

LEGAL :

LOCATION: 1/2 MILE WEST OF 180 ST W ON NORTH SIDE OF GASKELL

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 1398414
FRAME TYPE: PUMP: BEERLESS TYPE: Oil Lube Turbine

9 STAGES 12"DKHA9 FLOWAY 1992

LAB	BOWL	FIELD	FIELD
G.P.M.	HEAD	B HP	EFF. %
HEAD	INPUT HP	EFF. %	
1600	324.0	189.1	72.5%
1520	369.0	192.4	77.0%
1400	432.0	197.1	81.0%
1320	468.0	197.6	82.5%
1200	504.0	192.5	83.0%
1120	540.0	194.8	82.0%
1000	558.0	185.7	79.5%

DATE OF LAST WORK: 09/11/98

PUMP SETTING: 385 ft.

AIRLINE: 385 ft.

C.T.S. 0300-10" X 31/2" X 23/16"

C.T.S. 0085-10" X 3" X 115/16"

BOWLS: 9 STAGES 12"DKHA9 FLOWAY 1992

WELL INFORMATION:

WDS000116

08/04/2008

S.A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY VODERMARK

CUSTOMER : GRIMMWAY FARMS
WELL # : VODERMARK
METER : 349M008312
LEGAL :
LOCATION : 175 STREET WEST AND GASKELL RD 5 MILES NORTH AND 1/2 MILE WE
TEST DATE : 08/04/2008

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:1354249
Frame: 1504 Type: HU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	297	FT
Draw Down From Standing to Pumping Level		FT
Pumping Water Level		FT
Discharge Head Above Ground	GA-100.0	231 FT
TOTAL LIFT		FT
WATER PUMPED	743	GPM.
Yield of Well (G.P.M. per foot Draw Down)		GPM/FT
HORSEPOWER INPUT TO MOTOR	188.3	H.P.
OVERALL PLANT EFFICIENCY		%
Acre Foot in 24 Hours	3.28	
Kilowatt Input to Motor	140.47	
Kilowatt Hours/Acre Foot Pumped	1026.78	
Average Cost per KW		
Cost Per Acre Foot		

REVS: 33/60.9 OFF 200 TO 250 GPM BASED ON TOTAL LIFT OF 560
KH: 1.80
K: 40
ID: 101/4 82.50
SCALE: 9
AIRLINE:

TEST ENGINEER Jim Weir

WDS000209

S . A . C A M P P U M P C O M P A N Y

08/16/2008 02:47 pm

RD WATER

Page: 1

P U M P T E S T F I L E R E P O R T

GRIMMWAY VODERMARK

Name GRIMMWAY FARMS
Well VODERMARK
Meter 349M008312
Legal
Location 175 STREET WEST AND GASKELL RD
5 MILES NORTH AND 1/2 MILE WE

!PUMP DATA INSTALLATION DATE
!PUMP SETTING
!AIRLINE
!CT&S SIZE
!BOWLS
!WELL DEPTH

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 1354249
Frame 1504 Type HU Pump LAYNE AND BOWLER Type Oil Luba Turbine

DATE	09/26/05	10/01/07	10/01/07	08/04/08				
STANDING								
WATER	286'	290'	290'	297'				
DRAW DOWN								
PUMPING								
WATER								
DISCHARGE								
HEAD	231'	92.4'	92.4'	231'				
TOTAL								
LIFT								
G.P.M.	990	1196	1196	743				
GPM/FT								
H.P./RPM	212.6	212	212	188.3				
EFF.								
AC FT IN								
124 HRS	4.37	5.29	5.29	3.28				
KW TO								
MOTOR	158.60	158.15	158.15	140.47				
KW HOURS								
PER AC FT	870.0	718.1	718.1	1026.7				
COST								
PER AC/FT								

WDS000210

07/16/2010

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW179 PE1187

CUSTOMER : GRIMMWAY FARMS
WELL # : DW179 PE1187 BOZIGIAN
METER : 345M-00688
LEGAL :
LOCATION : 3 MILES WEST OF WILLOW SPRINGS RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD
TEST DATE : 07/16/2010

EQUIPMENT

Motor: U.S. HP:125 Volts:480 R.P.M.:1800 Serial No:1304958
Frame: 1445P Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground		376 FT
Draw Down From Standing to Pumping Level		30 FT
Pumping Water Level		406 FT
Discharge Head Above Ground	GA-50.0	115.5 FT
TOTAL LIFT		521.5 FT
WATER PUMPED		718 GPM.
Yield of Well (G.P.M. per foot Draw Down)		23.9 GPM/FT
HORSEPOWER INPUT TO MOTOR		161.6 H.P.
OVERALL PLANT EFFICIENCY		58.5 %
Acre Foot in 24 Hours		3.17
Kilowatt Input to Motor		120.55
Kilowatt Hours/Acre Foot Pumped		911.87
Average Cost per KW		
Cost Per Acre Foot		

REVS: 42/60.2 OKAY OFF MAYBE 100 GPM
KH: 1.20
K: 40
ID: 101/2 86.50
SCALE: 8.30
AIRLINE:

TEST ENGINEER JACK FARLEY

WDS000348

S . A . C A M P P U M P C O M P A N Y

08/07/2010 10:23 am

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW179 PE1187

Name GRIMMWAY FARMS
Well DW179 PE1187 BOZIGIAN
Meter 345M-00688
Legal
Location 3 MILES WEST OF WILLOW SPRINGS
RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD

PUMP DATA INSTALLATION DATE
PUMP SETTING
AIRLINE
CT&S SIZE
BOWLS
WELL DEPTH

Motor U.S. HP 125 Volts 480 R.P.M. 1800 Serial 1304958
Frame 1445P Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/01/08	08/27/09	07/16/10					
STANDING								
WATER	348'	360'	376'					
DRAW DOWN	24'	25'	30'					
PUMPING								
WATER	372'	385'	406'					
DISCHARGE								
HEAD	120.1'	173.3'	115.5'					
TOTAL								
LIFT	492.1'	558.3'	521.5'					
G.P.M.	865	822	718					
GPM/FT	36	32.9	23.9					
H.P./RPM	171.2	172	161.6					
EFF.	62.8	67.4	58.5					
AC FT IN								
24 HRS	3.82	3.63	3.17					
KW TO								
MOTOR	127.72	128.31	120.55					
KW HOURS								
PER AC FT	801.8	847.7	911.8					
COST								
PER AC/FT								

WDS000349

S . A . C A M P P U M P C O M P A N Y

08/07/2010 10:23 am

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW179 PE1187

Name	GRIMMWAY FARMS	!PUMP DATA INSTALLATION DATE	!
Well	DW179 PE1187 BOZIGIAN	!PUMP SETTING	!
Meter	345M-00688	!AIRLINE	!
Legal		!CT&S SIZE	!
Location	3 MILES WEST OF WILLOW SPRINGS	!BOWLS	!
	RD AND 1/4 MILE SOUTH OF	!WELL DEPTH	!
	ROSAMOND BLVD	!	!

Motor U.S.	HP 125	Volts 480	R.P.M. 1800	Serial 1304958
Frame 1445P	Type RU	Pump LAYNE AND BOWLER	Type Oil Lube Turbine	

DATE	08/16/01	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06	09/28/07
STANDING								
WATER	351'	322'	355'	353'	351'	340'	341'	320'
DRAW DOWN	47'	70'	32'	37'	30'	33'	23'	25'
PUMPING								
WATER	398'	392'	387'	390'	381'	373'	364'	345'
DISCHARGE								
HEAD	127.1'	11.6'	138.6'	80.9'	80.9'	23.1'	143.2'	23.1'
TOTAL								
LIFT	525.1'	403.6'	525.6'	470.9'	461.9'	396.1'	507.2'	368.1'
G.P.M.	796	1038	744	865	977	1012	692	848
GPM/FT	16.9	14.8	23.3	23.4	32.6	30.7	30.1	33.9
H.P./RPM	179.4	178.5	165.7	177.6	171.3	176.7	164.1	170.6
EFF.	58.8	59.3	59.6	57.9	66.5	57.3	54	46.2

AC FT IN								
124 HRS	3.52	4.59	3.29	3.82	4.32	4.47	3.06	3.75
KW TO								
MOTOR	133.83	133.16	123.61	132.49	127.79	131.82	122.42	127.26
KW HOURS								
PER AC FT	913.1	696.7	902.3	831.8	710.3	707.4	960.7	815.0
COST								
PER AC/FT								

WDS000350

08/01/2008

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW179 PE1187

CUSTOMER : GRIMMWAY FARMS
WELL # : DW179 PE1187
METER : 345M-00688
LEGAL :
LOCATION : 3 MILES WEST OF WILLOW SPRINGS RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD
TEST DATE : 08/01/2008

EQUIPMENT

Motor: U.S. HP:125 Volts:480 R.P.M.:1800 Serial No:1304958
Frame: 1445P Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground		348 FT
Draw Down From Standing to Pumping Level		24 FT
Pumping Water Level		372 FT
Discharge Head Above Ground	GA-52.0	120.1 FT
TOTAL LIFT		492.1 FT
WATER PUMPED		855 GPM.
Yield of Well (G.P.M. per foot Draw Down)		36 GPM/FT
HORSEPOWER INPUT TO MOTOR		171.2 H.P.
OVERALL PLANT EFFICIENCY		62.8 %
Acre Foot in 24 Hours		3.82
Kilowatt Input to Motor		127.72
Kilowatt Hours/Acre Foot Pumped		801.87
Average Cost per KW		
Cost Per Acre Foot		

REVS: 45/60.9 OKAY
KH: 1.20
K: 40
ID: 101/2 86.50
SCALE: 10
AIRLINE:

TEST ENGINEER Jim Weir

WDS000351

S . A . C A M P P U M P C O M P A N Y

08/16/2008 08:59 am

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DWL79 PE1187

Name GRIMMWAY FARMS
 Well DWL79 PE1187
 Meter 345M-00688
 Legal
 Location 3 MILES WEST OF WILLOW SPRINGS
 RD AND 1/4 MILE SOUTH OF
 ROSAMOND BLVD

!-----!
 !PUMP DATA INSTALLATION DATE!
 !PUMP SETTING!
 !AIRLINE!
 !CT&S SIZE!
 !BOWLS!
 !WELL DEPTH!
 !
 !
 !-----!

Motor U.S. HP 125 Volts 480 R.P.M. 1800 Serial 1304958
 Frame 1445P Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/01/08						
STANDING							
WATER	348'						
DRAW DOWN	24'						
PUMPING							
WATER	372'						
DISCHARGE							
HEAD	120.1'						
TOTAL							
LIFT	492.1'						
G.P.M.	865						
GPM/FT	36						
H.P./RPM	171.2						
EFF.	62.8						
AC FT IN							
24 HRS	3.82						
KW TO							
MOTOR	127.72						
KW HOURS							
PER AC FT	801.8						
COST							
PER AC/FT							

WDS000352

S . A . C A M P P U M P C O M P A N Y

08/16/2008 08:59 am

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW179 PE1187

Name	GRIMMWAY FARMS	!PUMP DATA INSTALLATION DATE	!
Well	DW179 PE1187	!PUMP SETTING	!
Meter	345M-00688	!AIRLINE	!
Legal		!CT&S SIZE	!
Location	3 MILES WEST OF WILLOW SPRINGS	!BOWLS	!
	RD AND 1/4 MILE SOUTH OF	!WELL DEPTH	!
	ROSAMOND BLVD	!	!

Motor U.S.	HP 125	Volts 480	R.P.M.	1800	Serial 1304958
Frame 1445P	Type RU	Pump LAYNE AND BOWLER	Type Oil Lube Turbine		

DATE	08/16/01	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06	09/28/07
STANDING								
WATER	351'	322'	355'	353'	351'	340'	341'	320'
DRAW DOWN	47'	70'	32'	37'	30'	33'	23'	25'
PUMPING								
WATER	398'	392'	387'	390'	381'	373'	364'	345'
DISCHARGE								
HEAD	127.1'	11.6'	138.6'	80.9'	80.9'	23.1'	143.2'	23.1'
TOTAL								
LIFT	525.1'	403.6'	525.6'	470.9'	461.9'	396.1'	507.2'	368.1'
G.P.M.	796	1038	744	865	977	1012	692	848
GPM/FT	16.9	14.8	23.3	23.4	32.6	30.7	30.1	33.9
H.P./RPM	179.4	178.5	165.7	177.6	171.3	176.7	164.1	170.6
BFF.	58.8	59.3	59.6	57.9	66.5	57.3	54	46.2
1AC FT IN								
24 HRS	3.52	4.59	3.29	3.82	4.32	4.47	3.06	3.75
KW TO								
MOTOR	133.83	133.16	123.61	132.49	127.79	131.82	122.42	127.27
KW HOURS								
PER AC FT	913.1	696.7	902.3	831.8	716.3	707.4	960.7	815.0
COST								
PER AC/FT								

WDS000353

08/27/2009

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW179 PE1187

CUSTOMER : GRIMMWAY FARMS
WELL # : DW179 PE1188
METER : 345M-00688
LEGAL :
LOCATION : 3 MILES WEST OF WILLOW SPRINGS RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD
TEST DATE : 08/27/2009

EQUIPMENT

Motor: U.S. HP:125 Volts:480 R.P.M.:1800 Serial No:1304958
Frame: 1445P Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground		360 FT
Draw Down From Standing to Pumping Level		25 FT
Pumping Water Level		385 FT
Discharge Head Above Ground	GA-75.0	173.3 FT
TOTAL LIFT		558.3 FT
WATER PUMPED		822 GPM.
Yield of Well (G.P.M. per foot Draw Down)		32.9 GPM/FT
HORSEPOWER INPUT TO MOTOR		172 H.P.
OVERALL PLANT EFFICIENCY		67.4 %
Acre Foot in 24 Hours		3.63
Kilowatt Input to Motor		128.31
Kilowatt Hours/Acre Foot Pumped		847.76
Average Cost per KW		
Cost Per Acre Foot		

REVS: 45/60.6 OKAY
KH: 1.20
K: 40
ID: 101/2 86.50
SCALE: 9.50
AIRLINE:

TEST ENGINEER Jim Weir

WDS000354

S . A . C A M P P U M P C O M P A N Y

09/24/2009 05:32 pm

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW179 PEL187

Name GRIMMWAY FARMS
Well DW179 PEL188
Meter 345M-00688
Legal
Location 3 MILES WEST OF WILLOW SPRINGS
RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD

PUMP DATA INSTALLATION DATE
PUMP SETTING
AIRLINE
CT&S SIZE
BOWLS

WELL DEPTH

Motor U.S. HP 125 Volts 480 R.P.M. 1800 Serial 1304958
Frame 1445P Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/01/08	08/27/09						
STANDING								
WATER	348'	360'						
DRAW DOWN	24'	25'						
PUMPING								
WATER	372'	385'						
DISCHARGE								
HEAD	120.1'	173.3'						
TOTAL								
LIFT	492.1'	558.3'						
G.P.M.	865	822						
GPM/FT	36	32.9						
H.P./RPM	171.2	172						
EFF.	62.8	67.4						

AC FT IN								
24 HRS	3.82	3.63						
KW TO								
MOTOR	127.72	128.31						
KW HOURS								
PER AC FT	801.8	847.7						
COST								
PER AC/FT								

WDS000355

09/24/2009 05:32 pm

S. A. CAMP PUMP COMPANY

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PUMP TEST FILE REPORT

GRIMMWAY BOZIGIAN DW179 PE1187

Name GRIMMWAY FARMS
Well DW179 PE1188
Meter 345M-00688
Legal
Location 3 MILES WEST OF WILLOW SPRINGS
RD AND 1/4 MILE SOUTH OF
ROSAMOND BLVD

PUMP DATA INSTALLATION DATE
PUMP SETTING
AIRLINE
CT&S SIZE
BOWLS
WELL DEPTH

Motor U.S. HP 125 Volts 480 R.P.M. 1800 Serial 1304958
Frame 1445P Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/16/01	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06	09/28/07
STANDING								
WATER	351'	322'	355'	353'	351'	340'	341'	320'
DRAW DOWN	47'	70'	32'	37'	30'	33'	23'	25'
PUMPING								
WATER	398'	392'	387'	390'	381'	373'	364'	345'
DISCHARGE								
HEAD	127.1'	11.6'	138.6'	80.9'	80.9'	23.1'	143.2'	23.1'
TOTAL								
LIFT	525.1'	403.6'	525.6'	470.9'	461.9'	396.1'	507.2'	368.1'
G.P.M.	796	1038	744	865	977	1012	692	848
GPM/FT	16.9	14.8	23.3	23.4	32.6	30.7	30.1	33.9
H.P./RPM	179.4	178.5	165.7	177.6	171.3	176.7	164.1	170.6
EFF.	58.8	59.3	59.6	57.9	66.5	57.3	54	46.2
AC FT IN								
24 HRS	3.52	4.59	3.29	3.82	4.32	4.47	3.06	3.75
KW TO								
MOTOR	133.83	133.16	123.61	132.49	127.79	131.82	122.42	127.26
KW HOURS								
PER AC FT	913.1	696.7	902.3	831.8	710.3	707.4	960.7	815.0
COST								
PER AC/FT								

WDS000356

12/12/2008

S. A. CAMP PUMP COMPANY

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Pump Estimate Calculations

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER: GRIMMWAY FARMS

WELL # : BOZIGIAN DW195 PE1047

METER : 345M006064

LEGAL :

LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 88-03848
 FRAME 445 TYPE: RVS PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 12"DKLA12 FLOWAY

LAB		BOWL		FIELD		FIELD	
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.	
1300	432.0	196.5	75.0%	400	215.9	60.8 %	
1200	504.0	198.3	80.0%	470	217.9	65.4 %	
1100	576.0	201.3	82.5%	550	221.2	69.1 %	
1000	624.0	198.2	82.6%	600	217.8	69.6 %	
900	672.0	194.8	81.5%	650	214.1	69.0 %	
800	720.0	193.9	78.0%	700	213.1	66.4 %	

DATE OF LAST WORK: 10/30/2008

PUMP SETTING: 530 ft.

AIRLINE: 530 ft.

C.T.S. 0530-10" X 3" X 111/16"

BOWLS: 12 STAGES 12"DKLA12 FLOWAY

WELL INFORMATION:

16 TO 777

400' PUL Plus 30 PSI = 469

ESTIMATE 400' PUL Plus 60 PSI = 538

400 PUL Plus 100 PSI = 631'

WDS000357

05/02/2009

S.A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER : GRIMMWAY FARMS
WELL # : DW195 PE1211 BOZIGIAN
METER : 3414006406
LEGAL :
LOCATION : SW CORNER OF ROSEMOND BLVD AND 125 TH ST WEST
TEST DATE : 05/02/2009

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:88-03848
Frame: 445 Type: RVS
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	GA-74.0	343 FT
Draw Down From Standing to Pumping Level		46 FT
Pumping Water Level	GA-54.0	389 FT
Discharge Head Above Ground	GA-42.0	97 FT
TOTAL LIFT		486 FT
WATER PUMPED		1202 GPM.
Yield of Well (G.P.M. per foot Draw Down)		26.1 GPM/FT
HORSEPOWER INPUT TO MOTOR		214.1 H.P.
OVERALL PLANT EFFICIENCY		68.9 %
Acre Foot in 24 Hours		5.31
Kilowatt Input to Motor		159.72
Kilowatt Hours/Acre Foot Pumped		721.65
Average Cost per KW		
Cost Per Acre Foot		

REVS: 56/60.6 OKAY
KH: 1.20
K: 40
ID: 121/4 117.8
SCALE: 10.20
AIRLINE: 514

TEST ENGINEER Jim Weir

WDS000358

S . A . C A M P P U M P C O M P A N Y

05/15/2009 04:29 pm

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW195 PEL047

Name	GRIMMWAY FARMS	PUMP DATA INSTALLATION DATE 12/17/2008
Well	DW195 PEL211 BOZIGIAN	PUMP SETTING 530
Meter	3414006406	AIRLINE 330-GAL & 200-STAINLESS
Legal		CT&S SIZE 10 X 3 X 115/16
Location	SW CORNER OF ROSEMOND BLVD AND	BOWLS 12 STAGES 12DKLA12 FLOWAY
	125 TH ST WEST	WELL DEPTH 14 TO 772
		BLANK 350 PERFORATIONS 422

Motor U.S.	HP 200	Volts 480	R.P.M. 1800	Serial 88-03848
Frame 445	Type RVS	Pump LAYNE AND BOWLER	Type Oil Lube Turbine	

DATE	08/26/02	09/17/03	10/02/04	09/16/05	08/31/06	09/28/07	08/01/08	05/02/09
STANDING								
WATER	348'	345'	347'	336'	339'	338'	357'	343'
DRAW DOWN						52'		46'
PUMPING								
WATER						390'		389'
DISCHARGE								
HEAD	184.8'	39.3'	39.3'	92.4'	92.4'	127.1'	231'	97'
TOTAL								
LIFT						517.1'		486'
G.P.M.	730	1154	1190	1143	1119	1190	412	1202
GPM/FT						22.9		26.1
H.P./RPM	180.8	198.4	204.4			181.4	164.1	214.1
EFF.						85.6		68.9
AC FT IN								
24 HRS	3.23	5.10	5.26	5.05	4.94	5.26	1.82	5.31
KW TO								
MOTOR	134.88	148.01	152.48			135.32	122.42	159.72
KW HOURS								
PER AC FT	1003.4	696.5	695.9			617.6	1613.7	721.6
COST								
PER AC/FT								

WDS000359

05/15/2009

S . A . C A M P P U M P C O M P A N Y

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P u m p E s t i m a t e C a l c u l a t i o n s

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER: GRIMMWAY FARMS
WELL # : BOZIGIAN DW195 PE1047
METER : 3414006406
LEGAL :
LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 88-03848
FRAME 445TP TYPE: RVS PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 12"DKLA12 FLOWAY

G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.
1300	432.0	196.5	75.0%	400	215.9	60.8 %
1200	504.0	198.3	80.0%	470	217.9	65.4 %
1100	575.0	201.3	82.5%	550	221.2	69.1 %
1000	624.0	198.2	82.6%	600	217.8	69.6 %
900	672.0	194.8	81.5%	650	214.1	69.0 %
800	720.0	193.9	78.0%	700	213.1	66.4 %

DATE OF LAST WORK: 10/30/2008
PUMP SETTING: 530 ft.
AIRLINE: 530 ft.
C.T.S. 0530-10" X 3" X 111/16"
BOWLS: 12 STAGES 12"DKLA12 FLOWAY
WELL INFORMATION:
16 TO 772
BLANK 350 PERFORATIONS 422

WDS000360

07/15/2010

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER : GRIMMWAY FARMS
WELL # : DW195 PE1211 BOZIGIAN
METER : 345M006064
LEGAL :
LOCATION : SW CORNER OF ROSEMOND BLVD AND 125 TH ST WEST
TEST DATE : 07/15/2010

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:88-03848
Frame: 445 Type: RVS
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground		367 FT
Draw Down From Standing to Pumping Level		FT
Pumping Water Level		FT
Discharge Head Above Ground	GA-90.0	207.9 FT
TOTAL LIFT		FT
WATER PUMPED		1072 GPM.
Yield of Well (G.P.M. per foot Draw Down)		GPM/FT
HORSEPOWER INPUT TO MOTOR		208.1 H.P.
OVERALL PLANT EFFICIENCY		%
Acra Foot in 24 Hours		4.74
Kilowatt Input to Motor		155.24
Kilowatt Hours/Acre Foot Pumped		786.49
Average Cost per KW		
Cost Per Acre Foot		

REVS: 54/60.1 OKAY BASED ON ESTIMATED TOTAL LIFT OF 612'
KH: 1.20
K: 40
ID: 121/4 117.8
SCALE: 9.10
AIRLINE: 1

TEST ENGINEER JACK FARLEY

WDS000361

S . A . C A M P P U M P C O M P A N Y

08/07/2010 10:33 am

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW195 PE1047

Name GRIMMWAY FARMS
Well DW195 PE1211 BOZIGIAN
Meter 345M006064
Legal
Location SW CORNER OF ROSEMOND BLVD AND
125 TH ST WEST

PUMP DATA INSTALLATION DATE 12/17/2008
PUMP SETTING 530
AIRLINE 330-GAL & 200-STAINLESS
CT&S SIZE 10 X 3 X 115/16
BOWLS 12 STAGES 12DKLA12 FLOWAY
WELL DEPTH 14 TO 772
BLANK 350 PERFORATIONS 422

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 88-03848
Frame 445 Type RVS Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/28/09	07/15/10						
STANDING								
WATER	338'	367'						
DRAW DOWN	37'							
PUMPING								
WATER	375'							
DISCHARGE								
HEAD	6.9'	207.9'						
TOTAL								
LIFT	381.9'							
G.P.M.	1178	1072						
GPM/FT	31.8							
H.P./RPM	191.8	208.1						
EFF.	59.2							
AC FT IN								
124 HRS	5.21	4.74						
KW TO								
MOTOR	143.08	155.24						
KW HOURS								
PER AC FT	659.6	786.4						
COST								
PER AC/FT								

WDS000362

S . A . C A M P P U M P C O M P A N Y

08/07/2010 10:33 am

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW195 PE1047

Name GRIMMWAY FARMS
Well DW195 PE1211 BOZIGIAN
Meter 345M006064
Legal
Location SW CORNER OF ROSEMOND BLVD AND
125 TH ST WEST

PUMP DATA INSTALLATION DATE 12/17/2008
PUMP SETTING 530
AIRLINE 330-GAL & 200-STAINLESS
CT&S SIZE 10 X 3 X 115/16
BOWLS 12 STAGES 12DKLA12 FLOWAY
WELL DEPTH 14 TO 772
BLANK 350 PERFORATIONS 422

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 88-03848
Frame 445 Type RVS Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/26/02	09/17/03	10/02/04	09/16/05	08/31/06	09/28/07	08/01/08	05/02/09
STANDING								
WATER	348'	345'	347'	336'	339'	338'	357'	343'
DRAW DOWN						52'		46'
PUMPING								
WATER						390'		389'
DISCHARGE								
HEAD	184.8'	39.3'	39.3'	92.4'	92.4'	127.1'	231'	97'
TOTAL								
LIFT						517.1'		486'
G.P.M.	730	1154	1190	1143	1119	1190	412	1202
GPM/FT						22.9		26.1
H.P./RPM	180.8	198.4	204.4			181.4	164.1	214.1
EFF.						85.6		68.9
AC FT IN								
24 HRS	3.23	5.10	5.26	5.05	4.94	5.26	1.82	5.31
KW TO								
MOTOR	134.88	148.01	152.48			135.32	122.42	159.72
KW HOURS								
PER AC FT	1003.4	696.5	695.9			617.6	1613.7	721.6
COST								
PER AC/FT								

WDS000363

08/07/2010 S . A . C A M P P U M P C O M P A N Y
 Pump Estimate Calculations

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GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER: GRIMMWAY FARMS
 WELL # : BOZIGIAN DW195 PE1047
 METER : 345M-006064
 LEGAL :
 LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 88-03848
 FRAME 445TP TYPE: RVS PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 12"DKLA12 FLOWAY

G.P.M.	LAB	HEAD	B HP	EFF.	BOWL	FIELD	INPUT HP	FIELD	EFF.
1300	432.0	196.5	75.0%	400	215.9	60.8 %			
1200	504.0	198.3	80.0%	470	217.9	65.4 %			
1100	576.0	201.3	82.5%	550	221.2	69.1 %			
1000	624.0	198.2	82.6%	600	217.8	69.6 %			
900	672.0	194.8	81.5%	650	214.1	69.0 %			
800	720.0	193.9	78.0%	700	213.1	66.4 %			

DATE OF LAST WORK: 10/30/2008
 PUMP SETTING: 530 ft.
 AIRLINE: 530 ft.
 C.T.S. 0530-10" X 3" X 111/16"
 BOWLS: 12 STAGES 12"DKLA12 FLOWAY
 WELL INFORMATION:
 16 TO 772
 BLANK 350 PERFORATIONS 422

WDS000364

08/01/2008

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER : GRIMMWAY FARMS
WELL # : DW195 PE1047 BOZIGIAN
METER : 345M006406
LEGAL :
LOCATION : SW CORNER OF ROSEMOND BLVD AND 125 TH ST WRST
TEST DATE : 08/01/2008

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:88-03848
Frame: 445 Type: RVS
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	357	FT
Draw Down From Standing to Pumping Level		FT
Pumping Water Level		FT
Discharge Head Above Ground	GA-100.0	231 FT
TOTAL LIFT		FT
WATER PUMPED	412	GPM.
Yield of Well (G.P.M. per foot Draw Down)		GPM/FT
HORSEPOWER INPUT TO MOTOR	164.1	H.P.
OVERALL PLANT EFFICIENCY		%
Acre Foot in 24 Hours	1.82	
Kilowatt Input to Motor	122.42	
Kilowatt Hours/Acre Foot Pumped	1613.72	
Average Cost per KW		
Cost Per Acre Foot		

REVS: 44/62.1 OFF APPROXIMATELY 400 GPM BASED ON TOTAL LIFT OF 620
KH: 1.20
K: 40
ID: 121/4 117.8
SCALE: 3.50
AIRLINE:

TEST ENGINEER Jim Weir

WDS000365

S . A . C A M P P U M P C O M P A N Y

08/16/2008 09:18 am

Page: 1

P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW195 PE1047

Name GRIMMWAY FARMS
 Well DW195 PE1047 BOZIGIAN
 Meter 345MD06406
 Legal
 Location SW CORNER OF ROSEMOND BLVD AND
 125 TH ST WEST

PUMP DATA INSTALLATION DATE

PUMP SETTING

AIRLINE

CT&S SIZE

BOWLS

WELL DEPTH

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 88-03848
 Frame 445 Type RVS Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/26/02	09/17/03	10/02/04	09/15/05	08/31/06	09/28/07	08/01/08
STANDING							
WATER	348'	345'	347'	336'	339'	338'	357'
DRAW DOWN						52'	
PUMPING							
WATER						390'	
DISCHARGE							
HEAD	184.8'	39.3'	39.3'	92.4'	92.4'	127.1'	231'
TOTAL							
LIFT						517.1'	
G.P.M.	730	1154	1190	1143	1119	1190	412
GPM/FT						22.9	
H.P./RPM	180.8	198.4	204.4			181.4	164.1
EFF.						85.7	
JAC FT IN							
24 HRS	3.23	5.10	5.26	5.05	4.94	5.26	1.82
KW TO							
MOTOR	134.88	148.01	152.48			135.32	122.42
KW HOURS							
PER AC FT	1003.4	696.5	695.9			617.6	1613.7
COST							
PER AC/FT							

WDS000366

08/28/2009

S.A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER : GRIMMWAY FARMS
WELL # : DW195 PE1211 BOZIGIAN
METER : 3414006406
LEGAL :
LOCATION : SW CORNER OF ROSEMOND BLVD AND 125 TH ST WEST
TEST DATE : 08/28/2009

EQUIPMENT

Motor: U.S. HP:200 Volts:480 R.P.M.:1800 Serial No:98-03848
Frame: 445 Type: RVS
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	GA-76.0	338 FT
Draw Down From Standing to Pumping Level		37 FT
Pumping Water Level	GA-60.0	375 FT
Discharge Head Above Ground	GA-3.0	6.9 FT
TOTAL LIFT		381.9 FT
WATER PUMPED		1178 GPM.
Yield of Well (G.P.M. per foot Draw Down)		31.8 GPM/FT
HORSEPOWER INPUT TO MOTOR		191.8 H.P.
OVERALL PLANT EFFICIENCY		59.2 %
Acre Foot in 24 Hours		5.21
Kilowatt Input to Motor		143.08
Kilowatt Hours/Acre Foot Pumped		659.66
Average Cost per KW		
Cost Per Acre Foot		

REVS: 50/60.4 OKAY
KH: 1.20
K: 40
ID: 121/4 117.8
SCALE: 10
AIRLINE: 514

TEST ENGINEER Jim Weir

WDS000367

S . A . C A M P P U M P C O M P A N Y

09/24/2009 03:19 pm

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW195 PE1047

Name GRIMMWAY FARMS
Well DW195 PE1211 BOZIGIAN
Meter 3414006406
Legal
Location SW CORNER OF ROSEMOND BLVD AND
125 TH ST WEST

PUMP DATA INSTALLATION DATE 12/17/2008
PUMP SETTING 530
AIRLINE 330-GAL & 200-STAINLESS
CTES SIZE 10 X 3 X 115/16
BOWLS 12 STAGES 12DKLA12 FLOWAY
WELL DEPTH 14 TO 772
BLANK 350 PERFORATIONS 422

Motor U.S. HP 200 Volts 480 R.P.M. 1800 Serial 88-03848
Frame 445 Type RVS Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	08/28/09						
STANDING							
WATER	338'						
DRAW DOWN	37'						
PUMPING							
WATER	375'						
DISCHARGE							
HEAD	6.9'						
TOTAL							
LIFT	381.9'						
G.P.M.	1178						
GPM/FT	31.8						
H.P./RPM	191.8						
EFF.	59.2						
AC FT IN							
24 HRS	5.21						
KW TO							
MOTOR	143.08						
KW HOURS							
PER AC FT	659.6						
COST							
PER AC/FT							

WDS000368

S . A . C A M P P U M P C O M P A N Y

09/24/2009 05:19 pm

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW195 PE1047

Name	GRIMMWAY FARMS	!PUMP DATA INSTALLATION DATE 12/17/2008
Well	DW195 PE1211 BOZIGIAN	!PUMP SETTING 530
Meter	3414006406	!AIRLINE 330-GAL & 200-STAINLESS
Legal		!CT&S SIZE 10 X 3 X 115/16
Location	SW CORNER OF ROSEMOND BLVD AND	!BOWLS 12 STAGES 12DKLA12 FLOWAY
	125 TH ST WEST	!WELL DEPTH 14 TO 772
		! BLANK 350 PERFORATIONS 422
		!-----!
Motor U.S.	HP 200	Volts 480
Frame 445	Type RVS	Pump LAYNE AND BOWLER
		R.P.M. 1800 Serial 88-03848
		Type Oil Lube Turbine

DATE	08/26/02	09/17/03	10/02/04	09/16/05	08/31/06	09/28/07	08/01/08	05/02/09
STANDING								
WATER	348'	345'	347'	336'	339'	338'	357'	343'
DRAW DOWN						52'		46'
PUMPING								
WATER						390'		389'
DISCHARGE								
HEAD	184.8'	39.3'	39.3'	92.4'	92.4'	127.1'	231'	97'
TOTAL								
LIFT						517.1'		486'
G.P.M.	730	1154	1190	1143	1119	1190	412	1202
GPM/FT						22.9		26.1
H.P./RPM	180.8	198.4	204.4			181.4	164.1	214.1
EFF.						85.6		68.9
AC FT IN								
24 HRS	3.23	5.10	5.26	5.05	4.94	5.26	1.82	5.31
KW TO								
MOTOR	134.88	148.01	152.48			135.32	122.42	159.72
KW HOURS								
PER AC FT	1003.4	696.5	695.9			617.6	1613.7	721.6
COST								
PER AC/FT								

WDS000369

S . A . C A M P P U M P C O M P A N Y

05/04/2009

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P u m p E s t i m a t e C a l c u l a t i o n s

GRIMMWAY BOZIGIAN DW195 PE1046

CUSTOMER: GRIMMWAY FARMS
WELL # : BOZIGIAN DW195 PE1047
METER : 3414006405
LEGAL :
LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 88-03848
FRAME 445TP TYPE: RVS PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 12"DKLA12 FLOWAY

LAB		BOWL		FIELD		FIELD	
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.	
1300	432.0	196.5	75.0%	400	215.9	60.8 %	
1200	504.0	198.3	80.0%	470	217.9	65.4 %	
1100	576.0	201.3	82.5%	550	221.2	69.1 %	
1000	624.0	198.2	82.6%	600	217.8	69.6 %	
900	672.0	194.8	81.5%	650	214.1	69.0 %	
800	720.0	193.9	78.0%	700	213.1	66.4 %	

DATE OF LAST WORK: 10/30/2008
PUMP SETTING: 530 ft.
AIRLINE: 530 ft.
C.T.S. 0530-10" X 3" X 111/16"
BOWLS: 12 STAGES 12"DKLA12 FLOWAY
WELL INFORMATION:
16 TO 772
BLANK 350 PERFORATIONS 422

WDS000370

12-5-08

GRIMMWAY FARMS BOZIGIAN DW 195
PE 1047

① VIDEO WELL APPEARS OKAY NO.
VISIBLE BREAKS

① WOULD RUN A CLEANING TOOL.

② BOWLS ARE REPAIRABLE THEY ARE
8 STAGES 12" RH LAYNE } BOWLER

① WOULD RECOMMEND USING
ENGINE DRIVEN BOOSTER

③ NEW BOWLS 10 STAGES 12" JKH A 10
FLOWAY

④ ALL TUBE / SHAFT NEEDS TO BE
GONE TAKEN.

PUMP SETTING 530'

160' - 20' - 10" X 3" X 1" / 16 CTS

370' - 10' - 10" X 3" X 1" / 16 CTS

11-28-08

CRIMAWAY BOZIGIAN DW 195 PE 1047

- ① SWL-340'
- ② TOP OF PECKS 350'
- ③ 377 ROUGH JT.
- ④ 416 TO 421' LINED
- ⑤ 436 TO 441' LINED
- ⑥ PECKS APPEAR OPEN UPPER PART
OF WELL
- ⑦ SLOPE INCREASE w/DEPTH BELOW
600'

Vid-Pac

Wellbore Video Report

Welenco, Inc.
A Division of Water Well Technology, Inc.

Company S.A. CAMP PUMP CO. Job Ticket 10528 Run No. ONE
Address _____ Well No. BOZIGIAN JW195 PE1047
City _____ State _____ Zip _____ Survey Date 11-25-2008
Requested by JOHN REILAND P.O. 34849 Well Owner GREMMWAY FARMS
Copy to _____ Camera CCV COLOR SS - LONG L.H.
Reason for Survey GENERAL INSPECTION Zero Datum T.O.C.
Operator DALE SNYDER Well Depth _____ Vehicle No. L-11
Location SOUTHEAST CORNER OF ROSAMOND BLVD & 125th ST. WEST IN YARD
Casing I.D. at Surface 13.5 I.D. Reference MEASURED Build-Up HEAVY

SELECTED WELLBORE SNAPSHOTS	TRUE DEPTHS	WELLBORE/CASING INFORMATION
Survey Start Time: _____ Survey End Time: _____ 34. 51764 118. 21106	340	DOWNVIEW - STATIC WATER LEVEL @ 342' (COLLATER)
	355	DOWNVIEW - VISIBLE PERFORATIONS (SLOTS)
	430	DOWNVIEW - PERFORATIONS APPEAR MOSTLY OPEN
	550	DOWNVIEW - PERFORATIONS APPEAR PARTLY OPEN
	565	DOWNVIEW - DEBRIS (WIRE OR AIRLINE)
	668	DOWNVIEW - NO VISIBLE PERFORATIONS
	750	DOWNVIEW - PERFORATIONS APPEAR
	772	DOWNVIEW - FILL @ 774' - END OF DOWNRUN
	565	SIDEVIEW - PERFORATIONS APPEAR MOSTLY PLUGGED
	500	SIDEVIEW - PERFORATIONS APPEAR MOSTLY PLUGGED
	375	SIDEVIEW - PERFORATIONS APPEAR MOSTLY PLUGGED
		END OF SURVEY

welenco, inc.

5201 Woodmere Dr.
Bakersfield, CA 93313

www.welenco.com
e-mail: welenco@welenco.com
Phone: (800) 445-9914
Fax: (661) 834-2550
CA Contractor Lic. #722372

Water Well Technology, Inc.

P.O. Box 519
Fair Oaks, CA 95628

www.waterwelltechnology.com
e-mail: dschwedler@sbc.net
Phone: (800) 961-9355
Fax: (916) 480-0833
CA Contractor Lic #731133

12/03/2008

S . A . C A M P P U M P C O M P A N Y

Page: 3

P u m p E s t i m a t e C a l c u l a t i o n s

GRIMMWAY BOZIGIAN DW195 PE1047

CUSTOMER: GRIMMWAY FARMS

WELL # : BOZIGIAN DW195 PE1047

METER : 345M006064

LEGAL :

LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

NEW BOWLS PRESSURE

MOTOR U.S.

HP 200

VOLTS 480

R.P.M. 1770 SERIAL 88-03848

FRAME 445

TYPE: RVS

PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

10 STAGES 12"JKMA10 FLOWAY

LAB		BOWL		FIELD		FIELD	
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.	
1400	450.0	226.8	72.5%	410	249.2	58.2 %	
1200	590.0	228.1	81.0%	560	250.7	67.7 %	
1000	710.0	223.4	83.0%	690	245.5	71.0 %	
800	800.0	209.4	80.0%	780	230.1	68.5 %	

DATE OF LAST WORK: 10/30/2008

PUMP SETTING: 530 ft.

AIRLINE: 530 ft.

C.T.S. 0530-10" X 3" X 111/16"

BOWLS: 10 STAGES 12"JKMA10 FLOWAY

WELL INFORMATION:

16 TO 777

WDS000374

S. A. CAMP PUMP COMPANY

11/20/2008

Page: 3

Pump Estimate Calculations

GRIMMWAY BOZIGIAN DW195 PH1047

CUSTOMER: GRIMMWAY FARMS

WELL # : BOZIGIAN DW195 PH1047

METER : 345M006064

LEGAL :

LOCATION: SE CORNER OF ROSEMOND BLVD. AND 125TH STREET WEST

EXISTING BOWLS

MOTOR U.S. HP 200 VOLTS 480 R.P.M. 1770 SERIAL 88-03848
FRAME 445 TYPE: RVS PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

8 STAGES 12"RHAS-64 LAYNE & BOWLER 11-15-64

	LAB		BOWL	FIELD		FIELD
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.
1800	352.0	220.7	75.0%	290	242.5	54.4 %
1600	432.0	220.3	82.0%	380	242.1	63.4 %
1400	488.0	214.0	83.5%	450	235.2	67.6 %
1200	528.0	201.3	82.5%	500	221.2	68.5 %
1000	552.0	183.8	79.0%	530	202.0	66.3 %

DATE OF LAST WORK: 10/30/2008

PUMP SETTING: 530 ft.

AIRLINE: 530 ft.

C.T.S. 0530-10" X 3" X 111/16"

BOWLS: 8 STAGES 12"RHAS-64 LAYNE & BOWLER 11-15-64

WELL INFORMATION:

16 TO 777

WDS000375



P.O. Box 82575 Bakersfield, CA 93380-2575
(661) 399-2976

CRYSTAL.ORG.
GEMINIA ENTERPRISES INC.
P.O. BOX 81498
BAKERSFIELD, CA 93380-1498

INVOICE 809308
DATE JANUARY 23, 2009
PROJECT GRI1090 71107
PO NUMBER
ORDERED BY CARL & JOHN

PAGE 1 OF 2

P: 200

Meter: 345M-006064

Well: BOZIGIAN DW195 PE1047

SOUTHEAST CORNER OF ROSEMOND BLVD & 125TH ST WEST

LABOR TO REMOVE GATE, CUT ROOF ON SHED, SET
UP RIG, PULLED MOTOR, DISCHARGE, HEAD, 530' OF
10"X3"X1-11/16" (10'820' JOINTS) OF CT&S, 8 STAGE SET
OF BOWLS. BAILED WELL SWL 345', DEPTH 777'. FOUND
RUST, SAND AND MUD. DISMANTLED BOWLS FOR
INSPECTION.

3,579.00

HAULED PUMP TO SHOP.

936.00

VIDEO SURVEY WELL 11/25/08

775.00

RAN CLEANING TOOL AND BAILER SWL 340', DEPTH
777'

1,149.00

38.00 1-11/16X3 10TH RH TUBE BEARINGS

41.00 1-15/16X3 10TH RH TUBE BEARINGS

24.00 1-11/16 10TH SHAFT COUPLINGS

10.00 1-15/16 10TH SHAFT COUPLINGS

LABOR TO DISMANTLE 530' OF CT&S, SIZE,
STRAIGHTEN AND REPAIR TUBE & SHAFT. REPLACED
300' OF COLUMN PIPE USING CUSTOMER'S MATERIAL
FROM KYLE & KYLE.

TOTAL AMOUNT FOR THE ABOVE TUBE & SHAFT
REPAIR AND ASSEMBLY WITH CUSTOMER'S COLUMN
PIPE INCLUDING MATERIAL, SALES TAX AND LABOR...

12,138.00

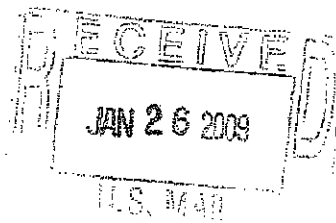
1.00 12 STAGE SET 12" DKLA12 FLOWAY BOWLS

1.00 ADDER FOR MARINE BEARINGS

1.00 CONE STRAINER

THE TITLE OF THE ABOVE GOODS SHALL REMAIN IN THE NAME OF
SA CAMP PUMP CO. UNTIL THE FULL AMOUNT OF THIS BILL IS PAID

WDS000376
TERMS: NET CASH 30 DAYS
LATE CHG: 1% MONTHLY OR





P.O. Box 82575 Bakersfield, CA 93380-2575
(861) 399-2976

CRYSTAL ORG.
BAKERSFIELD, CA 93380-1498

INVOICE 809308
DATE JANUARY 23, 2009
PROJECT GR11090 71107
PO NUMBER
ORDERED BY CARL & JOHN

PAGE 2 OF 2

200 Meter: 345M-006064 Well: BOZIGIAN DW195 PE1046
SOUTHEAST CORNER OF ROSEMOND BLVD & 125TH ST WEST

1.00	HEAD SHAFT WITH NUT & KEY
1.00	TUBING SPECIAL
11.00	3 X 10 SPIDERS
330.00	FT 1/4" GALV AIRLINE
200.00	FT 1/4" S/S AIRLINE
1.00	6215 ZZ BEARING
1.00	OIL SIGHT GLASS
1.00	2" OIL FILTER CAP
1.00	LOT MOTOR OIL
1.00	LOT MISC
	LOT CLEAN AND REPLACE BEARINGS FOR 200HP 1775RPM U.S. MOTOR FR#445TPA ID#C6377-386
	LABOR TO REPLACE LEADS IN MOTOR
	LABOR TO HAUL PUMP TO SITE
	LABOR TO INSTALL PUMP AT 530' WITH NEW BOWLS AND REPAIRED CT&S. CHECKED ROTATION.
	TOTAL AMOUNT FOR THE ABOVE PUMP REPAIR INCLUDING MATERIAL, SALES TAX AND LABOR...

TOTAL INVOICE

24,285.00

\$42,862.00

\$1,711.00
\$41,151.00

CX13609 121013 02325-01
CX13609 121013 02338-01

CFO

THE TITLE OF THE ABOVE GOODS SHALL REMAIN IN THE NAME OF
A. CAMPBELL CO. UNTIL THE FULL AMOUNT OF THIS BILL IS PAID

TERMS: NET CASH 30 DAYS
LATE CHG: 1% MONTHLY OR
WDS000377

08/01/2008

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW196 PE1212

CUSTOMER : GRIMMWAY FARMS
WELL # : DW196 PE1212 BOZIGIAN
METER : 3416M00645
LEGAL :
LOCATION : 3 1/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD
TEST DATE : 08/01/2008

EQUIPMENT

Motor: U.S. HP:100 Volts:480 R.P.M.:1760 Serial No:1052410
Frame: 504 Type: CFU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground		362 FT
Draw Down From Standing to Pumping Level		FT
Pumping Water Level		FT
Discharge Head Above Ground	GA-25.0	57.8 FT
TOTAL LIFT		FT
WATER PUMPED		619 GPM.
Yield of Well (G.P.M. per foot Draw Down)		GPM/FT
HORSEPOWER INPUT TO MOTOR		119.8 H.P.
OVERALL PLANT EFFICIENCY		%
Acre Foot in 24 Hours		2.74
Kilowatt Input to Motor		89.37
Kilowatt Hours/Acre Foot Pumped		784.12
Average Cost per KW		
Cost Per Acre Foot		

REVS: 70/60.9 APPEARS TO BE OKAY BASED ON ESTIMATED TOTAL LIFT OF 450
KH: 21.60
K: 1
ID: 101/4 82.50
SCALE: 7.50
AIRLINE:

TEST ENGINEER Jim Weir

WDS000378

S . A . C A M P P U M P C O M P A N Y

08/15/2008 09:08 am

Page: 2

P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW196 PE1212

Name	GRIMMWAY FARMS	!PUMP DATA INSTALLATION DATE	!
Well	DW196 PE1212 BOZIGIAN	!PUMP SETTING	!
Meter	3416M00645	!AIRLINE	!
Legal		!CT&S SIZE	!
Location	31/2 MILES WEST OF WILLOW	!BOWLS	!
	SPRINGS AND 1/4 MILE SOUTH OF	!WELL DEPTH	!
	ROSEMOND BLVD	!	!

Motor U.S. HP 100 Volts 480 R.P.M. 1760 Serial 1052410
 Frame 504 Type CPU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	09/28/07	08/01/08						
STANDING								
WATER	328'	362'						
DRAW DOWN								
PUMPING								
WATER								
DISCHARGE								
HEAD	115.5'	57.8'						
TOTAL								
LIFT								
G.P.M.	578	619						
GPM/FT								
H.P./RPM	109.4	119.8						
EFF.								
AC FT IN								
24 HRS	2.55	2.74						
KW TO								
MOTOR	81.61	89.37						
KW HOURS								
PER AC FT	766.8	784.1						
COST								
PER AC/FT								

WDS000379

S . A . C A M P P U M P C O M P A N Y

08/16/2008 09:08 am

Page: 1

P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW196 PE1212

Name	GRIMMWAY FARMS	!PUMP DATA INSTALLATION DATE	!
Well	DW196 PE1212 BOZIGIAN	!PUMP SETTING	!
Meter	3416M00645	!AIRLINE	!
Legal		!CT&S SIZE	!
Location	31/2 MILES WEST OF WILLOW	!BOWLS	!
	SPRINGS AND 1/4 MILE SOUTH OF	!WELL DEPTH	!
	ROSEMOND BLVD	!	!
		!-----!	!
Motor U.S.	HP 100	Volts 480	R.P.M. 1760 Serial 1052410
Frame 504	Type CFU	Pump LAYNE AND BOWLER	Type Oil Lube Turbine

DATE	02/27/02	02/27/02	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06
STANDING								
WATER	328'	328'	328'	354'	352'	350'	341'	343'
DRAW DOWN	32'	32'	13'					
PUMPING								
WATER	360'	360'	341'					
DISCHARGE								
HEAD	1'	23.1'	138.6'	131.7'	138.6'	138.6'	138.6'	138.6'
TOTAL								
LIFT	361'	383.1'	479.6'					
G.P.M.	789	765	564	523	539	539	536	536
GPM/FT	24.7	23.9	43.4					
H.P./RPM	120.3	119	115.5	111.1	110.7	108.4	117.5	111.1
EFF.	59.8	62.2	59.1					
AC FT IN								
24 HRS	3.49	3.38	2.49	2.31	2.38	2.38	2.37	2.37
KW TO								
MOTOR	89.74	88.77	86.16	82.88	82.58	80.87	87.66	82.88
KW HOURS								
PER AC FT	617.7	630.2	829.7	860.6	832.1	814.8	888.1	839.7
COST								
PER AC/FT								

WDS000380

Company S.A. CAMP PUMP CO. Job Ticket 10963 Run No. ONE
Address _____ Well No. BOZIGIAN DW196 PEIZIZ
City _____ State _____ Zip _____ Survey Date 02-13-2009
Requested by JOHN REILAND P.O. 35814 Well Owner GRIMMWAY FARMS
Copy to _____ Camera CCV COLOR FLIP - LONG L.H.
Reason for Survey GENERAL INSPECTION Zero Datum T.O.C.
Operator DALE SNYDER Well Depth _____ Vehicle No. T-05
Location APPROX. 3.5 MI. W OF WELLOW SPRINGS RD + 1/4 MI. S OF ROSAMOND BLVD.
Casing I.D. at Surface 13.25 I.D. Reference CALIPER SURVEY Build-Up HEAVY

SELECTED WELLBORE SNAPSHOTS	TRUE DEPTHS	WELLBORE/CASING INFORMATION
Survey Start Time: _____	338	DOWNVIEW - STATEC WATER LEVEL @ 340' (OIL LAYER)
Survey End Time: _____	361	DOWNVIEW - PROBABLE BREAK
	364	DOWNVIEW - VISIBLE PERFORATIONS (SLOTS)
	401	DOWNVIEW - BREAK
	616	DOWNVIEW - NO VISIBLE PERFORATIONS
	750	DOWNVIEW - PERFORATIONS APPEAR MOSTLY PLUGGED
	764	DOWNVIEW - FILL @ 766' - END OF DOWNRUN
	403	SIDEVIEW - BREAK
	393	SIDEVIEW - POSSIBLE BREAK
	363	SIDEVIEW - PROBABLE BREAK
		END OF SURVEY
		WOULD RUN CLEANING TOOL

34. 51586
118. 21124

S.W.L - 338'

BREAK 361

TOP OF PERFS
AT 364

BREAK AT 391

BREAK AT 401

BOTTOM - 764

PERFS APPEAR
OPEN TO 550

APPEAR OPEN
700 TO 767'

welenco, inc.
5201 Woodmere Dr.
Bakersfield, CA 93313

www.welenco.com
e-mail: **welenco@welenco.com**
Phone: (800) 445-9914
Fax: (661) 834-2550
CA Contractor Lic. #722372

Water Well Technology, Inc.
P.O. Box 519
Fair Oaks, CA 95628

www.waterwelltechnology.com
e-mail: dschwedler@sbc.net
Phone: (800) 861-9355
Fax: (916) 480-0839
CA Contractor Lic #731133

05/02/2009

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER : GRIMMWAY FARMS
WELL # : DW196 PE1331 BOZIGIAN
METER : 349M-0109
LEGAL :
LOCATION : 3 1/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD
TEST DATE : 05/02/2009

EQUIPMENT

Motor: U.S. HP:150/200 Volts:480 R.P.M.:1760 Serial No:M11-7332204-0007R003
Frame: 445TPA Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	GA-86.0	344 FT
Draw Down From Standing to Pumping Level		51 FT
Pumping Water Level	GA-64.0	395 FT
Discharge Head Above Ground	GA-55.0	127.1 FT
TOTAL LIFT		522.1 FT
WATER PUMPED		949 GPM.
Yield of Well (G.P.M. per foot Draw Down)		18.6 GPM/FT
HORSEPOWER INPUT TO MOTOR		201.4 H.P.
OVERALL PLANT EFFICIENCY		62.1 %
Acre Foot in 24 Hours		4.19
Kilowatt Input to Motor		150.24
Kilowatt Hours/Acre Foot Pumped		859.82
Average Cost per KW		
Cost Per Acre Foot		

REVS: 35/60.4 CUSTOMERS FLOW METER REGISTERING 1100 TO 1000 GPM
KH: 1.80
K: 40
ID: 101/4 82.50
SCALE: 11.50
AIRLINE: 543

TEST ENGINEER Jim Weir

WDS000382

S . A . C A M P P U M P C O M P A N Y

05/15/2009 04:59 pm

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P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW196 PE1331

Name GRIMMWAY FARMS
 Well DW196 PE1331 BOZIGIAN
 Meter 349M-0109
 Legal
 Location 31/2 MILES WEST OF WILLOW
 SPRINGS AND 1/4 MILE SOUTH OF
 ROSEMOND BLVD

 PUMP DATA INSTALLATION DATE 03/04/2009
 PUMP SETTING 560
 AIRLINE 300-GAL & 240-STAINLESS
 CT&S SIZE 320-10 & 220-8 21/2 11/2111/16
 BOWLS 12 STAGES LIJKB12 FLOWAY
 WELL DEPTH 14 TO 767
 BLANK 364 PERFORATIONS 403

Motor U.S. HP 150/200 Volts 480 R.P.M. 1760 Serial M11-7332204-0007R003
 Frame 445TPA Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	05/02/09								
STANDING									
WATER	344'								
DRAW DOWN	51'								
PUMPING									
WATER	395'								
DISCHARGE									
HEAD	127.1'								
TOTAL									
LIFT	522.1'								
G.P.M.	949								
GPM/FT	18.6								
H.P./RPM	201.4								
EFF.	62.1								
AC FT IN									
24 HRS	4.19								
KW TO									
MOTOR	150.24								
KW HOURS									
PER AC FT	859.8								
COST									
PER AC/FT									

WDS000383

05/15/2009 04:59 pm

S . A . C A M P P U M P C O M P A N Y

Page: 1

P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW196 PE1331

Name GRIMMWAY FARMS
 Well DW196 PE1331 BOZIGIAN
 Meter 349M-0109
 Legal
 Location 31/2 MILES WEST OF WILLOW
 SPRINGS AND 1/4 MILE SOUTH OF
 ROSEMOND BLVD

 PUMP DATA INSTALLATION DATE 03/04/2009
 PUMP SETTING 560
 AIRLINE 300-GAL & 240-STAINLESS
 CT&S SIZE 320-10 & 220-8 21/2 11/2111/16
 BOWLS 12 STAGES 11JKHB12 FLOWAY
 WELL DEPTH 14 TO 767
 BLANK 364 PERFORATIONS 403

Motor U.S. HP 150/200 Volts 480 R.P.M. 1760 Serial M11-7332204-0007R003
 Frame 445TPA Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	02/27/02	02/27/02	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06
STANDING								
WATER	328'	328'	328'	354'	352'	350'	341'	343'
DRAW DOWN	32'	32'	13'					
PUMPING								
WATER	360'	360'	341'					
DISCHARGE								
HEAD	1'	23.1'	138.6'	131.7'	138.6'	138.6'	138.6'	138.6'
TOTAL								
LIFT	361'	383.1'	479.6'					
G.P.M.	789	765	564	523	539	539	536	536
GPM/FT	24.7	23.9	43.4					
H.P./RPM	120.3	119	115.5	111.1	110.7	108.4	117.5	111.1
EFF.	59.8	62.2	59.1					
AC FT IN								
24 HRS	3.49	3.38	2.49	2.31	2.38	2.38	2.37	2.37
KW TO								
MOTOR	89.74	88.77	86.16	82.88	82.58	80.87	87.66	82.88
KW HOURS								
PER AC FT	617.7	630.2	829.7	860.6	832.1	814.8	888.1	839.7
COST								
PER AC/FT								

WDS000384

05/15/2009

S . A . C A M P P U M P C O M P A N Y

Page: 3

P u m p E s t i m a t e C a l c u l a t i o n s

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER: GRIMMWAY FARMS

WELL # : DW196 PE1331 BOZIGIAN

METER : 349M-010936

LEGAL :

LOCATION: 31/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD

MOTOR U.S. HP 150/200 VOLTS 480 R.P.M. 1775 SERIAL M11-733220
FRAME 445TPA TYPE: RU PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 11"JKHB12 FLOWAY

LAB	BOWL	FIELD	FIELD			
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.
1200	480.0	201.5	75.0%	430	221.4	58.9 %
1100	552.0	199.3	80.0%	510	219.0	64.7 %
1000	624.0	197.5	83.0%	580	217.0	67.5 %
900	684.0	192.7	84.0%	650	211.8	69.7 %

DATE OF LAST WORK: 03/04/2009

PUMP SETTING: 540 ft.

AIRLINE: 540 ft.

C.T.S. 0320-10" X 21/2" X 111/16"

C.T.S. 0220-08" X 21/2" X 111/16"

BOWLS: 12 STAGES 11"JKHB12 FLOWAY

WELL INFORMATION:

14 TO 767

BLANK 364 PERFORATIONS 403

WDS000385

07/16/2010

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER : GRIMMWAY FARMS
WELL # : DW196 PE1331 BOZIGIAN
METER : 349M-01093
LEGAL :
LOCATION : 31/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD
TEST DATE : 07/16/2010

EQUIPMENT

Motor: U.S. HP:150/200 Volts:480 R.P.M.:1760 Serial No:ML1-7332204-0007R003
Frame: 445TPA Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	GA-68.0	386 FT
Draw Down From Standing to Pumping Level		55 FT
Pumping Water Level	GA-44.0	441 FT
Discharge Head Above Ground	GA-76.0	175.6 FT
TOTAL LIFT		616.6 FT
WATER PUMPED		767 GPM.
Yield of Well (G.P.M. per foot Draw Down)		13.9 GPM/FT
HORSEPOWER INPUT TO MOTOR		194.3 H.P.
OVERALL PLANT EFFICIENCY		61.5 %
Acre Foot in 24 Hours		3.39
Kilowatt Input to Motor		144.95
Kilowatt Hours/Acre Foot Pumped		1026.34
Average Cost per KW		
Cost Per Acre Foot		

REVS: 34/60.8 OKAY CUSTOMERS FLOW METER READING 1100 GPM
KH: 1.80
K: 40
ID: 101/4 82.50
SCALE: 9.30
AIRLINE: 543

TEST ENGINEER Jim Weir

WDS000386

S . A . C A M P P U M P C O M P A N Y

08/07/2010 10:12 am

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW196 PE1331

Name GRIMMWAY FARMS
Well DW196 PE1331 BOZIGIAN
Meter 349M-01093
Legal
Location 3 1/2 MILES WEST OF WILLOW
SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD

PUMP DATA INSTALLATION DATE 03/04/2009
PUMP SETTING 560
AIRLINE 300-GAL & 240-STAINLESS
CT&S SIZE 320-10 & 220-8 21/2 11/2111/16
BOWLS 12 STAGES 11JKHB12 FLOWAY
WELL DEPTH 14 TO 767
BLANK 364 PERFORATIONS 403

Motor U.S. HP 150/200 Volts 480 R.P.M. 1760 Serial M11-7332204-0007R003
Frame 445TPA Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	05/02/09	08/27/09	07/16/10					
STANDING								
WATER	344'	344'	386'					
DRAW DOWN	51'	56'	55'					
PUMPING								
WATER	395'	400'	441'					
DISCHARGE								
HEAD	127.1'	80.9'	175.6'					
TOTAL								
LIFT	522.1'	480.9'	616.6'					
G.P.M.	949	1007	767					
GPM/FT	18.6	18	13.9					
H.P./RPM	201.4	201	194.3					
EFF.	62.1	60.8	61.5					
1AC FT IN								
24 HRS	4.19	4.45	3.39					
KW TO								
MOTOR	150.24	149.95	144.95					
KW HOURS								
PER AC FT	859.8	808.6	1026.3					
COST								
PER AC/FT								

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S . A . C A M P P U M P C O M P A N Y

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Page: 1

P U M P T E S T F I L E R E P O R T

GRIMMWAY BOZIGIAN DW196 PE1331

Name	GRIMMWAY FARMS	PUMP DATA INSTALLATION DATE 03/04/2009
Well	DW196 PE1331 BOZIGIAN	PUMP SETTING 560
Meter	349M-01093	AIRLINE 300-GAL & 240-STAINLESS
Legal		CT&S SIZE 320-10 & 220-8 21/2 11/2111/16
Location	31/2 MILES WEST OF WILLOW	BOWLS 12 STAGES 11JKHB12 FLOWAY
	SPRINGS AND 1/4 MILE SOUTH OF	WELL DEPTH 14 TO 767
	ROSEMOND BLVD	BLANK 364 PERFORATIONS 403

Motor U.S.	HP 150/200 Volts 480	R.P.M.	1760 Serial M11-7332204-0007R003
Frame 445TPA	Type RU	Pump LAYNE AND BOWLER	Type Oil Lube Turbine

DATE	02/27/02	02/27/02	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06
STANDING								
WATER	328'	328'	328'	354'	352'	350'	341'	343'
DRAW DOWN	32'	32'	13'					
PUMPING								
WATER	360'	360'	341'					
DISCHARGE								
HEAD	1'	23.1'	138.6'	131.7'	138.6'	138.6'	138.6'	138.6'
TOTAL								
LIFT	361'	383.1'	479.6'					
G.P.M.	789	765	564	523	539	539	536	536
GPM/FT	24.7	23.9	43.4					
H.P./RPM	120.3	119	115.5	111.1	110.7	108.4	117.5	111.1
EFF.	59.8	62.2	59.1					
AC FT IN								
24 HRS	3.49	3.38	2.49	2.31	2.38	2.38	2.37	2.37
KW TO								
MOTOR	89.74	88.77	86.16	82.88	82.58	80.87	87.66	82.88
KW HOURS								
PER AC FT	617.7	630.2	829.7	860.6	832.1	814.8	888.1	839.7
COST								
PER AC/FT								

WDS000388

S . A . C A M P P U M P C O M P A N Y

05/15/2009

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P u m p E s t i m a t e C a l c u l a t i o n s

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER: GRIMMWAY FARMS

WELL # : DW196 PE1331 BOZIGIAN

METER : 349M-010936

LEGAL :

LOCATION: 31/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD

MOTOR U.S. HP 150/200 VOLTS 480. R.P.M. 1775 SERIAL M11-733220
FRAME 445TPA TYPE: RU PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 11"JKHB12 FLOWAY

G.P.M.	LAB HEAD	B HP	BOWL EFF.	FIELD HEAD	INPUT HP	FIELD EFF.
1200	480.0	201.5	75.0%	430	221.4	58.9 %
1100	552.0	199.3	80.0%	510	219.0	64.7 %
1000	624.0	197.5	83.0%	580	217.0	67.5 %
900	684.0	192.7	84.0%	650	211.8	69.7 %

DATE OF LAST WORK: 03/04/2009

PUMP SETTING: 540 ft.

AIRLINE: 540 ft.

C.T.S. 0320-10" X 21/2" X 111/16"

C.T.S. 0220-08" X 21/2" X 111/16"

BOWLS: 12 STAGES 11"JKHB12 FLOWAY

WELL INFORMATION:

14 TO 767

BLANK 364 PERFORATIONS 403

08/27/2009

S. A. CAMP PUMP COMPANY

PUMP TEST REPORT

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER : GRIMMWAY FARMS
WELL # : DW196 PE1331 BOZIGIAN
METER : 349M-01093
LEGAL :
LOCATION : 3 1/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD
TEST DATE : 08/27/2009

EQUIPMENT

Motor: U.S. HP:150/200 Volts:480 R.P.M.:1750 Serial No:M11-7332204-0007R003
Frame: 445TPA Type: RU
Pump : LAYNE AND BOWLER Type: Oil Lube Turbine

TEST RESULTS

Standing Water Level below Surface of Ground	GA-86.0	344 FT
Draw Down From Standing to Pumping Level		56 FT
Pumping Water Level	GA-62.0	400 FT
Discharge Head Above Ground	GA-35.0	80.9 FT
TOTAL LIFT		480.9 FT
WATER PUMPED		1007 GPM.
Yield of Well (G.P.M. per foot Draw Down)		18 GPM/FT
HORSEPOWER INPUT TO MOTOR		201 H.P.
OVERALL PLANT EFFICIENCY		60.8 %
Acre Foot in 24 Hours		4.45
Kilowatt Input to Motor		149.95
Kilowatt Hours/Acre Foot Pumped		808.69
Average Cost per KW		
Cost Per Acre Foot		

REVS: 35/60.5 OKAY
KH: 1.80
K: 40
ID: 101/4 82.50
SCALE: 12.20
AIRLINE: 543

TEST ENGINEER Jim Weir

WDS000390

S . A . C A M P P U M P C O M P A N Y

09/24/2009 05:40 pm

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P U M P T E S T F I L E R E P O R T
GRIMMWAY BOZIGIAN DW196 PE1331

Name	GRIMMWAY FARMS	-----	!PUMP DATA INSTALLATION DATE 03/04/2009	!
Well	DW196 PE1331 BOZIGIAN	-----	!PUMP SETTING 560	!
Meter	349M-01093	-----	!AIRLINE	300-GAL & 240-STAINLESS
Legal		-----	!CT&S SIZE	320-10 & 220-8 21/2 11/2111/161
Location	31/2 MILES WEST OF WILLOW	-----	!BOWLS	12 STAGES 11JKHB12 FLOWAY
	SPRINGS AND 1/4 MILE SOUTH OF	-----	!WELL DEPTH	14 TO 767
	ROSEMOND BLVD	-----		BLANK 364 PERFORATIONS 403

Motor U.S.	HP 150/200 Volts 480	R.P.M.	1760 Serial M11-7332204-0007R003
Frame 445TPA	Type RU	Pump LAYNE AND BOWLER	Type Oil Lube Turbine

DATE	05/02/09	08/27/09						
STANDING								
WATER	344'	344'						
DRAW DOWN	51'	56'						
PUMPING								
WATER	395'	400'						
DISCHARGE								
HEAD	127.1'	80.9'						
TOTAL								
LIFT	522.1'	480.9'						
G.P.M.	949	1007						
GPM/FT	18.6	18						
H.P./RPM	201.4	201						
EFF.	62.1	60.8						
AC FT IN								
24 HRS	4.19	4.45						
KW TO								
MOTOR	150.24	149.95						
KW HOURS								
PER AC FT	859.8	808.6						
COST								
PER AC/FT								

WDS000391

S. A. CAMP PUMP COMPANY

09/24/2009 05:40 pm

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PUMP TEST FILE REPORT

GRIMMWAY BOZIGIAN DW196 PE1331

Name GRIMMWAY FARMS
Well DW196 PE1331 BOZIGIAN
Meter 349M-01093
Legal
Location 3 1/2 MILES WEST OF WILLOW
SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD

!PUMP DATA INSTALLATION DATE 03/04/2009!
!PUMP SETTING 560!
!AIRLINE 300-GAL & 240-STAINLESS!
!CT&S SIZE 320-10 & 220-8 21/2 11/2111/16!
!BOWLS 12 STAGES 11JKHB12 FLOWAY!
!WELL DEPTH 14 TO 767!
! BLANK 364 PERFORATIONS 403!
!

Motor U.S. HP 150/200 Volts 480 R.P.M. 1760 Serial M11-7332204-0007R003
Frame 445TPA Type RU Pump LAYNE AND BOWLER Type Oil Lube Turbine

DATE	02/27/02	02/27/02	02/27/02	08/26/02	09/17/03	10/04/04	09/16/05	08/30/06
STANDING								
WATER	328'	328'	328'	354'	352'	350'	341'	343'
DRAW DOWN	32'	32'	13'					
PUMPING								
WATER	360'	360'	341'					
DISCHARGE								
HEAD	1'	23.1'	138.6'	131.7'	138.6'	138.6'	138.6'	138.6'
TOTAL								
LIFT	361'	383.1'	479.6'					
G.P.M.	789	765	564	523	539	539	536	536
GPM/FT	24.7	23.9	43.4					
H.P./RPM	120.3	119	115.5	111.1	110.7	108.4	117.5	111.1
EFF.	59.8	62.2	59.1					
AC FT IN								
24 HRS	3.49	3.38	2.49	2.31	2.38	2.38	2.37	2.37
KW TO								
MOTOR	89.74	88.77	86.16	82.88	82.58	80.87	87.66	82.88
KW HOURS								
PER AC FT	617.7	630.2	829.7	860.6	832.1	814.8	888.1	839.7
COST								
PER AC/FT								

WDS000392

S. A. CAMP PUMP COMPANY

05/15/2009

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Pump Estimate Calculations

GRIMMWAY BOZIGIAN DW196 PE1331

CUSTOMER: GRIMMWAY FARMS

WELL # : DW196 PE1331 BOZIGIAN

METER : 349M-010936

LEGAL :

LOCATION: 3 1/2 MILES WEST OF WILLOW SPRINGS AND 1/4 MILE SOUTH OF
ROSEMOND BLVD

MOTOR U.S. HP 150/200 VOLTS 480 R.P.M. 1775 SERIAL M11-733220
 FRAME 445TPA TYPE: RU PUMP: LAYNE AND BOWLER TYPE: Oil Lube Turbine

12 STAGES 11"JKHB12 FLOWAY

LAB		BOWL		FIELD		FIELD	
G.P.M.	HEAD	B HP	EFF.	HEAD	INPUT HP	EFF.	
1200	480.0	201.5	75.0%	430	221.4	58.9	%
1100	552.0	199.3	80.0%	510	219.0	64.7	%
1000	624.0	197.5	83.0%	580	217.0	67.5	%
900	684.0	192.7	84.0%	650	211.8	69.7	%

DATE OF LAST WORK: 03/04/2009

PUMP SETTING: 540 ft.

AIRLINE: 540 ft.

C.T.S. 0320-10" X 21/2" X 111/16"

C.T.S. 0220-08" X 21/2" X 111/16"

BOWLS: 12 STAGES 11"JKHB12 FLOWAY

WELL INFORMATION:

14 TO 767

BLANK 364 PERFORATIONS 403

WDS000393



P.O. Box 82575 Bakersfield, CA 93380-2575
(661) 399-2976

COPY

CRYSTAL ORG.
GRIMONT ENTERPRISES INC.
P.O. BOX 84498
BAKERSFIELD, CA 93380-1498

INVOICE 810037
DATE APRIL 23, 2009
PROJECT GRM1090 71335
PO NUMBER
ORDERED BY CARL & DAVID

PAGE 3 OF 3

HP: 100

Meter: 3418-M008459

Well: BOZIGIAN DW196 PE1212

3-1/2 MILES WEST OF WILLOW SPRINGS & 1/4 MILE SOUTH OF ROSEMOND BLVD

PE 1331

TOTAL AMOUNT FOR THE ABOVE INCLUDING
MATERIAL, SALES TAX & LABOR...

53,047.00

1.00 200HP 1800RPM STD EFF MOTOR
1.00 150HP 480 VOLT 4 WIRE EDISON WIRING SERVICE
1.00 PRE CAST PAD W/STEEL POST
1.00 30' SERVICE POLE
1.00 200HP 480 VOLT SIZE 5 AUTO COMPENSATOR W/FUSES
AND HEATERS
1.00 SET OF MOTOR LEADS
ELECTRICAL PERMIT
LABOR TO INSTALL ELECTRICAL
TOTAL AMOUNT FOR THE ABOVE INCLUDING
MATERIAL, SALES TAX & LABOR...

28,979.00

0.00

TOTAL INVOICE

\$116,972.00



\$116,972.00

150015-0-0

CPA

THE TITLE OF THE ABOVE GOODS SHALL REMAIN IN THE NAME OF
S. A. CAMP PUMP CO. UNTIL THE FULL AMOUNT OF THIS BILL IS PAID.

TERMS: NET CASH 30 DAYS
LATE CHG: 1% MONTHLY OR
WDS000394



P.O. Box 82575 Bakersfield, CA 93380-2575
(661) 399-2976

CRYSTAL ORG.
GRIMMAY ENTERPRISES INC.
P.O. BOX 81498
BAKERSFIELD, CA 93380-1498

INVOICE 810037
DATE APRIL 23, 2009
PROJECT GRI1080 71335
PO NUMBER
ORDERED BY CARL & DAVID

PAGE 2 OF 3

HP: 100

Meter: 3416-M006459

Well: BOZIGIAN DW186 PE1212

3-1/2 MILES WEST OF WILLOW SPRINGS & 1/4 MILE SOUTH OF ROSEMOND BLVD

1.00	10" COLUMN COUPLING
60.00	FT OF 10"X2-1/2"X1-11/16" COLUMN TUBE AND SHAFT EXTENSION
1.00	8"X10" COLUMN ADAPTOR
300.00	FT OF 1/4" GALVANIZED AIRLINE
260.00	FT OF 1/4" STAINLESS STEEL AIRLINE
1.00	TUBING SPECIAL
1.00	COMBO SHAFT W/NUT AND KEY
1.00	PACKING NUT
1.00	7322 BG BEARING
1.00	6315 ZZ BEARING
2.00	OIL SIGHT GLASS
1.00	15 GALLON OIL RESERVOIR W/STAND, AUTO OILER AND DRIPPER
150.00	FT OF 1/2" BANDIT MATERIAL W/BUCKLES
1.00	LOT OIL
1.00	MISCELLANEOUS MATERIAL
	LABOR TO CLEAN AND REPLACE BEARINGS FOR A 100HP 1800RPM U.S. MOTOR FR#504 SER#1052410
	LOADED AND DELIVERED 560' OF 10" PUMP TO JOB SITE.
	RIGGED UP, INSTALLED 360' OF 10" PUMP WITH 11STAGE 12" DKL BOWL UNIT. PUMP STOPED, PULLED BACK OUT FOR EVALUATION. NEED TO RUN CLEANING TOOL AND BAIL.
	LABOR TO RUN CLEANING TOOL AND BAIL WELL
	RAN SIZERS, SWITCHED PIPE OUT FROM 10" TO 8" AND BOWLS TO 12 STAGE 11" JKH. INSTALLED 560' OF PUMP. SET MOTOR, HEAD AND HOOKED UP DISCHARGE. HOOKED UP OIL POT.

THE TITLE OF THE ABOVE GOODS SHALL REMAIN IN THE NAME OF
S. A. CAMP PUMP CO. UNTIL THE FULL AMOUNT OF THIS BILL IS PAID.

WDS000395
TERMS: NET CASH 30 DAYS
LATE CHG: 1% MONTHLY OR



P.O. Box 82575 Bakersfield, CA 93380-2575
(661) 399-2975

CRIMMWAY ENTERPRISES INC
CRYSTAL ORG.
BAKERSFIELD, CA 93380-1495

INVOICE 810037
DATE APRIL 23, 2009
PROJECT GRI1090 71335
PO NUMBER
ORDERED BY CARL & DAVID

PAGE 1 OF 3

HP: 100

Meter: 3416-M006459

Well: BOZIGIAN DW196 PE1212

3-1/2 MILES WEST OF WILLOW SPRINGS & 1/4 MILE SOUTH OF ROSEMOND BLVD

CHECKED PANEL AND METER CAN. REMOVED MOTOR,
HEAD AND DISCHARGE. PULLED 500' OF
10"X2-1/2"X1-1/2" COLUMN TUBE AND SHAFT AND BOWL
UNIT. BAILED WELL, S.W.L. @ 340', BOTTOM @ 767'.
TORE DOWN BOWLS FOR INSPECTION.

2,610.00

LOADED AND DELIVERED 500' OF 10" PUMP TO S.A.C.
YARD.

1,125.00

VIDEO SURVEY WELL

525.00

SWAGE REPAIR BREAKS AT 363', 393' AND 403' WITH 5'
MILD STEEL LINER

9,252.00

400.00 FT OF 2-1/2"X1-11/16" TUBE AND SHAFT REPLACEMENT

2.00 2-1/2"X5' OIL TUBES

3.00 TUBE BEARINGS

14.00 SHAFT COUPLINGS

TORE DOWN TUBE AND SHAFT. REPAIRED AND
REPLACED AS NEEDED, RESTABBED.

TOTAL AMOUNT FOR THE ABOVE INCLUDING
MATERIAL, SALES TAX & LABOR...

21,434.00

1.00 12 STAGE 11" JKH FLOWAY BOWL ASSEMBLY

1.00 ADDER FOR MARINE BEARINGS

1.00 CONE STRAINER W/COLUMN NIPPLE AND COUPLING

220.00 FT OF 8" COLUMN PIPE REPLACEMENT

40.00 FT OF 10" COLUMN PIPE REPLACEMENT

THE TITLE OF THE ABOVE GOODS SHALL REMAIN IN THE NAME OF
S. A. CAMP PUMP CO. UNTIL THE FULL AMOUNT OF THIS BILL IS PAID.

TERMS: NET CASH 30 DAYS
LATE CHG: 1% MONTHLY OR
WDS000396