

Farm Pump & Irrigation Co. Inc.

535 N. Shafter Ave. Shafter CA 93263 (661) 746-3376 Fax (661) 746-1510

Pump Test History

Name: Duncan Family Farms

Well #: # 1 Legal _____

Meter #: 1009408935 Acct # _____

Pump Location: 2/10 mi. S of Hwy 166, W/S Bell Rd.

Pump Data	
Installation Date:	<u>9/17/2017</u>
Pump Setting:	<u>780'</u>
Airline Depth:	<u>780'</u>
C.T.&S. Size:	<u>10" T, x 2 1/2" x 1 11/16' RH</u>
Bowls:	<u>12 - 12CLC 8.625" Trim</u>
Well Depth:	<u>16" x 1140'</u>
Blank:	<u>0 - 393'</u>
Perforated:	<u>393' - 1140'</u>
Discharge I.D.:	_____

Motor: US H.P. 250 Volts: 460 RPM 1780 Motor Eff. 95.0%

Serial #: U017549219-07 Frame 445TPA Discharge Head Flowserve 10"

Date	9/22/2011	5/23/2012	5/23/2012	8/7/2013	3/1/2016	11/4/2016	5/4/2017	10/12/2017
Standing Water Level		435'	435'	408	0		0	516.7
Draw Down	0	0	0		0	0	0	108.5
Pumping Level		0	0		0		0	625.2
Lift Above Discharge	0	27.7'	46.2	85.5	184.8	159.4	136.3	147.8
Total Lift	0	0	0	0	0	0	0	773
G.P.M.	825	809	578	660	718	555	628	493
G.P.M. / FT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	4.54
AC / Ft. in 24 Hrs.	3.65	3.57	2.55	2.92	3.17	2.45	2.78	2.18
H.P. Input / RPM'S		243.44	173.88		224.41	210.28	214.48	196.25
K.W. Input	0.00	181.61	129.71	0.00	167.41	156.87	160.00	146.40
K.W. Hrs. per Ac/Ft.	0.00	1219.21	1218.87	0.00	1266.35	1535.11	1383.76	1612.86
Overall Plant Eff.	#DIV/0!	0%	#DIV/0!		0%	0%	0%	49%
Cost Per Ac/Ft. .155		\$ 188.98	\$ 188.93					

Remarks or Recommendations : 5/23/12 # 1 test DWT input h.p. is with the booster running. DWT amps 219

at 1785 R.P.M. # 2 test DWT input h.p. with the booster pump. The DWT amps 180 at 1640 R.P.M., wasn't able to

get water levels sounder keeps getting hung up. 3/1/16 Unable to get water levels, DWT pump running at 60hz.

5/4/17 Input h.p. is the DWT only running volts 476-478-477, amps 209-209-209 at 60hz.

10/12/17 Perform pump test pump running at 55 hz, amp load 162. SWL was 5 min recovery

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Pump Test History

Name: Duncan Family Farms

Well #: # 3 Legal _____

Meter # 1009411260 Acct # _____

Pump Location: 1 mi. S of Hwy 166, 1/2 mi. W of Bell Rd

Meter KH 1.8, C - 80, 1.58 KW 5/31/16

Pump Data	
Installation Date:	<u>4/28/2016</u>
Pump Setting:	<u>580'</u>
Airline Depth:	<u>580'</u>
C.T.&S. Size:	<u>560 - 10", 20 - 8", 2/12" x 1 11/16" RH</u>
Bowls:	<u>11 - 11LC FD</u>
Well Depth:	<u>14" x 797'</u>
Blank:	<u>0 - 424'</u>
Perforated:	<u>424' - 797'</u>
Discharge I.D.:	_____
Sand separator	

Motor: GE H.P. 150 Volts: 460 R.P.M. 1780 Motor Eff. 95.0%

Serial #: 2004861 Frame L447TP Discharge Head Aurora 10"

Date	9/22/2011	5/23/2012	8/7/2013	3/1/2016	5/31/2016	11/4/2016	5/4/2017	10/12/2017
Standing Water Level	441	432	545		264.8		395	536.1
Draw Down	47	46	35	0	204.3	506	116	43.9
Pumping Level	488	478	580	497	469.1	506	511	580
Lift Above Discharge	69	69.3	115.5	0	182.5	127	138.6	69.3
Total Lift	557	547.3	695.5	497	651.6	633	649.6	649.3
G.P.M.	701	825	536	569	736	Est. 700	500	450
G.P.M. / FT	14.91	17.9	15.3	#DIV/0!	3.6		4.31	10.25
AC / Ft. in 24 Hrs.	3.10	3.65	2.37	2.51	3.25		2.21	1.99
H.P. Input / RPM'S		193	165.15	157.64	169.44	158.72	160.86	129.76
K.W. Input	0.00	143.98	123.20	117.60	126.40	118.40	120.00	96.80
K.W. Hrs. per Ac/Ft.	0.00	947.85	1248.38	1122.51	932.75	#DIV/0!	1303.50	1168.32
Overall Plant Eff.	#DIV/0!	59%	57%	45%	71%	#VALUE!	51%	57%
Cost Per Ac/Ft.		60 hz		60 hz	60 hz	60 hz	60 hz	55 hz

Remarks or Recommendations : 9/22/11 Eng. 1800 RPM. 5/23/12 The pump was running at 60 hz
3/1/16 GPM is with the flowmeter, pump running at 60 hz, amp load 163.5, customer didn't want to shut the pump down
for SWL. The pump is off estimated 32% according to the curve. 5/31/16 SWL is static from the well video, pump was
60 hz. 11/4/16 Pump runing at 60 hz, running volts 478-478-489, amp load 175-174-176.
10/12/17 Running volts 456-457-456, amp load 144-145-146 irragation forman reports pumping sand

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Pump Test History

Name: Duncan Family Farms

Well #: # 4 Legal _____

Meter # 1009408938 Acct # _____

Pump Location : 1 mi. W of Bell Rd., 1/2 mi. S of Hwy 166

Pump Data	
Installation Date:	<u>7/16/2016</u>
Pump Setting:	<u>780' + 60' 8/25/16</u>
Airline Depth :	<u>780' + 60' 8/25/16</u>
C.T.&S. Size :	<u>8" T x 2 1/2" x 1 11/16" RH</u>
Bowls :	<u>13 - J11HC F.D.</u>
Well Depth :	<u>16" x 1050'</u>
Blank :	<u>0 - 262'</u>
Perforated:	<u>262' - 1050'</u>
Discharge I.D.:	_____

Motor : GE H.P. 250 Volts: 460 R.P.M. 1785 Motor Eff. 95.4%

Serial # : 13032293 Frame L447TP Discharge Head Flowserve 8"

Date	9/22/2011	5/23/2012	8/7/2013	5/4/2015	3/1/2016	7/16/2016	7/29/2016	11/4/2016
Standing Water Level	697	0	512		549		433.5	
Draw Down	11	0	58	0	74	678	184.8	651
Pumping Level	708	0	570		623	678	618.3	651
Lift Above Discharge	115.5	143.2	103.9	115.5	157.1	34.6	143.2	180.2
Total Lift	823.5	0	673.9	115.5	780.1	712.6	761.5	831.2
G.P.M.	726	743	578	650	705	751	608	565
G.P.M. / FT	66	#DIV/0!	10.0	#DIV/0!	9.5		3.3	
AC / Ft. in 24 Hrs.	3.21	3.28	2.55	2.87	3.12	3.32	2.69	2.50
H.P. Input / RPM'S		221.99	180.16		214.48	56.2 hz	53 hz	183.38
K.W. Input	0.00	165.60	134.40	0.00	160.00			136.80
K.W. Hrs. per Ac/Ft.	0.00	1210.54	1262.89	0.00	1232.61			1313.28
Overall Plant Eff.	#DIV/0!	0%	55%	#DIV/0!	65%			65%
Cost Per Ac/Ft.								

Remarks or Recommendations : 9/22/11 Pumping some sand, 2" vacuum

5/23/12 Perform sand test 11.5 PPM, pump was running at 60 Hz. 1785 R.P.M., the air line is not holding air.

8/7/13 Pump was running at 53 HZ, 220 amp load

5/4/15 Start pump after installing new bowls, sand seperator. Set the pump to run at 50 hz. 650 G.P.M. 50 PSI discharge 212 amp load. The water had carcoal color but no sands. After running 3 hrs, the water was clear no sands according to Jose Molina. 3/1/16 53 hertz GPM is with the flowmeter, pump is off estimated 24% according to the curve.

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Pump Test History

Name: Duncan Family Farms

Well #: 5 Legal _____

Meter # 1009410558 Acct # _____

Pump Location : 1/2 mi. W of Bell Rd., S/S of Hwy 166

Meter KH 1.8, C - 120, KW 2.0 5/31/16

Pump Data	
Installation Date:	<u>5/16/2012</u>
Pump Setting:	<u>760' + 60' ext. 8/25/16</u>
Airline Depth :	<u>760' + 60'</u>
C.T.&S. Size :	<u>10" T x 3" x 1 15/16" RH</u>
Bowls :	<u>13 - 12CMC 3 FD, 3 - 7.94" Trim</u>
Well Depth :	<u>16" x 1050'</u>
Blank :	<u>0 - 287'</u>
Perforated:	<u>287' - 1050'</u>
Discharge I.D.:	_____

Motor : US H.P. 300 Volts: 460 R.P.M. 1785

Serial # : T09-414635-0001-6T-01 Frame 447TPA Discharge Head 10" Flowserve

Date	07/31/13	08/07/13	03/01/16	04/25/16	05/31/16	11/04/16	05/04/17	10/12/17
Standing Water Level		494	586.7	579.8		508	554	485
Draw Down		254	34.7	57.8		12	58	46.25
Pumping Level	748.5	748	621.4	637.6		520	612	531.25
Lift Above Discharge	103.9	138.6	143.2	46.2	146.3	184.8	152.46	152.46
Total Lift	852.4	886.6	764.6	683.8		704.8	764.46	683.71
G.P.M.	551	840	765	480	1052	532	565	589
G.P.M. / FT	#DIV/0!	3.31	22.05	8.30	#DIV/0!	44.33	9.74	12.74
AC / Ft. in 24 Hrs.	2.43	3.71	3.38	2.12		2.35	2.50	2.60
H.P. Input / RPM'S		276.68	156.5		321.72	208.66	162.47	212.34
K.W. Input	0.00	206.40	116.75	0.00	240.00	155.66	121.20	158.41
K.W. Hrs. per Ac/Ft.	0.00	1334.54	829.00	0.00	#DIV/0!	1589.14	1165.09	1460.67
Overall Plant Eff.	#DIV/0!	68%	94%	#DIV/0!	0%	45%	67%	48%
Cost Per Ac/Ft.							52hz	55 hz

Remarks or Recommendations : 10/31/12 Perform start up with Mario W Madellion on VFD Panel, 403 amps at 57HZ., 327 amps at 60HZ. 7/31/13 Pump was running at 56 hz.

3/1/16 The pump was running at 48.3 hz. Flow rate is with the flowmeter, 4/25/16 2" casing vaccum

5/31/16 SWL was static pump was running at 60hz, pulling 10" vacuum.

11/4/16 The pump was running at 53.6 Hz, pulling 0" vacuum, running volts 446-446-445, amps 224-221-225

10/12/17 Running volts 457-456-457, amp load 239-240-243

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Pump Test History

Name: Duncan Family Farms

Well #: #6 Legal _____

Meter # 5000036389 Acct # _____

Pump Location: 1 mi. W of Bell Rd., S/S Hwy 166

Pump Data

Installation Date: 2/24/2017
 Pump Setting: 700'
 Airline Depth: 700'
 C.T. & S Size: 10" T x 3" x 1 15/16" LH
 Bowls: 14 - 11MC F.D.
 Well Depth: 16" x 1034
 Blank: 0 - 337'
 Perforated: 337 - 1034'
 Discharge I.D.: _____

Motor: US H.P. 250 Volts: 460 R.P.M. 1775

Serial #: W087628897-0001 R0002 Frame: H445TPA Discharge Head: 10" Flowserve flanged

Date	03/01/16	11/04/16	05/04/17	08/01/17	10/12/17				
Standing Water Level	527	490	515	566.0	411.3				
Draw Down	104.0	101.0	185.0	125.0	106.3	0.0	0.0	0.0	0.0
Pumping Level	631	591.0	700	691.0	517.5				
Lift Above Discharge	196.4	147.8	92.4	152.5	108.6				
Total Lift	827.4	738.8	792.4	843.5	626.1	0.0	0.0	0.0	0.0
G.P.M.	809	495	503	395	337				
G.P.M. / FT	7.78	4.90	2.72	3.16	3.17	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
AC / Ft. in 24 Hrs.	3.57	2.19	2.22	1.75	1.49	0.00	0.00	0.00	0.00
H.P. Input / RPM'S	255.77	156.5	204.29	186.6					
K.W. Input	190.80	116.75	152.40	139.20	0.00	0.00	0.00	0.00	0.00
K.W. Hrs. per Ac/Ft.	1280.96	1280.98	1645.56	1914.03	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Overall Plant Eff.	66.1%	59.0%	49.3%	45.1%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Cost Per Ac/Ft.			60 hz		50 hz				

Remarks: 3/1/16 Running pump at 60hz, amp load 277-282-279 running volts 475-476-474, pump is off estimated 11%

according to the pump curve. 8/27/16 Install 60' extension.

11/4/16 Pump is running at 53 Hz, pulling 3" vacuum, running volts 436-436-435, amps 186-184-183

5/4/17 Pump was running did not shut down for SWL, 5" vacuum running volts 483-482-483, amps 213-221-220, 60 hz.

8/1/17 Running volts 482-482-482, amp load 204-202-198, SWL is 5 min recovery, GPM is with the flowmeter, pump is rattling

on the top end. Running volts 417-416-416, amp load 159-159-160.